October 30, 2023

Chicken Board Long-term Pricing Decision - Cover Letter

Introduction

On September 26, 2023, the BC Chicken Marketing Board's (Chicken Board) pricing proposal was distributed to BC chicken industry stakeholders following an industry Zoom meeting. The proposal was in support of sound marketing policy for pricing in the BC chicken sector as a necessary precursor to addressing pricing and other matters strategically in western and national forums.

The proposal was preceded by a September 22, 2023, letter to stakeholders announcing that the proposal was forthcoming. The proposal was also reviewed earlier at a September 18, 2023, meeting with the BC Broiler Hatching Egg Commission (Commission) and at a September 19, 2023, meeting of the Joint Working Group (JWG).

Stakeholders were requested to provide their written responses to the proposal by October 11, 2023, and an October 3, 2023, follow up Zoom session was also conducted to provide opportunity for any questions of clarification. The Chicken Board's Pricing and Production Advisory Committee (PPAC) was also tasked with providing advice to the Chicken Board regarding the proposal.

The Chicken Board received responses from industry stakeholders as follows:

a) from the BC Chicken Growers' Association (BCCGA) by way of its September 25, 2023, letter and participation at the September 19, 2023, and October 16, 2023, JWG meetings and an October 18, 2023, PPAC meeting;
b) from three individual chicken growers;
c) from the Primary Poultry Processors Association of BC (PPPABC) via an October 17, 2023, letter, and the October 18, 2023, PPAC meeting;
d) from the Commission via letters of October 11 and 20, 2023, and meetings with the Chicken Board on September 18 and October 17, 2023; and,
e) via an October 18, 2023, Report from the PPAC Chair.

Copies of the response correspondence, meeting reports and minutes are attached at Appendices K, L, M, N, O, & P. While it will not refer to each specific point raised in the responses, this letter and the attached submission will address those points as part of the Chicken Board's sound marketing policy approach to the establishment of a new pricing framework for the BC chicken industry.

Background

On May 16, 2019, the BC Farm Industry Review Board (BCFIRB) directed the Chicken Board to a make a "decision regarding a long-term pricing formula not later than period A-161" (January 19-March 14, 2020). Pricing complexities and issues arising throughout the BC chicken supply chain highlighted difficulties in establishing a standalone live pricing formula without taking into consideration other stakeholder interests. Consequently,

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BCFIRB determined that the way forward was to exercise its statutory authority under the *Natural Products Marketing (BC) Act* to initiate a supervisory review. BCFIRB approved an October 28, 2020, Joint Chicken Board/Commission Long Term Chicken Sector Pricing Review Process Terms of Reference (TOR) to which the Chicken Board and the Commission remain bound:

- A long-term pricing approach for regulated products in the mainstream chicken and broiler hatching egg sectors in BC, including a decision on the appropriateness of a price linkage agreement between the two sectors that address the policy objectives of:
    - Verified COP/reasonable returns-based pricing mechanisms for BC hatching egg producers and chicken growers.
    - BC chicken processors being competitive in the Canadian market for chicken.
    - BC hatcheries receiving a "reasonable" margin for hatching services.
    - The confirmation of a breeder chick pricing formula.
    - The confirmation of a breeder vaccination program pricing formula for hatcheries.

On June 3, 2022, BCFIRB approved the Commission's recommendations with respect to hatching egg producer and hatcheries pricing, leaving the issues of a chicken grower cost of production (COP), processor competitiveness and the appropriate pricing relationship between the two sectors to be determined.

Since 2019, and during the Supervisory Review, the Chicken Board has engaged in several consultative processes and obtained third-party input on a variety of matters. Most recently, it has engaged directly with the JWG, consisting of representatives of the BCCGA, the PPPABC, the Commission and the BC Egg Hatchery Association. The JWG's purpose was to provide recommendations for the Chicken Board in development of the COP based live price formula as contemplated by the November 1, 2022 decision of FIRB. The JWG process was designed to be flexible and responsive to issues as they arose, including seeking and receiving third-party input at various stages. The Chicken Board has also met separately with the Commission and the Chicken Farmers of Ontario as part of its inquiry.

It has been over four years since the BCFIRB May 19, 2019, decision, over three years since the initiation of the BCFIRB supervisory review and over a year since BCFIRB approved the Commission's COP for hatching egg producers and the Commission's approach to a COP framework for hatcheries. Since 2019, the Chicken Board has had its membership reconstituted more than once to bring new perspectives to its decision-making. After engaging in extensive consultation, the Chicken Board has concluded that its current proposal presents a framework for moving the industry forward in terms of a phased-in, incremental and conditional approach to pricing. The establishment of a set and consistent pricing framework will enable the boards and stakeholders to address future pricing issues in a more focused manner.

Reference

The information arising from the supervisory review has been voluminous. For the purposes of this submission, there are three previous documents that reflect the approach of the Chicken Board and the Commission, as first instance regulators of BC chicken and hatching eggs, to the sound marketing policy needs of their industry. The boards have a common, strategic objective of bringing pricing certainty and stability to the BC chicken and hatching egg sectors. In the boards' view, efficient, certain, and stable supply chain pricing will facilitate all industry stakeholders in addressing other critical issues important to the future of the BC chicken industry.

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- January 7, 2022, Joint Letter to the Chicken Industry (Appendix Q)
- March 4, 2022, Joint Letter to the BCFIRB Chicken Pricing Supervisory Review Panel (Appendix R); and,
- March 4, 2022, Commission Pricing Decision Cover Letter (Appendix S).

Pricing

Pricing is a critical issue for all stakeholders. In an increasingly regional and national market, provincial-based pricing places pressures on processors who must be competitive with their national counterparts and on growers who must have sustainable farms. BC is a high-cost province compared to other jurisdictions and the Chicken Board must also take into consideration regional, new entrant and other policy requirements while balancing the overall best interests of the entire BC chicken industry.

Given this context and considerations that face the BC industry, the Chicken Board acknowledges the critical importance of industry efficiencies, and that all stakeholders will continue to face pricing pressures in the present environment. It is essential to recognize, however, that without supply management there would be no sustainable production base to support a BC chicken industry that provides economic and food security benefits to BC.

The COP

The Chicken Board's COP for chicken growers reflects that reality. Its development came under heavy scrutiny and third-party review during the JWG process. The detailed Chicken Board final pricing report will clearly demonstrate that the final COP represents a balancing of grower and processor (customer) interests. Incorporated efficiencies (comparable in impact to the hatching egg COP) and methodologies are transparent and verified. There will be increasing scrutiny of feed conversion rates and volume adjustments as requested by the processors. Methodologies to better identify certain grower costs have been deferred to future consultative review. Likewise, increasing pressure on growers to address animal welfare, disease, food safety and other factors must be addressed in consultation with industry going forward. Although the COP takes into consideration the overall interests of the BC chicken sector by focusing on providing a reasonable return to efficient growers, the COP provides less relief to new entrant, regional and small growers. The Chicken Board acknowledges the objectives of the Regulated Marketing Economic Policy and, as stated below, is and will be reviewing its policies to determine whether other steps can be taken to reduce cost pressures on these growers, growers in general, and other stakeholders.

The BC grower COP is transparent, verifiable, and defensible with efficiencies incorporated. Farm-gate pricing is a third pillar of supply management, and it is the expectation, if not right, that a COP in a supply managed commodity be based, as the Chicken Board has done here, on a reasonable return to an efficient grower. The Board believes it to be sound marketing policy which preserves orderly marketing while maintaining the public interest.

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Processor Competitiveness

Achieving consensus at the JWG with respect to processor competitiveness proved impossible. As outlined in the detailed Chicken Board final pricing report, considerable time, resources, and third-party input were committed to examining that issue. Measures were identified but could not be relied on for consistent, verifiable input into the BC live price. Some may be used, however, as indicators to signal the Chicken Board of potential issues.

Although consistent, continuing to link the BC price to the Ontario live price as the sole measure of processor competitiveness is contrary to the stated sound marketing policy objectives of the Chicken Board and Commission. Nor is the actual – versus posted – Ontario live price available as certain elements of the Ontario COP and the amount paid in Ontario premiums are not public.

The grower COP is measurable, processor competitiveness is not. While the Chicken Board recognizes that BC pricing does and will impact on the processors' position in the marketplace, there is no satisfactory way to measure the actual competitiveness of the three largest processors who are national in scope. Even if the Chicken Board exercised its authority to audit the BC operations of these companies, this would not provide a clear picture of the overall competitiveness of the companies (which include benefitting from their operations in Ontario). Without full disclosure on the processors part – which understandably has not been forthcoming – there is no justifiable way that the Chicken Board as a regulator can make or defend a decision with respect to processor competitiveness without the evidence required to substantiate such a decision.

To date, no BC-only processor has directly, explicitly, or specifically provided any evidence to the Chicken Board that the proposed COP pricing model would make their operations uncompetitive or unsustainable. Sustaining such BC-based processing, along with hatching egg and chicken production, is critical to BC's long term food security.

In short, and in keeping with the Hugh Scorah Report (Appendix H), the Chicken Board is not convinced it is possible to predetermine processor competitiveness. In a larger sense, BC industry stakeholders turning their collective focus to working strategically in support of provincial and national initiatives and policies may be more critical to the future competitiveness and sustainability of our industry. The Chicken Board remains committed to pursuing this approach through continuing the work commenced in the Chicken Industry Strategic Framework initiative.

The Chicken Board and the Commission have established transparent and defensible COPs with efficiencies incorporated in support of the BC processing sector. This is our responsibility as regulators and to other stakeholders. Similarly, both the Chicken Board and the Commission support the establishment of a hatcheries COP that would support a standalone hatchery or allow a parent corporation to make its own decisions as to profit centers.

Transition

The BCCGA and individual chicken growers object to any transition period and support moving to 100% COP immediately upon BCFIRB approval. The Chicken Board can appreciate this position given the length of time it has taken to reach this stage but considers it important there be a transition period.

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The proposed phased-in COP approach provides opportunity for the Chicken Board to monitor developments with respect to the updating of the Ontario COP, to respond if any new evidence is brought forward with respect to processor competitiveness and, as part of the BC supply chain, to assess the outcome if a substantiated, defensible hatchery COP is established. It is unfortunate that after actively participating in the development of the new COP, the PPPABC chose to walk away from the opportunity to continue working with the Chicken Board on managing this transition.

The Chicken Board will also continue to meet with feed companies and monitor feed costs which represent the majority amount of the current gap between the BC and Ontario live price. Whether BC feed costs improve because wheat and corn prices return to their historical norm or current feed pricing is a new reality that must be accommodated remains to be seen.

The Chicken Board's conclusion with respect to assurance of supply is in the attached submission. The Board also considered a temporary lock in of growers to current contracted processing companies during the transition to the new COP pricing. On balance, the Chicken Board is of the view that allowing the processors to make their own internal pricing and production business decisions during the transition period is the better option. With a move to a full COP over time, there is no entitlement for growers to receive non-value premiums at an additional cost to processors.

The Chicken Board is satisfied that the COP, closely scrutinized throughout the JWG process has been thoroughly vetted. This included active and constructive participation by the PPPABC representatives. This participation was withheld during the earlier Cost Recovery Model Committee process and again withheld after the PPPABC representatives withdrew from the JWG without engaging on phase-in issues affecting the transition. The pricing issue must move forward but the Chicken Board again notes how important stakeholder engagement will continue to be as the grower COP is incorporated into the hatching egg, hatchery, and chicken supply chain.

In the longer term, the Chicken Board remains prepared to engage with processors and all stakeholders about pricing and cost-related matters and policies that could result in improving the efficiency and effectiveness of the BC chicken industry. An example is the proposal for relaxation of the Chicken Board's land ownership and land leasing policies to reduce the cost impact of current policies on growers. Resources currently devoted to the pricing initiative can be assigned to identifying and pursuing such initiatives.

It remains incumbent on the Chicken Board and Commission as first instance regulators to respond should any stakeholder provide verifiable evidence of pricing issues affecting their sustainability. Both boards have clearly confirmed that in their submissions. At the October 16, 2023, JWG meeting, the Chicken Board confirmed with the BCCGA that the latter recognized that responsibility of the Chicken Board. The Chicken Board, similar to the Commission's commitment in the January 7, 2022, joint letter, will continue to include "provision for exceptional circumstances" in its General Orders to explicitly provide a process by which evidence-based pricing matters can be brought forward to the PPAC and the Chicken Board.

SAFETI Analysis

The Chicken Board continues to rely on the Chicken Board-Commission SAFETI analysis outlined in their joint letter of January 7, 2022 (Appendix Q). The strategic importance of focusing the BC chicken industry on looking forward must be emphasized. Not just in terms of pricing (where a national COP could benefit all stakeholders)

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but in truly engaging on issues critical to BC's future. The extended and multi-faceted Review process has been accountable, transparent, inclusive and given all stakeholders a fair opportunity to participate. Providing a certain and stable pricing framework will allow industry resources to be employed effectively on other critical matters.

As outlined in their joint March 4, 2022, letter, it is the view of the Chicken Board and Commission,

> that the new approach to pricing in the BC chicken sector is sound marketing policy that will narrow and focus the resolution of future pricing issues so that they are based on a firm, transparent and cohesive foundation from which evidence-based decisions can be made.

An essential component to this achieving sound marketing policy objective is the Chicken Board and Commission, through their Memorandum of Understanding, their Joint Committee and board to board meetings, continuing to work together as co-regulators of the BC chicken industry. In the absence of the historical, reactionary linkage, the onus on the two boards is to jointly be proactive and strategic in addressing the pricing issues facing all stakeholders.

Terms of Reference

The Commission has established a "verified COP/reasonable returns-based mechanism" for hatching egg producers. The Chicken Board is now proposing the same for chicken growers.

The Commission has confirmed "a breeder chick pricing formula" and a "breeder vaccination program" for hatcheries. BCFIRB has also approved the Commission's recommendation for a COP approach to hatcheries "'receiving a "reasonable" margin for hatching services." Both are important to the Chicken Board given the impact on the chick price paid by growers. It is also important in establishing a supply chain supporting processors that is driven by a tripartite pricing relationship between hatching egg producers, hatcheries and chicken growers.

Adopting the processors' position that the differential over Ontario is the sole measurement of processor competitiveness is fundamentally at odds with the sound marketing policy objective of creating a new pricing framework for the BC chicken industry. Although the pricing relationship between BC and Ontario will continue to be a consideration, breaking that reaction-based approach to pricing is critical to the future sustainability of BC chicken production.

The Commission (hatching egg and chick pricing) and the Chicken Board (COP-based live pricing) have met the requirements of the Terms of Reference over which they have regulatory jurisdiction. The Chicken Board has established a COP with efficiencies and other measures incorporated that still places pricing pressure on growers. The Chicken Board is also recommending a transition period to allow time for the industry to adjust and for it to monitor and respond to evidence-based pricing issues that may arise. As the first instance regulator, the Chicken Board cannot make decisions without the necessary evidence but remains fully prepared to engage in doing so should evidence of processor competitiveness arise during or after the transition period.

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Conclusion

In its March 4, 2022, submission, the Commission noted that this "has been a lengthy process for all stakeholders". That was true then and is true now, almost 20 months later.

The Chicken Industry Strategic Framework initiative was suspended in 2020 due to COVID but also in part because stakeholders stated that pricing had to be resolved before other strategic issues could be addressed. Nearly four years later and after in-depth review, this COP will be part of a new pricing framework for the BC chicken supply chain. Once in place, this framework will result in the three components of the supply chain having COP's, with efficiencies incorporated, that provide a reasonable return for hatching egg producers, hatcheries, and chicken growers. This will provide a level of certainty and stability upon which the Chicken Board and Commission, working together and with stakeholders, can move to work on continuous improvement to the BC pricing framework and address other issues affecting the future of the BC chicken industry.

These critical issues include further engagement outside of BC. The *Farm Products Agencies Act* (Canada) contemplates a competitive Canadian chicken industry based on three pillars: border protection, production controls and pricing. The first and second are governed nationally while pricing remains a provincial jurisdiction. It is the Chicken Board's view that given the cross-provincial/national nature of today's chicken marketplace, it would be to the benefit of both growers and processors to have that third pillar also governed through a national approach to pricing. A new COP-based pricing framework will assist the Chicken Board in pursuing this important objective with its western and national counterparts. The Commission's March 4, 2022, submission echoes this objective for the hatching egg sector.

This has been an intense process. It included very difficult discussions about very contentious issues. The Chicken Board acknowledges and appreciates the engagement of JWG members and other stakeholders throughout the development of this COP, even when perspectives were divergent. Differences aside, ongoing engagement on the wide range of pricing and other issues critical to the BC chicken industry is important for all stakeholders and remains a priority for the Chicken Board.

It is respectfully requested that BCFIRB authorize the Chicken Board, as first instance regulator of the BC chicken sector, to implement this new pricing framework in cooperation with the Commission and further consultation with its chicken industry stakeholders. The JWG remains in place pending the outcome of the Review and the Board also welcomes and extends an invitation for a meeting between the Panel and the Board should any further clarification be necessary before the issuance of a final decision.

BRITISH COLUMBIA CHICKEN MARKETING BOARD

Kevin Klippenstein, Chair

BC Chicken Marketing Board

BC Chicken Marketing Board
BC COP Based Live Price Decision

October 30, 2023

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Executive Summary

The BC Chicken Marketing Board (Chicken Board) has conducted a comprehensive Pricing Review, considering submissions from all stakeholders and involving independent third-party analysis. The review focused on the pricing pillar of supply management, aiming to ensure that efficient growers can cover their production costs and earn a reasonable return.

In line with the previous determination is that British Columbia (BC) should establish its own cost structure and factors for efficient production, rather than relying on data from other provinces. It's not feasible to enhance processor competitiveness solely by comparing prices with Ontario, while still ensuring growers receive a reasonable return.

The Chicken Board's approach aligns with BC's position as the third-largest chicken-producing province in Canada. The Chicken Board proposes a Cost of Production (COP)-based live price formula that simplifies pricing coordination between broiler growers and hatching egg producers, fostering industry-wide efficiency.

Processor competitiveness has long been a topic of discussion, but consensus on measurement remains elusive. The Chicken Board notes that accurate processor data is essential for assessing competitiveness. While private processors are unwilling to publicly disclose financial information, the Board remains open to explore ways to obtain transparent and verifiable data. The Board will monitor various indicators but won't directly connect them to the COP-based live price formula due to the anecdotal nature. To respond to concerns about unsustainable pricing and competitiveness, the COP model provides verifiable information on grower cost recovery.

The Chicken Board’s definition of BC processor competitiveness is linked to the efficiency of BC growers, incorporating efficiency factors into the COP-based live price formula. Efficiency factors include farm size, bird weight, barn density, Feed Conversion Rate (FCR) updates, and annual volume adjustment. These factors encourage efficient chicken production in BC and contribute to processor competitiveness and will be reviewed periodically.

A phased approach is proposed to implement the COP-based live price formula to allow stakeholders time to adapt. The goal is to reach 100% of the efficiency-adjusted COP by A-192, with phases of closure between the current interim formula and the new COP based live price formula. The phase-in may be adjusted if exceptional circumstances arise.

The COP will be regularly updated, with survey updates every three to five years, aligning with the BC Broiler Hatching Egg Commission (Commission) COP updates.

The Chicken Board and the Commission have discussed their pricing relationship. There will be ongoing communication and cooperation regarding the continuous improvements of the COP’s and regarding overall pricing in the BC chicken industry. If both sectors receive 100% of their *efficient* COP, no further mechanism to measure the two is necessary. Both boards are satisfied with an efficient hatching egg COP being an input into the Chicken Board's COP-based live price.

Introduction – Long Term Pricing Formula

The pricing formula for mainstream chicken in British Columbia in the future will be set using a BC-made Cost of Production (COP) based live price formula. The formula will account for reasonable returns to an efficient grower, as well as take into account BC processor competitiveness in the Canadian market.

The BC COP based live price formula is similar to the Chicken Farmers of Ontario Farm-Gate Minimum Live Price Formula with the exception of:

- The process by which the formula is established.
- Consideration and accounting for processor competitiveness factors.
- Full transparency of grower costs and processor competitiveness factors.
- The Ontario COPF describes a 'producer margin', whereas the BC COP based live price model references producer cost recovery as the main outcome.

Final Decision

The Chicken Board has reviewed and given due consideration to all of the submissions received through the Pricing Review as well as securing independent third parties to provide additional analysis and perspective when applicable.

The underpinnings of supply management, referred to as the three pillars includes "a public policy which seeks to ensure that, on average, in any one year, an efficient producer of regulated product will be able to sell their products at a price which allows them to cover their cost of production and realize a reasonable return" (Cost of Production Monitoring Guideline For Agencies Established under Part II of the *Farm Products Agencies Act*, February 13, 2014).

BC should not rely on another province's data or costs to determine "reasonable return to growers". BC must be able to determine its own cost structure and factors to ensure efficient production and growth. It is not possible for the Chicken Board to be able to "improve processor competitiveness" based solely on a comparison with the Ontario live price that is also consistent with the equal objective of growers achieving a "reasonable return".

The Chicken Board COP based live price formula approach is consistent with the Commission's approach to pricing and represents the two boards leadership in asserting the British Columbia's position as the third largest chicken producing province in Canada. Adopting a COP-based live price formula approach provides a simpler form of pricing relationship or coordination between broiler growers and hatching egg producers. It also allows the industry to focus in on areas where efficiencies can be gained to the benefit of all, as opposed to any one sector taking the benefit at the expense of the other.

Processor Competitiveness

The notion of addressing and measuring processor competitiveness has been discussed and debated for many years now. Many potential measures have been brought forward, but there

has been no consensus on a reasonable measure to use. A summary of proposed processor competitiveness factors or benchmarks that were discussed, but ultimately not supported by stakeholders can be found in Appendix G. The Chicken Board notes that after thorough dialogue, "processor competitiveness" is an impossible measure without accurate access to processor revenue or margin data, while still balancing reasonable returns to growers. The Chicken Board on numerous occasions has discussed with processors the need for transparent and verifiable data in order to establish 'processor competitiveness'. Processors in BC maintain that they are private businesses and will not publicly disclose their financial information.

The Chicken Board will continue to monitor, but does not intend to routinely report on, three factors:

1. The BC posted price and comparison to the Ontario posted Live price.
2. Allocation growth or reduction according to the CFC allocation formula (Federal Provincial Agreement)
3. Factors brought forward in the Hugh Scorah Processor Competitiveness report (Appendix H)
    a. Loss of processing.
    b. Loss of further processing.
    c. The rate of capital investment into processing.

While these indicators are good to observe, the Chicken Board is not willing to connect these trends directly to the COP based live price formula. Many are anecdotal in nature, and it is not possible to know the specific impacts, changes, and associated variables. However, a combination of these concerns will trigger and open up discussions. In order to trigger further discussions, the Board has an existing policy around exceptional circumstances found in the General Orders under *Schedule 2(7). Variation for Exceptional Circumstances*. It must be clearly articulated by the Board here, that any review or future consideration for alteration of the pricing formula brought forward by any stakeholder will require verifiable and transparent evidence that it is required for the benefit of the industry.

The Board has long struggled with complaints about unsustainable pricing as well as competitiveness. The Board notes that the Cost of Production model now provides verifiable information on grower cost recovery. This will allow the Board to make educated decisions on whether or not efficient growers are adequately compensated for growing chicken. However, the Board still does not have verifiable information on processor competitiveness. While the Board certainly respects the argument that live price is a crucial element, in order to seriously consider alterations to the COP results due to processor competitiveness, verifiable evidence will need to be provided. The Board acknowledges that an independent business does not wish to share data and it's at the discretion of processors to share information and work with the Board and growers with verifiable and transparent information if relief is sought. It should be further stated, that even if the Board had access to the required BC processor information, it may also require central Canadian processors information to fairly analyze and compare.

Therefore, the Board has determined the only appropriate regulatory option currently available to measure processor competitiveness is through the efficiency of the BC Chicken growers and the grower efficiencies built into the COP and industry. The industry will have in place a chain of efficient COP formulas, through broiler hatching egg producers with built in efficiencies, the proposed hatcheries COP with built in efficiencies, as well as the chicken growers COP with built in efficiencies. The Board sees both efficiencies that the industry can implement now through the COP, and efficiencies the industry can strive to continuously improve its overall competitiveness into the future. Currently, for the reasons outlined below, the Chicken Board views the following as an appropriate definition of processor competitiveness.

> *The definition of BC processor competitiveness is the efficiencies of BC growers, which is established through a BC COP based live price formula with built in grower efficiency factors. Processor competitiveness is further established by efficient COP's implemented on the pricing of hatching eggs, as well as development of an efficient hatchery COP.*

The Chicken Board further notes that in BC, hatcheries and processor share the same ownership and represent integration of the value chain.

The concept of 'processor competitiveness' as an issue in the BC chicken industry dates to the 1980's when it arose as an issue concerning a BC chicken processor and an Alberta competitor. Today's national marketplace (e.g., comparison to the Ontario live price) is much different. Even since the 2010 Supervisory Review things have changed as BC-based processors continue to expand, including into Quebec and Ontario. The BC Farm Industry Review Board ("BCFIRB") has required boards to take into consideration 'Processor Competitiveness', but the expanding scope of the processing sectors here in chicken, makes this an increasingly complex issue to resolve. The Chicken Board has thoroughly explored this concept throughout this supervisory review and has not found a measure that all stakeholders would accept. Nor could the Chicken Board incorporate unverifiable measures into the COP. The Chicken Board has regulatory responsibility for the farmgate price of live chicken, based on a verified and efficient COP. As that regulator, the Chicken Board cannot justify making or defending a pricing decision respecting processor competitiveness impacting that COP without valid, verifiable and transparent evidence to inform its decision. Although it may be impossible to predetermine processor competitiveness, an increased focus on other provincial and national initiatives and policies may also serve to improve the sustainability and competitiveness of the overall BC industry. The Chicken Board remains committed to supporting and engaging with BC processors in support of their competitiveness through sound marketing policies that enhance the effectiveness of the BC chicken industry.

Grower Efficiency

The Chicken Board acknowledges that 100% of the COP is a reasonable return to an *average* grower. However, to define a reasonable return to an *efficient* grower, the Chicken Board needs to go a step further and define what is meant by an efficient grower within the COP. It must be

noted that a COP model may not be the solution for all growers' concerns, as it does not guarantee all farms a return on their individual cost of production.

The Chicken Board identifies five factors in this COP based live price formula that help support processor competitiveness through grower efficiencies. Three, barn density, annual feed conversion rate (FCR) updates, and annual production volume updates, are efficiencies incorporated into the COP and are comparable in impact to the efficiencies of the hatching egg COP. The other two factors (farm size and bird weight) arise from survey results that will impact the COP and grower returns pending the next survey and updating of the COP.

1. Farm size

   The COP surveyed sample of growers consists of an average mainstream farm size of 124,483 kg/cycle. This compares to an average farm size in quota holdings in 2021 of 120,930 kg/cycle. While the average farm size in the sample is larger than the provincial farm size for quota holdings in 2021, it is recognised the survey is to a 95% confidence +/- 2.85% (statistical significance).

   However, reviewing the *median* farm size based on quota holdings in 2021 it was 97,681 kg/cycle. Regardless of average farm size, the COP is based on an *average* farm 27% larger than the *median* farm in BC. The median farm is where 50% of farms are larger and 50% of farms are smaller than this size. Of note, this means 63% of chicken farms in BC fall below this average farm size of 124,483kg/cycle, where only 37% of BC chicken farms are equal to or larger than this average farm size built into the COP.

   Other factors aside, this signals that the 'average' COP will not represent full cost recovery on approximately 63% of farms. The efficiency of economies of scale of larger farms is providing *significant* downward pressure on the COP. Larger farms do support processor competitiveness in this way.

   Based on the data collection that occurred, it is not possible to divide by individual size of farm categories with *statistical significance* or to appropriately separate out regional impacts. However, using the data, the cost disparities can be seen with farm size in the below Figure A to give us a sense and scope of the impacts. Figure A breaks down a comparison of a 'smaller' and 'larger' farm size over 6 periods.

Figure A – Farm Size impact comparison – *not statistically signficiant figures*.

BC Broiler COP - $ per Kg	43 Farms 2021 COP Results Combined (A180)(WTD by KG)	11 Farms (LM:9,I:2,VI:0) A168-174 ">1,000,000kg"	13 Farms (LM:8,I:2,VI:3) A168-174 "<500,000kg"
A) Operating Costs			
Chicks	0.4517	0.4503	0.4604
Day-old Chick Cost	0.4353	0.4337	0.4395
Vaccine Cost	0.0163	0.0166	0.0209
Feed	1.2260	1.2174	1.2362
Utilities	0.0763	0.0787	0.1035
Vehicle & Equipment Operation (Fuel & Oil)	0.0088	0.0076	0.0087
Repairs & Maintenance	0.0442	0.0388	0.0443
Bedding	0.0216	0.0213	0.0265
Administrative & Office Costs	0.0122	0.0112	0.0191
Insurance	0.0173	0.0167	0.0211
Other Custom Costs	0.0059	0.0073	0.0077
Custom Catching	0.0400	0.0400	0.0400
Cleaning/Washing	0.0092	0.0101	0.0043
Operating Costs (Without Levies & MD Lease Costs)	**1.9132**	**1.8995**	**1.9717**
Board Levy	0.0202	0.0202	0.0202
MD Lease Costs	0.0016	0.0020	-
Operating Costs (With Levies & With MD Lease Costs)	**1.9350**	**1.9217**	**1.9919**
B) Labour			
General Labour	0.0786	0.0713	0.1375
Management	0.0469	0.0483	0.0677
Labour Costs	**0.1255**	**0.1196**	**0.2051**
C) Capital Costs			
Depreciation & Amortization	0.0999	0.0880	0.1406
Depreciation - Barns & Associated Equipment	0.0771	0.0762	0.0803
Depreciation - Other	0.0228	0.0118	0.0603
Investment Cost	0.1882	0.1706	0.2480
Investment Cost - Land	0.0049	0.0027	0.0125
Investment Cost - Barns & Associated Equipment	0.1565	0.1550	0.1660
Investment Cost - Other	0.0267	0.0128	0.0695
Operating Interest	0.0224	0.0221	0.0240
Taxes	0.0059	0.0046	0.0078
Capital Costs	**0.3163**	**0.2852**	**0.4204**
Total Cost of Production	**2.3768**	**2.3265**	**2.6174**

The average farm size used in the sample adjusts the kilograms grown per year of which costs are spread across. Since costs are divided over the kilograms produced per cycle, this plays a large role in the dollars per kg of all line items. Fixed cost elements would be spread over fewer kilograms and therefore increase the dollar per kg cost, while the above table shows that variable costs also increase on smaller farms. Although it can't fully determine what a COP based on the *median* farm would be as opposed to the surveyed farms, it can confidently be stated that the economies of scale of the larger *average* farm size provide significant downward pressure on the live price produced in the surveyed COP.

2. <u>Bird weight</u>

The surveyed data produced a bird weight result at 2.27kg compared the pricing grid set at 2.02-2.17kg. This difference in the pricing grid as compared to surveyed data has an impact already included in the COP of approximately 3 cent/kg decrease to the cost of

chicks. To explain this another way, the impact of a heavier bird than is priced off of, is a proportionally lower chick cost *per kg* as a result – assuming no change in mortality. (i.e., a smaller bird would increase the cost of chicks on a $/kg basis). In contrast to other chicken related COP's, it is believed they may normalize this by only surveying flocks that grew at a 'reference bird' weight (i.e., equivalent to BC only surveying farms who grew flocks at the 2.02-2.17kg weight). As the data collection did not stratify for a reference bird, the data resulted in downward pressure on the chick cost presented in the formula.

3. Barn Density

The surveyed sample had an average barn density of 2.74 kg/ft^2, which was confirmed by Chicken Board staff to be an accurate reflection of the provincial average density. Barn Density has a significant impact on the Depreciation and Return on Equity calculations. From 2.74 kg/ft^2 up to 3.2 kg/ft^2 represents approximately a 5.5 cent differential in the COP, as well as an opportunity to the grower. The COP shows that on average a grower running at a higher density will be more efficient – a grower running at a 3.2 kg/ft^2 density would earn approximately 5.5 cents per kilogram more than a grower at 2.7kg/ft^2.

The Board is seeking to increase the average density of growers up to 2.88 kg/ft^2 and will move the density factor used in the COP model to this level. 2.88 kg/ft^2 is the maximum allowable density of a BC chicken grower without being approved for high density. This represents an impact of -$0.0155/kg to the final COP output as referenced to period A-180, or a decrease of 0.65%.

The following Figure B outlines the impacts of changing density on the COP result. This analysis focuses on the changes in capital costs (depreciation and investment), but it is recognized the potential that it may also have an impact on management labor. The extent to which other elements are impacted is less clear, such as bird mortality or Feed Conversion Rate (FCR).

Figure B - Impacts of Varying Utilization Rates on Capital and Total COP

Barn Density (KG/FT^2)	2.74	2.80	2.83	2.88	2.90	2.93	2.98	3.00
Depreciation ($/KG)	$0.1052	$0.1029	$0.1018	$0.0999	$0.0991	$0.0979	$0.0960	$0.0953
Investment ($/KG)	$0.1983	$0.1940	$0.1918	$0.1882	$0.1867	$0.1846	$0.1809	$0.1795
Total Capital Changes ($/KG)	$ -	-$ 0.0066	-$ 0.0100	-$ 0.0155	-$ 0.0177	-$ 0.0210	-$ 0.0266	-$ 0.0288
Final COP ($/KG)	$ 2.3923	$ 2.3856	$ 2.3823	$ 2.3768	$ 2.3745	$ 2.3712	$ 2.3657	$ 2.3635

The Board notes that if in future iterations of the survey the industry reaches the density of 2.88 kg/ft^2 average, then this would be considered a success, and does not necessitate that future surveys would have *increased* density factors beyond the survey. At 2.88 kg/ft^2 the Chicken Board defines this as an efficient density as it represents the maximum density a chicken grower can produce at without applying for high density.

4. Feed Conversion Rate (FCR)

   Feed Conversion Rate (FCR) is the measure of converting feed into kilograms of chicken. The most recent FCR in the 2021 surveyed data returns an outcome of 1.59, down from 1.63 in the previous surveyed data in 2019. As feed is one of the most significant cost factors in the live price of chicken, the Board is committing to updating FCR annually. Historically FCR has decreased over time as birds, growers, and industry increase the efficiency between feed and bird output. Therefore, any efficiencies gained in FCR will be passed through the live price annually. The FCR will be updated to the 6-period average, implemented 8 periods later. This will need to include updates to mortality and bird weight as well. The next updated FCR would occur in the first quarter of 2025, using data from 2024. It would then be updated at approximately the same time annually depending on where the periods begin and end.

   For consistency, the Board will seek to collect the FCR data from the same 43 sampled growers for the remainder of the 2021 COP. This would adjust to the new surveyed growers in a future surveyed period as described later in the COP updating section.

   Although FCR tends to trend downward over time (due to improvements in genetics) FCR can also be influenced by a combination of different factors. For example, growers could use a higher density ration which costs more but could lower FCR (less feed to achieve same weight gain). Another grower could use low density ration (even mash) to lower feed cost and likely increase FCR. Other provinces where producers have access to their own feed grain sources can use those products to off-set their feed costs (i.e., whole wheat blending) and lower the feed cost per kg. These factors can distort interprovincial FCR comparisons with BC.

   FCR is also impacted by bird weight and mortality. The onus must be put on all industry to find ways to improve mortality and disease, which in turn will control costs through lower FCR. This will benefit all industry, including growers and processors. The Board will continue to investigate and support industry in finding ways to lower the impacts of disease and improve mortality.

   The impacts of a changing FCR can be shown in Figure C referenced to the period A-180, with all other factors held constant. A change in the FCR by 0.01 results in an approximate change to the live price of 0.32%, whether up or down.

Figure C – Impacts of FCR changes referenced to A-180

FCR	Feed Cost/KG Sold	Overall COP	% Change
1.50	$1.1566	$2.3074	-2.92%
1.51	$1.1643	$2.3151	-2.60%
1.52	$1.1720	$2.3228	-2.27%
1.53	$1.1797	$2.3305	-1.95%
1.54	$1.1874	$2.3382	-1.62%
1.55	$1.1952	$2.3459	-1.30%
1.56	$1.2029	$2.3536	-0.97%
1.57	$1.2106	$2.3613	-0.65%
1.58	$1.2183	$2.3690	-0.32%
1.59	$1.2260	$2.3768	0.00%
1.60	$1.2337	$2.3845	0.32%
1.61	$1.2414	$2.3922	0.65%
1.62	$1.2491	$2.3999	0.97%
1.63	$1.2568	$2.4076	1.30%

5. Annual Volume Adjustment

Volume (kg) represents the denominator in many of the calculations to determine the dollars per kilogram for the line items within the COP. PPPABC is on record as supporting volume adjustments both annually and by period. The Board feels it is not a reasonable approach to update volume by period but will update volume annually. This update will allow for the passing of economies of scale (growth) through the live price and represent the efficiencies of growing farm sizes. If there was retraction in the market, it would work in reverse.

All line items would be impacted by the update to volume with the exception of catching price and Board levy. The change in volume will be calculated as a percent change in BC's annual production (volume) from the 2021 kilograms grown compared to the 2024 kilograms grown. That percent change would index the 'kg sold in flock' contained within each line item. The volume in question is defined as domestic mainstream production only. Specialty, Organic, and Raised Without Antibiotics (RWA) were not included in the survey. Market Development is handled differently, as it is updated each A-period.

To align with updating FCR and the phase in process proposed, the Board will update volume in the first quarter of 2025 based on data from 2024. It will then be updated annually from thereafter, updated at approximately the same time annually depending on where the periods begin and end. Subsequent years will be compared to the years previous production.

The above factors affecting efficiency are estimated to have an immediate impact to processor competitiveness equal to *at least 4.55 cents;* with additional significant impacts of farm size, and the downward pressure on the COP over time through annual updates of FCR and volume (kilograms sold). This 4.55 cents represent an impact of >14% reduction in live price as compared to the total capital costs (31.63 cents), the only portion of the COP with return built in. Decreasing the COP by this 4.55 cents would result in approximately a 98% of average COP but does not consider the additional impacts of average vs median farm size, nor the two annual update efficiency factors.

It is important to note that the Commission refers to their efficiency factors creating a percent (%) of COP payable (i.e. 98% of COP), whereas the BC Chicken COP will refer to 100% of the efficiency adjusted COP, rather than a % of the average COP. (i.e. BC Chicken will always be at 100% of the efficiency adjusted COP but this will equal less than 98% of the average COP). While we will be operating the COP's similarly, the language used is different.

The above grower efficiency factors serve to both encourage the efficient production of chicken in BC but also provide a degree of processor competitiveness at a national level. BC is a high cost of production province as compared to most of the rest of Canada. Therefore, it is known that returns for all stakeholders may not be at par with stakeholders in other provinces. To ensure a sustainable chicken market in BC, it is imperative that all stakeholders seek to find efficiencies to compete nationally.

The definition of reasonable returns to growers is 100% of the efficiency adjusted COP.

It should be noted that these efficiency factors will be revisited in future surveys. Results and methodology of data collection may give rise to new efficiency measures. The present factors affecting efficiency reflect the current conditions and the Chicken Board will remain responsive to future changes.

COP Phase in Period

The process to achieve a long-term pricing formula for BC Chicken has been extensive, and it is in the best interests of all stakeholders that a final solution be implemented. As the phase-in for hatching egg producers is close to complete, the Board believes it important that chicken growers achieve 100% of the *efficiency adjusted* COP as soon as possible. However, the Board also recognises this shift in chicken pricing paradigm does impact all stakeholders. A phased in approach is necessary to ensure all stakeholders have an appropriate period to adjust to the new paradigm and pricing formula and for the Board to monitor other developments.

Subject to the timing of BCFIRB approval, the earliest possible start date for the BC Chicken COP based live price formula would be A-187 at phase one of six. The Board proposes phasing in the new COP based live price over six periods before it reaches 100% of the efficiency adjusted COP. The Board believes it is necessary at a minimum to start at par of the current pricing

formula as growers cannot sustainably tolerate any further decrease that would be lower than the current interim pricing model. We also cannot confidently predict the pricing output in future pricing periods with uncertainty in feed and chick prices. Therefore, rather than phase in at a percent of COP (i.e., 95% of COP), the Board intends to close the gap between the interim pricing formula (par) and the COP based live price formula over six periods. This will result in a 16.67% closure of the gap between par and the new COP based live price formula each period until we are at 100% of the efficiency adjusted COP in A-192. The table below provides an example of how this is implemented but does **not** represent actual posted prices for the periods as these are still unknown.

Figure D – Example of Phase in Period of new COP based live price formula

Period	A-187	A-188	A-189	A-190	A-191	A192
COP based live price formula (new)	$2.3505	$2.3768	$2.3869	$2.4192	$2.4260	$2.4013
Current Interim Formula (par)	$2.2180	$2.2360	$2.2150	$2.2490	$2.2230	$2.1760
Difference	$0.1325	$0.1408	$0.1719	$0.1702	$0.2030	$0.2253
Phase in % of difference	16.67%	33.33%	50.00%	66.67%	83.33%	100.00%
$/kg phased in	$0.0221	$0.0469	$0.0860	$0.1135	$0.1692	$0.2253
Final Posted Live Price	$2.2401	$2.2829	$2.3010	$2.3625	$2.3922	$2.4013

This is Just an EXAMPLE, does not represent actual period pricing

The Chicken Board notes that we are uncertain of the required time for BCFIRB approval of the COP based live price formula and we may not receive approval prior to the start of A-187. The Board's proposal will still be to achieve 100% of the COP based live price be in effect for A-192. If a decision is forthcoming beyond A-187, this would result in additional periods with the interim pricing formula, and a reduced phase in period, with the net result still being 100% implementation by A-192 (i.e., if approved for A-188 a 5-period phase in, if approved for A-189 a 4-period phase in, etc.). This would coincide with the end of the Alberta, Ontario, and Atlantic Canada Discrete Supply for CFC Allocation formula in A-192.

Of note, the phase-in could be altered or paused if exceptional circumstances are identified, at discretion of the Board. Likewise, although unlikely, if there are dramatic changes to feed and chick costs (actual costs or Ontario COP) over the course of the phase in it is possible that par and the new COP based live price formula align at 100% earlier than predicted.

Upon receipt of the BCFIRB Pricing Review Supervisory Panel (the "Review Panel") prior approval of the BC COP based live price formula, the Chicken Board will initiate the new pricing model in the period following approval, currently targeting period of A-187 which begins on January 14, 2024.

COP Update Period

The BC COP based live price formula is based on surveyed data from A-168 to A-174, which falls in the year 2021. The Board recognises this data is already 2 years old by the time it is implemented. While the indexing process has proved to be an accurate process, the Board recognises the need to update the COP regularly.

The Board initially plans to do survey updates every three years, eventually moving to every five years, with the goal of aligning with the hatching egg COP updates. Alignment does not mean updating within the same year but rather within the same timeframe to ensure the industry pricing models are aligned.

The next iteration will be updated in 2025 using 2024 data to ensure we are being responsive with a new BC COP based live price formula. The Board will then update the COP data through survey in 2028 (with 2027 data), 2031 (with 2030 data), and intend to move to every 5 years after that. The Board reserves the right to update specific cost items at different intervals if anomalies arise or alter the updating period if rationale exists to the Board's satisfaction.

Additionally, as mentioned in the grower efficiencies section, FCR will be updated annually along with mortality and average bird weight.

One area of concern brought by stakeholders is the accuracy of building and capital costs. The COP uses the Douglas Cost Guide and Marshall Swift index to estimate build costs. The Board recognises this is the best information available for build costs; it is also recognised that there is no data on *actual* build costs for BC growers. The Board in the future will develop a process to collect new barn build information in order to develop a cost base for BC broiler build costs. This may be used to justify and validate the numbers provided in the Douglas Cost Guide, or if the information is significantly valid, it could potentially be used as part of the COP in the future to replace the Douglas Cost Guide. Further work is needed on how this data can be collected and how it can be validated in the future and the Chicken Board intends to work with the Commission on this initiative. It should be noted that the Board is prepared to commit additional resources to this initiative as needed.

Line-Item Methodology

This section will not go through the specific line-item methodology here but refer to Appendix A and Appendix B for full review. It is important to note that the COP presented is materially different than the previous linkage COP. Changes to methodologies and formulas occurred as a result of the additional 3rd party review performed by MNP, discussion and recommendations

from the CRMC and JWG, Chicken Board recommendations, as well as Serecon's own internal process and development. The degree of scrutiny and review on the new COP based live price model was extensive and cannot be compared to the previous 'linkage COP' which did not face the same level of scrutiny or industry understanding. It is important to note that methodologies were presented and recommended by the consultants, in their expert opinions, at the JWG.

Where possible, the Chicken Board chose to use the same principles and methodology in this COP as used in the hatching egg COP. Although the Chicken Board has attempted to align as many line items that make sense for the industry, some differences were necessary.

Survey data, stratification, and demographics

Prior to survey collection, the Cost Recovery Model Committee ("CRMC") met with Serecon, prior to making recommendations to the Board about the survey process. The data collection and survey included 43 mainstream growers out of a total of 278 mainstream growers (note that any organic, specialty, and RWA flocks were excluded from the survey). As a result of the recommendation from the CRMC, the survey was stratified by region and includes data from the Lower Mainland, Vancouver Island, and the Interior. The final results are weighted by the total provincial production in the A-168 to A-174 periods.

The Board had sample farms in previous years (2015 and 2019), but these older samples were only used for the prior linkage formula and did not factor into the former or interim live price formula. They are presented below for comparison purposes as well as the demographic results from the 2021 surveyed farms in Figure E.

Figure E – Survey Demographics

Comparison - Broiler Demographics & Production			
General Information	**2015**	**2019**	**2021**
Farms Used	43.00	14.00	43.00
Production as a % of Quota	122%	113%	103%
Total Cycles Considered	247	97	301
Average Production for Sample	105,555	112,682	124,483
Days to Market	36.37	38.2	37.1
Feed Conversion	1.61	1.63	1.59
Mortality (%)	4.90%	5.52%	5.54%
% Condemnation	1.60%	1.42%	1.44%
Average Bird Weight (kg)	2.13	2.21	2.27
Barn Space Utilization kg/ft^2	2.61	2.80	2.74

The surveyed data and COP output is done on a $/kg basis and is statistically valid at the 95% level of confidence +/- 2.85%.

No outlier data was removed from the data set. The methodology for outliers was reviewed by MNP and deemed a reasonable approach (Appendix C – Page 7). Serecon individually reviewed outliers to confirm whether the data was representative and real. In all cases outliers were left in as they could be explained and validated.

BCCMB & BCBHEC Pricing Relationship

Historically, a 'linkage agreement' existed between the live price of chicken and the day-old chick cost. The Commission and the Chicken Board are tasked with outlining how the relationship between the long-term live price formulas will act. The Commission and Chicken Board met on multiple occasions (Appendix I - Timeline) to discuss progress on the live price formulas and how the relationship between them may occur. Ongoing discussion and cooperation on pricing (and other issues) will need to continue regardless of the outcome of the Supervisory Review.

Both the Commission and the Chicken Board agree that if both commodities growers are receiving 100% of their efficient COP, then no further direct, linking-type relationship mechanism will be required. It is the Chicken Board's view that if either party's efficiency factors or methodologies are vastly disproportionate on either side, then it may require further discussion on a pricing relationship. Both formulas, with efficiency factors incorporated, provide a model for compensating the efficient grower and producer. In other words, there is not a disproportionate advantage of one sector over the other between the COP's, and therefore both the Chicken Board and the Commission are satisfied with the hatching egg COP being an input into the Chicken Board's COP based live price.

Currently, the hatchery "margin" is frozen pending the development of a hatchery COP. The Chicken Board and the Commission both understand that the development and implementation of a hatchery COP will necessitate ongoing discussion between the boards. This includes determining and responding to the impact of the three COPs on BC supply chain pricing.

One noticeable area of difference is the Chicken Board's inclusion of the levy within the COP. The levy represents both the BC and CFC levy. The Commission took a different approach where they did not include the levy but rather included an "Industry Benefit Index" (IBI). Although recognising the Commission's approach as one way to support the supply chain, the Chicken Board believes the levy included in the COP based live price proposal is a direct cost to growers and therefore should be included in the COP based live price formula. The Chicken Board is mandated to exist and act on behalf of all industry to provide orderly marketing and is therefore a cost of producing chicken in BC. As noted on page 39, the levy will also support the Chicken Board's acquisition of staffing or other resources needed for the continuous improvement of the COP and industry regulation more generally. It should be noted that at no time during the CRMC or JWG were concerns brought about the inclusion of the levy in the Chicken Boards COP based live price formula. Further, marketing board levies are included in many other COP formulas, including the Ontario COP. The Chicken Board will remain engaged with the Commission when there are proposed changes to their IBI.

Final Result of COP Formula

The grower efficiency factors incorporated into the COP would result in the below summary of the total Cost of Production. Figure F below shows the summary of surveyed data indexed to

the reference period of A-180, including grower efficiencies as processor competitiveness, and is shown as dollars per kilogram of live chicken.

Figure F – Final COP based live price Formula output

BC Broiler COP - $ per Kg	Broiler COP From Survey Indexed to A180
A) Operating Costs	
Chicks	0.4517
Day-old Chick Cost	0.4353
Vaccine Cost	0.0163
Feed	1.2260
Utilities	0.0763
Vehicle & Equipment Operation (Fuel & Oil)	0.0088
Repairs & Maintenance	0.0442
Bedding	0.0216
Administrative & Office Costs	0.0122
Insurance	0.0173
Other Custom Costs	0.0059
Custom Catching	0.0400
Cleaning/Washing	0.0092
Operating Costs (Without Levies & MD Lease Costs)	**1.9132**
Board Levy	0.0202
MD Lease Costs	0.0016
Operating Costs (With Levies & With MD Lease Costs)	**1.9350**
B) Labour	
General Labour	0.0786
Management	0.0469
Labour Costs	**0.1255**
C) Capital Costs	
Depreciation & Amortization	0.0999
Depreciation - Barns & Associated Equipment	0.0771
Depreciation - Other	0.0228
Investment Cost	0.1882
Investment Cost - Land	0.0049
Investment Cost - Barns & Associated Equipment	0.1565
Investment Cost - Other	0.0267
Operating Interest	0.0224
Taxes	0.0059
Capital Costs	**0.3163**
Total Cost of Production	**2.3768**

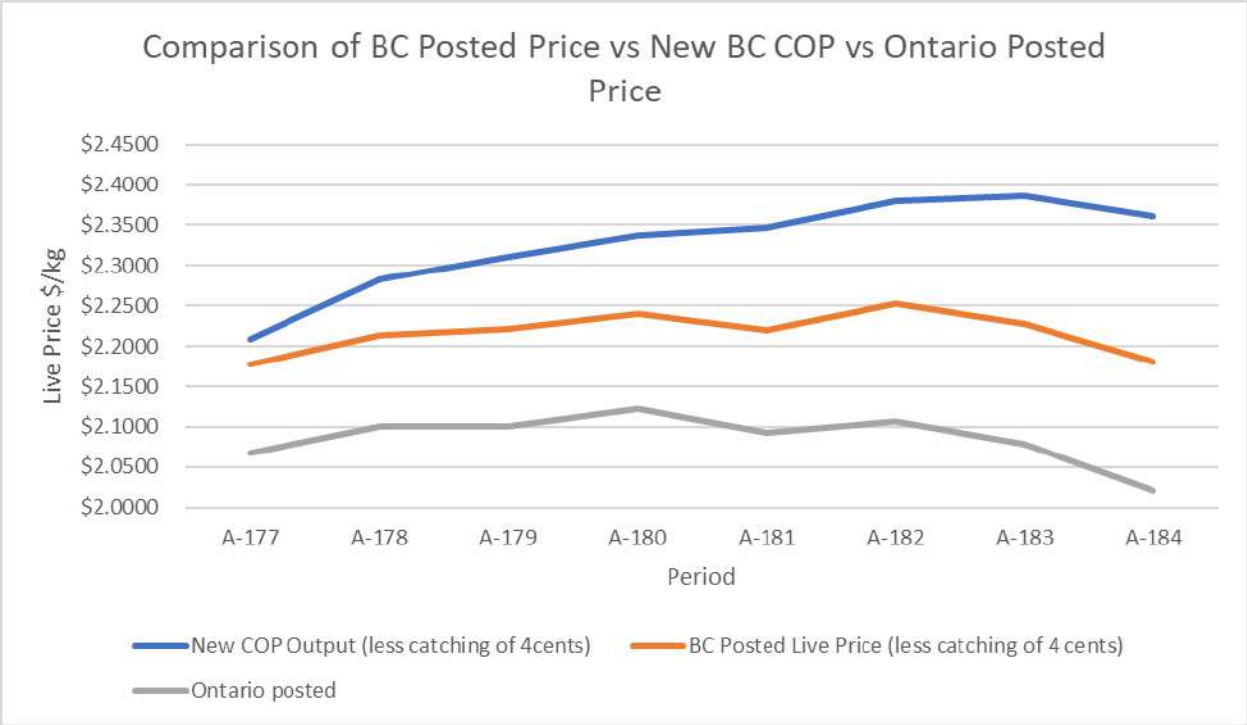
The output of the new COP based live price formula, including all grower efficiencies impacting processor competitiveness, can be seen in the below Figure G for periods A-178 to A-184. Each A-period updates were performed as shown in the summary of line items in Appendix A.

Figure G – BC new COP if implemented between periods A-178 through to A-184

BC Broiler COP - $ per Kg	A177	A178	A179	A180	A181	A182	A183	A184
A) Operating Costs								
Chicks	0.4425	0.4466	0.4469	0.4517	0.4572	0.4639	0.4630	0.4550
Day-old Chick Cost	0.4262	0.4302	0.4306	0.4353	0.4409	0.4475	0.4467	0.4386
Vaccine Cost	0.0163	0.0163	0.0163	0.0163	0.0163	0.0163	0.0163	0.0163
Feed	1.1419	1.2011	1.2202	1.2260	1.2256	1.2311	1.2374	1.2138
Utilities	0.0697	0.0695	0.0699	0.0763	0.0772	0.0790	0.0786	0.0799
Vehicle & Equipment Operation (Fuel & Oil)	0.0088	0.0088	0.0088	0.0088	0.0088	0.0089	0.0090	0.0091
Repairs & Maintenance	0.0428	0.0436	0.0442	0.0442	0.0453	0.0465	0.0465	0.0465
Bedding	0.0216	0.0216	0.0216	0.0216	0.0215	0.0219	0.0221	0.0222
Administrative & Office Costs	0.0122	0.0122	0.0122	0.0122	0.0121	0.0124	0.0125	0.0126
Insurance	0.0172	0.0172	0.0173	0.0173	0.0171	0.0174	0.0176	0.0177
Other Custom Costs	0.0059	0.0059	0.0059	0.0059	0.0059	0.0060	0.0060	0.0061
Custom Catching	0.0400	0.0400	0.0400	0.0400	0.0400	0.0400	0.0400	0.0400
Cleaning/Washing	0.0091	0.0091	0.0092	0.0092	0.0091	0.0093	0.0093	0.0094
Operating Costs (Without Levies & MD Lease Costs)	**1.8117**	**1.8757**	**1.8963**	**1.9132**	**1.9198**	**1.9364**	**1.9419**	**1.9123**
Board Levy	0.0202	0.0202	0.0202	0.0202	0.0202	0.0202	0.0204	0.0204
MD Lease Costs	0.0015	0.0015	0.0015	0.0016	0.0015	0.0016	0.0016	0.0016
Operating Costs (With Levies & With MD Lease Costs)	**1.8334**	**1.8974**	**1.9180**	**1.9350**	**1.9416**	**1.9582**	**1.9639**	**1.9343**
B) Labour								
General Labour	0.0774	0.0775	0.0785	0.0786	0.0785	0.0803	0.0806	0.0803
Management	0.0455	0.0455	0.0462	0.0469	0.0460	0.0481	0.0482	0.0481
Labour Costs	**0.1229**	**0.1231**	**0.1246**	**0.1255**	**0.1244**	**0.1284**	**0.1287**	**0.1284**
C) Capital Costs								
Depreciation & Amortization	0.0974	0.0988	0.0999	0.0999	0.1018	0.1044	0.1045	0.1047
Depreciation - Barns & Associated Equipment	0.0753	0.0763	0.0771	0.0771	0.0785	0.0804	0.0806	0.0807
Depreciation - Other	0.0221	0.0225	0.0228	0.0228	0.0233	0.0240	0.0240	0.0240
Investment Cost	0.1762	0.1794	0.1818	0.1882	0.1880	0.1968	0.1972	0.2009
Investment Cost - Land	0.0045	0.0046	0.0046	0.0049	0.0048	0.0049	0.0049	0.0051
Investment Cost - Barns & Associated Equipment	0.1480	0.1503	0.1523	0.1565	0.1563	0.1637	0.1640	0.1662
Investment Cost - Other	0.0238	0.0246	0.0249	0.0267	0.0269	0.0282	0.0282	0.0296
Operating Interest	0.0132	0.0173	0.0203	0.0224	0.0253	0.0255	0.0256	0.0271
Taxes	0.0059	0.0059	0.0059	0.0059	0.0058	0.0059	0.0060	0.0060
Capital Costs	**0.2927**	**0.3013**	**0.3078**	**0.3163**	**0.3209**	**0.3327**	**0.3333**	**0.3387**
Total Cost of Production	**2.2489**	**2.3218**	**2.3505**	**2.3768**	**2.3869**	**2.4192**	**2.4260**	**2.4013**

Additionally, provided below is a graph (Figure H) comparing the actual posted BC live price vs what the price would have been using the new 2021 COP based live price formula.

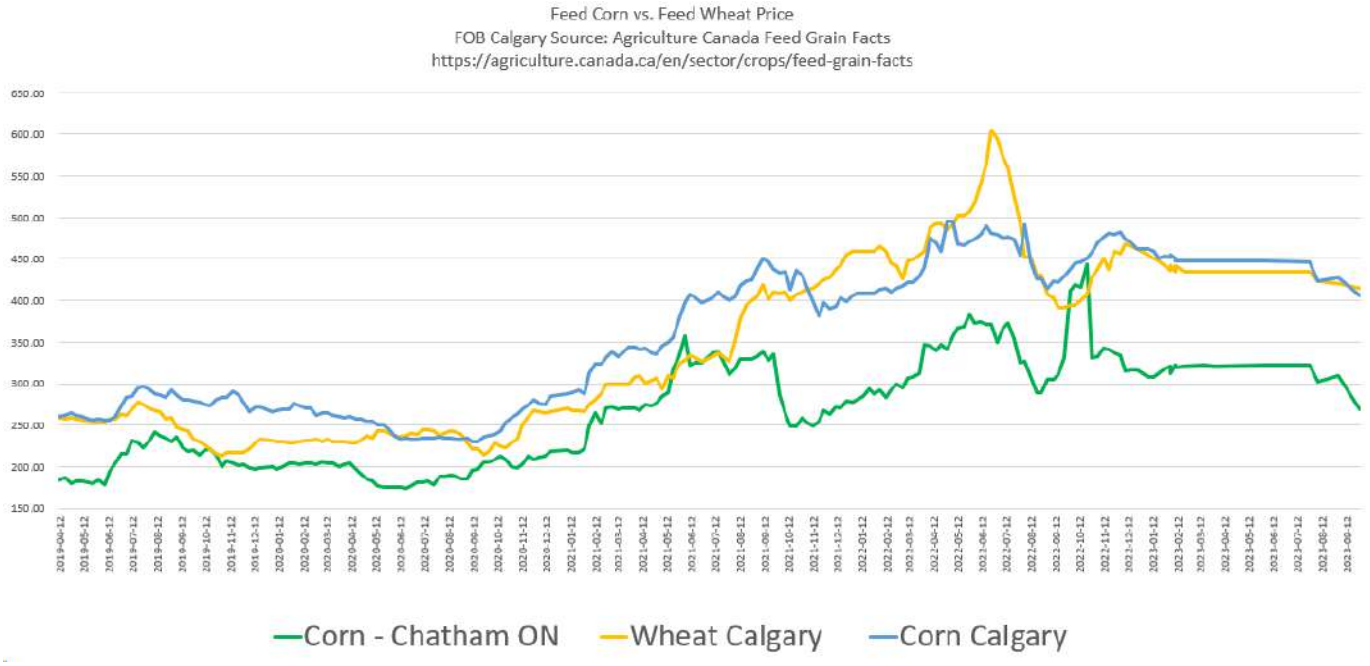
Figure H – Comparison of BC posted live price vs New BC COP vs Ontario Posted live price



Note: Chicken Farmers of Ontario will update their COP in January 2024. This will impact the price differential between BC and Ontario.

As will be discussed more below, Figure I shows the feed grain cost difference over time. The below graph does not show exact landed feed costs to BC growers, it rather shows how the relationship between wheat and corn in Central Canada vs Western Canada has changed in recent years. The correlation between the differential in feed costs and the live price of chicken in Central Canada vs Western Canada is clear.

Figure I – Feed Corn & Wheat, Central Canada vs. Western Canada Comparison



Price differential to Ontario live price

As seen above in Figure H, the differential between the Ontario posted live price and the BC COP has increased. In the above figure, the gap increased to $0.34 in A-184 (net of catching). While this gap is alarming at first glance compared to historical norms, it is indicative of an inflationary and challenging time in the BC chicken industry but is **not** reflective of a real and materialised differential in pricing.

In A-184 the new BC COP would have resulted in a price of $2.3613/kg *if at 100% of COP* (net of catching) compared to the Ontario COPF price of $2.021/kg for a total price gap of $0.3403. The Board does not expect this to be an exact representation of future price gaps.

a. *87%* of this gap is made up of feed costs which are a direct cost to growers and are not currently fully compensated for in the interim model. In A-184, feed costs as part of the BC COP were $1.2138 compared to Ontario feed costs of $0.9184, or a difference of $0.2954. The remaining $0.0449 (1.9% of total COP) is all that separates the BC and Ontario model net of catching and feed costs. This is an important comparison as feed costs are a direct cost to a grower and must be compensated; there is no profit margin in feed costs and only represents cost recovery.
b. It also must be noted that this is a comparison between an updated BC COP (2021), and an Ontario COP that will be updated in January 2024. It is not known how much the Ontario live price will change, but we do suspect that a significant portion, if not all, of the $0.0449 price differential in A-184 net of catching and feed would disappear. If this holds true, the only significant difference in final prices would consist of feed and chick differences. It should be acknowledged that any comment

by any stakeholder, including the Chicken Board, on differential (up, down, or stay the same) is pure speculation at this point.

c. The gap does not consider the 6-period phased in approach and assumes the updated COP at 100%. There will not be 100% of the BC COP until A-192.
d. Future volume of chicken and MD grown in BC will alter the live price.
e. Other BC specific factors, like carbon taxes, land costs, energy prices, labour conditions, etc. will affect future price differentials.

The Chicken Board notes that it had always hoped that feed costs would return to a historically normal gap, but this has not yet been seen. From market analysis and discussion with feed companies, there does not appear to be any short-term resolution to the historically large gap in east vs west feed prices and suspect this to continue to be in play for the time being. This becomes a much larger issue for the sustainability of the BC chicken industry (and others) if this gap represents a new reality.

The Chicken Board feels it is pertinent to also mention the price differential of other commodities in BC. BC Turkey has a posted price that is $0.32-0.36/kg (broiler, hens, or toms) price difference to Ontario Turkey and BC Egg has a posted price differential of $0.36/dozen compared to Ontario eggs.

The Process & Engagement Strategy

A comprehensive stakeholder engagement with representation by the main stakeholders in the chicken value chain was implemented by the Chicken Board. For a detailed breakdown of the timeline of consultation from March 4, 2022 to submission of this report, please see Appendix I. Below provides broad comments on the main consultation process, which began prior to, but predominately took place after BC FIRB approved in principle a COP concept on November 1, 2022.

Request for Expression of Interest (RFEOI)

On May 5, 2022, the Chicken Board sent out a request for interested organisations to develop a cost of production model and survey growers. The RFEOI was sent direct to four firms, other BC poultry Boards, Western Chicken Boards, Chicken Farmers of Ontario, BCFIRB, as well as both the BC Chicken Growers Association (“BCCGA”) and the Primary Poultry Processors Association of BC (“PPPABC”) to facilitate or promote to interested parties.

The Board received and reviewed the 3 expressions of interest provided from MNP, KPMG and Serecon. Based on the documents received the Board reached consensus that one firm met the requirements and stood out as the best option. While the Board’s March 4, 2022 Long Term Pricing Decision submission indicated that it would engage the Cost Recovery Model Committee (CRMC established in 2022 - see below) in the consultant selection process, the Board was of the opinion that maintaining that approach would lead to undue delay in initiating work on the COP. To expedite the process, the Chicken Board on June 20, 2022 decided to secure the services of Serecon pending validation of the Board’s review of submissions by the Project

Manager. Upon receipt of validation by the Project Manager, Serecon was requested to provide a letter of engagement (LOE) including a detailed work plan to the Board.

Cost Recovery Model Committee

Beginning in August 2022, a committee titled the CRMC was established and was set up to include an independent Project Manager and Chair, the Chicken Board Executive Director, three representatives from the BCCGA, three representatives from the PPPABC, a representative from the BC Broiler Hatching Egg Commission (Commission), and one representative from the BC Egg Hatchery Association (BCEHA). Attending the CRMC was also the BC FIRB pricing liaison, Wendy Holm, as a non-voting observer. The CRMC met for a total of five meetings (August 11, 2022 to March 6, 2023), but processor representation only consisted of one 'observer-under-protest' for the first meeting, and one 'observer' for the following four meetings. The CRMC was tasked with providing recommendations and input on the development of the BC COP based live price formula. Non-PPPABC affiliated processors were invited to join the CRMC but declined to participate.

Joint Working Group (JWG)

Discussions with the PPPABC on rejoining the long-term pricing process began with informal conversations and meetings on December 21, 2022 and January 4, 2023. The Chicken Board then met with members of the PPPABC on February 6th, 22nd, and 23rd. The PPPABC proposed a number of a concerns to the Board for consideration before they would rejoin the consultation. This included but not inclusive:

1. Through a 'Joint Working Group' establish a set of facts, guiding principles, and a framework that must be used going forward.
2. A working group to determine impact of changes to the Ontario COP and its impact on BC price.
3. Development of definitions and quantifiable measures for processor competitiveness and reasonable returns to growers.
4. Provide independent oversight to review and adjudicate submissions.
5. Suspend CRMC activities, review and revise Terms of reference, and rename to the 'Joint Working Group".

The Board did not necessarily agree to all the demands but attempted to reconcile and retain open dialogue wherever possible, while satisfying the outstanding concerns of the PPPABC. On April 18, 2023, the first meeting of the JWG occurred and the PPPABC rejoined the discussion. At this point, the Chicken Board members attended all further JWG meetings as observers. JWG membership included the Chicken Board Chair as JWG Chair, the Chicken Board Executive Director, three representatives from the BCCGA, three representatives from the PPPABC, a representative from the Commission, and one representative from the BCEHA. Independent, or non-PPPABC processors, were also invited to participate but this invitation was declined. The JWG met for 10 full day meetings between April 18, 2023 and August 29, 2023, and two half day meetings on September 18 and October 16th. All member positions were filled, although not all meetings had full participation of processor representation. Only two processor representatives attended six of the JWG meetings, and the third processor representative

attended one meeting via zoom. The third processor member was changed in August, and three processor members then attended the JWG meeting on August 2nd, 29th, and September 19th. *No processor members attended the October 16, 2023, JWG meeting.* Figure J below outlines attendance at the JWG meetings. The Board notes it attempted to accommodate schedules where applicable and understand not all members could attend all meetings due to schedule conflicts.

Figure J – JWG meeting attendance

JWG Meeting Attendance	Chair/ED/BCCMB Staff	Grower Rep.	Processor Rep.	Hatchery Rep	BCBHEC Rep	Guests	Board observers
Total JWG Members	**2**	**3**	**3**	**1**	**1**	**0**	**4**
18-Apr-23	2	3	2	0	1	0	4
01-May-23	2	3	3	1	1	2	4
10-May-23	2	4	2	1	1	4	4
17-May-23	2	4	2	0	0	2	4
24-May-24	2	4	2	1	1	1	4
30-May-23	3	3	2	1	1	2	4
15-Jun-23	3	3	2	1	1	2	4
06-Jul-23	3	3	2	0	1	2	4
02-Aug-23	3	4	4	0	1	0	3
29-Aug-23	3	3	3	1	1	0	4
19-Sep-23	2	3	5	1	1	0	4
16-Oct-23	3	4	0	0	1	0	3

The JWG was presented with the Board draft framework, or a "what we heard" on August 2, 2023. The JWG members then shared in writing their positions for discussion for the August 29th JWG meeting. The Board received and reviewed all input before presenting the pricing proposal to the JWG on September 19, 2023. Upon presentation of the Boards proposal seeking JWG and industry feedback on September 19th, all PPPABC members 'walked out' of the meeting and away from further discussion. The BCEHA representative also left the meeting.

Non-PPPABC affiliated processors were given the invite to attend the May 1, 2023 "COP 101" JWG meeting with Serecon, as well as welcomed to attend future meetings as observers. A representative from one of the non-PPPABC affiliated processors did attend that meeting.

The Commission

The Chicken Board meets with the Commission regularly to discuss mutual concerns and opportunities for the industry. Specifically, the Chicken Board and Commission met for a joint meeting on August 1, 2023 to present a draft framework, or "what we heard" so far in the process. It was acknowledged at the time that further recommendations were still expected from the JWG. The Chicken Board received and acknowledged the feedback from the Commission.

The Chicken Board met with the Commission once again on September 18, 2023 to present the pricing proposal and seek any further feedback prior to broader industry consultation. The Chicken Board received and acknowledged the feedback from the Commission. A letter from the Commission was received on October 11, 2023 and can be found in Appendix O. A final Board to Board meeting to discuss industry feedback and receive any comments before finalisation took place on October 17, 2023.

Following the October 17th meeting with the Commission, the Board received verbal support for moving to a grower COP and appreciation for clarification on the elements of the grower efficiencies. Subsequently the Board received a letter stating such, dated October 20,2023 (Appendix P).

Pricing and Production Advisory Committee ("PPAC")

The PPAC membership, although largely consisting of the same membership as the JWG, was presented with the proposed COP based live price formula alongside the broad industry on September 26, 2023. A PPAC meeting was requested and took place on October 18, 2023, which included review of the September 25, 2023 feedback from the BCCGA (Appendix M) as well as a letter from the PPPABC dated October 17, 2023 (Appendix L). The PPAC did not reach consensus nor made any consensus recommendations to the Chicken Board. The PPAC feedback (Appendix K) was received and considered by the Board in the final submission.

Broader Industry Consultation

The Chicken Board has provided stakeholders with regular updates on the status of its pricing review throughout the process. The Board presented via zoom ('townhall') the proposal for a COP based live price formula to the broader industry on September 26, 2023. Growers, processors, hatcheries, and other industry stakeholders were invited to attend the presentation and provide feedback. Industry was given two weeks, until October 11, 2023, to provide any additional written feedback to the Chicken Board. The 'townhall' was attended by 135 stakeholders. Additionally, the Board held an open zoom meeting ('open house') the week following (October 3, 2023) for industry to ask follow-up questions or provide additional comments. The 'open house' zoom meeting was attended by 59 stakeholders. The industry feedback was reviewed by the JWG and PPAC as well as the Board, but we note that only very limited feedback was provided by broader industry on pricing, almost entirely from growers (Appendix N). Grower concerns mostly revolved around the downward price pressure caused by the "efficient producer" definition, as well as the length of time of phase-in. As mentioned, additional feedback was received from the Commission but other than one letter and comments through to PPAC, processors did not provide feedback to the Chicken Board. Nor did hatcheries or other stakeholders in response to the proposal or at the 'townhall' or 'open house'.

Additional 3rd party review – MNP

The Board hired an additional 3rd party, MNP, to review the work done by Serecon and provide a professional opinion on the methodologies used. It is important to note that the two firms use different methodologies and concepts and have different philosophies on business valuation compared to accounting principles. The original MNP report can be found on Appendix C, as well as the addendum to the report right after in Appendix D.

MNP engaged with Serecon independently and reviewed the data and methodology and provided the original report to the Board. The Board shared the report with the CRMC, and subsequently the JWG for review and debate. As a result of the report, Serecon made a number of changes to their methodologies and corrected data or misconceptions where required. Serecons rebuttal to the original report and presentation to JWG can be found in Appendix E. After thorough discussion with the JWG, MNP was provided the changes and rebuttal from Serecon and asked to provide an addendum to their original report. Serecon's response to the addendum is found in Appendix F.

It must be noted that the lead partner from MNP retired as of May 31, 2023. The Board thank him for his service and providing the reports but do note this resulted in an end date of MNP's participation in the process. Therefore, the addendum provided some finality but limited the Board or JWG's further questioning of MNP beyond the addendum. Although a final point of 'sign off' from MNP was not achieved, the Board believes through the work of the JWG and changes made by Serecon, the proposed COP can be reasonably used to price live chicken in BC.

The following outstanding concerns remained from MNP's perspective prior to the retirement of the partner:

a. Imputed costs. Imputed data used for a significant number of data points, potentially impacting results of study as well as confidence in the presented statistical metrics.
    I. Serecon acknowledged these concerns. The use of imputed data was not as significant as originally reported in the initial MNP review. The Board was comfortable with the use of imputed information when there were no actuals available but note that this could likely be improved in future data collection.
b. Quota periods used in the study - MNP understood data to be collected for 2021 calendar year and that data would be prorated based on number of days period falls in 2021.
    I. Serecon reviewed the concerns and noted that the difference between using periods or calendar year was a difference of 8 days and is inconsequential to the final output. The Board agreed with Serecon and accepted this as satisfactory.
c. Labour – Source of management rate and use of actual information, concerns around the time for task modelling as well as using actual financial information where available.
    I. Serecon responded that they did use actual financials where available but were not available in all cases. The Board has accepted the methodology as adjusted by Serecon but note that further work on wage rates and time for task are still required. This will be noted later in this document under continuous improvement initiatives.

d. Capital Assets, geographical differences and barn equipment depreciations costs – MNP noted that Serecon corrected some of their concerns in this area, but they remained concerned on the validity of the data provided by the Douglas Cost Guide (DCG) as a proxy for build costs in BC.
    I. Serecon acknowledged and recognised this concern but noted that the DCG is used by insurance companies, the government of Canada, and other reputable businesses. Serecon noted that they do not have actual build costs and therefore the DCG is the best proxy available. The Board agreed with this position that the DCG is the best proxy at this time but also noted as a continuous improvement measure that actual farm build costs will be collected in the future and will be noted later in this document. Through discussion, the Board is of the belief that the DCG is likely to understate actual build costs as much of the site prep, permits, time, and other factors are not included.
e. Investment Cost – land, barns, other buildings and beta calculation. MNP expressed concerns over a number of areas here including incorrect land values in the interior, residual value in older barns resulting in $0 value, whether the 5-year beta of security was used rather a single point in time, and the use of imputed data.
    I. Serecon responded by correcting the mistakes noted above. At the time of MNPs review, depreciation was inputted at the actual life of barns rather the final proposed COP uses depreciation and Return on Equity costs that were modelled to be 'halfway through the useful life' method (aligned with the hatching egg COP), as decided upon by the Board. This would likely result in different comments from MNP as barns and equipment are no longer modeled at a 'zero-building cost'.

The Chicken Board would like to thank all committee members, consultants, staff and others involved in the process noted above for their hard work and intensive consultation schedule.

Adjustments as a result of Stakeholder Feedback

Specific items that were adjusted due to the JWG, additional 3rd party review, and Industry feedback, including processor and grower concerns

The final proposal on the COP based live price went through extensive review as outlined earlier in this document. The process included review by the CRMC, JWG, and PPAC, advice from Serecon, an additional independent third-party review by MNP, as well as presentations and discussions with the Commission, presentation to the broader industry, and Chicken Board and staff review. This section will outline some of the changes that occurred within the process due to industry feedback. This will be presented in point form and is not inclusive of every alteration and change along the way.

Consultants (Serecon & MNP – reports and rebuttals can be found in Appendices C,D,E,& F)

- Indexing of Operating costs – Serecon adjusted approach to match concerns of MNP.
- Feed cost indexing – Serecon adjusted approach that match the concerns of MNP.

- Labour – Serecon adjusted source of labour rates to meet the concerns of MNP. Note, the Board will address differing labour rate sources as per the "Continuous Improvement" section on Page 38.
- Capital & barn adjustments – Serecon corrected mistakes around geographical variances, and adjusted actual age of equipment, as determined by MNP.
- Land values and beta calculations – Serecon adjusted for more recent land value information and corrected a beta calculation, to meet the concerns of MNP.

JWG recommendations and discussions

Although there were no unanimous recommendations for line items of the COP, stakeholders provided comments, discussion, and individual recommendations to the Board.

- Growers raised concerns about using actual current age of barns and equipment in the useful life and the inability to provide for reinvestment in the industry. The Board ultimately adopted using barn and equipment at halfway through the useful life, which also matched the Broiler Hatching Egg COP. This did provide a financial lift to the COP, the Board countered this lift by decreasing the repairs and maintenance (R&M) line item to reflect the age of newer barns (-14% adjustment to R&M).
- Processors raised concerns about the methodology around capital interest.
    - Processors raised that the cost of chicks and feed is often not borne wholly by the grower. The Board agreed, along with a Serecon review of data, and adjusted from 100% of feed and chick considered in the capital interest to the actual surveyed data which only considered 29% of feed and 6% of chick carrying cost.
    - The processors further provided a differing methodology for calculating capital interest. They, supported by an additional third-party consultant (Grant Thronton), proposed an operating interest calculation that modelled out the timing of cash flows through a broiler operation week by week. The Board reviewed the proposal and sought independent feedback from both MNP and Serecon before bringing back the reports to the JWG for comment. While the Board appreciated the proposal from the processors, the reviews from consultants (MNP and Serecon) pointed out flaws in the methodology. The criticism of the model focussed on a lack of consideration for reinvestment of the working capital and consideration for the value of cash. Serecon summarised in a response email of August 28, 2023 by stating "the approach to operating interest attempts to ensure that money used in operations is considered – regardless of who provides it". It was also noted by both consultants if the proposed model was considered, it would require resurveying farms to ensure the timing of cash flows and use of cash reflects actuals. MNP noted they support their original statement that the current methodology as developed by Serecon is a reasonable approach to use and is used in other cost of production applications. As such, no recommendation was made by the JWG to the Board, and the originally proposed methodology around capital interest was kept.
- Processors raised concerns around updating Feed Conversion Rate (FCR). The Board acknowledges the critical importance of FCR and is committed to updating annually.

- Processors raised concerns around updating production volume. The Board acknowledged the feedback and committed to updating production volume annually. It should be noted that the Board received recommendation from PPPABC to update production volume annually on August 23rd, 2023. The Board later received a recommendation from PPPABC on October 17, 2023 to update production volume by period (Appendix L). Although the Board sought clarity at the PPAC meeting of October 18, 2023, it is unknown if this represents a typo-mistake or a change of position by the PPPABC.
- Growers raised concerns around the updating index for Repair & Maintenance, of which JWG agreed that indexing should as closely as possibly reflect the reality. The Board agreed to use a building cost index rather than Consumer Price Index (CPI) for this line item.
- Processors raised concerns about an earlier proposal on timing of survey updates of 5 years rather than the hatching egg commission three years. After further consultation with the Commission, the Board agreed to align future COP updates with the hatching egg COP. While the COP will start with 3-year updates, future iterations may evolve to every 5 years as described in the "COP Update Period" on page 21.

The Commission

- The Commission provided valuable feedback on the factors affecting grower efficiencies. The Board listened and further developed, refined, and clarified the grower efficiency elements.
- The Commission provided valuable feedback on updating frequency of the COP. The Board agreed to align with the Commission on the updating frequency and coordinating such matters as surveying actual build costs.

Figure K on the next page attempts to summarise the changes discussed above. It's important to note that the COP changed over time during the consultation period. The impacts were at a point in time and are not reflective of a 'final' impact to the COP as interconnected elements changed over time. The below figure is meant only to conceptualise how the iterative process of the COP development and consultation occurred. Feedback, corrections, and updates occurred that both impacted the final COP results with downward and upward pressure.

Figure K – Summary of impacts to COP through Consultation

Item	Impact to the COP	$/kg Impact
Grower Efficiencies		
Farm Size	Average COP means 63% of farms are below the COP.	Unknown impact, downward pressure
Bird weight	Average bird weight is 2.27kg vs 2.02-2.17kg pricing grid	$0.03 decrease
Density	Surveyed density of 2.74kg/ft2 vs inputted 2.88kg/ft2	$0.0155 decrease
Annual FCR Adjustments	FCR to be updated annually	Unknown impact
Annual Volume Adjustments	Production volumes to be adjusted annually	Unknown impact
Phase in period	Phased in over 6 periods, at 100% by A-192.	impact could be as much as $0.1877 below COP and move towards $0.00, as per example provided. Actual impact unknown.
Other industry input		
Operating Cost	MNP: Methodology update as per MNP, updating to year end.	increase of 0.61% to operating cost categories
Operating Interest	An adjusment made from 100% of feed and chick, to 29% of feed and 6% of chick considered.	Approximate decrease of $0.05
Feed Cost Indexing	MNP: A change to feed indexing approach suggested by MNP	Increase of 0.33% to feed costs
Useful life of Barns	Moved from actual age of barns, to half way thorugh useful life of barns	overall increase to depreciation and investment cost of $0.0197
Subsequent change to R&M	Change of useful life of barns decreaseed the cost of R&M	a decrease of $0.0028, net of updated index below.
Updated indexing of R&M	Using the non-resedential build cost index rather than CPI for indexing each A-period.	a decrease of $0.0028, net of change above.
Vaccine costs update	The Board understands that vaccine costs have increased since the survey period that are not captured in the 2021 survey	impact unknown

Other comments

A number of other miscellaneous items arose during the consultation process of JWG that deserve additional comment.

1. The Chicken Board has heard criticism on lack of process or a clearly defined workplan over the course of the JWG. The JWG process was intended to be flexible and responsive to issues as they arose and in practice met that objective. The Board notes that a Working Draft Long-term Pricing Work Plan was presented at the April 18, 2023 JWG for feedback and input from the members. All feedback from the JWG was incorporated. The Working Draft - Long Term Pricing Work Plan was brought forward to *eight* subsequent JWG meetings, where the Board sought feedback and input on the appropriate next steps. If a stakeholder had concerns with the process that they had direct and immediate input to, it is concerning they did not articulate the process they wanted implemented.
2. Discussions occurred on whether surplus distributions should be considered in the COP, and the levy portion of the COP be decreased the equivalent amount. The Chicken Board did not entertain this option as surplus distributions are not linked directly to levy collection, when they occur. The Board budgets annually to approximately use the funds collected through levies (non-profit). When the Board experiences a surplus, this is almost entirely due to the collection of growers overmarketing levies when there is not subsequently a national over marketing levy. Grower over marketing penalties are not budgeted for by the Chicken Board. In these cases, the grower over marketing levies can be redistributed back to all growers. Depending on the year, this is net neutral to growers on average, or simply a cost if no surplus is returned.
3. The JWG members expressed concerns over the disclosure of COP data during the process. The Chicken Board confirmed that it does not hold the grower level data, as it was collected by an independent 3rd party (Serecon), who collected the data from growers with the agreement that the data be held confidentially. Serecon shared compiled data with the Board and the JWG but did not expose individual farm detail. This is an important distinction between transparency and breach of confidentiality, and the Chicken Board is satisfied with the level of transparency provided. It should also be noted that the additional 3rd party review (MNP) did have access to farm level data for their review on a confidential basis.
4. As part of the PPAC feedback (Appendix L) PPPABC claimed that the FCR inflate costs to BC growers, and that volume adjustments need to occur more frequently. The Board has taken measures to address this by annually surveying and updating FCR as well as production volumes. Feed cost is updated every period, sourced directly from feed mill pricing. Annual updating of FCR is a significant change from historical practices that were only updated at time of survey (every 5 years). As mentioned on page 35, the Board accepted an earlier PPPABC recommendation to update production volume annually.
5. Although PPPABC members left the JWG process on September 19, 2023, the Board remained open to discussion and feedback. The Chicken Board continued to share JWG documents, invited PPPABC to the follow up meeting, and invited a private meeting with the Board, all of which were declined.

6. The Chicken Board remained flexible in timelines to accommodate stakeholder and Board needs.
7. The Chicken Board has assessed its process and confirmed, in its opinion, that the process has met the Terms of Reference set out by the JWG.

Continuous Improvement Initiatives

The Board believes that any industry needs to look forward to continuous improvement, and the pricing of BC Chicken is no exception. While the Board fully supports the COP based live price formula as proposed, it is also recognised that a number of items must be tagged for improvement in the future. At this time, there is not an exact timeline for completion for the below activities, but work will begin once the COP based live price decision is approved and implemented.

1. A review of how land is calculated or modeled. The Board recognises that land is exceptionally expensive in BC and would either be a significant cost factor in a BC COP, or as has been modelled in this COP, provides a broad rental rate used as a proxy for land costs which may or may not support the cost of land for growers. Debate occurred over the methodology of land at JWG and CRMC meetings over whether land is a cost or an appreciating asset. While land is historically an appreciating asset, there is an argument that it is a cost and there is no guarantee of its future appreciation. Ultimately the Board adopted the recommendations from Serecon on how to model for land value which can be show in Appendix A.
   The Board understands that this is a *similar* model that is being used by the BC Hatching Egg COP but may be different than methodology in other COPs in other jurisdictions. The Board is committed to investigating other models of capturing land costs to potentially be used in a future iteration of the BC COP.
2. Investigation of using a 'reference bird' for future data collection. One of the outcomes of the 2021 survey data is the inclusion of an average bird weight heavier than the weight class priced at. This is an efficiency factor in this version of the COP supporting processor competitiveness. However, in future surveys the Board will investigate the use of a 'reference bird' weight classification. This means surveyed flocks would only be considered in the COP data if they fell within a certain weight range. We believe this is how the Ontario COP is surveyed and provides a more precise cost to the most common bird weight. The Board will need to investigate the possibility and feasibility of doing this in future surveys.
3. Labour time for task data collection as well as updated source of labour rates. The Board believes that a proactive approach to collecting time for task data from farms well in advance of a survey period will help more accurately collect the hours spent on farm and adjust for seasonal and less frequent activities. Additionally, extensive time was spent at the JWG discussing the source of wage rates. Serecon collected actual wage rates when available but used government resources when the data was unavailable However, the Board believes that the labour and wage rates included in this version of the COP are well below industry standards. In the next iteration of the COP, the Board will update the source of wage rates to a StatsCan source for both general and

management rates. The Board believes this may be a similar or same source to the Ontario COP and would explain why labour in the BC COP is significantly lower than in the Ontario COP. Additionally, the labour rates will move from an agricultural management wage rate to a competitive management wage rate. Likewise, to any portion of the chicken sector or other business sectors, the chicken industry requires wages to be competitive to ensure that labour is available and providing the quality of work the BC chicken industry demands. The wage rates that will be moved to in the 2024 surveyed COP can be found on the StatsCan website and will represent an increase to labour rates which the Board believes to be a more accurate representation.

- For management labour filters can be set to: British Columbia; Average hourly wage rate; Full-time employees; Management occupations; Both sexes;25 to 54 years
- For general labour filters are set to British Columbia; Average hourly wage rate; Full-time employees; Natural resource, agriculture and related production occupations, except management; Both sexes;25 to 54 years

4. Feed Price transparency and frequency of collection. Feed prices are currently collected by an independent 3rd party and updated each period. The Board does not regulate feed mills so cannot compel data share. However, an effort will be made to work with feed mills to improve transparency and data collection on the inputs on feed costs into the COP formula. If there is lack of favourable and workable solutions, the Board will seek to collect farm invoices more regularly in an attempt to increase transparency of feed costs.
5. Capital and build cost data collection. The Board recognises that the current use of the DCG is the best proxy for build costs. However, the Board believes there is value in validating the accuracy of the information or proving that the build costs need to be done differently. It is mentioned earlier that the Board does suspect that the DCG likely underestimates the total build costs as we do not believe it includes site prep, permits, time, and some other costs associated with building. Therefore, the Board will work to collect grower build costs as new barns are constructed moving forward. The plan is to work in tandem with the Commission in collecting this information in order to build a larger repository of information. Future iterations of the COP may include the actual collected data or be used to validate the DCG data.

These and other initiatives such as more regular updating of the FCR require the Chicken Board to review its staffing and other resources. Discussions with Chicken Farmers of Ontario outlined the type of resources and data collection that is required in support of continuous improvement to a COP and in support of industry issues more generally.

Other Topics of Importance

Catching Price in Live price

Historically, BC and the Western provinces have included the cost of catching within their live price formulas whereas Ontario has not. The Western provinces have engaged with processor

associations over the last several years on this topic. BC remained engaged in these discussions, but due to the ongoing supervisory review, refrained from active decision making around potentially removing catching price from the live price. On November 14, 2022, the Western Boards sent a letter to processors indicating a decision that the catching price will be removed from the live price effective February 9, 2025. This *Transfer* will result in the removal (reduction) of catching costs from the minimum live chicken prices within each of the respective provinces starting with A-194. Processors will be responsible for payment of catching costs to those providing the catching services.

The Chicken Board was not in a position to make this decision but is on record as supporting in principle this and other possible future harmonisation issues across the West. The Chicken Board still intends on revisiting this initiative and will make a formal decision in due course upon completion of the supervisory review, and further industry consultation.

Net Importer/Exporter

The debate around whether BC is a net importer or exporter of chicken arose during roundtables early in the supervisory review. The BCFIRB liaison met offline with the parties to attempt to find common ground on this issue. The discussion showed that each of the parties was correct with the data they used in their calculations but having different approaches. The liaison put forth a position and analyses that was based on a revised set of assumptions (i.e., inclusion/exclusion of specialty production, TRQ and fowl) and showed BC being a net importer of chicken. The processors agreed with the position while the growers did not. There was no consensus on this issue, and it remained an unresolved disagreement with stakeholders.

In the JWG meeting of April 18, 2023, stakeholders came to the following agreements in respect to the question of whether or not BC is a net importer or exporter of chicken:

a) *We do not have agreement on whether BC is a net importer or exporter but have difference in opinions in how we define available chicken and chicken consumption in the BC market.*
b) *The committee agrees that while BC processors sell significant volume within BC, there is also material product flow between provinces. Chicken includes many products; fresh tray pack, deli meat (none produced in BC), frozen, further processed product, etc. Acknowledge as an industry we cannot solely rely on fresh market, nor solely rely on the further processing market.*

The Board accepts that there is a two-way flow of chicken entering and exiting the province, but which cannot be easily measured. It should be noted that the BC processors operate in other provinces (the Prairies, Quebec and Ontario) and product (raw and further processed) flows freely. In 2017 the Board directed Ference & Co. to conduct an updated economic analysis requesting processor information to obtain a current assessment of the market for chicken in BC. The information was to be kept confidential, aggregated, and reported only in summary form. It would update the Ference report entitled "Economic Analysis to Develop a

Pricing Model for Live BC Grown Chicken – May 8, 2009". Processors refused to provide the required information.

Further, while the Chicken Board understands the importance of product flow, we are also acutely aware of the national allocation system where BC grows approximately 14% of the national allocation of chicken. Product moving across provincial borders may alter the competitive landscape but processors in any province are free to move their portion of allocation where best fits their business needs. The Board does not believe this has a material impact on the board's regulatory authority in the discussion around the live price of chicken. Processors are free to compete in an open Canadian market. The Chicken Board regulates and sets the live price of chicken for BC, and it is up to individual processors to execute their business plans and business decisions from there.

Assurance of Supply (AoS)

Currently in BC exists an "open contracting model" between processors and growers. Under this system, the processors are required to interact directly and exclusively with growers and compete for the limited supply of chicken grown in BC. Additionally, new processors may enter the processing industry at any time and compete for that same production. The open contracting system provides no regulatory assurances that any particular processor will have any particular supply of chicken (or any chicken at all) during any particular production period. Whatever assurances processors can obtain under the open contracting model are those assurances successfully negotiated privately with chicken growers. Because no regulatory assurance of supply is provided in open contracting it has been said that this is a model at which regulation "ends at the farm gate".

In 2004 the Board formalized the de-facto "huddle process" being used by BC processors and hatcheries since the implementation of the August 15, 2000 Regulation (Part 7 Assurance of Supply) whereby prior to the commencement of every period to allocate growers on a market share basis. AoS was the policy developed by the Board to provide a guaranteed supply to replace the *certainty of supply* that processors had up until 2000, when the Board also instituted period-by-period compliance. The transparent process distributed growers to ensure that processors would receive their share of the allocation based on historical production. This system prevents processors from growing their individual markets. The only way for a processor in BC to grow their market is to increase BC's national allocation share, reducing competition provincially.

Over time concerns were voiced over the continued value of AoS. Some of those concerns were:

- Lack of competition between processors provincially
- Stifling of innovation and growth
- Protection of weak or inefficient processors
- Lack of opportunities for growers to choose their processor of choice.

- Restricted opportunities for new entrants into the processing sector
- Best and highest value of the regulated product may not be realized.
- Poor relationships between grower and processors.

As time progressed, processor amalgamation became a topic of discussion, and the question arose respecting the AoS specific to the processor of record. In other provinces with AoS, a value (plant supply quota or PSQ) was being attributed to AoS during sale of a processor.

The BC processors favoured AoS in BC while taking advantage of lack of AoS in other provinces to assist them in establishing a processing foothold in other provinces. Major expansion has occurred since 2004, as BC processors have purchased hatcheries, primary processing and further processing plants in the Prairies and Ontario. The Board reviewed the list of BC processors holdings beyond the province as obtained from public documents and BC processor ownership of all classes of BC quota. BC processors conservatively currently hold 23% of BC's quota holdings. Due to privacy concerns, further documentation on these statistics of processor owned quota will not be provided.

A key element of the elimination of AoS was the elimination of the Island ferry freight subsidy and open competition for Vancouver Island growers. Incentive quotas (pro-rata allotments of domestic allocation to Island growers supporting the Island processor) was funded by unused allocation earmarked to the new entrant program for growers.

In 2009 the Board appeared before BCFIRB to recommend repealing the current system of AoS in favour of returning to the open sign-up system where growers have the freedom to deal with the processor of their choice. The rationale and reasons for the change can be found on page 8-9 (sections 35-36) of the June 9, 2010 BCFIRB decision entitled *"In the Matter of the Natural Products Marketing (BC) Act and a Supervisory Review of BCCMB Pricing-Related Recommendations"*.

As part of the consultation process in 2021 the large primary processors requested a 13-period (approximately 2 year) moratorium on grower movement (characterized by the small processors as a de facto AoS). Some processors went on record against the moratorium. Those against the moratorium have business models that depend on the open sign-up process to incrementally expand; and as they expand, grow their market share, improve their processing establishments, and create greater efficiencies.

As part of its deliberations the Board reviewed a document espousing processor growth and acquisitions of BC processors and purchase of BC grower quota. Precise investments in BC by its players are unknown, but acquisitions across Canada by BC players show a healthy processing sector as investment money appears readily available.

The current Board has reviewed the documentation, and its position is that AoS will not provide an incentive for processors and grower to enhance or build relationships. Nor will it provide opportunity for growth for smaller or new entrant processors which proved a contentious issue

when AoS was in place. The Board considered how other provinces operate in regard to similar AoS structures and determined while both systems have pros and cons, the best way forward for BC continues to be the open sign-up system. The current policy around the open sign-up system requires and ensures dialogue between industry stakeholders and allows grower movement at the next unallocated period. In effect, the policy of limiting movement to 'the next unallocated period' results in two-period notice of movement. The Board further consulted with the JWG on May 30, 2023 where there was no consensus on AoS, nor did the Board receive any recommendations from JWG. The Chicken Board is making no change and is not considering AoS at this time.

Premiums

The Chicken Board made changes to its orders in November 2010, to respond to the June 9, 2010 directions of the BC Farm Industry Review Board. Part 7 of the Chicken Board General Orders regarding Processor AoS was repealed and replaced with an "Open Sign-up Process" for the larger processors. During consultations about the changes, some industry members raised the concern about the potential for demand for non-value-based premiums. In its June 2010 findings, FIRB identified the risk of "non-value" premiums undermining the principal of supply management.

BC FIRB indicated:

> *"To expect to wring more out of the system in the form of premiums not tied to value creates a lack of transparency within the pricing system that is unconscionable and completely inconsistent with a value chain approach. Regulatory agencies have a responsibility to ensure that grower do not abuse the system which given them a virtual monopoly in the marketplace. At the same time, it is processors who control whether to pay a premium and what to pay a premium for, and there is nothing inherently wrong with paying value premiums for products driven by consumer demand.*

The PPPABC as recently as June 13, 2019 indicated that it did not support the concept of adding "Loyalty Premiums" to the BC Live Price which would then be used in the calculations that are done with the Linkage Model. They provided the following reasons:

- If and when loyalty premiums are paid, they are paid at the discretion of processors.
- Premiums may or may not be consistent across the processing industry.
- Premiums are not transparent in the industry, and they can change from cycle to cycle.

Further, processors noted that if loyalty premiums are included in the linkage model, it will result in an increase in chick prices which further results in an increase in live price. They noted that this will only further increase the differential in live price relative to Central Canada.

It should be noted here that without the historical parity-based linkage, the chick pricing issue being affected by the incorporation of premiums in the live price would not exist. However, the existence of premiums in the chicken sector would still be an issue for hatching egg producers in any comparison of "parity" between the two COPs.

The Board in an open letter to industry dated June 21, 2011 stated:

"the BC Chicken Marketing Board met several times and reviewed the implications of the $0.02 "loyalty" premium agreement made between the BC Chicken Growers' Association and the Primary Poultry Processors Association. The Board indicated on April 4, 2011 that its primary concern with the agreement was that the consultative process established by government, with respect to the live price of chicken was not used. Despite this significant concern, the Board has decided to take no action regarding this agreement but continues to actively monitor its impact on industry".

Since that time, the Board has monitored grower movement and reported a public summary every quarter, in the BC Chicken Facts document which is published on the Board's website. The Board also increased oversight to change of processor requests by growers (in the next unallocated period – BC Form 099), requiring the reasons for the requested change.

The Board is unaware of the extent and scope of any premiums paid to chicken growers. There is limited information available to the Board regarding processor payment of premiums. In the event there is clear evidence not all growers are receiving a premium, the Board would have to consider the impact on those growers and determine whether in the best interests of the BC chicken industry the inclusion of the premium in the live price outweighs the individual interest of growers not receiving a premium. A further complication is that the inclusion of premiums in the COP would constitute another factor to consider in defining what 100 percent of an efficient COP means.

While it is generally known and stated by Processors at the Pricing Appeal Hearing (2018) that processor loyalty premiums are being paid to growers, there has not been a full discovery or analysis of the extent of the amount paid. The non-value premiums have been added and removed from the supply managed system over time: the premium was increased during the 2018 Pricing appeal and removed during the COVID-19 pandemic. Currently it is the understanding of the Board that not all growers are receiving a non-value premium.

At the JWG meeting of May 30, 2023, stakeholders provided the following agreements to the Board:

c) *The JWG acknowledges that a COP may or may not have an affect on the payment of premiums.*
d) *The JWG acknowledges that there are a variety of premiums in BC and Ontario (ie. Loyalty, RWA, size, multiple shipping days, etc), and they are not transparent or verifiable. The Ontario COPF sets a minimum live price.*

It was acknowledged that the payment of premiums is not the decision of the Board and is likely not within the Boards ability to control. The Board is of the opinion to not manage the impact of processors business decisions, including to compensate loyalty or premium bonuses – it is at their own discretion.

Maximum vs Minimum Live Price

The discussion around premiums can also be examined in a different manner, where the Board could consider a Maximum vs. Minimum Live Price. The Board has the power to set the maximum and minimum live price under the Scheme at Section 4.01 (g)

"to fix the price or prices, maximum or prices, minimum or process, or both maximum and minimum prices at which the live chickens over 2 days old that are the regulated product, or any grade or class thereof, may be bought or sold in the Province, or that shall be paid for the regulated product by a designated agency, and may fix different prices for different parts of the Province."

The Board has reviewed the possibility of setting a maximum price as opposed to a minimum price. The Board requested the topic be discussed with the JWG, which was captured in the above statements on premiums. The Board recognises setting a maximum price could reduce pressures on non-value premiums and create a more transparent pricing to all growers, however, there are flaws with this argument. In addition to not having support at the JWG for such a policy, the Board also recognises we are not first receiver and do not handle payments between processor and growers, nor are there enforcement measures to monitor or stop compensation beyond the posted 'maximum' price. Therefore, setting a maximum price would not be effective and the Board will continue to publish the minimum live price.

Regional differentiated pricing

The Board engaged in deliberations on whether to set a single provincial price, or set prices related to regional costs. Survey data included farms from the lower mainland, the Interior, as well as Vancouver Island. There are certain cost advantages and disadvantages to all regions in BC, and it is up to growers to make business decisions where they believe they are best set to produce chicken in BC. It is widely accepted that Vancouver Island is the costliest of the 3 regions to produce chicken due to a number of factors including but not limited to higher transport costs for feed and less availability of natural gas.

The Board recognises that a single number provided by the COP may not represent the 'Cost of Production' for all individual farms, specifically smaller sized farms on Vancouver Island. However, the COP is meant to represent an average Cost of Production for all farms in BC. Differentiated pricing, specifically a different Vancouver Island price, historically was an inefficient policy that led to mainstream processed chicken from the lower mainland moving to Vancouver Island and flooding the market.

The Board requested the JWG to consider and provide a recommendation to the Board on regional differentiated pricing. The minutes from the May 30, 2023 JWG meeting provided to the Board stated, "*The approach from COP data collection included a weighting from Vancouver Island and the Interior. Based on historical issues and precedent across Canada, JWG did not recommend regional pricing*".

The Board is not proposing differential pricing for any region and is satisfied with the inclusion of farm survey data from all three regions. Processors and growers in all regions will need to work together to continue to maintain successful operations.

This does not relieve the Chicken Board of its responsibilities under the Regulated Marketing Economic Policy with regards to regional, new entrant and other related programs. Consequently, as noted later in this document, the Board will continue to review its other policies, such as the proposed land ownership and leasing changes, to support growers in those regions and all growers generally.

PPAC revitalisations

The Board recognises the historically challenged PPAC and its role in the Chicken Board's decision making. Processors and growers alike have not come to agreements or dialogue as productive as hoped at the PPAC. The PPAC was further stressed by COVID-19 as well as HPAI which did not support meetings in person, rather depending on less personal virtual options.

The Board has taken two initiatives in hopes of a more constructive PPAC going forward. Both of these initiatives were done with consultation and in tandem with the Commission.

1. In June of 2023, the Board finalised and released a Terms of Reference for the PPAC (Appendix J), of which formerly there was no such document. A formal Term of Reference will help guide the committee's mandate and provide structure and understanding to committee members.
2. As of July 1, 2023, the Board has appointed Jason Born as PPAC Chair. The Board looks forward to Mr. Born's leadership in creating a functional and effective PPAC, providing recommendations to the BC Chicken Marketing Board on items related to pricing and production. Mr. Born was the former Chair of the Alberta Chicken Producers and has a thorough understanding of supply management, the chicken industry, and a solid background in governance. The Board thanks Jim Byrne for his role as PPAC Chair for many years. Mr. Born is also Chair of the Commission's PPAC and the Chicken Board's Specialty Markets Advisory Committee.

While the opportunities with the PPAC may not be materialised overnight, the Board believes these two initiatives, alongside implementation of the COP based live price formula, will allow for more constructive conversations and recommendations in order to move the BC chicken industry forward. It is clear that the potential is there when you take into account the constructive engagement of dairy stakeholders in the BC Milk Marketing Board's Milk Industry Advisory Committee.

Quota exchange and other quota related regulations

The focus of the last year was concentrated on the long-term pricing model. The Board recognises the importance of updating quota policies and has made it a strategic priority to review the possibility of a quota exchange. It is however, too early for the Board to comment on whether a quota exchange will be implemented or in what form. Many other jurisdictions have versions of quota exchanges but will take thorough review and consultation before the Board can constructively determine the necessity for the BC chicken industry. The Board has

instructed staff to begin the investigation stage and industry will be given further information as it becomes available.

There are many other aspects of quota policies that are interconnected which will all have the opportunity for review. The list for review includes the New Entrant Program, land ownership, quota ownership rules, quota movement regulations, over quota/under quota penalties, quota leasing, amongst many others. The Board looks forward to conclusion of the long-term pricing supervisory review to devote more resources to these other important industry improvement and modernisation initiatives.

Land ownership

A cornerstone policy of the BC Chicken industry since inception of the Chicken Board in 1961 is that land and quota ownership must be 100% in the same name (in fee simple). Leasing of land and/or barns is prohibited except for exceptional circumstances at the discretion of the Board.

The Board began deliberations in Spring 2023 on whether this policy still meets the needs of the BC chicken industry. A committee of Board members and staff was struck, who explored other jurisdictional land ownership requirements and met with key experts for input. The committee determined and recommended to the Board to relieve the restrictive land ownership policies under the following rationale:

- The price of land is prohibitively expensive to entry in British Columbia as compared to the rest of Canada. This serves as a barrier to entry.
- A 2012 survey of registered growers showed that industry did not want to make a change to land ownership, but this was by a very narrow margin, and land costs have continued to escalate in the following 11 years.
- Relief of land ownership requirements would provide relief to new entrant growers and smaller operators, as well as provide flexibility to established growers.
- Relief in land ownership requirements may provide flexibility and aid in succession planning.
- Relief in land ownership requirements could provide opportunity for expansion, right sizing the business, or engagement in strategic partnerships.
- Relief in land ownership requirements may help support cash flow and potentially increase efficiencies and capital allocation.

The Board supported the recommendation to alter land ownership policies and presented the proposal to industry on September 26, 2023, for consultation and feedback. While a decision on land ownership policies has not yet formally been made or announced by the Board, industry can expect this to be forthcoming.

The potential relief in land ownership requirements will not have an immediate impact to the COP but may in future iterations if growers take advantage of more lenient policies. The Board believes the proposed land ownership policies will provide flexibility to growers which in turn will allow growers to become more efficient through their decision making.

Pricing Grid

The Board sets minimum live price according to a pricing grid that differentiate price by weight of birds. The different weight ranges within the grid are designed to incentivize the weight of birds desired by the market while disincentivizing bird weights that are less desirable to BC processors. The differential cost in the different weight ranges were a result of input from the PPAC and are meant to be net neutral. The Board recognises that these differentials risk being outdated but were not prepared to change the grid at this time.

Once the proposed COP based live price has been implemented, the Board will request the PPAC review the pricing grid to determine its effectiveness. Recommendations can be provided on whether adjustments are needed as PPAC has successfully done in the past. An example of the current pricing grid can be seen in Figure L.

Figure L: Example Pricing Grid from A-185

Average Live Weight	*Differential from minimum live price* (dollars)	Price per kilogram live weight
Under 1.60 kg	---	$2.2220
Over 1.60 – 1.70 kg inclusive	+0.042	$2.2640
Over 1.70 – 1.78 kg inclusive	+0.046	$2.2680
Over 1.78 – 1.85 kg inclusive	+0.035	$2.2570
Over 1.85 – 1.95 kg inclusive	+0.020	$2.2420
Over 1.95 – 2.02 kg inclusive	+0.003	$2.2250
Over 2.02 – 2.10 kg inclusive	---	$2.2220
Over 2.10 – 2.17 kg inclusive	---	$2.2220
Over 2.17 – 2.25 kg inclusive	-0.003	$2.2190
Over 2.25 – 2.50 kg inclusive	-0.005	$2.2170
Over 2.50 – 2.73 kg inclusive	-0.013	$2.2090
Over 2.73 – 3.18 kg inclusive	+0.044	$2.2660
Over 3.18 kg	+0.098	$2.3200

SAFETI Principles

The Chicken Board is committed to the concept of principle-based regulation (PBR) and outcome based decision making through SAFETI (Strategic Accountable, Fair, Effective, Transparent, Inclusive) initiatives as directed by BCFIRB. These initiatives support good governance in the regulated marketing sector. SAFETI has been applied at all stages of the decision-making process: information gathering, analysis of risks and opportunities, options development and evaluation through to the final decision of the Board.

The Chicken Board continues to rely on the Chicken Board-Commission SAFETI analysis outlined in their joint letter of January 7, 2022 (Appendix Q). The strategic importance of focusing on the BC chicken industry on looking forward must be emphasized. Not just in terms of pricing (where a national COP could benefit all stakeholders) but in truly engaging on issues critical to BC's future. The extended and multi-faceted Review process has been accountable, transparent, inclusive and given all stakeholders a fair opportunity to participate. Providing a certain and stable pricing framework will allow industry resources to be employed effectively on other critical matters.

Conclusion

The Chicken Board is proposing a robust and collaborative path for the future of mainstream chicken pricing in British Columbia. The proposal centers around the implementation of a BC-made Cost of Production (COP) based live price formula, a formula thoroughly vetted to ensure equitable returns for efficient growers. This approach encompasses the efficient Chicken COP, an efficient Hatching Egg COP, and the forthcoming efficient hatchery COP, all of which will collectively provide the BC supply chain with the ability to support BC's competitive edge in the Canadian poultry market.

The Chicken Board, unwavering in its commitment to transparency and sound decision-making, has thoroughly reviewed all submissions received throughout the Pricing Review. To further enhance the approach, we've enlisted the expertise of independent third parties to provide additional analysis and fresh perspectives when deemed necessary.

The COP-based live price formula approach mirrors the strategy of the Commission, emphasizing collaborative leadership between the two boards. This synergy reinforces British Columbia's standing as the third largest chicken producing province in Canada. Embracing this COP-based live price formula streamlines the pricing relationship and coordination between broiler growers and hatching egg producers. It steers the industry toward a common goal: maximizing efficiencies for the collective benefit, rather than favoring one sector at the expense of the other.

Appendices A – S

Appendix A – Line-item Methodology

Below provides a summary of all line items contained within the BC Chicken COP Formula

Chicks

The category of chicks is a summary made up of the below two components, day old chick cost & vaccine cost.

Chick costs utilizes reported live chick prices sourced from the BCBHEC directly from their A-period Amending Orders. The benchmark chick price used in the COP study for A180 was $0.9345 per live chick. The price includes service and vaccine costs. These prices are updated every 8 weeks in the pricing model using the reported live chick prices from the BCBHEC.

Written Formula Chick cost = Day old Chick cost + vaccine cost	Source of Data Volume from producer sample data each flock.
Index to A-180 N/A (see day old chick cost & vaccines)	Indexing/updating N/A (see day old chick cost & vaccines)

Day Old Chick Cost

Written Formula Chick Cost $ per kg Sold = (Invoiced Chick Cost x Chicks purchase)/KG sold in flock	Source of Data Producer provided flock sheets, chick invoices for each flock
Index to A-180 indexed to A-180 posted BCBHEC price	Indexing/updating Index to current A-period based on posted BCBHEC price. Updated each A-period

Vaccine Cost

Written Formula cost/kg sold in flock	Source of Data Data collected from producer sample each flock
Index to A-180 no indexing, cost stays stagnant	Indexing/updating no indexing, cost stays stagnant unless exceptional circumstances approved by the Board.

Feed

Feed costs are calculated using producer feed data, either from broiler performance reports or feed invoices. The updating process follows what is used across the country for broilers, where feed companies are surveyed for specific rations and an index is created to update the actuals recorded in the survey to the most current figure. It is important to note that in BC, each feed company provides specific and different ration types, so the proportion of the various categories varies by company. The ratio of feed companies used by farms in the survey would be used to create a weighed average index so that the index reflects the survey structure.

Written Formula Feed Cost$ per kg Sold = Reported feed costs in Flock Incl. Discounts/KG sold in Flock	Source of Data From Farm invoices; calculated using producer feed data, either from broiler performance reports or feed invoices.
Index to A-180 Compares farm invoices to mill reported feed prices. Change in mill reported feed price used to index farm invoices forward to A-180; specific to regions	Indexing/updating Collects mill invoices each period, and indexes feed prices forward on reported mill price, specific to regions. Updated every A-period.

Feed Conversion Rate (FCR)

Written Formula FCR = Feed (KGS) / Kg Sold	Source of Data Farm Invoices and Production Reports
Index to A-180 no indexing, stays stagnant	Indexing/updating no indexing, stays stagnant for A-periods. Updated annually.

Utilities

include power, water, gas, and telephone costs and could be based on the weighted average of the survey sample on an annual basis. The updating needs to be separated and uses an Energy Price Index reported by Statistics Canada to benchmark and further update utilities cost.

Written Formula Utilities Cost$ per kg Sold = utilities expenditure/Annualised KG sold	Source of Data sampled farms financial records (annual financial statements, ledgers, or trial balances). Include power, water, gas, telephone
Index to A-180 Uses Energy Price Index (EPI) reported by Statistics Canada to benchmark to A-180	Indexing/updating Uses Energy Price Index (EPI) reported by Statistics Canada to benchmark to each a-period using a 6 period weighted average. Updated every A-period.

Vehicle & Equipment Operation (Fuel & Oil)

costs (fuel, oil and maintenance) are based on the average of the survey sample on an annual basis and include the cost of operating all trucks, tractors and other motorized equipment. Vehicle and equipment operating costs may be included with repairs and maintenance which would reduce the average vehicle and equipment operating costs and increasing the average cost of repairs and maintenance. These costs are indexed to the benchmark period and updated periodically in the linkage model using the CPI for BC. For trucks, the COP uses 3 year old f150 lease cost.

Written Formula	Source of Data
Vehicle and Equipment Operating Costs $ per kg Sold = Vehicle & Equipment Operating Expenditure/Annualised kg sold	sampled farms financial records (annual financial statements, ledgers, or trial balances). Updated every A-period.
Index to A-180	Indexing/updating
Uses Canada Price Index (CPI) reported by Statistics Canada to benchmark to A-180	Uses Canada Price Index (CPI) reported by Statistics Canada to benchmark to each a-period using a 6-period weighted average. Updated every A-period.

Repairs & Maintenance (R&M)

includes building repairs and maintenance, equipment repairs and maintenance, alarm and security systems and barn supplies reported on an annual basis. Many growers will be able to separate equipment and building repair and maintenance costs, but others will not. These costs are indexed to the benchmark period and updated periodically in the linkage model using the CPI for BC

Written Formula	Source of Data
R&M Cost$ per kg sold = R&M Expenditure/Annualised kg sold	sampled farms financial records (annual financial statements, ledgers, or trial balances). Includes R&M, equipment R&M, alarm/security system, and barn supplies.
Index to A-180	Indexing/updating
Former: Uses Canada Price Index (CPI) reported by Statistics Canada to benchmark to A-180 *CHANGED TO* using the Vancouver - non-residential build cost index	Former: Uses Canada Price Index (CPI) reported by Statistics Canada to benchmark to each a-period using a 6-period weighted average *CHANGED TO* using the Vancouver - non-residential build cost index. Updated every A-period.

Bedding

costs based on the cycles considered and information collected from farmers in the survey. Bedding costs can be highly variable, depending on whether the bedding was spread by the farm operator or hired out (e.g., blown in). These costs are indexed to the benchmark period and updated periodically using the CPI for BC.

Written Formula	Source of Data
Bedding Cost$ per KG sold = bedding expenditure in a flock/KG sold in flock	every flock from sample, report invoices or line items from income statmenet
Index to A-180 Uses Canada Price Index (CPI) reported by Statistics Canada to benchmark to A-180	Indexing/updating Uses Canada Price Index (CPI) reported by Statistics Canada to benchmark to each a-period using a 6-period weighted average. Updated every A-period.

Administrative & Office Costs

include the cost of legal and accounting services and office supplies and services. These costs are indexed to the benchmark period and updated periodically using the CPI for BC.

Written Formula	Source of Data
Admin and office Costs$ per kg Sold = Admin & office Expenditures/Annualised KG sold	Off sampled producers financial statements, include cost of legal and accounting, office supplies and services. (generally sourced from accountant prepared income statements)
Index to A-180 Uses Canada Price Index (CPI) reported by Statistics Canada to benchmark to A-180	Indexing/updating Uses Canada Price Index (CPI) reported by Statistics Canada to benchmark to each a-period using a 6 period weighted average. Updated each A-period.

Insurance

costs typically include the cost of insurance for buildings, vehicles, and equipment as well as business interruption and farm liability costs. These are typically reported by growers on an annual basis from their annual financial statements or their insurance policies. These costs are indexed to the benchmark period and updated periodically using the CPI for BC.

Written Formula	Source of Data
insurance Costs$ per kg Sold = Insurance Expenditure/Annualised KG sold	Off sampled producers financial statements
Index to A-180	Indexing/updating
Uses Canada Price Index (CPI) reported by Statistics Canada to benchmark to A-180	Uses Canada Price Index (CPI) reported by Statistics Canada to benchmark to each a-period using a 6 period weighted average. Updated each A-period.

Other Custom Costs

exclude custom catching and custom cleaning and washing, as they are included as their own cost line items. The custom charges in this section associated with one-off expenses or manure and dead bird removal. In the 2021 sample, not all producers recorded a cost in this category. These costs are indexed to the benchmark period and updated periodically using the CPI for BC.

Written Formula	Source of Data
Custom Charges Cost $ per kg Sold= Custom Charges (if applicable)/Annualised KG sold	Off sampled producers financial statements
Index to A-180	Indexing/updating
Uses Canada Price Index (CPI) reported by Statistics Canada to benchmark to A-180	Uses Canada Price Index (CPI) reported by Statistics Canada to benchmark to each a-period using a 6 period weighted average. Updated each A-period.

Custom Catching

uses the current catching rate provided by the Board and is incorporated into the COP model as a static cost for each kilogram caught. This item is only updated at the discretion of the Board. It is noted catching is potentially removed from live price in February 2025 in other western provinces (western boards initiative), and the BC Board will consider this at a later date. Note Catching change from $0.04 to $0.0485 in A-185

Written Formula	Source of Data
current posted catching price	posted catching price, provided by BCCMB
Index to A-180	Indexing/updating
static, no indexing	static, no indexing. Updated as necessary.

Cleaning/Washing

costs are recorded on a flock basis for producers that reported cleaning/washing costs. Careful consideration must be made for this category, as many of these activities may already be covered in the on-farm labour component in the event a producer performs their own cleaning and washing. Double counting must be avoided. These costs are indexed to the benchmark period and updated periodically using the CPI for BC.

Written Formula	Source of Data
Cleaning & Washing Costs $ per KG sold = Cleaning & Washing Cost per flock (if applicable)/KG sold in flock	Off sampled producers' financial statements
Index to A-180 Uses Canada Price Index (CPI) reported by Statistics Canada to benchmark to A-180	Indexing/updating Uses Canada Price Index (CPI) reported by Statistics Canada to benchmark to each a-period using a 6-period weighted average. Updated each A-period.

Board Levy

Include the BC and CFC levy which moved from $0.0202 to $0.0204 in A-183.

Written Formula	Source of Data
included as actual, reported by BCCMB	provided by BCCMB
Index to A-180 static, no indexing	Indexing/updating static, no indexing. Note, levy increased to $0.0204 in A-183 due to an increase to the CFC Levy

MD Lease Cost

costs are included in the COP model when they are reported by producers and then reflected as the weighted average across all producers. We would look to JWG on the approach used to update MD costs in the linkage model.

Written Formula	Source of Data
MD Lease $kg Cost = MD Lease/ KG Sold	MD costs reported by sampled produced and reflected as weighted average across all producers.
Index to A-180 adjusted to the market % of MD, as reported by the BCCMB	Indexing/updating adjusted to the market % of MD, as reported by the BCCMB. If MD % goes up, price goes down.

General Labour

General Labour rate used in the model is $25.51, weights actual results from Survey and Dec 2022 and Jan 2023 job bank data (for A-180 reference period). $25.15 was average reported data in survey. General wage rates were sourced from BC Statistics Earnings & Employment Trends report which lists hourly wage rates for agricultural workers in BC.

Written Formula	Source of Data
General labour Cost $ per KG Sold = ((Annual General Hours*General Labour Wage Rat)+Accommodation Expense)/Annualised kg Sold	Grower provided time for task, actual grower financial wage rates, or in absence of wage rate data used wage rate index sourced from Statistic Canada (Table 14-10-0223-01) (Job Bank)
Index to A-180 used a specific BC index from statscan on labour (Table 14-10-0223-01)	Indexing/updating uses the specific BC index from statscan on labour (Table 14-10-0223-01) on a 6-period rolling average. Updated each A-period.

Management Labour

Management labour rate of $37.50/hour (in A-180 reference period) is sourced from the Government of Canada Job Bank as a wage rate for farm managers in BC and does not include benefits. Management labour set at $43.13/hour inclusive of 15% benefits.

Written Formula	Source of Data
Management Labour Cost $ per KG Sold = (Annual management Hours * Management wage rate)/ Annualised Kilograms sold	Grower provided time for task, in absence of wage rate data used wage rate index sourced from Statistic Canada (Table 14-10-0223-01)
Index to A-180 used a specific BC index from statscan on labour (Table 14-10-0223-01)	Indexing/updating uses the specific BC index from statscan on labour (Table 14-10-0223-01) on a 6 period rolling average. Updated each A-period.

Depreciation - Barns

Barns are depreciated at halfway through their useful life, where useful life is set at 40 years.

The standard current cost that was discounted to the appropriate age life would be based on information from Marshall Swift and/or the Douglas Cost Guide. These information sources can provide independent estimates of cost to build in BC. This information can then be used to adjust current cost to the effective cost given the aged life of the barn. Barns are depreciated over 40 years assuming a half way through their useful life in return on equity calculations.

Written Formula Barn Cost in Build year = (barn size in sq ft * DCG $per sqft)*Marshal Swift Index for barn year Annual Depreciation Expense = Barn Cost in build year above/useful life Depreciation Expense$ per KG Sold = Annual Depreciation Expense/Annualised KG Sold	Source of Data Annual depreciation for this 'model barn', (return of the equity) is based on its estimated cost to build. Barns depreciated over *40 years* assuming a *halfway through useful life value* in return on equity calculation.
Index to A-180 uses the BC Non-residential Build Cost -Vancouver to index to A-180	Indexing/updating uses the BC Non-resedntial Build Cost -Vancouver to index each period on 6 period rolling average. Updated each A-period.

Depreciation - Association Equipment

Equipment is depreciated at halfway through their useful life, where useful life is set at 15 years.

A standard equipment cost for associated equipment including computer automation, generators, bins, and electrical and mechanical equipment needs to be calculated. Associated equipment was depreciated over 15 years and age assumed at halfway through its useful life, with a separate and shorter useful life of 5 years assigned to a portion of electronics. The Douglas Cost Guide reports a single $/FT2 estimate for poultry barn equipment. To address this, a breakdown of 75%/25% of equipment costs are dedicated to fixed and control barn equipment respectively.

Written Formula	Source of Data
Cost to Build today Equipment=(barn size in sqft*DCG $persqft) Cost to Build 2002 Equipment= Cost to build today equipment * equipment residual value Fixed Equipment Portion = Cost to Build 2002 equipment *.75 Control Equipment Portion = Cost to Build 2002 equipment *.25 Annual Fixed Equipment Depreciation = fixed equipment portion/useful life Annual Control Equipment Depreciation = fixed equipment portion/useful life Fixed Equipment Depreciation Cost per KG sold = annual fixed Equipment Depreciation/kilos sold Control Equipment Depreciation Cost per KG sold = annual Control Equipment Depreciation/kilos sold	Annual depreciation (return of the equity) is based on its estimated cost to build. Equipment depreciated over 15 years assuming a halfway through useful life value in return on equity calculation.
Index to A-180	Indexing/updating
uses the BC Non-residential Build Cost -Vancouver to index to A-180	uses the BC Non-residential Build Cost -Vancouver to index each period on 6 period rolling. Updated every A-period.

Depreciation - Other

Other structures are also depreciated over 40 years, other equipment useful life range from 30 to 5 years.

Written Formula	Source of Data
Same as above depreciation calculations.	survey data. Includes consideration for elements like manure storage, machine sheds, tool sheds, other small storage buildings and office space. Also motorised equipment like bobcats, trucks, other vehicles, and non motorised equipment such as manure spreaders, sawdust blowers, generators, incinerators and other chicken enterprise related equipment.
Index to A-180	Indexing/updating
uses the BC Non-residential Build Cost -Vancouver to index to A-180	uses the BC Non-residential Build Cost -Vancouver to index each period on 6 period rolling. Update every A-period.

Investment Cost - Land

Written Formula	Source of Data
Lower mainland investment cost of land = FCC land cost 20 years ago LM * 3% rental rate/ total kilograms of chicken Interior investment cost of land = FCC land cost 20 years ago interior * 3% rental rate/ total kilograms of chicken investment cost of land VI = FCC land cost 20 years ago VI * 3% rental rate/ total kilograms of chicken	uses a common size of 10 acres per operation purchased 20 years ago. Land prices sourced from FCC for 2022 for each of three regions. Land value then indexed backwards using historical land values, assuming a rental rate of 3% and prime interest plus 1.06% cost of borrowing.
Index to A-180	Indexing/updating
indexed to FCC numbers, interest used 6 period moving average for long term assets(short term assets use 1 period - line of credit). Bank of Canada prime rate and 5 year conventional mortgage	indexed to FCC numbers, interest used 6 period moving average for long term assets (short term assets use 1 period - line of credit). Bank of Canada prime rate and 5-year conventional mortgage. updated every A-period.

Investment Cost – Barns

For further description on the return on equity calculations, please see the next appendix.

Written Formula	Source of Data
Remaining barn equity = (barn area sq ft * DCG $ per sqft build cost)*(remaining useful life/useful life) Required Return on Equity Barn = remaining barn equity *ROE% Barn ROE per KG Sold = Required return on Equity Barn/Kg sold	Barn and equipment info collected form surveys, cost is assumed using Douglas Cost guide and modelling weighted average cost of capital
Index to A-180	Indexing/updating
index considers barn structures and equipment portions separately. Structure component uses the BC non-residential building cost, land, and market development indexes to index 75% of the total barns and equipment investment costs. The remaining 25%, reflecting equipment, uses the BC CPI, Bank of Canada Conventional 5-year mortgage rate and market development index	index considers barn structures and equipment portions separately. Structure component uses the BC non-residential building cost, land, and market development indexes to index 75% of the total barns and equipment investment costs. The remaining 25%, reflecting equipment, uses the BC CPI, Bank of Canada Conventional 5 year mortgage rate and market development index. updated ach A period.

Investment Costs – Associated Equipment

Written Formula	Source of Data
Remaining Equity Barn Fixed Equipment = (Barn are sq ft * DCG$ per sq ft eq cost) * 0.75 * (residual value fixed Eq/useful life fixed Eq) Remaining Equity Barn Control Equipment = (Barn are sq ft * DCG$ per sq ft eq cost) * 0.75 * (residual value Control Eq/useful life Control Eq) Required return on Equity Fixed Equipment = Remaining Equity barn fixed equipment * ROE% Required return on Equity Control Equipment = Remaining Equity barn Control equipment * ROE% Barn Fixed Equipment ROE per KG Sold = Required Return on Equity Fixed Equipment/Total KG sold Barn Control Equipment ROE per KG Sold = Required Return on Equity Control Equipment/Total KG sold	Barn and equipment info collected form surveys, cost is assumed using Douglas Cost guide and modelling weighted average cost of capital.
Index to A-180	Indexing/updating
index considers barn structures and equipment portions separately. Structure component uses the BC non-residential building cost, land, and market development indexes to index 75% of the total barns and equipment investment costs. The remaining 25%, reflecting equipment, uses the BC CPI, Bank of Canada Conventional 5 year mortgage rate and market development index	index considers barn structures and equipment portions separately. Structure component uses the BC non-residential building cost, land, and market development indexes to index 75% of the total barns and equipment investment costs. The remaining 25%, reflecting equipment, uses the BC CPI, Bank of Canada Conventional 5-year mortgage rate and market development index. Updated each A-period.

Investment Cost - Other

Written Formula	Source of Data
Other Investment Costs = Equity Remaining in Other Buildings & Equipment/Annualised KG Sold	Collected producer actuals and estimated other buildings and equipment required on a poultry operation. Build costs then estimated using Douglas Cost Guide build costs for other buildings.
Index to A-180 MD Index used to adjust for the production available via MD in the survey period vs the production available in A180	Indexing/updating Index considers BC non-residential build cost index, long term interest rate, MD adjustment. Updated each A-period.

Operating Interest

Written Formula	Source of Data
(29% of Feed, 6% of Chicks, Bedding, Cleaning&Washing, Utilities, Fuel&Oil,R&M,Admin&Office,Insurance,Custom Costs)*50%*7.76%	29% of Feed, 6% of Chicks, Bedding, Cleaning&Washing, Utilities, Fuel&Oil,R&M,Admin&Office,Insurance,Custom Costs collected from producer surveys and financial statements
Index to A-180 There are two elements in updating the operating interest cost: the short-term interest rate and the eligible operating costs in the COP (50% of feed, etc..).	Indexing/updating There are two elements in updating the operating interest cost: the short-term interest rate and the eligible operating costs in the COP (50% of feed, etc..). Updated every A-period.

Taxes

Written Formula	Source of Data
Property Tax $KG = Property Tax/Annualized KG Sold	Collected via survey, annual financial statements
Index to A-180 updating process for investment costs uses a combination of the Bank of Canada 5 year mortgage rate, BC building cost index, BC CPI, market development index and the land index	Indexing/updating updating process for investment costs uses a combination of the Bank of Canada 5 year mortgage rate, BC building cost index, BC CPI, market development index and the land index. Updated every A-period.

Appendix B - Excerpt from Serecon explanation of June 30, 2023

Please note, the below explanation on Return on Equity uses previous iterations and assumptions as compared to the final COP formula, specifically around the useful life of barns and density factor. However, the process and methodology remains the same.

Return on Equity Components & Calculation

Calculating a return on equity requires the development of the return on capital (WACC).

Explanation of Return on Equity Rate

To summarize, the return on buildings and equipment uses the following approach:

1) Return on Equity: The return on equity will be based on a capital asset pricing model (CAPM).
2) Return on Debt: the cost of borrowing will be established as Prime +
3) Debt/Equity ratio: The final ROI for B&E will be calculated using the weighted average cost of capital (WACC) with:
    a. 10:90 debt to equity ratio (which excludes land and quota)

The final formula for the return on building and equipment for the COP Study is:

ROE = [Cost of Equity x 90%] + [Cost of Debt x 10%]

Cost of Debt = Prime + 1.06%

Cost of Equity = Risk-Free Rate + Beta of Security (Expected Market Return – Risk Free Rate)

The approach follows equity market (entrepreneurs and investors) rather than creditors market (Prime +), which is less volatile. On the other hand, it provides much higher level of clarity, logic transparency and objectivity in its calculation.

As mentioned in the beginning, the Cost of Equity component reflects the combination of risks associated with entrepreneurship in chicken farming. We present below the overview and effect of the various elements along with their historical values. We will then discuss each component in detail.

We used the Capital Asset Pricing Model (CAPM) presented as a "Building Blocks" method for a structured approach to find the B&E ROI required:

$$\boldsymbol{CAPM = rf + \beta(rm - rf)}$$

$$\boldsymbol{rf = risk\ free\ rate\ of\ return}$$
$$\boldsymbol{\beta = Beta\ of\ Security}$$
$$\boldsymbol{rm = expected\ market\ return}$$

Long-term risk-free rate

Represents the Bank of Canada bonds with over 10 years to maturity, which reflects the investment horizon faced by producers in making barn and equipment spending decisions. Current Benchmark Bond Yields for 10-year bonds from the Bank of Canada are **3.08%.**[4]

Implied Equity Premium

Investors need to be compensated for undertaken risk that is commonly represented by the required return more than the risk-free rate. Since there is a chance that an investor may lose money on an investment (risk of default), there needs to be significant enough incentive for an investor to be willing to take on the risk.

The general risk premium is an indicator of a society's tolerance towards risk at any given point in time. It increases as economic outlook becomes better and decreases during the beginning of a slowdown. In theory, the general risk premium should encompass all kinds of investments including real estate, commercial debt, equity and other instruments. In practice, this premium is almost always calculated based on S&P 500 as the most liquid, well known and controlled index-type equity instrument. Many investors would argue that it is the best available practical alternative since it represents geared equity in a lot of industries.

We recommended to calculate general risk premium based on S&P 500 as well since the Canadian inflation and long-term risk-free growth is accounted for in Bank of Canada's securities. The high liquidity

[4] Bond yields updated January 13, 2023.

of CAD, easiness and openness to investments in the USA are enough to assume the same level of risk tolerance.
There are several ways in calculating the general risk premium, including historical values, implied return models (also called dividend models), cross-industry regressions (like the one we have described in the CAPM model), expert surveys and others. The range of expectations usually varies within the 3.5-8.5% corridor. We used one of the implied return models that has both a sound underlying set of assumptions and has exhibited better predictability in the past. An implied return calculation of a general risk premium may by complicated, we therefore used the model developed by the New York University[5] that reported **5.94%** as an Implied Equity Risk Premium for 2023.

Small Size Premium

This block reflects the fact that smaller entities such as farms are less diversified and therefore bear a higher systematic risk compared to larger firms that form the general Implied Equity Risk Premium in practical calculations.

We used the small size premium 20-year median is reported publicly by the American Association of Small Investors, which reported **2.70%.**[6]

Expected Market Return

Together, the overall average market risk (*rm*) for the year 2023 for smaller businesses may be found by adding the risk-free rate, implied equity premium and small size premium:

$$\boldsymbol{Expected\ Market\ Return\ (rm) = 11.72\%_{rm}}$$
$$\boldsymbol{= 5.94\%_{rf} + 3.08\%_{Implied\ Equity\ Premium} + 2.70\%_{Small\ Size\ Premium}}$$

The Beta of Security

A **Beta** is an industry adjustment to the overall market risk level. Some industries tend to be more volatile and therefore are considered riskier than others. A beta of 1 represents an average market risk while 0.9 suggests that the industry is less risky than average.

We used a 5-year moving average unlevered beta that is a midpoint between Farming/Agriculture of **0.72** and regulated Water Utilities of **0.59**.[7] It is a common practice in valuation field to use 3- or 5-year moving averages in applying comparable level of risks since other industries taken as comparable may experience significant outstanding events in any given year.

[5] Country Default Spreads and risk Premiums update January 5, 2023 (New York University).

[6] American Association of Individual Investors

[7] Unlevered Betas are obtained from New York University Stern School of Business. Betas are available by Sector for the United States. We have taken U.S. unlevered betas for farming/agriculture and water utilities as measures the market risk of broiler operations in British Columbia. While obtaining unlevered betas specific to BC's poultry industry would be preferrable, there are no readily available unlevered betas at this time.

As an example, we could use the unlevered beta for Farming/Agriculture of **0.72**. This could be used to calculate what ROI for a farming operation in a non-regulated environment using the CAPM model:

$$\boldsymbol{CAPM = rf + \beta\ (rm - rf)}$$

$$\boldsymbol{9.30\% = 3.08\%_{rf} + 0.72_{\beta}\ x\ \left(11.72\%_{rm} - 3.08\%_{rf}\right)}$$

However, this may overrepresent the risk associated with a regulated agricultural sector like broiler producers. At the same time, it is important to point out that while there is limited price risk in the supply managed industry, producers do have significant production risk given they are working with the issues associated with animal husbandry and the management of a biological system. This is totally consistent with the precedence for regulated utilities and other regulated areas where the oversight body has been clear that there are risks even when pricing is set. As a result, the precedential evidence clearly indicates that risk does exist for regulated industries. More importantly, given the fact that there is probably more risk with biological systems vs engineered systems, one could make an argument that broiler production would be riskier than that of the regulated utilities (such as Water Utilities). This reality needs to be considered in the development and application of the CAPM.

As a result, we adopted an element of regulated Water Utilities as a comparable industry for breeder farms because of the close level of regulations and some similar risks associated with biological systems. Still, we believe that broiler producers have slightly higher production risks than water utilities, therefore, we decided to use a midpoint between Water Utilities and Farming Agriculture.

$$\boldsymbol{Midpoint\ unlevered\ beta = \ 0.66 = \frac{0.72_{Farming} + 0.59_{Utilities}}{2}}$$

The midpoint unlevered beta of 0.66 is used to calculate the expected return for a broiler operation in a regulated environment using the CAPM model:

$$\boldsymbol{8.78\% = 3.08\%_{rf} + 0.66_{\beta}\ x\ \left(11.72\%_{rm} - 3.08\%_{rf}\right)}$$

Summary
When all this is considered the process of generating a reasonable return on equity involves the following for Category 3 assets (building and equipment): The Bank of Canada long-term rate on its bonds with over 10 years of maturity (3.08%), the general market risk (5.94%), and the small-size premium (2.70%), which brought the combined rate for smaller enterprises to 11.72%. The midpoint volatility between the Farming/Agriculture and regulated Water utilities industries used in the CAPM model was 0.66. Working this data into the CAPM formula above produces 8.78%. Current Bank of Canada Prime Rate is 6.7%. Cost of Debt in the calculation is Prime + 1.06%, equaling 7.76%.

The final building block is determining the weighted average cost of capital, which has been carefully considered for this work. Portfolio data from Farm Credit Canada (FCC) reveals that the median debt-to-equity ratio is about 1.1 for poultry operations.[8] This ratio is in line with our experience in the sector, but it is critically important to recognize that this ratio includes consideration for both land (treated separately in this work) and quota costs (excluded in the calculation of the COP). Using the "reasonable person" approach to this, it is logical to assume that the first collateral taken by a bank would be land, and the second would be quota. Given this, the ratio needs to be adjusted to reflect the reality that the depreciating assets in the BC context are largely paid for out of producer equity.

We have applied a normalized leverage ratio for broiler producers in BC using this reasonable person approach:

ROE = [Cost of Equity x 90%] + [Cost of Debt x 10%]

$$8.68\%_{ROE} = \left(8.78\%_{Cost\ of\ Equity}\ x\ 90\%\right) + \left(7.76\%_{Cost\ of\ Debt}\ x\ 10\%\right)$$

The ROE for Buildings and Equipment has been calculated in a robust and transparent manner using the methodology described above. The calculation has considered the debt equity ratio, the actual return on both equity and debt along with several additional factors outlined above. The final ROI for Building and Equipment has been calculated using the weighted average cost of capital (WACC) of 8.68%.

Return on Equity Example Calculation using 'Model Barn'

Components used in the return on equity calculation are presented in Table 3 below.

Table 3: 'Model Barn' Investment Components

Component	Value	Source
Barn Age	2002	Model Average
Equipment Age	2002	Model Average
Years Remaining: Barn	14=35-(2023-2002)	Calculated
Years Remaining: Fixed Equipment	0=15-(2023-2002)	Calculated
Years Remaining: Control Equipment	0=5-(2023-2002)	Calculated
Single or Double Story	Single	Assumption
Area (ft^2)	14,000	Model Average
Barn Space Utilization	2.74 kg/ft^2	Model Average

[8] Article: "Balance sheet of agriculture - debt increased faster than equity in 2019" (FCC).

'Model Barn' Annual Production	=2.74*14,000*6.5 = 249,340kgs	Calculated
Douglas Cost Guide **Barn** Build Cost for 10,000-20,000 ft^2 single story barn in BC	\$48.10/ ft^2	Douglas Cost Guide: Paid Subscription https://www.douglascostguide.com/agriculture/
Douglas Cost Guide **Equipment** Build Cost for 10,000-20,000 ft^2 single story barn in BC	\$10.64/ ft^2	Douglas Cost Guide: Paid Subscription https://www.douglascostguide.com/agriculture/
Useful Life: Building Component	35 years	Market information, JWG direction and agreement
Useful Life: Fixed Equipment Component	15 years	Market information, JWG direction and agreement
Useful Life: Control Equipment Component	5 years	Market information, JWG direction and agreement
Residual Value: Barns, Fixed and Control Equipment	2 years	Market information, JWG direction and agreement
Equipment Costs: Fixed Portion	75%	Historical Use
Equipment Costs: Control Portion	25%	Historical Use
Weighted Average Cost of Capital (WACC)	8.68%	Capital Asset Pricing Model, Other Market Returns, see above:

The first step in determining the required return on an asset is to determine the remaining equity. For the 'model barn' this calculation would be as follows:

$$Remaining\ Barn\ Equity = (14{,}000\ ft^2 * \$48.10) * \left(\frac{14}{35}\right) = \$269{,}360$$

$$Required\ Return\ on\ Equity\ (Barn) = \$269{,}360 * 8.68\% = \$23{,}380.45$$

$$Barn\ ROE\ per\ KG\ Sold = \frac{\$23{,}380.45}{249{,}340} = \$0.094/kg$$

Calculation for barn equipment return on equity is slightly more complex because we must include the residual value since the equipment is fully depreciated. Note that residual value for barns and associated equipment is 2 years. Recall that barn equipment is broken down into fixed and control aspects.

$$Remaining\ Equity\ Barn\ Fixed\ Equipment = (14{,}000 ft^2 * \$10.64) * 0.75 * \left(\frac{2}{15}\right) = \$14{,}896$$

$$Remaining\ Equity\ Barn\ Control\ Equipment = (14{,}000 ft^2 * \$10.64) * 0.25 * \left(\frac{2}{5}\right) = \$14{,}896$$

$$Required\ Return\ on\ Equity\ (Fixed\ Equipment) = \$14{,}896 * 8.68\% = \$1{,}292.97$$

$$Required\ Return\ on\ Equity\ (Control\ Equipment) = \$14{,}896 * 8.68\% = \$1{,}292.97$$

$$Barn\ Fixed\ Equipment\ ROE\ per\ KG\ Sold = \frac{\$1{,}292.97}{249{,}340} = \$0.0052/kg$$

$$Barn\ Control\ Equipment\ ROE\ per\ KG\ Sold = \frac{\$1{,}292.97}{249{,}340} = \$0.0052/kg$$

Updating ROE Costs Going Forward

The process for updating investment costs on an A-period basis uses a variety of indexes to capture different elements. For ROE on barns and equipment, the index considers the barn structure and equipment portions separately. The structure component uses the BC non-residential building cost, land, and market development indexes to index 75% of the total barns and equipment investment costs. The remaining 25%, reflecting equipment, uses the BC consumer price index, Bank of Canada conventional five-year mortgage rate and market development index.

The market development index is representative of the market development allocated in each A-period relative to the MD allocated in the base year. This ensures that capital investment recovery rates are reflective of the potential production in a specific A period. In the 2021 COP, capital investment costs are reflective of the average MD of 4.96% available to producers in the A168-A174 period. Benchmarking these costs to A180 requires an index that considers the MD available at the time of the survey (4.96%) and the MD available in the benchmark period (2.73%). See the calculation below:

$$Benchmarking\ MD\ Index = \frac{MD\%\ in\ A168 - A174}{MD\%\ in\ A180} = \frac{1.0496}{1.0273} = 1.0217 = 2.17\%$$

$$Investment\ Costs\ A180 = 0.1781 * 1.0217 = \$0.1819/kg$$

$$Management\ Costs\ A180 = 0.0459 * 1.0217 = \$0.0469/kg$$

Investment and management costs need to be increased by 2.17% over the surveyed values because of the relative change in production – for the same barn space - in the province caused by the reduction in MD compared to the survey period.

Going forward on an A-period basis, these capital investment and management costs will be updated in part using the ratio of MD allocation in the survey period relative to the MD allocation in the current period. This ensures that as potential production ebbs and flows through MD allocation, producer returns on investment and management costs remain constant based on the production availability.

For example, MD allocation is greater than the base period, therefore, producers can produce additional kgs under the assumption that barn capacity in the province is fixed (2.74kg/ft^2). Since utilization rates can only be updated through surveys, the MD index captures this increase in potential production through the additional MD allocation. Since potential production is greater under constant barn space, the return on a kg basis for capital needs to be indexed down to reflect the new returns to capital required under the MD

allocations. Alternatively, if MD allocations are less than the base period, capital investment costs would be indexed upwards to reflect the reduced production potential in the province for the given usable space.

This is different than changes in quota since producers will be motivated to build for that eventuality because the COP as calculated already provides a return of and on capital additions at the barn space utilization and age in the survey.

Appendix C - MNP Report

Review of 2021 Mainstream COP Methodology

Final Report – Draft

Prepared for **BC Chicken Marketing Board**

Ian Craven
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E: ian.craven@mnp.ca

March 31, 2023

Mr. Woody Siemens, BSc., MBA, P.Ag, CSCP
Executive Director
BC Chicken Marketing Board
Unit 220-1848 McCallum Road
Abbotsford, BC V2S 0H9

Dear Mr. Siemens,

RE: Review of 2021 Mainstream COP Methodology

Thank you for the opportunity to use MNP LLP ("MNP") to provide BC Chicken Marketing Board ("BCCMB") a review of its 2021 Mainstream Cost of Production (COP) Survey calculations as well as to provide opinions and feedback on the validity, as we are able, of the process you used. The scope of the study included an assessment as follows:

1. Is the model farm approach valid for the COP?
2. Are the inputs and structure of the COP correct?
3. Provide a statement, as appropriate, that the COP methodology would reasonably permit the Board to price off of.

A preliminary report was submitted to you in early February to provide general feedback on the methodology as we understood it from a methodology document submitted to us by the consultant titled Workbook Guide on January 12th, 2023. Since then, we have been provided actual data collected for the study as well as feedback from our initial report and feedback from a set of follow up questions on the Mainstream COP processes and survey structure. The attached report describes the main items as we understand them that merit comment and a review of the COP calculations, and finally we have addressed the questions above.

Should you have any questions regarding this report, please feel free to contact us at 204.788.6063.

Yours truly,

Ian Craven, CPA, CMA, MBA, P.Ag.

Partner, Consulting Services

Table of Contents

Introduction

We have assessed the 2021 Mainstream COP Cost of Production (COP) for the BC Chicken Marketing Board (BCCMB) by reviewing the structure of the data collected for the study as well as assessing each cost line item as presented to us in the data and calculation of the 2021 Mainstream COP study from a sample of farms in the data. We have reviewed the underlying information and calculations as best as we were able from that sample of farms. In the next sections, we have set out our understanding to date of the methodologies, assumptions, and processes used by the consultant and BCCMB for the 2021 Mainstream COP and have provided our observations and commentary regarding the validity of each process based on that understanding. It should be noted that we have not received the final 2021 Mainstream COP report at the time of preparing this report.

COP Calculation

Sampling Methodology

Overview of Process

The consultant prepared a stratified random sample that would represent each of the three regional geographic areas of production in the province known as: 1) Vancouver Island, 2) the Lower Mainland and, 3) The Interior. The population of producers were allocated into each region and random samples were selected from each of the three regions separately. Care was taken to manage the replacement of any producers selected but unable to participate to ensure random selection was maintained.

The number of producers sampled and the total population for each region was reported as follows:

Region	Sample	Population
Vancouver Island	5	12
Lower Mainland	28	222
Interior	10	52
Total	43	286

To determine the sample size required to represent the population of producers in each region, generally the more variable the data is, the larger the portion of the population that needs to be in the sample get achieve an acceptable level of accuracy. As the population is smaller, as is the case with Vancouver Island with only 12 producers, the likelihood that a producer not included in the sample materially influencing the average COP becomes a greater concern (thinking of the sample as a portion

of the population). The consultant has provided their target to achieve a result that statistically has a 95% confidence interval with a 5% or less margin of error. The sample sizes were determined using these targets based on historical sample data available from BCCMB provincially.

When we assessed the actual population size, two sets of assumptions were considered. First, if the true variability of the producers' COP data was not known then we would conclude the following sample would be required:

	Vancouver Island	Lower Mainland	Interior	Total
Sample Size	12	141	46	199

If we assume that the total variability of the producers' COP in each region is represented by the variability of the sample selected in each region for 2021 then the following sample size would be required:

	Vancouver Island	Lower Mainland	Interior	Total
Sample Size	2	12	16	30

The variability of the data for the 5 producers from Vancouver Island is very small, indicating a sample size of 5 is quite adequate for the targets desired. The variation is somewhat higher in the other two regions, however the sample size selected for the 2021 study would be sufficient by this measure.

Although we do not know how the COP of each of the producers that were not selected might affect the true variability of the COP in the region, it is fair to take some guidance from historical information. We do feel however that because of the unknown of the balance of the population, the true variability of COP for producers in each of the region could be higher than the results expressed in the sample data and therefore the accuracy of the results could be reduced. In practice, the true variability assumption and resulting sample size requirement is likely somewhere between these two assumptions.

MNP's Observations

MNP would normally expect in populations as small as the 12 farms, the required sample would be most, if not all, of the population and similarly with the 46 farms in the Interior, it could take a significant portion of the sample to achieve an accurate result. The data variability could be further exacerbated by the influence of imputed data in the sample. Using the imputed data based on averages of other data could also have an effect of reducing expected variance of the population data set (more detail below on imputed data).

Imputed Costs

Overview of Process

There are several incidents where there is missing data (a missing cost item in a producer's information). If the consultant was unable to get the missing data from the producer, it is our understanding they employed a process to create an average of all other producer responses across all quota periods (not necessarily only the ones that were used for the calculation of the COP) for a flock-specific cost item or a simple average of all other producer responses in the case of annual operating costs. Those averages that result as an "imputed cost" were used to replace the actual cost for that particular item for that particular producer.

If we create a grid of the major cost categories as the consultant has organized their cost data of: 1) General Farm Information, 2) Annual Operating Costs, 3) Labour, 4) Other Buildings and 5) Equipment, against the list of Producers in the study, data is imputed for 63 producers in the various categories (across all quota periods for flock-specific costs) out of 215 total occurrences in this grid, or 29%. These figures do not include whether data has been imputed for multiple quota periods per producer, meaning that the actual number of imputed data points is higher than 63.

44% of the producers have one or more incidences of imputed data for General Farm Information. General Farm Information is approximately 73% of the total COP as feed cost is a major item in the COP. There are 5 producers that have feed costs imputed for one or more times. One producer has feed cost imputed twice.

To show an example of the significance of these assumptions, Producer ID 34 had feed costs in periods A169 and A170 of $154,124 and $163,038 and yet using the imputing methodology for A168 created an estimate of $202,686 for that period. That estimator represents a 24% increase over the next period. Given the other prices, this could be a high estimator to the actual cost the producer realized for that quota period.

In addition, 19 out of 43 producers in the sample had the COP denominator, i.e., kg paid or live weight sold, imputed for one or more quota periods, resulting in a total of 33 instances. There were 7 producers in the sample for which this statistic was imputed more than once. Live weight sold was imputed using only the data of other flocks for that specific producer.

40% of the producers have one or more incidences of imputed data in Annual Operating Costs. It represents 11% of the total COP.

28% of the producers have one or more incidences of imputed data in labour costs and it represents 5% of the total COP.

MNP's Observations

It seems that of the producers that participated in the study, there was a significant number of gaps in the information that was provided to the consultant. There is potential that using this many estimators

to impute data instead of using actual producer COP data could impact the result of the COP. The methodology employed, to use average data of other producers would have the effect of creating a data result that could have less variance than really exists. We do not know what the impact is, but it may change the results, and it may have the effect of "smoothing" the variability of data, which would give the impression of less variability overall in the sample. Therefore, not only could the resulting COP be impacted, but it may create a result in which there is less confidence than the statistical metrics would indicate.

Quota Periods Included in the Study

Overview of Process

In general, data was collected from quota periods ranging between A167 and A179. As not all data points were complete for all quota periods, the consultant analyzed for which quota periods the data was most complete and settled on using the quota periods A168-A174 for the final 2021 Mainstream COP calculation. This analysis resulted in a final sample of 43 producers.

The timeframe for quota periods A168-A174 spans February 14, 2021, until March 12, 2022[1], meaning that flock-specific costs (e.g., chick costs, feed costs, kilograms of live weight sold or kilograms paid) incurred in the first 45 days of the 2021 calendar year have been excluded from this COP calculation and costs incurred in the 71 days of the 2022 calendar year have been included instead.

The COP denominator of live weight sold or kilograms paid per producer for quota periods A168-A174 was however annualized, as 7 quota periods occurred in that timeframe whereas a calendar year would only consist of 6.5 quota periods. This COP denominator was used for both flock-specific costs and annual operating costs, for which the latter was based on different fiscal year-ends (ranging from March 2021 to October 2022). However, to our understanding, no other adjustments have been made to the annual operating cost items to account for including 2021 calendar year data only.

MNP's Observations

As it was our understanding the COP was to represent costs of production within the 2021 calendar year. If no adjustment is made to remove data for costs incurred by producers after December 31st, 2021, and to add producer costs incurred within the partial period of quota period A167, then the results may not necessarily represent the actual COP costs for 2021. In addition, the range of fiscal year-ends used for estimating annual operating costs (even though "normalized" using live weight sold for A168-A174) seems rather large, and in some cases a different year-end could have been selected (e.g., October 2021 instead of October 2022). There also seemed to be some typos in the year-ends, for which we assumed they belonged to the months specified.

[1] https://www.chickenfarmers.ca/resources/

Outliers

Overview of Process

For both flock-specific and annual operating costs, outliers were determined by calculating the average and a distance of three standard deviations from that average. Reasons were provided why an outlier value was considered valid, and generally these values were not removed from the sample.

MNP's Observations

Assessing the collected data for any outliers is a valid approach and using a measure of three standard deviations from the mean for that purpose is very thorough as other COP applications have used a measure of two standard deviations from the mean.

Operating Costs

Overview of Process

Some operating costs were recorded as flock-specific actual costs from producer records and treated as such (i.e., chick costs, feed costs, bedding, board levies, export/market development lease, production metrics, cleaning and washing, catching, other flock-specific contract labour), whereas others were recorded on an annual basis (e.g., utilities, repairs and maintenance, administrative and office costs) from producers' income statements. Annual operating costs were also subject to an allocation process in those cases where producers owned multiple farming operations (e.g., berries, dairy).

These costs are reported as follows:

- Chick costs, including vaccine costs
- Utilities, including electricity, natural gas, phone, and water
- Vehicle and equipment operation, maintenance, fuel, and oil
- Repairs and maintenance, including building repairs and maintenance, equipment repairs and maintenance, alarms and security systems, and barn supplies (including pest and rodent control)
- Bedding
- Administrative and office costs, including legal and accounting, and office supplies and services
- Insurance
- Custom charges, including veterinary and medicine costs
- Custom catching
- Cleaning and washing
- Board fees and levies
- Market development lease

This list also includes feed costs, which will be discussed in more detail in a separate section below.

Flock-specific costs were recorded per quota period from producer records, calculated on a per kg basis for each quota period, indexed to quota period A180, and then annualized based on 6.5 cycles per calendar year. It is noteworthy that the chick cost includes any vaccines but not the cost of any extra chicks placed in the barns (it appears that 2% is a reasonable expected cost). An index of 1.0679 was used to bring chick costs forward.

Other flock-specific costs (i.e., bedding and cleaning/washing) were indexed to A180 based on the Consumer Price Index (CPI) for all items in BC as published by Statistics Canada, thereby comparing A180 to the average of A168-A174. The flock-specific cost item Board Fees and Levies was included to reflect any levies paid to BCCMB and were estimated at $0.0202/kg paid for all producers. These levies were not indexed as these are set by BCCMB intermittently. In the same way, market development lease costs were estimated at $0.0198/kg paid for all producers and not indexed. Flock-specific catching costs were at first recorded from producer records, but then set at $0.0365/kg paid for all producers (for one producer in the sample the simple average of catching costs was $0.0301/kg) and not indexed. Outliers were investigated for the data captured in General Flock Information and reasons were provided for why the data was out of the ordinary.

Annual operating costs were recorded from a producer's income statement of a certain fiscal year-end, indexed to quota period A180 using either the CPI for BC or the Energy Price Index (EPI) for BC as published by Statistics Canada, and then annualized on a per kg basis using the COP denominator described above. To be able to index the annual operating costs, the respective fiscal year-end date was converted to a quota period, and then indexed to quota period A180. As such, different CPI and EPI indices were used depending on the fiscal year-end of the producers' operations. Any utility costs were indexed using the EPI, whereas vehicle and operation costs, repair and maintenance costs, administration and office supplies costs, insurance costs, property taxes costs, and custom costs were all indexed using the CPI.

Before indexing, outliers of annual operating costs were investigated, and reasons were provided for why the data was out of the ordinary.

MNP's Observations

The overall collection of these actual producer costs from producer records is a valid means of estimating current equivalent costs for these items for the 43 farms in the sample. Averaging these costs on a per kilogram basis is an effective estimator of cost for the average production of these 43 farms, although there was annualized annual operating costs created from different year-ends. The information used for the denominator to calculate per kg amounts over the period was not matched to those same 12-month periods.

Indexing costs up to quota period A180 is a valid approach. We were not able to determine where the index that was applied to the chick costs was sourced from. Note that this is a change in methodology as in previous studies chick costs reflected current prices at that date and therefore did not need to be indexed. Indexing any utility costs using the EPI instead of the CPI also is a valid approach, however the

indices used in the end were not as accurate. When fiscal year-ends were converted to quota periods, multiple year-ends were matched with the same quota period and therefore index associated with that quota period (e.g., both a November 2021 year-end and a December 2021 year-end were converted to quota period A173 which ended January 15, 2022).

Feed

Overview of Process

Feed costs, like other flock-specific costs, were recorded per quota period from producer records, calculated on a per kg basis for each quota period, indexed to quota period A180, and then annualized based on 6.5 cycles per calendar year. Outliers were investigated and reasons were provided for why the data was out of the ordinary.

Feed cost is a major item in the COP. There are 5 producers that have feed costs imputed for one or more incidents and one in particular has feed cost imputed twice. By example, Producer ID 34 had feed costs in periods A169 and A170 of $154,124 and $163,038, respectively, and yet using the imputing methodology for A168 the consultant created an estimate of $202,686 for this period, or 24% higher than these latter two actual cost incidents.

To index the feed costs, separate indices for the three strata (Vancouver Island, Lower Mainland, and Interior) were created to calculate the change from period to period of relative feed costs. Prices for broiler rations were received from quotes from selected local feed mills within the three strata and averaged per quota period if multiple feed mills were consulted within a geographic region. A composite price was then created for the quota periods A168-A174 and compared to the similar composite price as of A180 to create an index per geographic region.

This index was then applied to the feed costs of the individual quota periods per producer, depending on in which region they were classified. Feed costs were then annualized following the procedure described above using the indexed feed costs.

MNP's Observations

Where the consultant was able to use actual feed costs from actual farm receipts and then index forward using multiple mill prices as a period-over-period reference for indexing, provides a good record of feed cost for the COP. There is concern that imputed feed costs based on the average of other producers could create an inaccurate estimate of feed costs. Because feed is a major cost, there is concern that this could have an impact on the variability of data (affecting accuracy and sample size) as well as influence the COP results.

It seems that feed costs for a specific quota period are indexed using a composite price for the average of the quota periods A168-174 compared to A180. This will create a different result than if the feed cost in each quota period was indexed forward individually to A180.

Labour

Overview of Process

For the 2021 Mainstream COP participating producers were required to declare their estimates or actuals for hours applied to various tasks in the operation, separated between management functions and general labour functions. The total number of hours for both General Labour and Management Labour were then converted to a per kg basis using the annualized kg sold as used above. Hours for both General Labour and Management Labour were imputed for those producers that did not provide any estimates or actuals. Imputed values were based on whether a producer utilizes his own labour and hired labour to clean the barns after the flocks or whether this is contracted out, as the expectation is those without contractors have higher (hired) labour hours. The following imputation factors (per kg) were used:

	General Labour	Management Labour
Self-clean	0.0040	0.0012
Contract clean	0.0026	0.0010

The consultant used a rate for General Labour and a rate for Management in dollars per hour and applied these to the per kg hours for each category. The rate used for General Labour was taken from BC Statistics data and set at $25.42/hour. The consultant stated that the hourly rate for Management Labour was sourced from MNP following an earlier review of COP methodology, and therefore in line with other COP studies. As this rate was from June 2022, it was indexed to quota period A180 and ultimately set at $43.70/hour.

MNP's Observations

Although an estimate, the application of producer estimates of time for tasks seems to be the most accurate record to apply labour costs short of having them record daily time sheets (which would likely not be doable) and is also used in other Cost of Production calculations.

It was noted above that the hourly rate was sourced from MNP. MNP does not have expertise in the labour rates and the consultant should source rates from sources that do. (MNP was referencing earlier studies in other industry sectors that used the stated rates that were an example).

Furthermore, MNP assumes that the hours reported by producers are representative of total hours worked on the farm, i.e., they include both the hours worked by the producer himself/herself and his/her family as well as any hours worked by employees. Even though producer estimates of time spent is likely very accurate. The labour cost was not supported by examples and analysis of actual hired labour cost that are available in the producer's financial information.

Capital Costs

Depreciation – Barns & Fixed Equipment and Control Equipment

Overview of Process

Barns

Data on producers' barn square footages (per barn) based on external dimensions was recorded during data collection, which was then compared to data held by BCCMB on usable space (mostly internal dimensions). Calculated square feet of the buildings were then stratified into groups based on whether the building was a one-story barn or a two-story barn, and different sizes of square footage. The square footage was then applied against a cost per square foot for 2022 from the Douglas Cost Guide that were indexed by 1.06 that was sourced from the non-residential building price index for Vancouver (the average of A174-A180 compared to the index for A180), depending on its stratification.

It was then indexed backwards to the original construction year using the Marshall Swift time series index to translate the current cost estimate of construction cost in the year of construction. This value is set as an estimate of the original barn cost. This cost value is then depreciated forward based on a standard allocation for straight-line depreciation as allocated by the consultant, using 40 years for buildings. The result is an estimate of annual barn depreciation cost.

Fixed Equipment and Control Equipment

The stratification of producers into groups based whether their barns are one-story or two-story and the square footage also applied to estimate a value for fixed and control equipment as part of barn constructions costs. A cost per square foot from the 2022 Douglas Cost Guide and indexed by the BC CPI of 1.03 (the average for 2022 compared to A180), was then applied to the calculated square footage of the barn.

It was then multiplied by 75% for fixed equipment and by 25% for control equipment, under the assumption that is the general proportion of equipment present in a chicken barn. Finally, the amount was then indexed backwards to 2014 for fixed equipment and 2019 for control equipment using the Marshall Swift time series index based on the half-life rule of 7.5 years for fixed equipment and 2.5 years for control equipment, respectively.

The value for fixed equipment is selected as indexed backwards for 7.5 years to assume an estimator for its actual cost is halfway through its useful life of 15 years. That value estimator is used to determine the annual estimate for depreciation for the current year (2021), depreciated over 15 years. The same approach is used for control equipment, except it is indexed back 2.5 years to represent it as being halfway through its useful life of 5 years and depreciated over 5 years.

The total annual depreciation cost for barns, fixed equipment, and control equipment is then converted to a per kg basis using the annualized kg sold and checked for outliers.

MNP's Observations

Although effort has been made to create a systematic approach to approximate barn cost at the date of construction at the date of acquisition, the results are still removed significantly from a measure of actual barn construction costs, actual equipment purchase costs and actual depreciation costs. Several layers of assumptions are used to replace actual cost measurement. In the case of barn construction costs indirect assumptions include:

- Grouping based on square footage of the surveyed barns
- Value per square foot for construction extracted from the Douglas Cost Guide for similar buildings
- Indexing current estimated costs back to value in dollars at the year of construction as estimated by a Time Series Building Cost index (annual discount estimate of change in building costs year over year)
- Calculating a depreciation charge forward on an annual straight-line basis using a fixed estimated life of the asset
- For equipment, application of the half-life-rule for age/equipment value estimations

In addition, it is unclear to us why the cost per square foot from the Douglas Cost Guide for single story barns were increased by 12%, and why 2022 values from the Douglas Cost Guide were further indexed to A180. Furthermore, even though the half-life rule is applied to estimate the cost of fixed and control equipment, it is modeled as fixed and control equipment being purchased in 2014 and 2019, respectively, for all farms in the sample and irrespective of the construction year of the barns the equipment is associated with. This results in an equal annual depreciation cost for all farms in the sample.

It is difficult to ascertain from these multiple inferences how well the outcomes represent actual costs for the sector population. It is possible there will be some variation from these estimators to actual costs, and as one assumption is layered on another assumption there is concern that it may increase the risk that actual costs are not represented by the overall output of these estimators.

Depreciation – Other Buildings

Overview of Process

Data on square footage and year of construction of other buildings was recorded during the data collection process and imputed for those producers that did not have that information available. If imputed, it was assumed that there were five other buildings typically present on a broiler chicken farm: generator shed, manure storage, shop, storage shed, and incinerator/composter building, each with their assumed square footage and year of construction.

However, it appears from the calculations provided to us that data from two additional producers that are not part of the sample were included in the initial data on other buildings, but not included in the final COP calculations.

The square footage was then applied against a cost per square foot for 2022 from the Douglas Cost Guide (for various structures) of $33.45/square foot for all the specified building types. It was then indexed backwards to the original construction year using the Marshall Swift time series index to translate the current cost estimate of construction cost in the year of construction. This cost value is then depreciated forward based on a standard allocation for straight-line depreciation as allocated by the consultant, using 40 years for buildings. The result is an estimate of annual depreciation cost for other buildings, which is then converted to a per kg basis using the annualized kg sold and checked for outliers.

MNP's Observations

Although effort has been made to estimate the actual depreciation cost of Other Buildings, it is still somewhat removed from a measure of actual other building purchase costs due to the use of imputed data and estimates from the Douglas Cost Guide. In addition, it is not clear to us why the values per square foot sourced from the Douglas Cost Guide were not further indexed, whereas the values per square used to estimate the cost of barn construction costs were.

Depreciation – Other Equipment

Overview of Process

Although Other Equipment data was sourced from producers, it was decided to model this piece using a fixed list of equipment, their year of purchase, and their replacement value as of today. These three data elements were based on the sourced data plus some research and the consultant's general experience within the industry. The model was set up for three size stratifications:

- Group 1: annual quota of less than 60,000 kg, modelled to own 9 types of other equipment
- Group 2: annual quota of in between 60,000 and 115,000 kg, modelled to own 11 types of other equipment
- Group 3: annual quota of more than 115,000 kg, modelled to own 12 types of other equipment.

Using the modelled year of purchase and today's replacement value, a purchase price was calculated using the Marshall Swift time series index. This value was then depreciated using a salvage value of 10% and the useful remaining life (ranging between 5 and 30 years depending on the type of equipment). The result is an estimate of annual depreciation cost for other equipment, which is then converted to a per kg basis using the annualized kg sold and checked for outliers.

MNP's Observations

Although effort has been made to estimate the actual depreciation cost of Other Equipment, it is still somewhat removed from a measure of actual other equipment purchase costs due to the use of imputed data and modeled equipment lists.

Investment Cost – Land

Overview of Process

Calculated land investment is based on a standard allocation of acres deemed necessary to sustain production unit of a certain size. Land owned by producers, beyond this allocation, is not considered part of the COP calculation. Even though producers were divided into three groups to be applied to capital assets, all producers were allocated a standard land size of 10 acres according to an agreement from 2015. The 10 acres were then multiplied by a land value of $72,094 for Vancouver Island, $220,000 for the Lower Mainland, or $21,018 for the Interior, respectively. These land values were sourced from both Farm Credit Canada's (FCC) 2021 Land Values Report and the consultant's internal research.

These 2022 land values have been indexed backwards for 20 years using year-over-year changes in land values, resulting in the following values for the three regions:

- Vancouver Island: $7,884/acre
- Lower Mainland: $32,198/acre
- Interior: $3,068/acre

However, it appears from the calculations provided to us that these above values were for 2004 instead of 2001 or 2002. In addition, the calculations for the Interior seem to be based on a 2022 value of $31,861/acre instead of $21,018/acre.

A rental rate of 3% as well as an interest rate of 7.76% (prime + 1.06%) as a cost of debt was then applied to calculate the Return on Equity for land and is converted to a per kg basis using the annualized kg sold.

MNP's Observations

It is reasonable to assume that some value of land beyond a required base is potentially not necessary or may be owned by the farmer for real estate purposes and not necessarily to support the production unit. Limiting the amount of land that is included in the calculation of cost for the purposes of equity return does keep this value from overwhelming the balance of the calculation. Although this allocation may be reasonable, it is still somewhat arbitrary. It may be agreed upon by all parties that it is acceptable, but there is very little basis presented to support the choices on size of properties necessary and the need for the inclusion of the specific acre allocations to comment on the validity of the results.

The methodology used to calculate ROE on Land is commonly used in other cost of production calculations. We assume the 1.06% interest premium is based on a mid-point between the line of credit and mortgage rates for FCC clients in supply-managed industries, like in previous COP studies. MNP does not have an opinion whether that is a correct premium to add to the interest rate.

Investment Cost – Barns & Associated Equipment

Overview of Process

Barns

The estimated cost to build a barn in the year of construction (as discussed in the Depreciation section) is divided by the established 40 years it will take to depreciate the estimated building cost. This is then multiplied by either:

- The number of years between the year of construction and 2022 subtracted from the 40 years, if the year of construction of was after 1982 (i.e., 40 years prior to 2022).
- Zero if the year of construction was prior to 1982.

This in turn is multiplied by a ROE percentage of 10.47%, which is calculated using a Cost of Equity, a Cost of Debt, and a Debt/Equity ratio. The Cost of Equity is modelled after the Capital Asset Pricing Model (CAPM) used in corporate finance to assess a required return based on a measure of risk. It tries to consider a combination of risks associated with investment and earnings (in a certain industry) and deal with added circumstances that may add risk as compared to broad-based "risk-free" investments such as government bonds. Therefore, in this case risk is considered higher and the necessary return is considered higher as additional risk is added. Particularly as we move to private enterprise/entrepreneurship, such as in chicken farming, the risks associated with it are considered higher. As such, it is calculated as a function of the following elements:

- Long-term risk-free rate of 3.08%: determined as the 6-month average (spanning the time period July 14, 2022 to January 13, 2023) rate for Bank of Canada long-term bonds (i.e., with more than 10 years to maturity) to reflect the investment horizon of BC chicken producers when making investment decisions regarding barns and equipment.
- Beta of security of 0.89: to adjust for the fact that some industries bear a higher investment risk than others. The beta used was the midpoint between the farming and agriculture beta of 0.91 for 2023 and the regulated water utilities beta of 0.87 to reflect the supply-managed nature of the broiler chicken industry.
- Expected market return: defined as the overall average market risk for 2021 for smaller business and based on the long-term risk-free rate, an implied equity premium, and a small size premium.
    - Implied equity premium of 5.94% to reflect the fact that investors generally invest in riskier businesses than embodied by the long-term risk-free rate, determined by a model developed by New York University.
    - Small size premium of 2.70% to reflect the fact that smaller businesses such as farms are less diversified and therefore bear a higher risk, based on calculations by the Tuck School of Business.

Cost of Debt: the cost of borrowing is determined as the prime rate of 6.70% plus 1.06%.

Debt/Equity ratio: according to FCC, this ratio equals 1.1 for poultry operations in Canada. [2]

Using these figures, this results in the final formula of ROE = (Cost of Equity x 90%) + (Cost of Debt x 10%) = (10.77% x 90%) + (7.76% x 10%) = 10.47%.

Fixed Equipment and Control Equipment

The calculation of ROE on fixed equipment and control equipment is slightly different than the calculation of barn ROE, as it takes the estimated cost of both fixed equipment and control equipment 7.5 years ago (spread out over 15 years) and 2.5 years ago (spread out of 5 years), respectively, multiplied by the ROE percentage of 10.47%.

The total annual investment cost or ROE for barns, fixed equipment, and control equipment is then converted to a per kg basis using the annualized kg sold and checked for outliers.

MNP's Observations

The modeling of ROE on barns and associated equipment assumes that any barns built prior to 1982 had a zero-building cost in their year of construction. Although it is true that those barns would have been fully depreciated by 2022, there would have been a cost greater than zero in the year of construction. A return on that investment would have been starting to generate in the construction year, and generally increasing as time goes by. It seems therefore incorrect to model a zero-building cost and therefore zero investment cost for any buildings built prior to 1982.

In addition, as the methodology used to calculate ROE on barns and associated equipment is ultimately based on the half-life rule, which might not accurately represent the value of these assets, the ROE on these assets might also not be accurate.

That being said, the methodology to arrive at a risk rate to apply against asset values to calculate ROE is a reasonable approach and is also used in other COP studies. As part of that, we assume that some of the figures used were obtained from the same sources as in previous COP studies conducted by the consultant. Note that there is a change in methodology as previously a 5-year average of midpoints was used for the beta of security, whereas in this application 2023 figures were used.

Investment Cost – Other Buildings

Overview of Process

The ROE on Other Buildings was calculated using the estimated cost at build (see the Depreciation section) divided by 40 years or the assumed useful life of other buildings, multiplied by the number of years since the year of construction, and further multiplied by the ROE percentage of 10.47%. This annual ROE figure was then converted to a per kg basis and checked for outliers.

[2] https://www.fcc-fac.ca/en/knowledge/economics/debt-increased-faster-than-equity.html

MNP's Observations

The methodology to arrive at a risk rate to apply against asset values to calculate ROE is a reasonable approach and is also used in other COP studies. However, as in calculating the investment cost of the barns, the modeling of ROE for other buildings also assumes that any buildings built prior to 1982 had a zero-building cost in their year of construction. Although it is true that those barns would have been fully depreciated by 2022, there would have been a cost greater than zero in the year of construction. A return on that investment would have been starting to generate in the construction year, and generally increasing as time goes by. It seems therefore incorrect to model a zero-building cost and therefore zero investment cost for any buildings built prior to 1982.

Investment Cost – Other Equipment

Overview of Process

The ROE on Other Equipment was calculated using different assumptions based on three different strata of farm sizes used for the calculation of annual depreciation costs of Other Equipment. For all these assets, the remaining equity after depreciation is multiplied by the ROE percentage of 10.47%. This annual ROE figure was then converted to a per kg basis and checked for outliers.

MNP's Observations

The methodology to arrive at a risk rate to apply against asset values to calculate ROE is a reasonable approach and is also used in other COP studies.

Operating Interest

Overview of Process

The cost of operating interest is calculated using 50% of the operating costs (excluding property taxes, board fees and levies, and market development lease costs), multiplied by the prime long-term interest rate of 7.76%. Since the indexed operating costs were used as an input for calculating operating interest, the interest cost itself was not further indexed nor checked for outliers.

MNP's Observations

The methodology used to calculate operating interest is commonly used in other cost of production applications.

Taxes

Overview of Process

Taxes (i.e., property taxes) were recorded from a producer's income statement of a certain fiscal year-end, indexed to quota period A180 using the CPI for BC, and then annualized on a per kg basis using the COP denominator as described under Operating Costs above. There were no outlier values determined for the cost item property taxes.

MNP's Observations

As with the annual operating costs described in an earlier section, the collection of these actual costs from a producer's income statement, converting to a per kg basis, and indexing them forward using the CPI is a valid approach, however the indices used in the end were not as accurate. When fiscal year-ends were converted to quota periods, multiple year-ends were matched with the same quota period and therefore index associated with that quota period (e.g., both a November 2021 year-end and a December 2021 year-end were converted to quota period A173 which ended January 15, 2022).

Revenues

There were no revenues reported that could be subtracted from the COP to reduce costs.

Conclusions

Question 1: Is the model farm approach valid for the COP?

In the methodology, MNP did not see a "model farm" approach used in the same definition as we would understand that definition. Typically, it has been our experience in using a "model farm" approach that a scenario of a complete production units would be developed that is representative of a certain portion of or all the typical costs of operating that production unit. In the case of this study, many indirect elements and assumptions have been applied that each have their own definitions, but in total are not really tied to an overall "model farm". In other words, a cost item is not reflective necessarily of the other characteristics of the farm model that may exist, but an independent assumption for this cost item only.

In the case of land allocation, the allocation of barns, and the allocation of other equipment, some effort is made to segregate "groups" based on ranges of production unit sizes or building square footage, but otherwise we do not see application of a "model farm" approach.

In other cases, assumptions are used as indirect approaches to estimate costs instead of using actual costs for the basis for the outcomes, of which the use of data beyond the 2021 calendar year, and the number of imputed cases on feed costs and live weight sold are the most concerning.

Question 2: Are the inputs and structure of the COP correct?

The input items are the correct costs to include in the COP. In some cases, the inputs rely on approximations or imputations of actual costs and therefore the inputs to calculate those costs may or may not be correct, as identified in the core of this report (e.g., equal depreciation for fixed equipment and control equipment for all farms in the sample, zero return on barns and other buildings older than 1982).

In addition, in some cases we found incorrect calculations in the data provided to us, of which the most notable ones were the indexing of feed costs and the applied land values per acre.

Question 3: Does the COP methodology reasonably permit BCCMB to price off?

The information provided and explained above lead us to conclude that MNP cannot confirm that the methodology reasonably permits the BCCMB to price off it. There are two primary areas of concern that caused MNP to reach this conclusion:

1) The use of imputed data has led to smaller variability in the data, which in turn results in the statistical confidence of the COP being compromised to beyond being acceptable by BCCMB to ensure the results are necessarily an accurate reflection of the industry.
2) Where there are methodologies that indirectly approximate actual costs there is insufficient evidence to validate if the associated outputs accurately represent the true actual costs of those

items. Therefore, based on the data, MNP is not able to confirm to what extent this information can be reasonably used to permit the BCCMB to price off.

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Appendix D - MNP Report Addendum

May 30, 2023

Mr. Woody Siemens, BSc., MBA, P.Ag, CSCP
Executive Director
BC Chicken Marketing Board
Unit 220-1848 McCallum Road
Abbotsford, BC V2S 0H9

Dear Mr. Siemens,

RE: Addendum to Final Report – Review of 2021 Mainstream COP Methodology

After we had issued our final report of the 2021 Mainstream Cost of Production (COP) Survey calculations, additional discussions with you and the Joint Working Group (JWG) on Broiler Chicken Pricing in BC have taken place and the Consultant has responded to our concerns. Their rebuttal was provided to us in a PowerPoint dated May 10, 2023. In this Addendum to our Final Report, we address the Consultant's rebuttal, and in some cases adjustments to calculations, in the following order:

1. Sample size
2. Imputed costs
3. Quota periods included in the study
4. Operating costs – Data sources used and indexing
5. Feed indexing
6. Labour – Source of management rate and use of producers' actual information
7. Capital assets – Geographical differences and barn equipment depreciation cost
8. Investment cost – Land, barns, other buildings, and beta calculation

Yours truly,

MNP LLP

Ian Craven – Partner, Consulting Services

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Sample Size

Our concern for this part of the COP methodology was that the sample sizes for the Vancouver Island and Interior regions are likely not large enough to be able to draw statistically significant conclusions from the result to be representative for these regions.

The Consultant responded to our concern that they were not intending statistical validity in each of the three regions sampled but rather a weighted average of these three regions for the entire province.

With that in mind, our concern has been adequately addressed. However, we should point out that that properly ensuring the sample is random would mean selecting a random sample from the provincial population overall. We understand that representatives in each region want to make sure that there are farms in the sample from their region but selecting a sample from each region and then comingling the samples for a weighted result is not necessarily the same thing.

Imputed Costs

Our concern for this part of the COP methodology was that imputed data was used for a significant number of data points, potentially impacting the results of the study as well as the confidence in the presented statistical metrics.

The Consultant responded to our concern acknowledging that there were missing data points, and more than MNP had identified in our final report (MNP had stated that for simplicity reasons we had lumped together all quota periods per producer, as well as all General Farm Information, etc.).

We stand by our concern in the report that substituting data is not an acceptable alternative if the results need to be verifiable.

Quota Periods Included in the Study

Our concern for this part of the COP methodology was that it was our understanding that data would be collected for the 2021 calendar year, and that data from any quota periods at either the beginning or end of 2021 would be prorated based on how many days of those quota periods would fall into the 2021 calendar year. This was also how it was stated in the methodology document provided to us. Upon review of the data, it became clear that a quota period was selected either at the beginning or end of the 2021 calendar year which yielded the most data instead of using the proration method.

The Consultant responded to our concern that MNP had suggested to use the quota periods A167-A173 instead of A168-A174, and that the difference resulting in 8 days is inconsequential.

Our concern still stands as in our report. MNP did not suggest using A167-A173 in their entirety but rather to prorate both A167 and A173 to accurately reflect the 2021 calendar year.

Operating Costs – Data Sources Used and Indexing

Our concern for this part of the COP methodology was twofold. The fiscal year-end used for a producer's operating cost was in some cases too far removed from the 2021 calendar year or quota periods A168-A174. In addition, when indexing these operating costs, multiple fiscal year-end dates were matched to the same quota periods, resulting in inaccurate indexing.

The Consultant responded that they agreed with our concern and have adjusted their approach and calculations.

If the Consultant has properly adjusted the methodology as described, our concern has been adequately addressed. We have not verified the change against data.

Feed Indexing

Our concern for this part of the COP methodology was that feed costs were not indexed as accurately as would have been possible with the indices available to the Consultant. To be more specific, feed costs were averaged over the quota periods A168-A174 and then indexed forward to A180 as an aggregate. Due to variations in inflationary metrics, a more detailed approach would have been to index the feed costs of each separate quota period within A168-A174 to A180.

The Consultant responded that they agreed with our concern and have adjusted their approach and calculations, resulting in an increase in overall feed costs of 0.33%.

If the Consultant has properly adjusted the methodology as described, our concern has been adequately addressed. We have not verified the change against data.

Labour – Source of Management Rate and Use of Producer Actual Information

Our concern for this part of the COP methodology was twofold. The Consultant had recorded actual hours and attached an hourly management rate to those hours classified as management. According to the Consultant, this rate was sourced from MNP whereas we only had mentioned examples of rates as well as sources of where to find those. Our other concern was, although available from producers' financial statements, the annual hired labour costs did not appear to be used but modeled instead.

The Consultant responded that they agreed with the first part and have adjusted their approach since. They also responded they do not agree with the second part of our concern and have used actual information where available. It appears that the Consultant focused on actual hours where available, whereas the reference in our report was with respect to a) it is not clear to us whether the actual hours used include both producer hours and employee hours or producer hours only, and b) that for those

producers that had hired labour the hired labour expense readily available from a producer's financial statement does not appear to be used. Therefore, the issue we raised in our report still stands.

Capital Assets – Geographical Differences and Barn Equipment Depreciation Cost

Our concern for this part of the COP methodology was twofold. First, while reviewing the data it had come to our attention that the values used from the Douglas Cost Guide for single-story barns were increased by 12% to account for any geographical differences between Ontario (to which the Douglas Cost Guide values apply) and BC, but this increase had not been applied to any values from the same cost guide for two-story barns.

The Consultant responded to our concern that they had corrected the error on geographical differences in values sourced from the Douglas Cost Guide. Second, we had raised a concern of the half-life rule being incorrectly applied to the barn equipment depreciation calculation, to which the Consultant responded to having adjusted their calculations to update any actual barn equipment of an age younger than the half-life by setting it at the actual age.

Although the Consultant has addressed one calculation of the depreciation methodology, the overriding issue is that the capital cost calculation cannot be supported primarily because of the source of data (Douglas Cost Guide). We also took issue with several other elements, such as the depreciation process of barn equipment. Without verifiable source data the rest of the cost methodology cannot be confirmed, and our concerns raised in our report still stand.

Investment Cost – Land, Barns, Other Buildings, and Beta Calculation

Our concern for this part of the COP methodology was fourfold. First, upon review of the calculations used for the investment cost, it appeared that land values were indexed backwards for only 17 years instead of 20 years as stated in the methodology document. In addition, a 2022 land value for the Interior of $21,080/acre was used instead of $31,861/acres as specified in the methodology document. The Consultant responded that they have used more recent information since to address this.

Second, whereas the Consultant had suggested to consider a residual value on barns, our intent was to indicate that their calculations resulted in a $0 investment cost if a barn was built prior to 1982.

Third, in previous studies the Consultant had applied a 5-year average of the midpoints used to calculate the beta of security, whereas in this study only 2023 figures were used. The Consultant responded that they have corrected that calculation.

Fourth, to our concern that some data used to calculate the investment cost on Other Buildings was imputed, the Consultant responded that they feel that Other Buildings should be modelled by size category when no actual information is available.

Although our concerns related to investment costs overall have been partially dealt with in the areas of land values and the calculation of the ROE percentage, our concerns on the other, bigger, items still stand. Therefore, we do not believe this is a methodology for investment that be verified.

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Appendix E – Serecon Rebuttal

Joint Working Group (JWG) Meeting

May 10, 2023

DRAFT - For Discussion Purposes Only

Agenda

1. **Comment on MNP *Review of Mainstream Broiler COP Methodology* dated March 31, 2023**
    1. **Imputed Costs**
    2. **Operating Costs – Indexing & Feed**
    3. **Labour**
    4. **Capital Costs – Depreciation & ROE**
2. **Present Updated 2021 Mainstream Broiler COP Results:**
    1. **2021 Broiler Demographic**
3. **Discussion Regarding Capital Cost Calculations**

Key MNP Points

1. Sample Sizes in Interior and Vancouver Island
2. Imputed Costs – Feed and Live WT
3. 168-174 vs 167-173
4. Operating Costs – varying year ends, indexing
   i. Updated to be more specific
5. Feed Indexing
6. Labour – need our own source of MGT wage rate
7. Capital
   i. Inconsistent normalization of DCG
   ii. Half life equipment < barn age
8. Investment
   i. Land – inconsistent normalization
   ii. ROE of Barns older 35yrs should not be zero
   iii. ROE – CAPM Calculation

1- Sample Sizes

<u>MNP Comment:</u> Discussion over the island and interior and how in order to be statistically valid you would need to take the population

<u>Serecon Rebuttal:</u> We are not looking for statistical validity in each of the three regions, rather we are looking of a valid weighted average for the province.

2- Imputed Costs

MNP Comment: criticized our approach to dealing with missing data points within a given cooperative producers information. MNP suggested that this reflected a significant number of data points (29%).

Serecon Rebuttal: We acknowledge that there are data points that producers cannot give us and/or could not be validated. We clearly identified these in the documents we provide thus enabling full disclosure which is how MNP identified this in the first place.

MNP's methodology of analysis is incorrect and significantly overestimates the apparent issue. MNP lumped results into 5 costing categories for each producer resulting in 215 "data points". If there is a single data point missing in any of the individual items with a single element in a category, all that producer's data was assumed to be imputed for that category – missing office expenses would result in 1 out 215 being imputed via MNP's methodology.

The fact is that there are almost 13,000 data points (not 215) and only approx. 13% had any imputation used.

While eliminating the producer was an option (used for two producers), Serecon also looked at various other options to see how to include the producer while not disrupting the validity of the results.

2 - Live Weights Example

Given the importance of the live weight calculation we chose to implement the methodology for producers we did have all the information for in order to test what impact it would have had in the results. This counter factual approach illustrates limited impact.

Live Weight Sold (KG)				
Producer ID	**A Period Tested**	**Reported Actuals**	**Imputed Value**	**% Difference**
97	168	$ 101,488.00	$ 113,538.17	12%
88	169	$ 71,410.28	$ 74,353.47	4%
84	170	$ 237,063.00	$ 224,397.33	-5%
20	171	$ 48,439.24	$ 46,685.59	-4%
4	172	$ 126,656.00	$ 128,126.17	1%
8	173	$ 45,173.00	$ 42,039.17	-7%
66	174	$ 84,110.00	$ 83,937.33	0%
Average Difference from Actuals				0.2%

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2 - Effect on Cost Item Variation

MNP also expressed concern that the methodology would smooth the error making the results appear to be more significant than they were.

We had looked at that and determined that the distribution around the key cost variables in fact does not change significantly using our approach.

The differences in the table below would not change the opinion that this is a statistically valid sample at the +/- 5% at a 95% LOS.

COP Item	CV without Imputations	CV with Imputations	% Change
Feed	12.98%	12.71%	-2%
Chicks	15.19%	14.74%	-3%

2- Imputed Costs Summary

Options to consider:

1. **Pull producers who don't have 100% complete flock or operating cost info for 7 full periods – *a rather blunt instrument given the reality***
2. **Don't impute when data is missing, and don't use the cell in the calculations – Note that we still must normalize since annualized costs now need to be adjusted to reflect the fact that they don't represent annual production/expenses.**
3. **Use the imputed cost process as proposed which in our opinion does not create a significant bias in either averages or variation.**

3 - Quota Periods Selected

MNP Comment: criticized the use of A-168 to A-174 and suggested we use A-167 to A-173. They felt this better reflects the 2021 calendar year.

Serecon Rebuttal: We believe that the most recent and most robust annualized data set should be used. The data we collected had much more completed information in A-168 vs. A-167 so feel that this data is more appropriate.

The difference is rather inconsequential since in the actual data it only reflects a total of an 8-day differential.

4 - Operating Costs - Indexing

MNP Comment: identified that operating costs coming from the producers' financials did not necessarily match the chosen production period. They also suggested a more robust indexing approach.

Serecon Rebuttal: We don't dispute and have adjusted the approach to match that suggested by MNP.

5 – Feed Costs - Indexing

<u>MNP Comment</u>: suggested a more granular approach to feed indexing.

<u>Serecon Rebuttal:</u> We don't dispute and have adjusted the approach to match that suggested by MNP. This adjustment increased feed costs by .33%.

6 – Labour

MNP Comment: suggested we look to different sources for labour rates. They also made a comment that we did not use producer actual information when available.

Serecon Rebuttal: We don't dispute the issue around sources and have adjusted the approach to match that suggested by MNP.

We do dispute the second point as we do use the producers wage information when it is available.

7 – Capital

<u>MNP Comment</u>: Indicated that for single story barns we had adjusted for geographical variance, but this had not been done for categories.

They suggested that any actual (barn equipment) that was in a barn younger than the half life, be set at the actual age.

<u>Serecon Rebuttal:</u> MNP caught an error and we corrected for the geographical variance.

We do not dispute the second point and have adjusted the calculations accordingly.

8 – Investment

MNP Comment: They pointed out inconsistencies in the land calculations.
It was suggested that a residual value for barns should be considered.
The Beta calculation was inconsistent with what was stated in the summary report to them.
Other buildings should not be grouped by quota size when data was not provided.

Serecon Rebuttal: We used more recent land value information to address the first point. We have also now included a residual value in the calculations. The Beta calculation has been corrected.

We do feel that other buildings should be modelled by size category when the producer cannot provide detailed information.

Questions?

Appendix F - Serecon Rebuttal #2

June 9, 2023

Mr. Woody Siemens
Executive Director
BC Chicken Marketing Board
Unit 220-1848 McCallum Road
Abbotsford, BC V2S 0H9

Dear Mr. Siemens,

RE: Response to Addendum to MNP Final Report - Review of 2021 Mainstream COP Methodology

It is our understanding that the BCCMB provided our initial rebuttal to the MNP Report in PowerPoint format to MNP on May 10, 2023. Following this, MNP provided an additional brief that outlined their remaining concerns. The purpose of the following is to respond to these remaining concerns.

As always, we acknowledge the diligent work conducted by the additional third-party reviewer and the professionalism with which they assessed the study. MNP has outlined some valuable points in their review process and highlighted some areas where our team has gone back and made updates. In addition, our team has incorporated the changes requested by the Joint Working Group (JWG) during the last meeting on May 10th, 2023.

We look forward to discussing next steps once the Board and Committee have had the chance to review this response.

If you have any questions, please do not hesitate to get in touch with me directly.

Sincerely

Serecon Inc.

Bob Burden

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Introduction

This document is a response to the Addendum to Final Report - Review of the 2021 Mainstream Broiler COP Methodology. Our team has reviewed the response and provided comments in the same order that they are addressed in the review by the additional third-party auditor (henceforth referred to as the "auditor"). Each section in the review includes an overview of remaining concerns and how the consultant attempted to address them.

Sampling Size

Comments: MNP reviewed the sampling structure used in the mainstream methodology. The primary comment was related to the potential variability of the sample compared to the true population variability. MNP stated that while variation of the population in the Interior and Vancouver Island is potentially greater than that of the sample, the overall sample size for 2021 was sufficient for the model.

MNP confirms that the concern has been adequately addressed in that Serecon was not attempting to get a statistically significant sample for each region but rather for the entire province of BC.

Imputed Costs

Comments: MNP outlined the potential of reduced data variability in the sample by using imputed values. MNP outlines how the consultant estimated data when there were gaps in the data provided by producers. MNP attempted to estimate the impact of these imputed values by creating a grid with the five major costing categories compared to the 43 producers in the study. In doing so, the grid suggests that 63 of 215 instances (29%) were imputed.

This method highlights a producer with any imputed value regardless of that imputed value's weight on the final COP. Therefore, a data point would be flagged as imputed if a single estimate making up any of the five categories was imputed. MNP acknowledges the consultant's statement that there is imputed data and explained that MNP's method of presenting the imputed results was for simplicity reasons. MNP maintains that substituting data is not appropriate because data must be verifiable.

When working with survey data, it is common practice to use the imputation method to estimate gaps in a sample after adequate respondent follow-up has occurred. Collecting complete survey data from every respondent is not always possible, therefore Serecon maintains that the imputation process is necessary to obtain a result. Further, Serecon built a well defined, transparent, and logical approach to normalizing data gaps. Serecon would argue that using a structured approach is verifiable since it is clearly transparent and follows a reasonable person approach to data management.

Serecon does not believe that excluding a producer from the sample for a single missing data piece of data would have enhance results. Additionally, to maintain a random sample, data must only be collected from producers selected. Needlessly eliminating producers would introduce a significant potential sampling bias. We are strongly of the opinion that building a formal data normalization

approach enabled us to impute missing data points in a manner that does not have a material impact on the results.

Quota Periods Included in the Study

Comments: MNPs' final comments surrounding quota periods included in this study is that it was their understanding that the consultant was attempting to collect data for the 2021 calendar year, yet the consultant made no attempt to include prorated flock periods from the overlapping flocks in A167 and A173 but rather just to use flock data from A168-A174 in its entirety.

MNP is aware that the consultant opted to use A168-A174 because of the increased data availability in those periods but still maintain that they did not suggest using A167-A173 in its entirety but to rather prorate fringe periods as was originally outlined in the methodology provided to them to more accurately reflect the 2021 calendar year.

The fact is that the A-periods do not fit within an annualized structure regardless of which periods are selected. As a result, some adjustment is necessary with any A-period selection. This is the operating reality that must be addressed.

When Serecon was analysing the data, it was identified that the data collected from producers was more robust in the A168-A174 period. As a result, we strongly maintain that the 8-day difference in average flock placement dates in the A167 and A168 period is inconsequential considering all surveyed cost data is indexed forward to the benchmark period in A180.

Operating Costs – Data Sources Used and Indexing

Comments: MNP agrees that the overall method of collecting the annual operating costs from producers is valid yet expressed concern that the fiscal year end dates of some producers being too far removed from the 2021 period. Additionally, the review agrees that the method of indexing annualized cost to A180 is valid approach, however, they question the variability that is lost by indexing based on the financial year ends respective A period rather than on the financial year end itself.

MNPs concern surrounding fiscal years end being too far removed from the 2021 calendar year is surprising given that from an accounting standpoint they are familiar with both accrual and cash approaches. Adjustments and imputations are commonly used to move cash statements to accrual statements. Serecon has followed the accrual process to ensure that available data is reflective of the 2021 operating reality and the potential risk presented is mitigated through the indexing process to A180.

On the other hand, we agree with MNP that the potential loss of variability due to the indexing of annual operating costs on a A-period basis is reasonable. Therefore, we have updated the model to index operating costs based on financial year ends. The new results indicate the indexing change results in an 0.61% overall increase to operating cost categories (Utilities, Fuel, R&M, Bedding, Office, and Insurance).

Feed Indexing

Comments: The review's comments surrounding feed are associated with the indexing of the feed costs. Imputation concerns are related to the 'smoothing' effect on variability by including the imputed feed data in the COP calculation. The second comment regarding the indexing of feed cost refers to the use of indexing based on a composite index for the A168-A174 period. MNP states that this could produce different results than if feed costs were indexed individually to A180.

Serecon would argue that the use of a composite feed price index to index feed costs is a common approach utilized in other COP studies that has been scrutinized in previous third-party audits. The consultant sources feed prices from feed mills in the respective COP regions and we are confident in the accuracy of the prices used in the index. However, in the latest COP update we have gone back and indexed each A Period feed cost forward individually as MNP suggested rather than using the composite feed price index approach. The updated approach to indexing feed resulted in a %0.33 increase in feed costs.

Labour – Source of Management Rate and Use of Producer Actual Information

Comments: MNP comments on the use of the time for task model and suggest that short of collecting daily time sheets it is likely the most accurate approach. MNP also suggests that Serecon misunderstood their comments when suggesting that MNP was providing a recommended wage rate.

The final comment provided by MNP in the report discuss the limited use of actual labour costs provided by producers in the final labour model.

Serecon acknowledges a misunderstanding when referring to MNP as the reference for the Management Labour data point. We have since replaced the management wage rate with an independently verifiable $/hour rate sourced from Statistics Canada.

MNPs concern surrounding the limited use of actual producer labour data is not accurate. We would like to clarify that when producers were able to provide their own management salaries and employee labour costs, it was our intent to use them in the calculation for labour costs. In addition, when general employee wage rates were available, but actual hours worked were not, the farm wage rate was used in conjunction with estimates collected from the time-for-task model. The consultant feels this had adequately addressed MNPs' concerns surrounding labour.

Capital Assets – Geographical Differences and Equipment Depreciation Cost

Comments: MNPs outlined two final concerns surrounding the estimation of capital in the model. The first concern was related to the inconsistent increasing of Douglas Cost Guide build cost estimates used in the capital models. They pointed out that some Douglas Cost Guide estimates were increased by a 12% geographical factor to represent the different building conditions in BC vs Ontario while others were not.

Their second concern was regarding the modeling of barn equipment has halfway through its useful life with no consideration given to the year the associated barn was built. They felt that the lesser of the half life or barn year ought to be used when estimating barn equipment costs. Finally, MNPs cannot accept our capital modelling method because they cannot verify the Douglas Cost Guide as a valid data source.

Serecon acknowledges the inconsistent incorporation of the geographical variance in the capital model when the initial data was sent to MNP. This error has since been updated in the model to ensure the geographical variance aspect is included in all Douglas Cost Guide build cost estimates for BC used in the model.

MNP and Serecon agree that when modelling barn equipment the lesser of the half life or barn year should be used when estimating depreciation and investment costs. The model has been updated to use the lesser of barn build year or the barn equipment's half life.

Serecon strongly disagrees with MNP's final concern regarding the use of the Douglas Cost Guide as a data source for modeling capital. While not as accurate as a formal appraisal approach it is important to note that Appraisers commonly us the Douglas Cost Guide when conducting their work. It is a third-party assessment of building costs that has been recognized in hearings, courts, and other litigious proceedings across Canada. In our opinion it remains one of the best sources available for agricultural build costs in Canada.

Investment Costs – Land, Barns, Other Buildings, and Beta Calculation

Comments: MNP presented 4 final concerns with the consultant's approach to modelling investment costs.

- The first concern lies in the land values used in estimating return on investment for land in the model. MNP states that the calculation in the model differed from the process outlined in the initial methodology document.
- Next, MNP expressed concerns surrounding the $0 investment cost assigned to barns built prior to the specified useful life in the model (35 years).
- Concerns were raised regarding the beta of security used in the return on equity calculations. MNP identified that previous methodology dictated that a five-year average be used for the beta calculation, but 2023 values were used instead.
- The final concern was related to the use of imputed data when modeling Other Buildings.

We will address these four individually:

- ***Regarding the inconsistency in the land values used in the investment cost, the consultant agrees and have since updated the model to use the most recent land values available to them, sourced from Farm Credit Canada's 2022 farmland values report indexed back 20 years.***
- ***A residual value of 2 years for all buildings in the capital model was also included to address MNPs concern regarding $0 investment costs.***
- ***The beta of security has been updated to follow the methodology specification and uses the five-year average rather than 2023 values.***
- ***Finally, because of the high variability of Other Buildings on an agricultural operation, the consultant maintains that modelling Other Buildings is the best approach.***

We trust that this information will be of use to the JWG during the negotiations and look forward to defending our opinion in this area.

Appendix G – Processor Competitiveness benchmark discussions

The Chicken Board has engaged in discussions over the definition of processor competitiveness, as well as benchmarking processor competitiveness, for numerous years. Specifically for this report, the focus will be on discussions at the Joint Working Group. A number of proposals were discussed but ultimately not brought forward or accepted as recommendations from the JWG to the Board.

Nielsen Data

While the Chicken Board does not currently specifically subscribe to Nielsen data, there is access to it through Chicken Farmers of Canada for our allocation considerations. If the Chicken Board chose to use Nielsen Data as a benchmark, we may be required to purchase the rights and may not be able to publicly disclose the information.

The JWG discussed the use of Nielsen data as a benchmark at the May 24 & May 30, 2023, JWG meeting. Ultimately, there was a lack of support to use the data for the following reasons:

- The data excludes data from some retailers, such as Costco. Costco alone is estimated to make up around 20% of the fresh market share.
- Nielsen data captures the fresh market product only and does not factor in any further processed, frozen, deli or other chicken products.
- Data is collected at point of sale, and can have wild swings depending on promotions.
- The data does not reflect or consider margins between processors and retailers which may or may not have a relationship. Point of Sale prices may reflect discounted or increased margins to processors or retailers, but no reasonable way to differentiate (i.e., loss leaders, corporate pricing strategies, etc).
- Nielsen retail pricing data is extremely volatile and it is heavily influenced by promotion pricing strategies of retail participants included, and the commodity nature of the product.

EMI Data

The Chicken Board receives regular updates on wholesale pricing (EMI data) provided by CPEPC (Canadian Poultry and Egg Processors Council). While the Chicken Board does find value in following this data as an indicator, the PPPABC do not agree the data can be reliably used to represent BC processor information. The Chicken Board will continue to monitor EMI data as it may still represent some of the best available information, but recognize the criticism, and therefore will not link EMI data directly to the BC COP based live price at this time. The JWG discussed but did not make a recommendation to use EMI data to measure processor competitiveness. The following reasons were discussed:

- EMI data is based on Central Canada processors and does not include Western processors.
- BC processors do not generally engage in the wholesale chicken market. BC chicken processors operate under a different business model than those in central Canada.

Agristats Data

The Chicken Board received confidential presentation and data from the PPPABC provided by the firm Agristats. The confidential information included data shared by BC processors and compared to Central Canada processors on cost items from labour, live price, transportation etc. While the Chicken Board valued the presentation and share of information from PPPABC, a number of issues make the information unusable in developing processor competitiveness benchmarks or an inclusion into a pricing model for the live price of chicken. The JWG discussed, but not all members of the JWG had access to the data as it was solely shared between PPPABC and the Chicken Board. The Chicken Board deemed the data unusable in the live price of chicken for the following reasons:

- The information shared was only at one point in time and there is no agreement to share beyond that point in time. It is our understanding that BC processors do not routinely contribute to Agristats data and are not willing to provide this data regularly. It was a one-off presentation.
- The data was shared in confidence to the Chicken Board but was not shared with the JWG or the rest of the industry. The data is not transparent or repeatable to industry.
- While the data is valuable and helped the Boards understanding, concerns remain if the data would be useable when comparing complex and varied business models between BC processors and Central Canada processors. (i.e. fully integrated plants vs 'kill and chill' plants).
- Costs alone without consideration of revenue or margins does not tell the whole story. BC processors will not willingly share revenue or margin data with the Chicken Board.

A Model Processor

In the past (2018), the BCCGA hired consultants to create a "model processor" in order to evaluate expected returns. This was shared with PPPABC and the Chicken Board. The model processor was not accepted by all stakeholders, as some thought it could not accurately represent the BC processors. At the JWG meeting of May 30th, the stakeholders further discussed if a 'model processor' could be developed as a benchmark to track processor competitiveness. There was no recommendation to pursue this option, as PPPABC do not feel a model processor could accurately reflect the nature of their business. The Board could see this as a valid approach with agreement on the parameters and consultants, however, without buy in from all stakeholders the Chicken Board does not see value in pursuing this option.

Processor Competitiveness Report – Hugh Scorah, PhD.

The Chicken Board commissioned Hugh Scorah to develop an independent report on processor competitiveness for BC Chicken processors. The report was not brought to the JWG, but it was discussed at the formerly named CRMC. While PPPABC was not an active participant on the CRMC, through an observer, PPPABC expressed their disagreement with the report written by Hugh Scorah.

While the Board understands the PPPABC disagreement with the report, the Chicken Board still finds value in the report, although most benchmarks are backwards looking. Two general comments are made below but the report can be read more thoroughly in a later appendix.

Capital Investment – Hugh Scorah writes about using capital investment of processors as a measure of BC processor competitiveness. This was discussed at the JWG meeting of May 30th but the Chicken Board has no access to actual dollar figures of capital investments by BC processors. It is noted that the Board is aware of extensive processor investments but struggles to track or know actual dollar figures or compare to Central Canada. Capital investments include but are not limited to:

- BC processors acquisition of quota in BC is significant. It is estimated quota owned by families that also own processors are estimated at over 23% of all quota in BC, which has grown from around 12% since 2012.
- BC Processors expansion to Western provinces and Central Canada. BC Processors have expanded dramatically and spread out their risk and rewards across Canada. Processors originating in BC are now in all Western province. Most timely, is the recent acquisition of Sargent Farms in Ontario by a BC based processor.
- BC has seen the expansion and growth of Rossdown Farms, FarmFed, and Farmcrest Foods.
- The Chicken industry is a growing market and BC processors continue to handle increasing allocations. The Chicken Board believes processors continue to invest in their plants to ensure they can handle increased volumes and increase their efficiency.

Plants going out of business – Hugh Scorah writes that if plants aren't going out of business they by default remain competitive. While this statement is true, the Chicken Board recognizes this is a backwards looking metric. The Chicken Board would seek to be proactive before plants suffer delinquencies. However, the Chicken Board also note that there are a variety of reasons why a processing plant could go out of business including poor management, lack of efficiencies, succession planning, or mergers and acquisitions amongst others unrelated to the live price of chicken. Over the last decade, BC has seen processors expand eastward but have not seen as much of the reverse. This would indicate that BC processors have been in a competitive position, but this does not forward measure future competitiveness.

Comparison to Ontario Live Price

The Chicken Board has been engaged in the discussion of BC live price compared to the Ontario live price as a measure of processor competitiveness for many years. The discussion on the Ontario live price as a measure of processor competitiveness was discussed at the JWG at the April 18th and May 30th meeting, specifically. While all stakeholders agreed it is important, there was no agreement or recommendation on how to use the Ontario live price as a benchmark to the BC live price.

While the Chicken Board believes this is a valuable metric to measure, it cannot be solely used while also balancing the definition of reasonable returns to an efficient grower. The ongoing

use of a guardrail in the interim formula as compared to Ontario pricing has led to challenges and inequities in the BC chicken sector. The Chicken Board accepts that we will continue to monitor the pricing differential between BC and Ontario, and seek through efficiencies, to tighten the differential. The Chicken Board believes that without an understanding of processor margins or revenues, it becomes an impossible task to measure how to 'share the pain' or to come to a fair and reasonable guardrail figure based on Ontario live price. Attempting to define a number would result in continued unfruitful debate, likely deteriorating relationships, and would lead to the potential same challenges the chicken industry currently experiences.
It should be noted that the scope of the Chicken Boards mandate is setting the live price of chicken at the farmgate. In order to fairly understand a 'sharing of the pain', the Chicken Board would either need to receive transparent and verifiable revenue data from BC processors or set the price of chicken at the wholesale level.

Due to this above reasoning, any further discussion of guardrails is a moot point. The Chicken Board is only interested in the development of competitiveness factors that are evidence-based, with verifiable and transparent data.

Appendix H - Hugh Scorah, Phd.
Processor Competitiveness report

DECEMBER 20, 2022

BC CHICKEN PROCESSOR COMPETITIVENESS

PREPARED FOR THE BC CHICKEN MARKETING BOARD

PREPARED BY HUGH SCORAH

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December 20, 2022

Harvey Sasaki, Chair
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The objectives of this document are four-fold:

- Develop potential 'processor competitiveness' benchmarks that could be used to assess the effects of cost-recovery pricing formulas.
- Evaluate the measures proposed by the PPPABC for processor competitiveness.
- Comment on the report, "Costs and Returns in BC Chicken Marketing" and evaluate proposed Processor Competitiveness benchmarks against the models and data in this report.
- Offer a recommendation on a processor competitiveness benchmark.

The report begins with a discussion of the definition of processor competitiveness. The arguments made below on the different potential benchmarks offered here as well as those by the PPPABC depend on how the definition "processor competitiveness" is expanded upon in this document. Particularly the definition of "market share". Following the definition of processor competitiveness, I discuss the measures proposed by the PPPABC and conclude that they are not up to the task and offer some alternatives in the subsequent section that make use of the definition of processor competitiveness proposed here.

A further sections comments on the report "Costs and Returns in BC Chicken Marketing" from Agri-Food Economic Systems and how the methodology and data from their approach could be used with the benchmarks. The final section recommends one of the approaches for use in the development of a pricing formula.

Defining Competitiveness

The BC FIRB decision from November 1, 2022 [1] ***Section 37 Definitions states that Processor Competitiveness can be defined as "The ability to be profitable and sustainably maintain or enhance market share. "***

To make use of this definition it is necessary to be clear about what is meant by "profitable", "sustainably maintain" and "market share".

I offer the following definitions:

- Profitable – revenues are greater than operating and debt service costs.
- Sustainably Maintain – the business is not faced with the threat of closure
- Market Share – adequate market share is such that the processing capacity in British Columbia is sufficient to process quota allocation and keep up with growth in the allocation.

Of these definitions, 'market share' is the most likely to give rise to disagreement. I limit market share to keeping up with the provincial allocation because the processors are operating in a supply managed context. Provincial allocations will be roughly commensurate with provincial demand over time, and this limits the potential growth in market share beyond the allocation. The key thing from the perspective of live chicken pricing is evaluating whether plants are making sufficient margins to stay open and invest in new capacity that can keep up with growth in provincial chicken demand. Without this it is not possible for the industry to keep up with growth in provincial demand.

PPPABC Approaches to Processor Competitiveness

In Appendix 1 of the PPPABCs September 7, 2022 submission to Chair Donkers of the BCFIRB[2], the PPPABC outlines 4 possible approaches for assessing processor competitiveness. These were:

> *1. **Live bird cost comparisons** - are the most transparent cost element that makes up over 65% of a processor's total costs.*
>
> *2. **Labour comparisons** – the other most significant cost element is extremely challenging to compare between provinces given the different product mixes, automation, and use of third tier processors in Central Canada*

[1] IN THE MATTER OF THE NATURAL PRODUCTS MARKETING (BC) ACT AND BC Chicken Marketing Board Long Term Formula Development Plan
https://www2.gov.bc.ca/assets/gov/british-columbians-our-governments/organizational-structure/boards-commissions-tribunals/bc-farm-industry-review-board/regulated-marketing/supervisory-reviews/2020-chicken-pricing/2022_nov_1_chicken_board_formula_development_plan_final.pdf

[2] https://www2.gov.bc.ca/assets/gov/british-columbians-our-governments/organizational-structure/boards-commissions-tribunals/bc-farm-industry-review-board/regulated-marketing/supervisory-reviews/2020-chicken-pricing/2022_sep_07_pppabc_letter_to_bcfirb_-_bccmb_pricing_recommendation.pdf

3. ***Revenue and/or margin comparisons*** *– this data is not available due to legal and competitive sensitivities*

4. ***Market share*** *– given that we operate in supply management, market share is production based and there is no sales-based market share data available.*

If we continue to make use of the definition of Processor Competitiveness: "*The ability to be profitable and sustainably maintain or enhance market share****.*** "(1) and (2) are not, on their own, informative in terms of profitability or market share. It is not possible to assess profitability without having measures for both revenues and costs. A change in the relative costs of live birds, labour, and/or retail chicken prices also does not tell us anything about changes in market share. There are too many other variables at play.

For (3) revenue does not tell us anything about profitability and as described below it is not necessary to collect data from individual firms on margins to assess whether firms are achieving minimum levels of profitability or maintaining the ability to process the provincial allocation.

I read (4) as making a similar argument to what I have made in the first section above regarding market share. Provincial allocations will be roughly commensurate with provincial demand over time, and this limits the potential growth in market share beyond the allocation in any province. As long as processing capacity is sufficient to sustainably process the provincial allocation and can keep up with growth in the allocation then it is adequate. Logically, the market share argument made by the PPPABC argues against the three approaches suggested prior to it. If market-share is "production based" in supply management then inter-provincial, specifically Ontario comparisons are of limited utility. Unless of course, Ontario processors have the market power to set prices in the BC fresh chicken market. To my knowledge there is no evidence for this.

Benchmarks for Processor Competitiveness

In the business, finance and economics literature competitiveness is usually approached one of two ways, first in terms of firm survival and second in terms of relative returns to other investment opportunities.

These two approaches suggest four possibilities for evaluating competitiveness from a theoretical perspective that can be evaluated against the definition of Processor Competitiveness that has already been provided with the emphasis on profitability and market share. To make the problem simpler, it is helpful to consider when the processing sector would not be competitive rather than what an adequate level of competitiveness would be. It is much easier, with the limited data available to determine when things are not working than to decide on what a the right amount of 'competitiveness' should be. The BC poultry processing sector would not be competitive when:

1. Plants must be shutdown because production costs are greater than sale price.
2. Plants must be shutdown because product flow is insufficient to meet fixed costs (unit margin is sufficient but volume is not).

3. Returns are sufficiently low that capital is reallocated away from the sector and plants are not maintained.
4. Returns are insufficient to justify investment in a new processing facility to meet increasing demand for chicken in BC.

To start, (2) can be ignored in a supply managed context as processing capacity has developed over time to closely match the supply of chicken and there are no current or expected large demand destruction.

The remaining three can be assessed against our definition of processor competitiveness: "The ability to be profitable and sustainably maintain or enhance market share. "All three can provide useful information about the profitability and ability to process the provincial allocation. For (1) if plants are not shutting down then we know revenues are at least meeting costs and the current allocation is being processed. A similar argument can be made for (3), if we observe that facilities are being maintained revenue is meeting or exceeding costs and the allocation is being processed. For (4), we have a future looking metric that allows us to evaluate whether or not allocation growth will be processed once existing processing plants are at capacity.

It is important to note for (1), (3), and (4) that what is happening with firms in Ontario has no bearing on assessing sector competitiveness unless Ontario processors are setting the price for retail chicken below breakeven. To my knowledge evidence has not been presented to this effect.

Two metrics fall out of (1) and (3) that are easily observed. For (1), do we observe plants shutting down? and for (3), do we observe investment decisions being made? To my knowledge, none of the processing facilities in BC are being closed, so they are currently competitive in the sense of (1) and we continue to see investment in the facilities so they must be offering attractive returns to investors in the industry at this time. (3) has the advantage of being forward looking. With (1) it could be argued that even though the industry is not currently shutting down plants there is the potential for it in the future. The onus is then on the processing industry to provide data to the effect that forecasted production costs are less than sale price.

From the perspective of the pricing process itself (1) and (3) have the disadvantage of not being informative about the impacts of a change in the pricing model from one that is an Ontario differential to one that is a BC Cost Recovery model.

Constructing a benchmark around (4) would require building a financial model of the investment opportunity in the sector and agreeing on the assumptions of the model. This has the disadvantage of being time consuming and not based on observable facts about shutdowns and investment in existing plants but may be better suited to developing a new pricing process. This is discussed further in the next section in light of the results of the modelling effort in "Costs and Returns in BC Chicken Marketing".

"Costs and Returns in BC Chicken Marketing" and Benchmarks for Competitiveness

The general approach and model included in the report "Costs and Returns in BC Chicken Marketing" prepared in October 2020 by Agri-Food Economic Systems would be suitable for evaluating the benchmarks outlined in the previous section. The cost data would need to be updated again as there has been strong price inflation in most product categories since the report was published. As well, some assumptions need to be clarified and, in some cases, additional data would need to be collected. This is clarified below in the discussion of the following benchmarks.

1. *Plants must be shut down because production costs are greater than sale price.*
2. *Returns are sufficiently low that capital is reallocated away from the sector and plants are not maintained.*
3. *Returns are insufficient to justify investment in a new processing facility to meet increasing demand for chicken in BC.*

It is straight-forward to use the data from the Agri-Food Systems to assess (1). If Processor Margins are positive in the processor margin model it is unlikely that they will shut down a processing plant for financial reasons. In this sense we could say that the processing business in British Columbia is 'competitive' in that the firms in the sector are not at risk of shutting down.

(2) could be used to evaluate processor competitiveness with the processor margin model if additional data on plant upgrades and maintenance costs were obtained. This would not be the best choice as there is no clear way to assess what the necessary expenditures would be for the province as a whole. Attempted modelling would require making judgement calls that would require input from processors on future plans that are not likely to be acceptable to the parties involved. This eliminates (2) as a forward-looking benchmark. Investment in existing plant and equipment could still be used as a backward-looking benchmark simply by observing whether processors have been making investments in existing plants or not.

For (3), it is my belief that the underlying model used to generate the processor margin numbers in the Agri-Food Economic System report could be used to assess whether returns justify new investment or not, but a benchmark value could not be calculated from the numbers in the report. To be able to use this data to generate a rough estimate of returns on a new investment would require that assumptions be clarified around
(a) the expected life of the plant
(b) the interest rate assumptions used in calculating capital costs
(c) taxes be deducted from net revenues
(d) annual plant throughput in kgs be stated.

Using this information, we can calculate an estimated return on investment with the following formula.

Annual Net Income = margin ($/kg) * kgs produced – taxes – interest payments
Annual Return on Investment = Net Income / Capital Invested

This return on investment could be compared to alternative investments in the food processing sector using the Damodaran Average Excess Returns Index[3] in the Food Processing sector for Canada, NZ and Australia. Aswath Damodoran, a professor at the NYU Stern School of Business is currently the best free and publicly available resource for finding data on average industry returns around the world. This index is calculated using publicly traded stocks in the above-mentioned countries. This index is averaged over the returns of 71 firms and is currently estimated to be 3.68%. If modeled returns are below this value, it may be reasonable to expect that future investment in new processing plants will not be justified as demand for chicken grows. This number would have to be updated over time as the general market conditions change.

Recommendations

For the purposes of constructing a new cost recovery pricing system it makes sense to test the introduction of the new pricing system against its impacts on investment in the processing sector. As demand for chicken in British Columbia grows both capacity for growing and processing chicken must grow. Testing for this would make use of the third benchmark in the previous section, that is checking to see if *returns are insufficient to justify investment in a new processing facility to meet increasing demand for chicken in BC.*

The other benchmarks suggested either do not account for the fact that processing capacity must increase with grower capacity, or they require too many firm specific assumptions to be a workable solution.

The methodology proposed here would make use of the model developed by Agri-Food Economic Systems with updated data to account for recent inflation as well providing details on plant life expectancy, interest rates, taxation, and plant capacity. Using this data, the outputs of a new pricing formula can be used to check for insufficient returns by calculating annual net income and annual return on investment and comparing that against the Damodoran estimate of food-processing firm returns from Canada, New Zealand, and Australia.

[3] This index uses the return on capital minus the cost of capital. In the model here we assume that the firm is financing with 100% debt which may not be realistic. If the processors provide data on their weighted average cost of capital, a measure commensurate with that used by Domodoran could be calculated. This index can be found here: https://pages.stern.nyu.edu/~adamodar/

Appendix I – Timeline of Long-term Pricing Consultation

Timeline of Long-term Pricing Consultation since March 4, 2022 submission

The Below is a timeline of the consultation process from March 4, 2022 up until the BCCMB submission of the COP based live price decision of October 31, 2023. Please note this list is not intended to be inclusive of every meeting or conversation but intends to highlight the key meetings. It does not include all Board meetings where pricing was discussed.

Date	Action/Communication	Stakeholders Notified	Other Comments
March 4, 2022	Submission to BCFIRB – BCCMB Long Term Pricing Formula for Mainstream Chicken	All	FIRB approved concept of COP based live price November 1, 2022
May 5, 2022	BCCMB sent out a Request for Expression of Interest to firms for development of a cost of production model	Sent direct to four firms, other BC poultry Boards, Western Chicken Boards, Chicken Farmers of Ontario, BCFIRB, as well as both the BCCGA and PPPABC to facilitate or promote to interested parties	This occurred prior to CRMC first meeting.
June 22, 2022	Serecon selected to survey growers and provide a COP model, pending comments from project manager.	BCCMB, CRMC	
June 28, 2022	Update on LT pricing/project manager	BC FIRB, PPAC, BCBHEC and Newsletter	
July 28. 2022	Update on LT pricing/project manager/ Serecon Selection	BC FIRB, PPAC, BCBHEC and Newsletter	
August 3, 2022	In-person Meeting with BC FIRB Pricing Panel and BCCMB in Victoria	BC FIRB Panel	
August 11, 2022	CRMC meeting	PPPABC (observer under protest), BCCGA, BCCMB, BCBHEC, BCEHA	Minutes distributed to committee for furtherance to their members as needed.
August 22, 2022	Letter to FIRB On Project manager Resignation Status &	BC FIRB Panel	BCCMB provided further information on the resignation of Randy

	potential Project Manager		Williamson, and requested for Wendy Holm to serve as Project Manager. This request was denied on September 8, 2022.
September 14, 2022	Update on LT Pricing, project manager, CRMC ToR, Serecon Data Collection	BC FIRB, PPAC, BCBHEC and Newsletter	
September 20, 2022	BCCGA Interior Meeting (Armstrong)	Interior growers & industry present	Updated status of long and interim pricing, other Board updates
September 28, 2022	BCCGA Vancouver Island meeting (Duncan)	Vancouver Island Growers and Industry Present	Updated status of long and interim pricing, other Board updates
October 11, 2022	Update on LT Pricing, project manager, Additional 3rd party review,	BC FIRB, PPAC, BCBHEC and Newsletter	
October 26, 2022	BCCGA General Meeting (lower mainland) in person	Mainland growers and industry	Updated status of long and interim pricing, other Board updates
October 28, 2022	Update on LT Pricing, Serecon Data collection, processors competitiveness report	BC FIRB, PPAC, BCBHEC and Newsletter	
November 1, 2022	BC FIRB Decision on BCCMB March 4, 2022 Long term formula development plan	All stakeholders	
November 15, 2022	BCCGA Interior Meeting (Armstrong)	Interior growers & industry present	Updated status of long and interim pricing, other Board updates
November 17, 2022	CRMC Meeting	PPPABC (observer), BCCGA, BCCMB, BCBHEC, BCEHA	Minutes distributed to committee for furtherance to their members as needed.

November 22, 2022	BCCGA Vancouver Island meeting (Duncan)	Vancouver Island Growers and Industry Present	Updated status of long and interim pricing, other Board updates
November 29, 2022	Monthly Update to BC FIRB Panel	BC FIRB, PPAC, BCBHEC and Newsletter	
December 7, 2022	CRMC meeting – review of COP elements	PPPABC (observer), BCCGA, BCCMB, BCBHEC, BCEHA	
December 12, 2022	BCBHEC v BCCMB Joint Committee meeting	BCBHEC v BCCMB	
December 20, 2022	Hugh Scorah Processor Competitiveness Report shared	CRMC	Sent to CRMC December 2022. Was reviewed by CRMC January 19, 2023
December 30, 2022	Monthly Update to BC FIRB Panel	BC FIRB, PPAC, BCBHEC and Newsletter	
January 4, 2023	BCCMB meeting with BCCGA	BCCMB, BCCGA	Meeting on issues and updates, including Long term pricing
January 12, 2023	BCCMB & BCHEC Board to Board meeting	BCBHEC & BCCMB	
January 19, 2023	CRMC Meeting	PPPABC (observer), BCCGA, BCCMB, BCBHEC, BCEHA	CRMC to meet and review draft grower cost data, review and discuss Hugh Scorah processor competitiveness report & further discussion on processor competitiveness
January 27, 2022	Monthly Update to BC FIRB Panel	BC FIRB, PPAC, BCBHEC and Newsletter	
February 6, 2023	BCCMB meeting with PPPABC	BCCMB, PPPABC	
February 21, 2022	Monthly Update to BC FIRB Panel	BC FIRB, PPAC, BCBHEC and Newsletter	
February 22, 2023	BCCMB meeting with PPPABC	BCCMB, PPPABC	Discussion on Agristats data
February 23, 2023	BCCMB meeting with PPPABC	BCCMB, PPPABC	'Defining a reset'
March 1, 2023	BCCMB meeting with BCCGA	Meeting on issues and updates, including Long term pricing	March 1, 2023

March 6, 2023	CRMC	PPPABC (observer), BCCGA, BCCMB, BCBHEC, BCEHA	Review of draft grower cost data, MNP interim report, discussion on definition of reasonable returns to growers & processor competitiveness
March 31, 2022	Monthly Update to BC FIRB Panel	BC FIRB, PPAC, BCBHEC and Newsletter	
April 18, 2023	First meeting of the JWG – common understanding on BC issues. JWG replacing CRMC.	PPPABC, BCCGA, BCCMB	JWG TOR, workplan, framerwork moving forward, discussion on definition of processor competitiveness and reasonable returns to growers, feed company concerns.
April 20, 2023	Meeting with BC FIRB Panel	BCCMB v. BC FIRB Panel	
April 27, 2023	BCCMB & BCHEC Board to Board meeting	BCBHEC & BCCMB	
May 1, 2023	JWG meeting – COP 101 with Serecon (followed by Board meeting)	PPPABC, BCCGA, BCCMB, BCBHEC, BCEHA	Serecon meeting to review COP elements. This meeting opened up to observers.
May 4, 2023	Monthly Update to BC FIRB Panel	BC FIRB, PPAC, BCBHEC and Newsletter	
May 10, 2023	JWG meeting – Additional 3rd party review from MNP discussion (followed by Board meeting)	PPPABC, BCCGA, BCCMB, BCBHEC, BCEHA	MNP additional 3rd party review & Serecon explanation and rebuttal
May 17, 2023	JWG Meeting (followed by Board meeting)	PPPABC, BCCGA, BCCMB, BCBHEC, BCEHA	Continuation of MNP additional 3rd party review and questions. Action plan moving forward to be developed.
May 23, 2023	BCCMB & BCHEC Board to Board meeting	BCBHEC & BCCMB	Information sharing, BCBHEC COP

			update, JWG and BCCMB pricing update, pricing relationship discussions	
May 24, 2023	JWG Meeting (followed by Board meeting)	PPPABC, BCCGA, BCCMB, BCBHEC, BCEHA	Line by Line COP elements, further questions, clarifications or agreements	
May 30, 2023	JWG Meeting (followed by Board meeting)	PPPABC, BCCGA, BCCMB, BCBHEC, BCEHA	Discussions on Grower efficiencies, Processor competitiveness, Premiums (BC and Ontario), Regional pricing, and Assurance of Supply	
May 24 - June 1, 2023	Request for MNP and Serecon to discuss and identify differences in opinions		Written reports from MNP and Serecon prior to June 15 JWG meeting. Noted that MNP partner retired on May 31, 2024	
June 2, 2023	Monthly Update to BC FIRB Panel	BC FIRB, PPAC, BCBHEC and Newsletter		
June 15, 2023	JWG Meeting (followed by Board meeting)	PPPABC, BCCGA, BCCMB, BCBHEC, BCEHA	Review of MNP Addendum, Serecon Rebuttal, Serecon Questions Response, Serecon Formulas & draft COP	
July 6	JWG Meeting (followed by Board meeting)	PPPABC, BCCGA, BCCMB, BCBHEC, BCEHA	Serecon follow up/Q&A, discussion on processor competitiveness and grower efficiencies.	
July 10-11, 2023	Board meeting	BCCMB	Discuss pricing direction	
July 12, 2023	Monthly Update to BC FIRB Panel	BC FIRB, PPAC, BCBHEC and Newsletter		

July 27, 2023	Board meeting	BCCMB	Discuss pricing direction
August 1, 2023	BCBHEC v. BCCMB – Board to Board meeting	BCBHEC, BCCMB	'what we heard' presentation seeking feedback from BCBHEC
August 2, 2023	JWG Meeting (followed by Board meeting)	PPPABC, BCCGA, BCCMB, BCBHEC, BCEHA	'what we heard' presentation seeking feedback from JWG. Request for stakeholder position in writing for next JWG meeting.
August 9, 2023	Board meeting	BCCMB	Discuss pricing direction
August 10, 2023	Monthly Update to BC FIRB Panel	BC FIRB, PPAC, BCBHEC and Newsletter	
August 29, 2023	JWG Meeting (followed by Board meeting)	PPPABC, BCCGA, BCCMB, BCBHEC, BCEHA	Q&A from Serecon, discussion on BCCGA position, discussion on PPPABC position, PPPABC proposal on operating interest, seeking other consensus or recommendations.
August 30, 2023	Board meeting	BCCMB	Discuss pricing direction
September 7, 2023	Meeting with Chicken Farmers of Ontario at CFC office, Ottawa.	BCCMB, CFO	Discuss pricing issues and understanding of available information, presentation on BC COP based live price work to date
September 12, 2023	Monthly Update to BC FIRB Panel	BC FIRB, PPAC, BCBHEC and Newsletter	
September 12, 2023	Board pricing discussion and debrief of JWG and CFO meeting	BCCMB	
September 18, 2023	BCBHEC v. BCCMB – Board to Board meeting	BCBHEC, BCCMB	Presentation of BCCMB pricing proposal

September 19, 2023	Board Meeting	BCCMB	Regular Board meeting & pricing discussions
September 19, 2023	JWG Meeting (followed by Board meeting)	PPPABC (left early), BCCGA, BCCMB, BCBHEC, BCEHA (left early)	Presentation of BCCMB pricing proposal, and further feedback, recommendations or consensus
September 22, 2023	Industry presentation Cover letter sent out	All stakeholders	Cover letter prior to townhall
September 26, 2023	BCCMB Industry Townhall via Zoom. 135 attendees.	All stakeholders	Presentation of BCCMB pricing proposal to all industry for feedback and comment. Included proposal on land ownership policy proposal.
October 3, 2023	BCCMB Industry Townhall – 'Open house' via zoom. 59 attendees.	All stakeholders	The BCCMB held an open zoom for any follow up questions or comments on the proposals presented and shared September 26, 2023.
October 11, 2023	Deadline for industry feedback	All stakeholders	Deadline for industry feedback
October 16, 2023	JWG Meeting	PPPABC (did not attend), BCCGA, BCCMB, BCBHEC, BCEHA (did not attend)	Meeting to review industry feedback and provide any final recommendations or feedback to the BCCMB.
October 17, 2023	Board meeting	BCCMB	
October 18, 2023	PPAC Meeting	PPPABC, BCCGA	Final opportunity for PPAC input. The Chicken Board attended as observers and met to discuss feedback immediately following the PPAC.

October 30, 2023	Final Submission to BC FIRB pricing Panel	All stakeholders	

British Columbia Chicken Marketing Board
Pricing and Production Advisory Committee
Terms of Reference
May 2023

Background

The Pricing and Production Advisory Committee (PPAC) was established by Regulation in 1995, under the *Natural Products Marketing (BC) Act* (*NPMA*) and is included in the General Orders of the British Columbia Chicken Marketing Board (Board).

The PPAC's makeup of growers, processors and other industry stakeholders is intended to provide non-binding recommendations by consensus to the Board in all matters involving production or pricing. The PPAC plays an integral role in helping to support the stability of the chicken sector in BC.

Mandate [as per division 3.20 (1)1 of the British Columbia Chicken Marketing Scheme, B.C. Reg. 514/95 (Scheme) under the *NPMA*]

The role of the PPAC is to advise the Board, on the request of the Board or on the initiative of the PPAC, concerning any matter relating to the pricing or production decisions the Board has made or may make.

The Board must consult with the PPAC and consider the PPAC's advice before the Board makes any decision relating to pricing or production.

Selection and Membership (appointed by the Board as per division 3.20 (1) of the Scheme)

- 3 growers, appointed by the board after consultation with the British Columbia Chicken Growers Association.
- 3 processors appointed by the board after consultation with the Primary Poultry Processors Association of BC
- Further persons appointed by the board to broaden the scope of experience available to the committee in its deliberations.

Other Membership

- one broiler hatching egg producer appointed by the Board after consultation with the BC Broiler Hatching Egg Commission.

- one independent chair who presides over the meeting of the PPAC and coordinates the communications between the members of the PPAC and the PPAC and the Board.
- The Board will appoint an alternate for each member of the PPAC.
- Members of the BC Chicken Marketing Board as observers.

Member Participation

- all members are appointed for a 2-year term, each year of the term is the calendar year.
- no term limits will be applied.
- members are expected to attend all meetings but if unable to attend a specific meeting, must designate an alternate that was prior approved by the Board.
- Committee members are expected to attempt to find common ground and reach consensus on important issues related to pricing and production.

PPAC Chair

- Review of the contract and position every three years unless otherwise necessary.

Reporting and Deliverables

- Formal deliverables are to be provided in electronic format, as determined appropriate by the PPAC chair and Board staff. The PPAC reports only to the Board and does not report or make recommendations to other organisations.

Decision Making

- The PPAC will make non-binding recommendations on a consensus basis. In the instance that no consensus could be reached, the diverging views will be included in the report to the Board.

Appendix K - PPAC feedback summary

PPAC – BCCMB Pricing Proposal Feedback Summary **October 18, 2023**

Proposal Item	PPPABC Feedback*	BCCGA Feedback*
1. Process	The Process by which the BCCMB has arrived at their recommendation was not well defined, it did not follow a clearly identified set of steps that were transparent to stakeholders. Third parties were not used appropriately, and meetings followed ad hoc agendas. The PPPABC maintains that our views have not been given the appropriate level of consideration as our submissions have been summarily dismissed, discounted, or completely ignored.	None
2. Processor Competitiveness	The Live Price Formula proposed by the BCCMB does not consider the need for BC Processors to be competitive in the National marketplace and as such the formula fails to meet a critical aspect to the Terms of Reference that were approved by FIRB. The concept that “grower efficiencies” will result a competitive live price for BC Processors is not well defined as the thresholds on competitive live price differentials have not been quantified.	Processor competitiveness has been very difficult to set due to a lack of transparent and verifiable information. Given that this is an undiscovered variable, it is difficult to understand how grower efficiencies have been somewhat arbitrarily applied to the COP, with what seems to be an attempt to reduce grower returns to appease processor complaints rather than making decisions surrounding actual surveyed data.

*Summarized from PPPABC Letter of October 17, 2023 and BCCGA Letter of September 25, 2023 which are also included as part of PPAC feedback to the BCCMB Proposal of September 26, 2023

Item	PPPABC Feedback*	BCCGA Feedback*
3. Producer Efficiencies	None	Feedback provided in letter of September 25, 2023 summarized as follows: a. Farm Size (Prefer Median vs Mean) b. Chicken Weight Categories (Concern with using lower than actual in formula) c. Barn Density (Concern with using higher than actual in formula) d. Feed Conversion Ratio e. Annual Volume Adjustments
4. Phase-In	None	The BCCGA is concerned with the 6 cycles to implement the COP. The growers have been significantly below the COP and will remain at this disadvantage until the proposed A-192 100% implementation date. The BCCGA requests that the implementation percentage match that of the BC Broiler Hatching Egg Producers COP, as discussed in the JWG
5. Updating Mechanisms	None	None

*Summarized from PPPABC Letter of October 17, 2023 and BCCGA Letter of September 25, 2023 which are also included as part of PPAC feedback to the BCCMB Proposal of September 26, 2023

Item	PPPABC Feedback*	BCCGA Feedback*
6. Methodology	The COP that has been developed by the BCCMB continues to inflate actual costs being experienced by BC growers. • For example, feed conversion which are actualized in the ON COPF on a cycle basis will lag in BC by as much as 18 months. • Price increases are actualized on a cycle-by-cycle basis but offsets (volume increases) are only captured annually.	Feedback provided in letter of September 25, 2023 summarized as follows: a. Amortization (Prefer 35 vs 40 years) b. Building Costs (Requests full review of actual costs in BC) c. Labour (Request use of Statistics Canada Labour)
7. Other	The formula results in a live price in BC that the Board indicates will be in the range of 40 cents [net of catching] over that of Central Canada which is simply untenable for BC Processors, our customer and our consumers.	It was noted that the proposed BC live price differential with Ontario for A-180 is $0.2548. However, 76% of this differential is feed. The differential of all other costs is only $0.06, which is more significant than the Ontario “non-feed and chick” COP cpmponents. A grower can do little to nothing to reduce this cost; it is immediately borne by the growers each cycle and is representative of the higher feed costs in BC. The only tool a grower has to become more efficient (and thus reduce feed costs and the cost of chicken in BC) is to invest in their farms by replacing barns when they are depreciated by investing in equipment and modern technology. This can not be done without proper COP pricing.

*Summarized from PPPABC Letter of October 17, 2023 and BCCGA Letter of September 25, 2023 which are also included as part of PPAC feedback to the BCCMB Proposal of September 26, 2023

PRIMARY POULTRY PROCESSORS ASSOCIATION OF B.C.

Jason Born, CPA, CMA, C.Dir.
Chair, BCCMB Pricing and Production Advisory Committee
Via Email

October 17,2023

Dear Jason,

Pursuant to your request yesterday, the PPPABC do not accept the Live Price Formula that is being recommend by the BCCMB. The formula results in a live price in BC that the Board indicates will be in the range of 40 cents [net of catching] over that of Central Canada which is simply untenable for BC Processors, our customer and our consumers.

Going back 4+ years, BC industry stakeholders recognized the challenges that were being created by the ON COPF across the entire BC industry. The ON pricing scheme was putting pressure on the BC hatching egg industry. BC hatcheries, BC broiler growers and BC processors. At that time, it was recognized that any solution would need to benefit all stakeholders in the value chain.

Significant changes in the ON COPF were introduced [A-169] that should have allowed the BCCMB and BCBHEC to find a solution that would be beneficial to all parties. Rather than introduce a solution that would benefit the entire value chain, the formula that has been introduced by the BCBHEC and the formula the is being recommended by the BCCMB provide significant financial improvements for BC Hatching Egg producers and BC Broiler growers at the expense of BC Hatcheries and BC Poultry Processors.

- The Live Price Formula proposed by the BCCMB does not consider the need for BC Processors to be competitive in the National marketplace and as such the formula fails to meet a critical aspect to the Terms of Reference that were approved by FIRB.
    - The concept that “grower efficiencies” will result a competitive live price for BC Processors is not well defined as the thresholds on competitive live price differentials have not been quantified.

- The PPPABC maintains that our views have not been given the appropriate level of consideration as our submissions have been summarily dismissed, discounted, or completely ignored.

- The PPPABC re-engaged in discussions with the BCCMB at the request of the chair but did so based on certain conditions being met. In hindsight this was an error by PPPABC as

nothing fundamentally changed in the approach being taken by the BCCMB in their intention to implement a BC COP Live Price.

- The COP that has been developed by the BCCMB continues to inflate actual costs being experienced by BC growers.
    - For example, feed conversion which are actualized in the ON COPF on a cycle basis will lag in BC by as much as 18 months.
    - Price increases are actualized on a cycle-by-cycle basis but offsets (volume increases) are only captured annually.

- The Process by which the BCCMB has arrived at their recommendation was not well defined, it did not follow a clearly identified set of steps that were transparent to stakeholders. Third parties were not used appropriately, and meetings followed ad hoc agendas.

While the PPPABC understands the need for tomorrow's PPAC meeting, given the extensive discussions that have taken place over many months it is not our intention to debate our position with other stakeholders in the meeting.

Respectfully submitted,

Blair Shier
PPPABC Chair

Appendix M - BCCGA Feedback

BC Chicken Growers' ASSOCIATION

September 25, 2023

DELIVERED VIA EMAIL:

BC Farm Industry Review Board

Att: FIRB Chair Peter Donkers and BCCMB Chair Kevin Klippenstein

cc: Woody Siemens: Executive Director BCCMB

RE: BC Chicken Growers' Association – Position regarding BCCMB's Proposal for Industry Consultation and Feedback on the Cost of Production Model.

Dear Gentlemen,

Thank you for the opportunity to meet with the BC Chicken Marketing Board (BCCMB) and the Joint Working Group (JWG) on September 19, 2023, regarding the BCCMB's Proposal for Industry Consultation & Feedback on the Cost of Production Model (COP).

In reviewing the BCCMB's proposal for the new COP, the BCCGA has some concerns about the approach taken for farmer efficiencies and processor competitiveness.

An Efficient Farmer

The BCCMB has chosen to present a COP that attempts to return a set price to an average efficient farmer.

A true Cost of Production model would typically attempt to attain all the data available within set constraints and accessibility and provide a return covering all costs to the average or median producer of the goods. Those above the set price would experience a benefit to their efficiencies achieved, and those below the set price would find they have work to do to achieve these benefits.

Two issues arise from the chosen path:

1. An efficient grower was chosen. This efficiency was brought in through:

    a. **Farm Size:**

A normal distribution of data would typically look like Figure 1, with an even distribution on both sides of the average (mean) of the sample. In this case, the median would, therefore, also be the average.

(See Figure 1: Normal Distribution)

101 - 32450 Simon Avenue, Abbotsford, BC V2T 4J2

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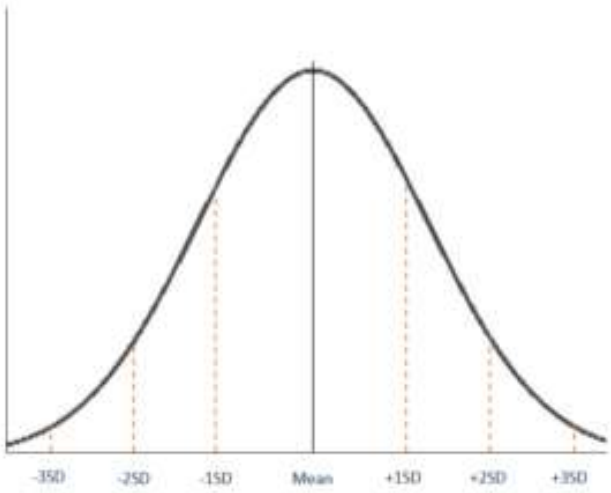
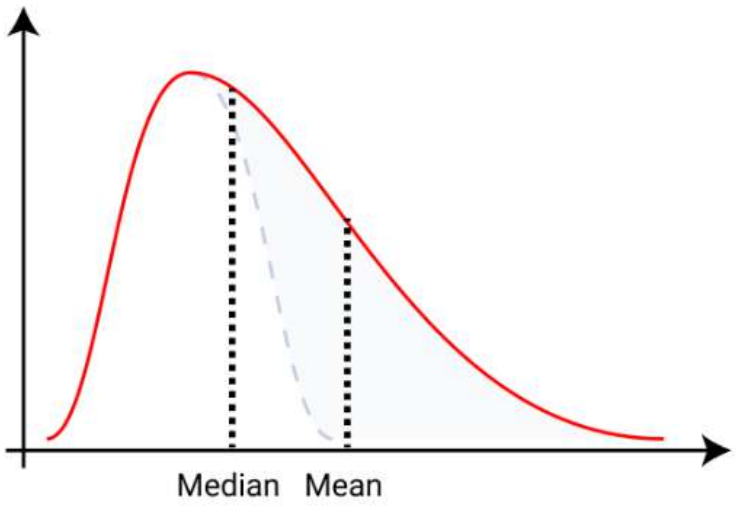
Figure 1: Normal Distribution



In BC, the average farm size, per the survey, was discovered to be 124,483 kg/cycle. The median farm size was stated as 97,681 kg/cycle. This shows us that exactly half the population is 26,802 kg/cycle, smaller than the survey's average farm. We would, therefore, see a positively skewed distribution with a higher percentage of the population below the average (mean). *See Figure 2: Positively Skewed Distribution*

Figure 2: Positively Skewed Distribution



The farm size chosen for the calculations is the mean and is significantly larger than the median size by 27.4%. This puts heavy downward pressure on the COP price and will put more than 50% of the growers

in BC under the set COP. This means more than 50% of the growers will not be receiving their costs of production. We fail to see how an industry can survive within the regulated supply management system if more than 50% of the producers are not receiving their total costs to produce food.

b. Chicken Weight Categories

The chicken weight categories recently chosen by the BCCMB are 2.02kg -2.17 kg, even though the average sized bird produced in BC is 2.27 kg. This has a 3-cent downward impact on the COP price (per the BCCMB's presentation). The BCCGA has stated that this categorization is irrelevant to most BC chicken growers and still stands behind this assertion. A 3-cent drop due to a categorization change is difficult to digest. The argument put forth by the BCCMB is to match Ontario's categorization, although we do not understand why they have the categories chosen. While we have the data that shows BC's most produced category, we are ignoring this data for non-transparent and non-verifiable data out of Ontario.

c. Barn Density

Barn Density was increased to 2.88 kg/sq ft, while the average square footage from the surveys was 2.74 kg/sq ft. This amounts to a 1.55 cent decrease in the COP price (per the BCCMB's presentation). While the BCCGA recognizes that efficiencies are gained by raising birds at the maximum of 2.88 kg/sqft, we must realize that the 2.74 kg/sqft average density from the survey is just that, an average, not the median. This number shows many growers above this number and many more below.

To achieve 2.88 kg/sqft would require all growers to have newer barns that can be fully stocked at all times of the year. This is simply not possible. We know from the survey that many growers have a barn that is 21 years old and older, which is three years older than the prior survey from 2019. Older barns are generally considered not to be as efficient as newer barns. Many would lack tunnel ventilation in the summer or the ability to heat the barn sufficiently while removing the required carbon dioxide and carbon monoxide in the winter. Additionally, it was noted by a hatchery that moving to a higher density is not necessarily desired since this can put the birds under more stress if the barns are not adequate, which then can cause disease outbreaks.

Many BC chicken producers cannot afford to build new barns and/or renovate existing ones as their returns are insufficient. The BCCGA requests using the average barn density to ensure that growers can afford to increase their efficiencies.

d. **Feed Conversion Ratio** – surveyed numbers were used and will be updated periodically.

e. Annual Volume Adjustments

We now see that an "average efficient grower" was chosen, which then moves the set price of the COP further down, creating a large gap between those who are average and those who are efficient. The BCCGA recognizes that a move to efficiency is significant. Still, there is already a strain on farmers who fall below the average farm size, plus the adjustments of categories, barn densities, and average feed conversion ratios.

Processor competitiveness has been very difficult to set due to a lack of transparent and verifiable information. Given that this is an undiscovered variable, it is difficult to understand how grower efficiencies have been somewhat arbitrarily applied to the COP, with what seems to be an attempt to reduce grower returns to appease processor complaints rather than making decisions surrounding actual surveyed data.

6 Cycle Implementation

The BCCGA is concerned with the 6 cycles to implement the COP. The growers have been significantly below the COP and will remain at this disadvantage until the proposed A-192 100% implementation date.

The BCCGA requests that the implementation percentage match that of the BC Broiler Hatching Egg Producers' COP, as discussed in the JWG.

Amortization of Barns – 40 years

The BCCGA welcomes the halfway useful life included in the COP, as it is consistent with the Organic, Specialty, and Hatching Egg COP.

The move to 40 years from 35 years lowers the COP yet again and reduces the BC growers' ability to afford to attain reasonable efficiencies. The BCCGA points out that very few BC barns make it to 40 years and maintain even a semblance of efficiency. The BCCGA requests that the amortization be moved back to 35 years.

Building Costs

The Douglas Cost Guide has been used to assess the costs of building a BC broiler barn. Having spoken with Chicken Farmers of Ontario directors and reviewed the assessed costs to rebuild from insurance companies, the Douglas Cost Guide is well known to be under representative of the cost to build a barn in British Columbia.

Therefore, the BCCGA requests a full review of building costs in BC to ensure BC growers receive a COP that recognizes their actual costs.

Labour

We have heard from the BCCMB that they recognize that labour is underrepresented in the proposed COP. It was noted in the JWG by the BCCMB that the Statistics Canada labour numbers were closer to the actual costs of labour in BC than the currently used survey due to the minimal questions about labour. The BCCGA has also discussed this topic at length with Chicken Farmers of Ontario directors as Ontario has recognized the same.

The BCCGA requests the use of Statistics Canada's labour numbers and a complete and explicit study on time for the task done for labour on BC chicken farms.

Live Price Differential with Ontario

It was noted that the proposed BC live price differential with Ontario for A-180 is $0.2548. However, 76% of this differential is feed. The differential of all other costs is only $0.06, which is more significant than the Ontario "non-feed and chick" COP components. A grower can do little to nothing to reduce this cost; it is immediately borne by the growers each cycle and is representative of the higher feed costs in BC. The only tool a grower has to become more efficient (and thus reduce feed costs and the cost of chicken in BC) is to invest in their farms by replacing barns when they are depreciated by investing in equipment and modern technology. This can not be done without proper COP pricing.

The BC Chicken Growers' Association (BCCGA) appreciates the hard work of all JWG members and the pricing groups we have had over the last many years (CRMC, PWG, etc.). We recognize that this has been a significant endeavour and look forward to fully implementing a fair Cost of Production that recognizes the actual costs of chicken growers in BC.

Regards,

BRITISH COLUMBIA CHICKEN GROWERS' ASSOCIATION

Dale Krahn

President

101 - 32450 Simon Avenue, Abbotsford, BC V2T 4J2

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Appendix N – Industry Feedback

Industry Feedback - Pricing

Comment 1: Grower
Hello BC Chicken Marketing Board,

First of all, I would like to thank you for all of your hard work over the last few years and particularly through the last year or so. I know that it was difficult to keep the process moving forward with delay tactics being employed by the processors and I know that you were given a hard time by growers for deadlines being extended. In spite of all these challenges, I would say the BCCMB has for the most part come up with a transparent formula based on real data. For too many decades the pricing formula has ignored the economic reality of raising chicken in BC and this proposed formula takes a big step toward dealing with that. For many years, farmers like myself, have been open and transparent about the lack of return in our pricing formula and shared real data with the board and finally we have seen a board that is taking us serious. Thank you for this.

While I am happy with the direction and most aspects of the proposed formula, I do have concern with the area of an "efficient grower". It seems this concept of an efficient grower has been developed as a way of dealing with processor competitiveness. Unfortunately the only thing that links the two concepts is the lower live price that results. The adjustments for an efficient grower reduce the live price in order to make the processor competitive but do nothing to make growers more efficient.

First, we have not seen transparent and verifiable evidence that BC processors are not competitive. All of the back and forth over the concept of measuring processor competitive has shown that there is only one way to accurately measure this, and that is for the processors to open their books. The processors have aggressively resisted this idea and I believe this is because opening their books would hurt their arguments. Over the last number of years, the BC processors have made significant expansions and upgrades both within and outside of BC and both to their production facilities and their farm holdings. At a time when purchasing grower quota did not make any economic sense, the processors continued to purchase quota and farms. They would not be able to make these investments of tens and hundreds of millions of dollars if they were not making healthy returns. At a recent Interior grower meeting, I made a presentation showing the difference between retail chicken price in BC compared to Ontario was more significant than the difference in live price. This difference is shared between the processors and their customers. Given how aggressively the processors have been at negotiating with the growers, I would have a hard time believing that they roll over and allow the retailers to keep all of the excess difference in retail price. Based on the information I have seen, I am convinced that the processors in BC earn a substantial profit and have no trouble being competitive with the other provinces. I cannot prove this, but neither have they proved that this is not the case, so making adjustments to a formula based on an assumption that they cannot be competitive is not sound marketing.

Second, the message being sent by these efficient grower adjustments is that the average farmer in BC is not efficient and does not deserve to make a return on their investment. The message is that you need to be above average if you want to replace barns or upgrade equipment. You need to be above average if you want to grow your business and expand your farm. While I am sure there are farmers in

this province that don't do a great job farming, I have also seen first-hand many farmers that do an amazing job. The great thing about averages is that they take both into account. The efficiency adjustments to the formula tell us that BC on average has worse farmers than other provinces and thus we should not expect to have our full costs covered by the COP model. If, as a collective group, BC farmers want to cover our costs we need to become better farmers. The challenge is, we have been living off our depreciation for many years and the lack of return is preventing farmers from making investments in their farms to make them more efficient. The reality is, reducing the price under the grower efficiency name is actually counterproductive. As I also sell equipment to growers, I have had many conversation with other farmers about the benefits and paybacks of heat exchangers. The number one response is that they see the benefit and would love to do it but can't afford the extra payments in the long term and definitely not in the short term while waiting for the grant money to come through. The lack of return is preventing efficiency improvements. We seem to be saying that farmers need to be more efficient because processors supposedly can't be competitive. Why aren't we telling processors to be more efficient if they can't be competitive. Maybe their plants aren't the optimal size, or their employee to production ratio is not optimal, or their line speed is not as fast as it could be, or they are heavy on management. Why is this automatically assumed to be a grower problem? I believe farmers in BC, on average, do a great job producing some of the best chicken in the world and deserve to have their costs fully covered. This will enable farmers to invest in their operations and ensure their farms are sustainable for generations to come.

Third, It seems the efficient grower adjustments have been added to appease the processors who have resisted this process and the entire concept of a COP model. Unfortunately, the only thing that would make the processors jump on board would be linking the BC live price directly to Ontario with a lower differential than we already have. The processors have a long history of fighting tooth and nail against any price increase whatsoever. My dad was on the growers association around 20 years ago and had to go to arbitration over the live price for over a year. Many of the arguments were trying to gain a quarter to half of a cent increase in live price. The processors have never been cooperative in pricing regardless of the size of compromise, so adding an efficient grower compromise to try and appease them is a sacrifice for growers that accomplishes nothing in the way of getting buy-in from the processors.

Once again, I would like to thank you for your hard work in getting to this point. Going forward with your final submissions, I ask two things of the board. First, I ask that you hold firm on the work that has been done thus far in developing a fair return to growers and not cave in to the pressure of uncooperative processors. Second, I ask that you reconsider the efficient grower adjustments as I don't believe they are necessary and will actually be counterproductive. I wish you all the best as we enter the final stages of this long and time consuming process. I look forward to seeing what the board can accomplish without the weight of developing a pricing model on every agenda and part of every discussion. Thank you for taking the time to read and consider my input.

Thank you,

Comment #2: Grower

In terms of feedback I am supportive of the process that the board has been involved with and look forward to the responses and the implementation of COP model.

Comment #3: Grower

Hello, Thanks for hosting the Zoom meeting to update us on the new COP project. I think overall the model presented is a positive and thorough model. My few points of concern are -I am concerned of the amount of time it will take from submission to approval.

-I am also concerned of the proposed time period from approval to full implementation -lastly I think the land value taken from 20 years ago is not accurate and won't serve the model well now, or moving forward in the future and needs to be revoked at

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BC BROILER HATCHING EGG COMMISSION

BCBHEC

established 1988

October 11, 2023 **VIA EMAIL**

Kevin Klippenstein, Chair
BC Chicken Marketing Board
#220 – 1848 McCallum Rd
Abbotsford BC
V2S 0H9

Dear Mr. Klippenstein,

RE: BC Chicken Marketing Board Cost of Production Pricing Proposal

The BC Broiler Hatching Egg Commission (the Commission) reviewed the BC Chicken Marketing Board's (BCCMB) proposed COP-based pricing package. The Commission has also had the opportunity to provide representation at the Joint Working Group (JWG), regular board-to-board meetings and all Cost of Production (COP) presentations that the BCCMB has hosted.

The Commission has previously provided feedback from the hatching egg sector perspective. The Commission is satisfied with some of the progress being made at the board level to address those concerns.

The recent proposal package describes the BCCMB's COP update mechanism, the Commission remains concerned that the identified efficiency elements are not fully realized. The Commission included production trimming and several other mechanisms directly related to the producer's ability to be efficient. This component is not as evident in the BCCMB's COP. The Commission appreciates the BCCMB's commitment to ensuring regular updates of contemporary data, which is critical for the supply chain.

The Commission acknowledges the difficulties faced by the BCCMB in establishing its COP and appreciates the level of inclusion the Commission has had in this process.

The Commission also encourages future collaborations of complex components of both COPs, including labour, land values, levy inclusion and production efficiencies through the established joint committees between the boards.

Regards,

Bill Vanderspek, Chair
BC Broiler Hatching Egg Commission

BC BROILER HATCHING EGG COMMISSION

BCBHEC

established 1988

October 20, 2023 **VIA EMAIL**

Kevin Klippenstein, Chair
BC Chicken Marketing Board
#220 – 1848 McCallum Rd.
Abbotsford, BC V2S 0H9

Dear Mr. Klippenstein,

RE: COMMISSION FOLLOW UP RE BCCMB PRICING PROPOSAL

Thank you for the opportunity for further discussion of the BC Chicken Marketing Board's ("BCCMB") Cost of Production Pricing Proposal during our Board-to-Board meeting held on October 17, 2023.

At our regularly scheduled BC Broiler Hatching Egg Commission ("Commission") meeting held at the conclusion of the Board-to-Board meeting, we took the time to discuss the questions voiced by members of the BCCMB regarding the contents of our October 11, 2023 letter. There did not appear to be a common understanding of our comments related to "identified efficiency elements" in the BCCMB pricing proposal.

The directors and senior staff of the Commission appreciate and acknowledge the clarification provided of the grower efficiency elements, as defined by BCCMB, which you intend to incorporate within your proposed formula.

As stated in our October 11, 2023 letter, we appreciate the inclusion of the Commission during this difficult and time-consuming process and look forward to working collaboratively with you and your board on this and other issues of mutual benefit and concern in the future.

Should you have any questions or wish to discuss this matter further, please do not hesitate to contact me directly.

Sincerely,

Bill Vanderspek, Chair
BC Broiler Hatching Egg Commission

cc: Woody Siemens – Executive Director, BCCMB

BC Chicken MARKETING BOARD

BC BROILER HATCHING EGG COMMISSION BCBHEC established 1988

Joint Letter to the Chicken Industry VIA EMAIL

Dear Stakeholder,

The purpose of this letter is to convey to stakeholders the following:

a. the DRAFT Pricing Review Decision of the BC Chicken Marketing Board;

b. the BC Broiler Hatching Egg Commission's pricing package (previously provided to stakeholders); and,

c. an overview of the joint strategic approach being taken to pricing by the Chicken Board and Commission as the first instance regulators of the BC chicken industry.

The first attachment is the January 7, 2022, DRAFT decision and reasons of the Chicken Board for its cost-based approach to live weight pricing in the longer term; as well as its proposed pricing formula in the interim.

The second attachment is a January 7, 2022, cover letter from the Hatching Egg Commission resubmitting its pricing package concerning cost of production pricing, hatchery margin and breeder chick/vaccine pricing copied to stakeholders earlier in the process. Also included in the letter is an update on recent discussions between Hatching Egg Commission and BC Egg Hatchery Association representatives.

Both the Chicken Board and the Hatching Egg Commission have stated in previous correspondence that there is a need for a new, strategic approach to pricing in BC. It is over 25 years since the first major pricing review in 1995, after which linkage was established. It has been over 10 years since the 2010 review. Changes in the structure of the industry in BC, in the west and nationally continue to unfold. The evolving national marketplace is placing increased pressure on BC as a high-cost province. To remain competitive with Ontario and respond to pricing, allocation and other regulatory initiatives in that province requires a more concerted, focused effort by BC stakeholders representing the third largest chicken and hatching egg producing province.

To this end, since 2019 the Chicken Board and Hatching Egg Commission have increased regulatory cooperation and coordination between the two boards, including co-locating in 2020. Both boards are working closely with their western counterparts in developing approaches to pricing and other issues. Jointly, the boards launched their Chicken Industry Strategic Framework initiative in 2019. This was suspended in 2020 due to COVID but by that time the boards (and stakeholders) had identified a critical issue that needed addressing as an essential prerequisite. That was resolving ongoing pricing issues in BC.

The Chicken Board and Hatching Egg Commission have approached this pricing review as part of their overall strategy for the BC chicken industry. Recent events have shown the strengths and weaknesses of the food industry. Providing pricing stability and certainty in the long-term is essential to allow the BC chicken industry to address such opportunities and challenges and go forward on a strategic basis. The goal is to better position the BC industry in the western and national chicken and hatching egg sectors.

Key Elements of the Joint Pricing Strategy

1. A joint commitment by both boards to work cooperatively on regulatory issues, including pricing, product quality issues, reviewing the current Pricing and Production Advisory Committee performance and structure and examining further regulatory synergies between the boards.

2. Establishing pricing frameworks (cost of production and cost-based) that parallel those used by their respective counterparts in other provinces, including Ontario.

3. Incorporating hatcheries into a pricing framework that results in transparent, cost-based pricing from breeder chicks to saleable chicks to a hatchery margin to broiler chicks. This provides pricing certainty and stability in support of the full value chain.

4. Establishing a new approach to a pricing "linkage" that includes the entirety of the production chain, allowing for the Hatching Egg Commission and Chicken Board to have a coordinated and systemic response such as guardrails to protect processor competitiveness as evidence warrants. This will be perfected once the Chicken Board effects its proposed long-term pricing framework, which will be incorporated into a cost-based tripartite pricing relationship between hatching egg producers, hatcheries, and growers.

5. Establishing a transition plan to accommodate the movement of the Hatching Egg Commission to its new cost of production (COP) formula, providing for an increase in the hatchery margin and incorporating the hatcheries into the new tripartite framework.

   This will involve the Hatching Egg Commission pricing off its new COP formula by a phased approach that will commence at 95-percent (in A176) and increase by 0.5-percent every subsequent period until 100-percent COP for efficient producers is achieved. Modelling to date has shown no significant difference between the existing linkage price and the proposed COP formula price and this phased in approach should provide full opportunity for stakeholders to adjust to this pricing certainty. This approach is addressed in more detail in the Hatching Egg Commission's documentation.

   This and other pricing processes, including provision for exceptional circumstances, will be incorporated into the Hatching Egg Commission's Consolidated Order once approval is provided. This will ensure that the Hatching Egg Commission's pricing processes are transparent and

accessible to all stakeholders. The Hatching Egg Commission and the Chicken Board will continue to work closely together as both boards manage their respective transition to a new pricing framework for the BC chicken industry.

SAFETI Analysis

Strategic. It is the joint view of the boards that establishing a new, cost-based approach to pricing – complete with built-in efficiency factors – in the BC chicken industry is a critical precursor to better positioning BC in the longer-term. This includes within BC and encouraging future western and national pricing approaches that do not rely solely on Ontario pricing decisions. Pricing will accurately reflect the actual costs of growers, producers, and hatcheries in support of a comprehensive response to evidence regarding processor competitiveness. A stable, certain pricing system will enable BC stakeholders to focus on other critical issues that need to be addressed to protect the BC chicken industry's long-term sustainability.

Accountable. Meets the objectives of supply management to provide a cost of production for efficient producers as a baseline for addressing issues such as processor competitiveness. Provides for integrating efficiencies into the regulatory pricing structure. Provides pricing certainty and stability for all stakeholders. Provides a transparent pricing structure accountable to the BC agri-food economy and the BC public. Facilitates the boards meeting the objectives of Government's Regulated Marketing Economic Policy. Provides a more stable base for industry to respond to evolving animal care, food safety and farm practices.

Fair. The process leading to these decisions of the boards has been extensive and thorough. All stakeholders have had opportunity to participate, provide feedback and both boards have addressed that feedback as appropriate.

Effective. Brings long-term certainty and stability via a permanent approach to pricing. Supports the pricing requirements of the production chain. Adjustments to pricing that may be required at any given time (e.g., in response to processor competitiveness) will be determined within a standard, known tripartite pricing framework. Issues arising will be determined within that framework versus re-inventing formulae. Reducing opportunity to challenge pricing mechanisms will result in more focused and timely resolution of emerging pricing issues. Regulatory efficiencies are and will be built into cost-based pricing mechanisms, monitored and reported on, reducing costs to the system. Will lay a foundation in BC for engaging with its western and national counterparts concerning larger pricing initiatives.

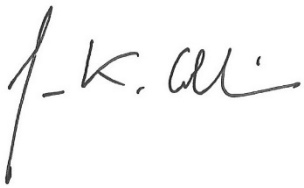
Transparent. Full transparency with stakeholders through the Roundtable process.

Inclusive. Full inclusivity of stakeholders through the Roundtable process.

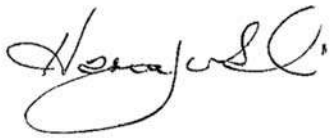
Sound Marketing Policy

It is the view of both the Chicken Board and the Hatching Egg Commission that this new approach to pricing in the BC chicken sector is sound marketing policy that will narrow and focus the resolution of future pricing issues so that they based on a firm, transparent and cohesive foundation from which evidence-based decision can be made. Providing this resolution to pricing is also critical to the overall ability of the BC chicken industry to position itself for the future.

Yours truly,



Jim Collins, Chair
BC Broiler Hatching Egg Commission



Harvey Sasaki, Chair
BC Chicken Marketing Board

Appendix R - March 4, 2022 BCBHEC Final Submission Cover Letter

Cover Letter to the Industry

BCBHEC March 4, 2022 Pricing Decision – Final

Introduction

On January 7, 2022, the BC Broiler Hatching Egg Commission (the Commission) released its proposed cost-based pricing package in support of broiler hatching egg producers and hatcheries. The Commission's proposal was in support of sound marketing policy for pricing in the BC chicken industry as the foundation for addressing pricing and other matters strategically in western and national forums.

This response is provided to the feedback received from stakeholders:

a. February 4, 2022, from the BC Broiler Hatching Egg Producers' Association (BCBHEPA);
b. (received) February 7, 2022, from an individual broiler hatching egg producer;
c. February 4, 2022, from the BC Egg Hatchery Association (BCEHA);
d. February 4, 2022, from the BC Chicken Growers' Association (BCCGA);
e. February 7, 2022, from the Primary Poultry Processors Association of BC (PPPABC).

In addition, the Commission's Pricing and Production Committee met on February 10, 2022. At that meeting, the BCEHA confirmed that its February 4, 2022, response stood as their response. The BCBHEPA confirmed that it would submit its February 4, 2022, response through the PPAC process. The specialty producer representatives on PPAC advised that they would have no response and the BC Chicken Marketing Board (BCCMB) PPAC representative reserved that board's response for the board-to-board meetings between the BCCMB and the Commission.

It is not the Commission's intention here to provide a full review of its numerous submissions since its April 18, 2018, Pricing Positions document other than providing at Appendix A copies of its May 5, 2021, and November 10, 2021, cover documents to information supplied previously to the Roundtable Process. However, the Commission reiterates that it has committed the resources needed to develop – carefully, consistently, and transparently using SAFETI principles – its strategic vision for pricing in the BC hatching egg and chicken sectors since first articulating that vision in April 2018. As communicated in the joint January 7, 2022, letter from the Commission and the BCCMB, that vision is now shared by both first instance regulators of the BC chicken industry.

The purpose of this letter is to address the feedback to the January 7, 2022, draft raised by stakeholders, adding clarification where necessary and demonstrating that the Commission has satisfied the October 6, 2020, Terms of Reference (TOR) for the BC Farm Industry Review Board (BCFIRB) supervisory review.

Overview

The Commission's proposal provides for a thoroughly surveyed and verified cost of production formula (COPF) for hatching egg producers. A COPF that includes revenue streams (currently spent fowl and salvage eggs) and efficiency mechanisms in support of downstream stakeholders and incorporates hatcheries into the BC pricing framework. It has assessed the BC chick price, in accordance with the TOR, against the chick price in other provinces. It reflects an updated pricing relationship with the BCCMB and increased cooperation between the two first instance regulators in promoting a unified approach to pricing in the BC chicken industry as part of a strategic vision for the industry going forward. The Commission and the BCCMB have been using board to board meetings and a joint committee approach to ensure the boards engage regularly on issues and are now entering into a new memorandum of understanding committing to make this working relationship permanent.

The proposal reflects the objectives of the TOR by establishing a reasonable return for mainstream hatching egg producers (and eventually specialty producers) through a COPF and a "reasonable return" for hatcheries through a cost-based formula approach to their pricing. Both initiatives also provide long-term certainty and stability for hatching egg sector pricing with these formulae and through periodic updating and verification. The Commission has consulted extensively with these and other stakeholders prior to and during the supervisory review process and has provided full transparency throughout.

The joint approach by the Commission and the BCCMB to cost-based pricing for all stakeholders will provide the transparency and evidence-based information necessary to support a new and verifiable pricing relationship throughout the BC chicken value chain. This new pricing framework will provide stability and certainty within BC for all stakeholders and better position our industry to respond to external pricing pressures. Remaining competitive with Ontario and sustaining processor competitiveness remains a key consideration. A cost-based approach for all BC stakeholders will provide the Commission and the BCCMB the information necessary to address that competitiveness through an evidence-based approach to issues based on known and established cost factors.

The Commission is prepared and able to independently implement its pricing proposals for the hatching egg sector commencing in Period A-176. This will provide the certainty and stability required by the long-term production management needs of that sector. This certainty and stability will also benefit chicken sector stakeholders as they engage with the BCCMB in establishing and implementing that board's own cost-based formula approach to live pricing. The Commission, helped by its experience and resources used in addressing hatching egg sector formulae, is fully committed to working with the BCCMB during that process.

Responses to Stakeholder Submissions

The Commission greatly appreciates the feedback from stakeholders, has reviewed each submission in detail, and will address and clarify key points in response. To avoid too much repetition, some comments with respect to feedback from one stakeholder may also apply to the feedback from another.

BCBHEPA

The Commission acknowledges the BCBHEPA's advice that the Association is in support of the new approach to pricing for hatching egg producers and looks forward to ongoing dialogue with the BCBHEPA during the implementation phase. The Commission appreciates the BCBHEPA's implicit acknowledgement that a shift to COPF pricing will be through a phased-in approach – which has an impact on hatching egg producers – and that it does not necessarily mean 100% is achievable (although that remains the objective). A critical message from the Commission has been that while a move to a verified COPF represents sound marketing policy in support of hatching egg producers, remaining cognizant of and responsive to pricing pressures on other stakeholders (e.g., processor competitiveness) is also sound marketing policy for the Commission.

The Commission acknowledges the BCBHEPA's concern about the many factors involved in the life of a breeder flock. However, the Commission remains of the view that achieving efficiencies in hatching egg production (and throughout the industry) are critical to BC as a high-cost province. For that matter, increased efficiencies are important for all stakeholders in all provinces as costs rise and margins are under pressure. More fundamentally, in maintaining a supply management system we must work in support of the principle that returns are based on a "cost of production for efficient producers."

It is also important to recognize that having a new and up to date COPF with revenue streams and efficiencies factored in will result in a new price. The current linkage price is based on COPF survey data that in many parts dates to 2015. Whatever that new price turns out to be in any given period, producers and other stakeholders must recognize that it is an outcome based on an up to date and defensible COPF.

Individual Hatching Egg Producer

As also noted by the BCBHEPA, certain components of the new COPF will be perfected over time. For example, the Commission will use the labour survey process recommended by MNP LLP (and used in dairy) in updating that component of the COPF in 2023. Given the time, resources and verification steps already committed to date, the Commission is not prepared to adjust the current COPF pending that scheduled three-year review in 2023. Again, production trimming and other efficiencies are an important part of the new COPF and, as mentioned above, the new pricing for hatching egg producers will be based on a defensible COPF.

The new COPF addresses the concern about what mechanisms are in place to address rising input costs and if returns prove to be insufficient; costs are indexed on a period-by-period basis. In addition, a mechanism is provided should an added cost be experienced before it can be reasonably surveyed as part of the next COPF iteration. Depending on the manner of the cost, all relevant information will be forwarded to the Commission PPAC and, if necessary, the BCCMB PPAC. These new costs may either be borne by the producer directly, and reflected in the COPF as an added cost, or covered by Commission levies (funded by hatching egg producers). Should the rationale for the added cost warrant, it may be added to the Industry Benefit Index, a separate mechanism, through the PPAC process. As detailed in the Proposal,

examples of such costs may include SE programs, blood work programs, audit verification processes and other programs that benefit the entire chicken industry (e.g., chick quality concerns).

Attached as Appendix D is a recent presentation to hatching egg producers providing a simplified breakdown of the new COPF.

BCEHA

As the record shows, in October 2019 the Commission and the BCEHA came to an agreement in principle about the hatchery margin, breeder chick and vaccine pricing. Although the hatchery margin is shifting to a COPF vs. cost-of-living-allowance approach and vaccines to an industry standard baseline vaccine schedule vs. vaccine pricing approach, the proposal remains essentially as established in 2019.

In their initial response of February 4, 2022, the BCEHA stated that they "look forward and welcome the idea of a Hatchery COP," a welcome move toward a cost-based system supporting hatcheries. In a later response dated March 4, 2022 (Appendix B), the BCEHA confirmed that position and further stated that it supported the Commission's overall review of hatching egg sector pricing. The Commission will begin taking steps to exercise its statutory authority to price breeder chicks through the proposed formula. A standard, baseline industry vaccine schedule that will be updated as required will ensure adequate disease protection for producers and downstream stakeholders. This will also standardize and substantiate the vaccine costs that are inputted into the producer COPF and passed on to other stakeholders.

As noted above, the Commission is prepared and able to implement both the producer COPF and the hatchery margin/breeder chick formulae effective Period A-176. Both fall within the Commission's statutory pricing authority and as such, both are an equal responsibility of the Commission. Although the Commission still needs some further updating of the figures underlying the 2019 formulae which were originally provided by the BCEHA, the overall 3-cent figure (1.75 margin increase and 1.25 breeder chick margin inclusion) remains defensible. However, to demonstrate further due diligence, and because it will have minimal impact on the broiler (day-old) chick price in the short-term, the Commission has decided to temporarily defer exercising its statutory authority to set the breeder chick price via the 1.25 cent breeder chick margin pending further input from the hatcheries and additional analysis. The BCEHA is otherwise aware of the periodic data the Commission will need to manage this dual implementation. As shown in the tables on pages 116-117, the phased-in approach will facilitate the inclusion of the hatcheries formulae into the new hatching egg pricing framework without a significant impact on the broiler chick (day-old) price. Thereafter, the hatcheries formulae will remain a fixed cost until reviewed in 2023 as outlined below.

The Commission has also committed to support the BCEHA in establishing a hatchery COPF which would identify or model through a third-party costs (in the aggregate) borne by hatcheries, including those related to breeder chicks. The objective would be to have a verifiable, defensible hatchery COPF finalized in 2023 in conjunction with the updating of the producer COPF and thereafter, review, update and verify each on a regular, three-year basis. Concurrently, the Commission will be actively involved in the BCCMB's cost-based review process to examine methodologies and facilitate the development of the strategic tripartite pricing relationship – similar in principle to that in Ontario – where hatching egg producers, hatcheries, and

growers are all supported by defensible, cost-based formulae.

The Commission and the BCEHA are having ongoing discussions about “marketable eggs” and other issues and are establishing a work plan to address these matters by June 30, 2022. As noted in our January 7, 2022, cover letter, and in separate correspondence, the Commission is committed to addressing various production management issues on a priority basis and looks forward to resolving these issues with the BCEHA.

This collaborative approach to integrating hatcheries into the pricing framework and engaging on other issues benefits the sector, meets the intent of the TOR and is a necessary and intrinsic component of the Commission’s pricing proposal.

The Commission understands that most of the BC hatcheries are part of larger (processor) corporate entities and that changes to the hatcheries bottom line, whether positive or negative, have impact on the larger corporate interest. While this may be a factor to into account in the larger industry picture, the Commission’s approach has been to consider the hatcheries as separate business entities, deserving the benefit of a cost-based approach to pricing that reflects their business needs. This is in support of a long-term sustainable pricing approach to all stakeholders in the industry and would provide the opportunity for a ‘stand-alone’ hatchery to succeed should one exist in future.

BCCGA

As the Commission is strongly of the view that a cost-based approach to pricing is sound marketing policy for the BC chicken industry, it supports the BCCGA’s position on moving to the same for chicken growers. The Commission recognizes the urgency attached to achieving this, not least for some new entrant and regional growers. The Commission will assist wherever it can in supporting and expediting the BCCMB process but must again caution that having defensible, verified data is critical. A new, evidence-based, cost-based model for growers is hugely important but as the Commission has always stated with respect to its own COPF – achieving “100%” (99.2-99.3% for an efficient producer) is subject to evidence-based processor competitiveness being demonstrated to the Commission’s satisfaction, in consultation with the BCCMB, when that issue arises.

Having successful, sustainable new entrant and regional producers is a critical government (and BCFIRB) priority. Among other things, those producers require a sustainable price. These issues will also be taken under advisement by the Commission later this year as it updates it new producer program and puts processes in place to regionally diversify hatching egg production.

Succession planning is also a critical issue for individual producers and the future of the industry as a whole. Here again a sustainable industry pricing framework is critical.

Of common interest and expense to both growers and hatching egg producers, with the latter having to manage long-cycle flocks, is serving on the frontlines of measures to protect BC from Avian Influenza and

other diseases. Biosecurity throughout the industry is important but again is another cost, here borne by growers and hatching egg producers, which requires sustainable industry pricing.

The Commission has been working very closely with the BCCMB on managing the impact of its pricing proposal on downstream stakeholders, commencing with the broiler (day-old) chick price. First, the new COPF pricing for producers, with efficiencies and revenue streams included, has been comparable to the current linkage price (with the latter based on underlying data that is now seven years old). It is important to note here that this discrepancy in data currency makes parity comparison unrealistic. Ongoing monitoring will compare pricing, not parity. Second, the Commission will be exercising its authority to set the breeder chick price (by formula), which will moderate that input into the producer COPF over time. Third, the Commission has proposed a stepped in approach that will commence pricing at 95% of the new COPF price. This will enable hatcheries pricing and the Industry Benefit Index to be incorporated and mitigate the potential impact on downstream stakeholders as the BCCMB works through its process. A direct comparison of chick prices between CHEP-member provinces (Appendix C) can be problematical as underlying costs and pricing formulae change (including by the BCCMB here in BC, affecting the linkage) but as shown in further analysis beginning on page 94, the BC chick price under the new framework using the Commission's phased-in approach will remain comparable to historical pricing. Fourth, the phased-in approach (.5% per period) can be suspended for any given period. This would only be in extraordinary circumstances as the phased in approach accommodating other stakeholders represents a financial sacrifice by hatching egg producers to start with. Fifth, with a new producer COPF in place versus the existing linkage, the Commission's objections to premiums insofar as they relate to that revenue not being included in the linkage are moot.

PPPABC

The Commission, as stated during the January 28, 2022, Roundtable, does agree that the process and timelines for the development of the BCCMB cost-based approach do need amplification. It is an important initiative which has the full support of the Commission, but it will need guidelines, timelines, and deadlines to assist all stakeholders in engaging effectively in bringing this resolution to chicken sector pricing.

The PPPABC has concerns about the complexity of the Commission's COPF and hatchery pricing proposals. This may be undeniable as the Commission is taking a comprehensive approach to resolving all pricing in the hatching egg sector and provide certainty and stability going forward. Although present via ownership, processors are not directly involved in that sector. Likewise, the Commission is not the first instance regulator of the BC chicken sector or directly dealing with the western and national chicken sectors. Past a certain point, and while retaining its own separate decision-making authority, the Commission must rely on its regulatory partner, the BCCMB, in assessing pricing proposals and formula for the chicken sector.

The PPPABC proposal continues to lock the BC chicken industry into pricing off Ontario. Although the Commission acknowledges that Ontario will remain a significant factor, it has also been clear that this reactive mode to pricing and other issues arising in Central Canada are not in the best long-term interests of BC. The Ontario COPF is not fully transparent in the first instance and reportedly, bonuses and

premiums are paid by processors to chicken growers in Ontario. It is the Commission's view that it setting a regulatory price for the BC hatching egg sector based on an Ontario posted price that may not reflect the actual price in that province, plus the existence of non-value-added premiums in BC's chicken sector, is increasingly difficult to defend.

The Commission notes that the PPPABC proposal does not address the pricing of breeder chicks, or vaccine pricing (now schedule), or the continuation of premiums in the chicken sector. These were all issues of concern to the Commission and disputes would arise again if the PPPABC proposal is accepted by BCFIRB.

The Commission agrees with the PPPABC regarding the need for efficiencies. The Commission's proposed COPF already incorporates those efficiencies. A stable and certain pricing regime in the hatching egg sector will be helpful to all stakeholders in terms of investment and decision-making. The hatching egg sector through its Official Flock Schedule has assurance of supply, an issue the PPPABC has argued elsewhere as being important for their business stability. Here again the Commission's regulatory regime provides certainty and stability for hatcheries (and their processors) while promoting a fulsome COPF versus premiums for hatching egg producers.

The supply managed sectors are complex. Of necessity, if not preference, so must be the pricing framework that supports complex sectors such as eggs and dairy and, the Commission would argue, hatching eggs. A sophisticated pricing regime can result in straightforward outcomes by resolving or making irrelevant background or underlying issues affecting decision-making. The focus should not be on the formulae, it should be on the evidentiary impact of the outcome of that pricing calculation at a given time.

The Commission adamantly objects to deferring the implementation of hatching egg sector pricing (COPF and their hatcheries) pending the outcome of the BCCMB pricing review. The Commission has complied with the TOR/BCFIRB direction, committed enormous resources and effort to establish and substantiate its proposal for hatching egg producers and hatcheries. Its proposal provides pricing certainty and long-term stability for its sector in consultation with that sector's stakeholders. That certainty and stability is of value to other stakeholders, especially as they work to bring that same certainty and stability to the chicken sector. The Commission's proposal is ready to be implemented on a stepped-in, phased approach to facilitate the strategic objective of incorporating hatcheries into the pricing framework and mitigating the impact on other downstream stakeholders. In practical terms, it is not acceptable for hatching egg pricing to be based on linkage data that is seven years old versus a more up to date COPF incorporating both efficiencies and revenue streams. A delay as proposed by the PPPABC would lead to questions about the process and regulatory credibility.

The PPPABC conclusions with respect to the Commission's advancing of issues at the western and national tables are inaccurate. The proposed COPF model is based on that used in Alberta and which is also being developed for Saskatchewan. Manitoba does not use that COPF model but has a cost-based approached to pricing which all four western provinces believe is necessary for their hatching egg sectors. The four western boards meet regularly and have recently agreed to conduct a joint strategic planning

exercise to scope out the issues affecting all of us today and plan for the future. Although unsuccessful to date, the Commission in August 2019 tabled a proposal with Canadian Hatching Egg Producers to examine the feasibility of national COPF pricing and will continue to advocate for that examination.

As already reported, the Commission has met the requirements of the TOR. It has analyzed, verified, and tested the COPF and assessed the impact of hatcheries pricing on the chick price. It has taken steps to moderate that impact as much as possible, including asking hatching egg producers to accept a phased-in approach to the COPF. It has incorporated hatcheries into a pricing framework where the previous linkage, along with its other flaws, did not.

Conclusion

This has been a lengthy process for all stakeholders. Lengthy even if you do not begin this most recent phase until May 16, 2019, with the issuance of the BCFIRB decision following a lengthy hearing of pricing appeals by the PPPABC and the BCCGA. As all know, those appeals concerned an *interim* live pricing formula for chicken that also impact on hatching egg producers through the linkage.

So, it was with good reason that the Commission started actively looking at the impact of pricing on the BC hatching egg sector and assessing whether more permanent options might be available in keeping with its April 2018 Pricing Positions document. It pursued discussions with the BCEHA that culminated in the October 2019, agreement in principle. It began identifying deficiencies in the linkage and announced its intention to withdraw from the linkage, in part because the BCCGA and PPPABC both opposed including premiums (a grower revenue stream) in the linkage. Although understanding the BCCMB's initiative to establish the Pricing Working Group, the exclusion of the hatching egg sector at the onset of those discussions turned out to be problematic.

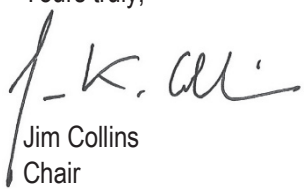
The Commission believed implementing its April 2018 vision through an updated COPF and a new formulae-based approach to hatcheries pricing was in the best interest of the hatching egg sector. The Commission also believed that certainty and stability in its sector would benefit the larger BC chicken industry. At the same time the Commission played a lead role in engaging its western hatching egg counterparts to work together on pricing and other issues of common interest.

Another important development was co-locating with the BCCMB in support of a closer working relationship between the boards. This not only to address pricing and other issues of immediate concern but also cooperating in engaging stakeholders on the development of a new strategic framework for the BC chicken industry. A major initiative that needs resolution to pricing issues.

The Commission is satisfied that its processes and its decision are fully in keeping with SAFETI principles, in addition to the analysis referenced in the January 7, 2022, joint letter from the Commission and the BCCMB. That reflects the time, effort, and careful consideration that both first instance regulators, working together, have put into determining sound marketing policy for pricing in the BC chicken industry.

It is the Commission's request that BCFIRB approve for Period A-176 the Commission's proposal to provide pricing certainty and stability to the BC hatching egg sector and by doing so, provide a foundation upon which the BCCMB can do the same for the BC chicken sector. Both are necessary to allow the industry to move forward to meet future challenges and opportunities.

Yours truly,



Jim Collins
Chair

Joint Letter to the BCFIRB Chicken Pricing Supervisory Review Panel **VIA EMAIL**

Peter Donkers, Chair
BC Farm Industry Review Board

Dear Mr. Donkers,

This cover letter to our March 4, 2022, pricing submissions to the BC Farm Industry Review Board (BCFIRB) reflects the joint views of the BC Broiler Hatching Egg Commission (Hatching Egg Commission) and the BC Chicken Marketing Board (Chicken Board) as to the appropriate sound marketing policy for pricing in their respective sectors and the chicken industry more generally.

These decisions of the two first instance regulators with respect to pricing are critical to the future of the BC chicken industry and the Commission and the Board have approached those decisions accordingly. There has been extensive stakeholder consultation and engagement, within and without the Roundtable process, on pricing issues since the May 16, 2019, BCFIRB appeal decision. The submissions being made now follow intensive deliberations by and between the boards about that consultation and engagement and the best way forward for all industry stakeholders to have the pricing certainty and stability the industry needs in support of orderly marketing.

We continue to rely on our January 7, 2022, joint letter and its SAFETI analysis. That letter outlined the strategic approach being taken by the Chicken Board and the Hatching Egg Commission to pricing in the BC chicken industry. Resolving the pricing issue is an essential step toward addressing allocation, regulatory and policy issues which will sustain and protect the interests of BC as the third largest chicken and hatching egg producing province. To that end, and in addition to their conclusions with respect to sound marketing policy for pricing, the Hatching Egg Commission and the Chicken Board are entering into the attached Memorandum of Understanding to formalize the current working relationship into a framework for ongoing cooperation and coordination between the two regulators.

The Chicken Board supports the phased-in proposal of the Hatching Egg Commission to establish a cost of production formula for producers and, for the first time, incorporate the hatcheries into the pricing framework and take steps to mitigate the pricing impact on other stakeholders through the broiler chick (day-old) price. The Hatching Egg Commission supports both the Chicken Board's interim proposal and the development of a cost-based formula approach in the long-term. Through the Joint Committee and in consultation with stakeholders, the Hatching Egg Commission and the Chicken Board will ensure that the three cost-based approaches (for hatching egg producers, hatcheries, and growers) are compatible where appropriate and responsive to evidence of processor competitiveness.

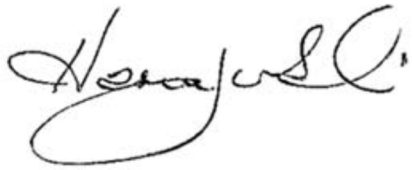
Pricing is critical for all stakeholders. Even as stakeholders in the industry have often been in a crisis mode over COVID, heat domes and flooding – during which they worked together – pricing has continued to strain both stakeholder relationships and resources, without resolution. The Chicken Board and the Hatching Egg Commission today are jointly laying out an approach to pricing that provides a foundation for achieving that resolution. A resolution that is in keeping with the intent of the supervisory Terms of

Reference by bringing certainty and stability and involving all stakeholders in a structured cost and evidence-based approach to pricing in the BC chicken industry.

The Hatching Egg Commission and the Chicken Board respectfully request that BCFIRB authorize the two first instance regulators of the BC hatching egg and chicken sectors to implement their respective sound marketing policy approaches to pricing. This will enable the two boards to continue to work together and with all stakeholders in finalizing the new overall pricing framework and to re-engage with those stakeholders in the Chicken Industry Strategic Framework initiative in support of the larger interests of the BC.

Yours truly,

Jim Collins, Chair
BC Broiler Hatching Egg Commission



Harvey Sasaki, Chair
BC Chicken Marketing Board