

IN THE MATTER OF THE  
*FARM PRACTICES PROTECTION (RIGHT TO FARM) ACT*, RSBC 1996, c. 131  
AND IN THE MATTER OF COMPLAINTS ABOUT NOISE  
FROM A PROPANE CANNON OPERATED ON A DAIRY FARM  
NEAR COURTENAY, B.C.

**BETWEEN:**

DONALD LANYON  
CARLA PEDERSON  
HARRIET ELLICOTT

**COMPLAINANTS**

**AND:**

KNOPP'S DAIRY FARM LTD.

**RESPONDENT**

**AND:**

COMOX VALLEY FARMERS INSITITUTE

**INTERVENER**

**AND:**

HORSE COUNCIL OF BRITISH COLUMBIA

**INTERVENER**

**DECISION**

**APPEARANCES:**

For the British Columbia  
Farm Industry Review Board

Ron Bertrand, Presiding Member  
Carrie Manarin, Member  
Diane Fillmore, Member

For the Complainants

Donald Lanyon  
Carla Pederson and Kevin Mitchell  
Harriet Ellicott

For the Respondent

Gary and Suzanne Knopp

For the Intervener, Comox  
Valley Farmers Institute

Jim Casanave  
Mike Huxham  
David Taylor

For the Intervener, Horse Council of BC

Susan Harrison

Date of Hearing

June 13 and 14, 2013

Place of Hearing

Courtenay, British Columbia

**WRITTEN REASONS OF R. BERTRAND, VICE CHAIR & PRESIDING MEMBER, AND D. FILLMORE, MEMBER**

**INTRODUCTION**

1. The British Columbia Farm Industry Review Board (BCFIRB) hears complaints about farm practices under the *Farm Practices Protection (Right to Farm) Act* RSBC 1996, c. 131 (the *Act*).
2. Under section 3 of the *Act*, a person who is aggrieved by any odour, noise, dust or other disturbance resulting from a farm operation conducted as part of a farm business may apply to the BCFIRB for a determination as to whether the disturbance results from a normal farm practice. If, after a hearing, a panel of the BCFIRB is of the opinion that the odour, noise, dust, or other disturbance results from a normal farm practice, the complaint is dismissed. If the panel determines that the practice is not a normal farm practice, the panel must order the farmer to cease or modify the practice causing the disturbance.
3. Donald Lanyon, Carla Pederson, and Harriet Ellicott complained to BCFIRB about noise from the use of a propane cannon on the dairy farm near Courtenay, British Columbia, operated by Gary and Suzanne Knopp. The complaints from Mr. Lanyon and Mrs. Pederson were received by BCFIRB on January 22<sup>nd</sup> and 23<sup>rd</sup>, 2013, respectively and the complaint from Mrs. Ellicott was received on April 15th. The Lanyon property borders the Knopp farm to the southeast and the Ellicott property borders the farm to the northwest. Mrs. Pederson's property is also located to the southeast of the farm but does not border it.
4. The farm owned by Knopp's Dairy Farm Ltd. is located in the Agricultural Land Reserve. The dairy farm buildings are located on a 68 hectare parcel of land. The farm site (including buildings and roads) occupies approximately 12 acres (or roughly 5 hectares) with the dairy buildings occupying a portion while the balance of the property is used for forage grass and silage corn production. The farm has approximately 230 head of cattle of which about 180 are mature cows consisting of cows in the milking herd and dry cows. The other cows are young stock and heifers. The farm reported that it began using a propane cannon in November, 2012 in response to the presence of significant starling populations in and around the buildings on the farm.
5. The Comox Valley Farmer's Institute was granted full intervener status. Jim Casanave and Mike Huxham gave evidence on behalf of the Institute while David Taylor gave a closing statement on behalf of the Institute.
6. Susan Harrison represented the Horse Council of British Columbia which was granted limited intervener status to make submissions.
7. The hearing was held in Courtenay, B.C. on June 13 and 14, 2013.

## ISSUE

8. Does the noise arising from the use and management of a propane cannon on the respondent's farm result from normal farm practices?

## KNOWLEDGEABLE PERSON'S REPORT AND TESTIMONY

9. John Luymes, P.Eng., was engaged by the BCFIRB to be a knowledgeable person for this complaint. Section 4 (a) of the *Act* provides BCFIRB with the authority to obtain the services of a person knowledgeable about normal farm practices. Mr. Luymes was called by BCFIRB to give evidence at the hearing and his report dated April 12, 2013 was entered into evidence. It is important to note that the evidence contained in the knowledgeable person's report and presented at the hearing is not binding on the panel.
10. Mr. Luymes is a Farm Structures Engineer with the Ministry of Agriculture and has served in this capacity for a number of years. Prior to his employment with the Ministry of Agriculture, Mr. Luymes worked on a dairy and cash crop farm in Delta, BC where he performed a range of farm management duties. He was qualified by the panel as an expert in dairy farm management.
11. At the hearing, Mr. Luymes stated that the report was a collaborative effort in that some of the information was obtained from Bert van Dalfsen, P.Eng., Manager of Strengthening Farm Programs, and from Jill Hatfield, P.Ag., Regional Agrologist. Both are employees of the Ministry of Agriculture.
12. On March 8, 2013, Mr. Luymes visited the properties of Mrs. Pederson and Mr. Lanyon and then the respondent farm. He spoke with those parties and heard their perspectives on the issue of noise from the propane cannon. Details on these perspectives are presented later in this decision. (Mr. Luymes did not visit the Ellicott property because Mrs. Ellicott was not a complainant at that time.) A copy of Mr. Luymes' report dated April 12, 2013 was given to the parties and BCFIRB.
13. Mr. Luymes stated that the propane cannon fired four times while he was on the complainants' properties. His observation was that the noise was not particularly loud and had a muffled quality. He stated that the complainants agreed with his assessment and that the cannon had probably recently been moved so that it was pointed away from their residences. The neighbours, according to Mr. Luymes, remarked that this was not reflective of the usual situation and that they would be able to live with the frequency and loudness of the firings if that was representative of how they would be in the future. According to Mr. Luymes, the cannon was located approximately 275 metres and 435 metres from the Lanyon and Pederson residences, respectively. The Ministry of Agriculture has established Guidelines for the Use of Audible Bird Scare Devices – South Coastal B.C. (the

“Guidelines”)<sup>1</sup> which require a minimum setback of 200 metres between a propane cannon and the nearest residence.

14. Mr. Luymes stated that the complainants (Mr. Lanyon and Mrs. Peterson) advised him that the propane cannon had been operating for the past 5 months from dawn to dusk with little or no respite. In particular, these complainants reported that prior to mid-February, 2013 the cannon had been firing at 3 to 8 minute intervals and that for the previous 3 week period it had been firing at roughly 20 minute intervals (although they agreed that the cannon had not fired for the week and a half prior to his visit). Mrs. Pederson claimed that Mr. Knopp could not assure her that he would not use the propane cannon all year and was not considering other measures to control bird populations. She also expressed a concern that the cannon appeared to be operating on days when she observed few starlings on her property or the farm.
15. Although Mr. Luymes did not visit the Ellicott property nor refer to that property in his report, a map in his report (at page 13) indicates that the distance of the three different cannon placement locations on the Knopp farm to the Ellicott residence is in excess of 400 metres.
16. Mr. Luymes stated that the Knopps advised him of the impacts of starlings on their dairy farm operation. These are included in later sections of this decision (under Respondent evidence). Mr. Luymes testified that he observed bird feces in the calf hutch area, particularly on the top of each hutch. Also, he stated that the heifer barn had obvious evidence of high starling populations including accumulations of feces on truss chords and on fences and gates. He said he was unaware of the length of time over which the feces had accumulated. However, he stated that on the day of his visit he did not observe a significant number of starlings. Other areas of starling pressure identified by Mr. Knopp were the main drive-through barn, the barn used to house dry and sick cows and the two bunker silos.
17. Mr. Luymes said he observed that the Knopps used a single Purivox Triplex Triple-John stationary cannon. The Knopps reported that they moved the cannon approximately once every one to two weeks to one of three primary locations which were the areas of highest bird pressure: the north side of the north manure pit close to the calf hutch area, between the two bunker silos at the west side of the building site and to the east of the south manure pit close to the calf barn (as set out in the Appendix to the KP Report at p. 14).
18. Mr. Luymes said that the Knopps reported to him that the triple shot cannon was operated at one of two automatic settings; one at every 4 to 8 minutes and one at every 16 to 32 minutes. Mr. Knopp estimated that the propane cannon was in use

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<sup>1</sup> [http://www.agf.gov.bc.ca/resmgmt/sf/farmpp/bird\\_devices.htm#guidelines](http://www.agf.gov.bc.ca/resmgmt/sf/farmpp/bird_devices.htm#guidelines)

from November 2012 to the end of March 2013 for approximately 7 to 8 hours each day.

19. In his report, Mr. Luymes states, that aside from the use of a propane cannon, the respondent farm is operated like most dairy farms in British Columbia. In particular, he noted that in the drive-through barn (which replaced one destroyed by fire in 2006), a total mixed ration feeding system is the primary method of feeding cattle. He noted that the older buildings on the farm did not have open sided walls which were advantageous for keeping birds out but had the disadvantage of reducing opportunities for natural ventilation and light, both of which are considered beneficial for animal health and welfare.
20. Mr. Luymes testified that, based on his inquiries, cannon use for starling control on dairy farms is not a common practice in British Columbia although he claimed that he is aware of two other farmers who have used cannons on occasion; specifically, one farm in Surrey and one in Langley. He estimated that 5% to 10% of dairy farmers may be experimenting with various measures to control birds, including propane cannons and netting. He noted in his report that “it was an arguable point that” in some circumstances, the use of propane cannons on dairy farms on a limited basis “is reasonable as part of a broader attack” to prevent birds from causing damage and loss. This conclusion is consistent with the Ministry of Agriculture fact sheet entitled *Starlings and Livestock Farms*<sup>2</sup> which is also referred to in his report at p. 10. The fact sheet lists propane cannons as one of the bird scare devices available to livestock farmers.
21. In his report, Mr. Luymes provided the following recommendations:
  - a) Development of a Bird Predation Management Plan – Mr. Luymes endorsed the farm’s decision to hire an avian specialist to monitor the bird pressures and to develop a plan for the use of bird scare devices as part of an overall management plan. He stated that the farm should continue to develop and modify a multi-faceted bird predation management plan that includes a schedule of use that is reflective of changing bird pressures throughout the seasons. The plan should also include specifics on cannon use, including starting times, stoppage times, breaks in use and other operational matters. He noted that an effective plan not only ensures that producers monitor bird populations and activity but also utilizes a range of approaches, techniques and strategies to minimize device use and maximize their effectiveness by preventing bird habituation to them.
  - b) Incorporation of Exclusion Barriers – Mr. Luymes stated that the use of exclusion barriers is the most effective, long-term way of keeping starlings out of barns. Mr. Luymes stated in his report that there are significant costs associated with installation of barriers and other roosting mitigation measures. He also noted that the farm could explore the possibility of implementing less expensive options such as netting products used for berry and orchard applications. Consequently, he recommended

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<sup>2</sup> <http://www.agf.gov.bc.ca/resmgmt/publist/300Series/384200-7.pdf>

that the farm begin a phased-in netting installation program dealing first with buildings that appeared to have the greatest presence of starlings.

- c) Adoption of the Guidelines – Mr. Luymes notes that, although the focus of the Guidelines is on bird control associated with berry and grape production, many of the principles of cannon operation can be adapted for use on dairy farms. He identified the following in his report:
- use audible devices only when required;
  - where possible, aim directional audible devices away from neighbours; and
  - maintain noise devices properly to avoid the generation of noise when they are shut off or disabled.

Mr. Luymes also referred to other standards set out in the Guidelines that deal with the number of cannons permitted per hectare, separation distance from residences and times of operation and frequency of firing.

- d) Assignment of Monitoring and Communication – Mr. Luymes recommended that a single employee be assigned to manage the cannon to keep a record of its use, to monitor bird pressure to determine when the cannon should be used and to de-activate the cannon when bird pressure is low. Means of assessing bird pressure should be done in consultation with the avian specialist referred to in recommendation (a) above. The bird predation management plan and changes to the plan should be shared with affected neighbours to ensure transparency with respect to the farm’s future intentions for cannon use. Mr. Luymes notes that the continued use of the cannon has created “a difficult communication environment” between the respondent and the complainants. He suggests that Mr. Fowler, the avian specialist currently retained by the Knopps, could assist in improving communication.

## **COMPLAINANTS’ EVIDENCE AND SUBMISSIONS**

### **Donald Lanyon**

22. Mr. Lanyon stated that he is bothered greatly by the noise of the propane cannon in that it leaves him with “a mental and emotional” reaction akin to being shot at. He stated that he is home for much of the day and therefore hears the cannons firing continuously both outside in his yard and inside his home. He also stated that while the cannon fired frequently for a 5 month period commencing in November 2012, he has not heard the cannon for the past month and a half.
23. He submitted that, as a milk quota holder, the Knopp farm should have sufficient income to use other, non-intrusive measures for starling control. Mr. Lanyon suggested a number of measures that the Knopp farm could take to deal with the starling problem, including, netting barn trusses to prevent birds from roosting, changing the way the cattle are fed to reduce bird access to the feed and developing better trapping methods. He argued that these measures would pay for

themselves in the long run as they would reduce the farm's cost associated with feed losses.

24. Mr. Lanyon further submitted that the use of propane cannons alone was not normal farm practice and was not an effective solution to managing the starling population.
25. Mr. Lanyon's son, Philip Lanyon, testified that he resides with his father and that when the farm's cannon first started firing, he was frightened and thought he was next to a firing range due to the repetition of blasts. He also stated that the sound waves from the cannon shake the house. Although he stated that the cannon interrupts his sleep, he confirmed that the latest the cannon has been used is 10:30 at night and the earliest it has been fired is 5:30 in the morning. He agreed that, with the exception of one occasion when the cannon fired at 3:30 am, his sleep would not have been interrupted between those times. He also claimed that he is disturbed by the cannon firing when he is home during the day.
26. Philip Lanyon submitted that propane cannon use is only a short term solution to the starling problem and alleged that the farm has not investigated other deterrents.

### **Carla Pederson**

27. Mrs. Pederson testified that the cannon use started in November, 2012 and that it was deafening and continuous. She said she feels the percussion of the cannon activations in her house and her dog cowers from them. She claimed that the dog is now on medication for a worsening arthritis condition that she attributed to the dog's agitation from the cannon use. In recent months, she has been trying to sell her house but said that two potential sales have fallen through and she speculated that this is because of the concerns prospective buyers have over the cannon use on the Knopp farm. She stated that she filed a complaint because Mr. Knopp stated that he intended to use the cannon year-round. She agreed that the cannon on the farm last fired on the Easter long weekend (March 29, 2013).
28. Mrs. Pederson said she believes that the farm's use of propane cannons amounts to "audible bullying" and that no person should be able to disrupt the life of neighbours to this extent. She seeks an order that the farm not be allowed to use its cannon. Since there is no history of the use of propane cannons on dairy farms, she submits that it cannot be normal farm practice.
29. Mrs. Pederson also submitted that there was no reliable evidence of starling pressure that would justify the constant use of propane cannons. Further, she submitted that cannons are not a long term solution because they only temporarily scare birds away and do not eradicate the problem. She is of the view that the farm has not been sensitive to the impact of the cannon on neighbours and that she cannot accept the use of the cannon year-round.

## **Harriet Ellicott**

30. Mrs. Ellicott testified that on January 22, 2013 she suffered two broken bones in her left wrist while handling her horses in her barn. She said that the horses reacted to the noise and sound wave reverberation from a propane cannon firing on the respondent farm and she fell and hit her head on the ground. She said the injury has resulted in permanent loss of movement in her wrist and the development of a condition she called Complex Regional Pain Syndrome. She said that, as a result of this injury, she now needs assistance to care for her horses and has ongoing headaches.
31. She also testified that her horses are not habituated to the cannon noise and they are both now more reactive to sudden loud noises. She claimed that during the times that the cannon is in use and for several weeks after the cessation of use, her horses are anxious about being confined in their stalls and reluctant to lie down in them. Mrs. Ellicott stated that she has extensive background raising horses, including owning horses and breeding horses in Ontario for a 20 year period. As a result, she submitted that she has considerable knowledge of horse behaviour. She testified that it is her experience that when horses are startled due to loud noises, they feel threatened and instinctively try to flee from the noise. She also testified that if horses cannot flee due to being confined in a stall, their stress level is much higher and this makes it more difficult and hazardous to handle them. She stated that horses tend to be able to handle this stress better when in the paddock (or a freedom situation) however, she submitted that each horse reacts differently.
32. Mrs. Ellicott submitted that propane cannons are designed to startle and they do startle her horses. She also submitted that, in her view, the unpredictability of the cannon use contributed to the hazard she faces when handling her horses.
33. In the view of Mrs. Ellicott, propane cannon use on dairy farms is not normal farm practice. She stated that, based on her research, propane cannons have not been used by dairy farms in British Columbia. She referred the panel to a letter dated February 5, 2013 from George Doerksen, Bylaw Compliance Officer with the Comox Valley Regional District, where he states that he surveyed 5 local dairy farmers and none of them used propane cannons. She asked the panel to order the Knopp farm to cease use of the cannon.
34. Mrs. Ellicott submitted that the solution to deterring birds on a year-round basis was not by using cannons but by using exclusion techniques. She relied on financial information contained in the Knopps' documents to estimate that the potential annual savings that could be realized if starlings were excluded from the respondent farm's barns would be over \$18,000 per year. Consequently, she submitted that savings from feed lost to bird predation could quickly be recovered as a result of incorporating exclusion techniques. However, she submitted that netting would not be effective to exclude birds from the respondent barns if the doors were left open as she claimed they were 80% – 90% of the time.



35. Mrs. Ellicott relied on an excerpt from a study done by Trinity Western University (and published on the internet) which indicated that the peak effectiveness of propane cannons occurred within the first 15 days of use and that after 15 days, the starling numbers climbed suggesting that the birds habituated to them.
36. Mrs. Ellicott testified that on April 13, 2013, she asked Mr. Knopp to turn off the cannon because a farrier was coming to attend to her horses on April 16. She stated that the cannon was turned off on April 15 and she later telephoned Mr. Knopp to thank him for responding to her request. Mrs. Ellicott denied that she advised Mr. Knopp to turn the cannon on again (as he suggested) and stated that she would never say this because she did not believe cannon use was acceptable.
37. Mrs. Ellicott submitted the respondent farm is not respecting her rights to use and enjoy her farm. She submitted that the farm should be using more bird exclusion barriers and mechanical ventilation that would allow the main doors on the milking cow barn to be closed, thereby reducing the starling problem and the need for using a propane cannon.

#### **RESPONDENT'S EVIDENCE AND SUBMISSIONS**

38. Gary Knopp testified that he is a one third shareholder of the respondent farm and that he has lived on it for 47 years. He testified that the farm has been in continuous use by the Knopp's family as a dairy farm since 1961. Mr. Knopp said the starling problem on his farm had become extreme, to the point where the farm was experiencing significant feed losses and herd health problems. He said that after beginning use of the cannon in November, 2012, there was a huge reduction in the starling population on the farm but that when the cannon was turned off, there was a rapid return of the starlings.
39. In Mr. Knopp's opinion, the starling population on the farm significantly increased after a neighbouring farm switched from dairy production to growing vegetables, thereby, reducing other sources of food for the birds in the area. He said he tried various methods to control the birds, such as trapping and shooting them but these measures had little impact on reducing the starling numbers.
40. Since installing the cannon and significantly reducing the starling infestation, Mr. Knopp said he has been able to reduce the cost associated with feed losses, lower veterinary bills and reduce the number of milking cows by 12 because of overall increased milk production in the herd. As a result, he concluded that, despite the noise from the cannon, the cows are "happier" because they are no longer competing with starlings for their food.
41. Mr. Knopp testified that on August 30, 2006, a fire destroyed the milking cow barn on the farm, killing 80 mature cows. He said he was informed by the fire inspector that a build-up of bird feces on electrical components may have been a factor contributing to the cause of the fire.

42. Mr. Knopp testified that the propane cannon has been operated from November 2012 to the present as follows:
- From November 15, 2012 to January, 2013 it was used daily from dawn to dusk (controlled by a photosensitive device) and set to fire automatically at 4 to 8 minute intervals;
  - In early January 2013 the starling population diminished and, as a result, the cannon was shut off for approximately 10 to 14 days but the starlings returned during that time;
  - From January to March 29, 2013, the cannon was set to fire at 8 to 16 minute intervals;
  - On March 29, 2013, the cannon was turned off and starling populations returned;
  - Between March 29 to April 15, 2013, the cannon was set to fire automatically at 16 to 32 minute intervals to deter birds from nesting;
  - The cannon was shut off from April 15, 2013 to the date of the hearing.
43. Mr. Knopp testified that he contacted Graeme Fowler in January, 2013 to seek advice on starling mitigation techniques and propane cannon use. Based on a recommendation from Mr. Fowler, Mr. Knopp said in February 2013 he purchased three Bird Gard devices (that use simulated bird distress calls to scare away starlings). Mr. Luymes noted the presence of these devices in the barns on the farm in his report.
44. Mr. Knopp stated that he “never thought about” contacting his neighbours about his intended use of a propane cannon but that, as a result of the complaints, he is now aware of the concerns of neighbours and is willing to investigate and experiment with all feasible options for starling control. However, he said he believes the cannon has been an effective tool for deterring starlings and he needs to be able to use the cannon on any day of the year should the starling numbers warrant its use. He said he does not intend to use the cannon every day and anticipates that he will have to rely on it mostly from October to February each year. Mr. Knopp said he acknowledges that the propane cannon alone will not work effectively to deter the birds and expects the bird predation management plan currently being developed by Mr. Fowler will assist him in determining when the cannon should be used.
45. Mr. Knopp testified that some bird control measures are not feasible for use on the respondent farm. He stated that the main doors on either end of the main barn must be open for periods of time during the day to allow feeding equipment to enter and leave the barn. He rejected a suggestion by one of the complainants that he install plastic louvers over the door openings because he believed it would reduce ventilation or air circulation in the summer months and stated that the barn doors are closed most of the time during the winter months. He testified that he has had some success with trapping juvenile starlings but that the traps are less effective with adult birds. He also testified that netting is difficult and costly to

install in some locations and should not be installed where cattle can reach the netting.

46. Dr. Peter Parke, DVM. MSc Agr, BSc Agr, was called as a witness for the respondent farm. He has practiced veterinary medicine for 10 years in the Comox Valley. The panel qualified Dr. Parke as an expert in dairy herd health. He testified that he has been a veterinarian for the Knopp farm for many years and visits the farm on a monthly basis. Dr. Parke stated that some of the issues he has dealt with include animal nutrition, animal health and starling issues as they relate to herd health, productivity and costs of production.
47. Dr. Parke stated that Suzanne Knopp has been employed by him for the past 3 years as a receptionist.
48. Dr. Parke referred to an opinion letter dated May 13, 2013 that he prepared for the respondent farm. That letter was entered into evidence and pertinent parts of it include the following information:
  - starlings can be a major source of economic loss on a dairy farm due to their consumption of feed and contribution to herd health issues;
  - starlings increase the risk of disease transmission through fecal contamination of feed and drinking water;
  - starlings represent a bio-security risk as they can spread disease as they travel from one farm to another; and
  - the starling population, by his observation, has grown on the respondent farm in recent years and he believes they are a major source of economic loss on the Knopp farm and on other dairy farms in the Comox Valley.
49. Dr. Parke testified that he was surprised by the effectiveness of the cannon. Prior to the cannon use, he said he observed hundreds of birds in and around the feed alley and barn and bird feces covering the backs of many of the cows from head to tail. He observed that starling pressure appeared higher in the winter months and that, following the implementation of cannon use and in recent months he has observed only a handful of birds (i.e. 10 to 12) in the barn at any one time.
50. Dr. Parke agreed that the sound of a propane cannon could agitate horses and cause a flight response and that with certain horses, he would be apprehensive about handling such horses when a cannon was in use.
51. Dr. Parke stated that he is aware of two other farms in the Comox area that have used cannons in the past; one within the last five years and the other between 10 and 20 years ago. He said he is not aware of any other dairy farmers using or considering cannon use and added that, based on his observations, the bird pressure on the Knopp farm was unusually high compared to others farms in the area.

52. Dr. Parke stated that the total mixed ration feeding method used on the respondent farm is common on many dairy farms and makes it difficult to exclude birds because the end doors of the barn must be open during feeding to allow farm equipment access to the drive through lane in the centre of the barn.
53. Dr. Parke testified that he believes there is a link between starling feces in water troughs and feed consumed by the cows and the health of the cows although there is no definitive link given that no cows have been tested on the respondent farm. He noted that it was not usual to perform such tests when there is only a single dead animal. He added that, in his experience, with large numbers of starlings, the ingestion of feces by the cows leads to the herd being less healthy than would otherwise be the case.
54. Kyle Durance is a nephew and employee of Mr. Knopp. He testified that he is on the farm every day and, based on his observations of bird numbers, he believes the number of starlings in the barns has decreased by 80% since the initiation of cannon use. He said he believes that the reduction in the number of birds has resulted in an increase in herd productivity and health.
55. Mr. Durance also stated that in recent months, the farm has been trying to accommodate its neighbours by moving the cannon, reducing the frequency of firings and by trying different bird deterrents. He testified that the cannon had not been operated for the past 6 weeks but that other tools (i.e. Bird Gards) were being used instead that were “somewhat effective.” He stated that the farm wanted to avoid a situation where the birds became habituated to the cannon but believed that there likely was no time in the year when the cannon might not be needed because, in his experience, the starlings always came back to the farm buildings, especially in the evenings to roost.
56. Mr. Fowler, a fish and wildlife technologist, was called by the respondent as a witness. Mr. Fowler has a Fish and Wildlife Technology Diploma and a Forestry Technician Diploma from Sault College of Applied Arts and Technology, Sault Ste. Marie, Ontario. His work experience includes being the Comox Valley Waterfowl Management Project Coordinator and serving as the program representative for the Agriculture Wildlife Program in the Comox Valley. He has other experience with waterfowl trapping, passerine bird banding, starling mist netting, counting and identifying bird species and a barn owl box program. He was qualified by the panel as an expert in wildlife management.
57. Mr. Fowler prepared a report on behalf of the respondent farm that was entered into evidence. He testified that he has visited the respondent farm on numerous occasions in previous years in his capacity working for Ducks Unlimited and the provincial Wildlife Compensation program and has witnessed the farm’s attempts at controlling starling populations by using a trap, noise guns, firearms and exclusion netting in some areas of barns. Mr. Fowler observed that Mr. Knopp had some exclusion netting and a number of design features intended to minimize

starling access to roosting and feeding areas which he understands were incorporated during the reconstruction of a farm building after it was destroyed by a fire in 2006.

58. Mr. Fowler said he was hired by the respondent farm in February 2013, to develop a bird predation management plan. According to Mr. Fowler, such a plan identifies bird behaviour and describes the various measures to be used to control scavenger bird infestations. He stated that the plan must be reviewed and updated on a regular basis to deal with changing circumstances.
59. Mr. Fowler said he believes the starling population on the respondent farm is a serious problem and controlling it is a high priority for the farm. He testified that the propane cannon is effective at dissuading starlings from feeding in livestock barns and calf hutches and minimizing roosting on farm structures. He estimated that when cannon was first used, starling numbers on the farm were in excess of 5,000. Mr. Knopp informed him that, following use of the cannon for some time, the numbers had declined to 50 birds or less. At that time, the cannon use was discontinued. He said that in the respondent farm's case, he believes the propane cannon should be used in conjunction with other measures.
60. Mr. Fowler testified that, in his experience, the farm's actions dealing with starlings is similar to other farms, but actions are "up a step" due to the severity of the problem. He said he believes that the farm exercises good farming practices by, for example, ensuring that there is no feed left lying around for other species. Mr. Fowler is aware of two situations where cannons were used in the Comox Valley; one was a field situation over 20 years ago and the other was a barn situation about 6 years ago.
61. Mr. Fowler also testified that while the trusses of the respondent's barns could be netted off to prevent birds from roosting, it would not prevent them from entering the barns and eating feed on the ground. He stated that he knew of other farms that used exclusion netting and closed doors on their barns but that they still had "vast numbers of birds." He said the birds adapt quickly to circumstances and that if they know there is a food source in the barn, they will learn to wait until the doors eventually open and swarm in great numbers.
62. He stated that he believes cannons are not more prevalent on dairy farms due to each farmer's sensitivities to the impact of them on neighbours, the impact of the birds on the farm in question and the lengths to which a farmer was willing to go to deal with the situation. He said he believes propane cannons must be a tool available to farmers but that neighbours should be consulted at the onset, especially when its use may be for an extended period of time.
63. Mr. Fowler stated that the current Guidelines were developed to address the use of cannons in blueberry fields and, in his view, have limited relevance to dealing with starling problems on dairy farms where the birds are entering buildings.

When dealing with a starling problem, Mr. Fowler stated that it is necessary to look at each farm individually having regard to a number of factors, including, but not limited to, its geographic location, buildings and presence of species and numbers in determining what tool(s) will be most effective.

## **INTERVENERS**

### **Comox Valley Farmers' Institute**

64. The Comox Valley Farmers' Institute (the "CVFI") was granted full intervener status to present evidence, cross-examine witness and make submissions, however, its representatives chose not to provide an opening statement or to cross-examine any witnesses. The CVFI gave evidence through two of its members, namely, Jim Casanave and Mike Huxham, with a closing submission given by another member, David Taylor.
65. Mr. Casanave testified that his family's dairy farm is located in the Comox Valley and has been in operation since 1920. He stated that he is familiar with the respondent farm and based on his observations, he does not believe that the starling problem on his farm is as severe as that on the respondent farm. He said he has used various measures over the years to reduce starling pressure which have included a shot gun, stationary owls, netting and sound devices. He said he has not seen the need to use a propane cannon on his farm but would like to have that tool available should the starlings reach unacceptable numbers in the future.
66. He testified that the main doors on his barn must be left open in the summer months for ventilation because he does not use mechanical ventilation. He stated that in the winter, there is less bird pressure inside the farm buildings as the doors are closed most of the time. He suggested that the bird levels are reasonably low at his farm given that there are five other dairy farms (or other sources of food) nearby which may spread out the starling numbers.
67. Mr. Huxham stated that he has a dairy farm in the Black Creek area north of Courtenay and that he has been a dairy farmer for 25 years. He testified that he has not had a significant enough starling problem to cause him to consider using a propane cannon. He stated that starling numbers were not as great on his farm as on the respondent farm and that the reason for this was that there were more dairy farms in the same area as his farm so that the birds could spread out their numbers when feeding.
68. Mr. Huxham stated that in the past he has used shot guns and traps to manage predatory birds. He testified that these measures are reasonably effective on his farm where the starling pressure at present was "tolerable," but claimed that the bird pressure on the respondent farm was "extreme." In that situation, he said the effectiveness of a bird trap was like killing "a flea on a camel's [behind]."

Mr. Huxham stated that should the bird pressure on his farm reach unreasonable numbers, he would want to be able to utilize propane cannons as a tool as well.

69. Mr. Huxham stated that until he became aware of the complaints in this matter, it had not occurred to him that a farmer should consult with neighbours about using a propane cannon but that after seeing what the Knopps have gone through, he now believes that prior communication with neighbours would be a good idea.
70. Mr. Taylor gave a closing submission on behalf of the Institute in which he asked the panel to find that use of cannons for starling control on dairy farms accords with normal farm practice. He submitted that the birds present an increased risk of herd disease and need to be controlled. He acknowledged that there should be rules governing the use of propane cannons but argued that rules should not be so restrictive as to make cannon use ineffective. He also submitted that cannons should not be used in isolation but as “one of the tools to be employed to deal with an unacceptable starling problem”.

### **Horse Council of British Columbia**

71. The Horse Council of British Columbia was granted limited intervener status to make oral and written submissions at the hearing.
72. Susan Harrison provided an overview of the role of the Horse Council of BC and the equine industry in BC generally. She concurred with the evidence provided by Mrs. Ellicott that horse behaviour is unpredictable and that some horses do not habituate to loud noises such as those produced by propane cannons. She submitted that horse owners and farmers using cannons have to work together to find solutions that work for both parties, including (but not limited to) informing horse owners of when cannons will be used.

### **ANALYSIS AND DECISION**

73. A complaint under the *Act* involves a two-step analysis. The first step involves a determination of whether a party has standing to bring a complaint. Pursuant to section 3 of the *Act*, a complainant must establish that he or she is aggrieved by “any odour, noise, dust or other disturbance resulting from a farm operation conducted as part of a farm business.”
74. The complaints from Mr. Lanyon, Mrs. Pederson and Mrs. Ellicott state that they are aggrieved by the noise from the operation of a propane cannon on the respondent dairy farm and that it has had a significant, negative impact on their lives. The complainants allege that the use and enjoyment of their property has been negatively affected and that they have experienced anxiety, stress, and, in the case of Mrs. Ellicott, personal physical injury due to the cannon startling her horses. In his report, Mr. Luymes confirmed that the cannon could be heard from both the Pederson and Lanyon properties.

75. The panel finds that the evidence of the complainants and Mr. Luymes clearly establish that the complainants are aggrieved by propane cannon noise coming from the respondent farm.
76. Section 1 of the *Act* defines normal farm practice as follows:
- "normal farm practice"** means a practice that is conducted by a farm business in a manner consistent with
- (a) proper and accepted customs and standards as established and followed by similar farm businesses under similar circumstances, and
- (b) any standards prescribed by the Lieutenant Governor in Council, and includes a practice that makes use of innovative technology in a manner consistent with proper advanced farm management practices and with any standards prescribed under paragraph (b).
77. The second step involves a determination of whether, at the time of the complaints, the operation of the propane cannon on the respondent farm as a bird scare device or pest control measure was in accordance with normal farm practice. It is important to note that the analysis involves not only an examination of industry practices but also includes an evaluation of the context out of which the complaint arises. This evaluation may include factors such as the farm's proximity to neighbours and the use of their lands, geographical or meteorological features (such as prevailing winds), other types of farming in the area, and the size and type of operation that is the subject of the complaint.
78. The *Act* states that, to be a normal farm practice, a practice must be consistent with proper and accepted customs and standards as established and followed by similar farm businesses under similar circumstances. For the purpose of this analysis, the panel finds that similar farms means dairy farms and similar circumstances means dairy farms faced with a significant starling problem.
79. Mr. Luymes estimated that 5% to 10% of BC dairy farms may be experimenting with various methods to control birds, including use of propane cannons. He testified that he is aware of two dairy farms – one in Langley and one in Surrey – that currently use propane cannons for bird control. Dr. Parkes testified that he is aware of 2 other dairy farms in the Comox Valley that, within the last 10 to 20 years, used cannons for bird control. Dr. Parkes also testified that the starling problem is more severe on the respondent farm than on other farms that he visits in the Comox Valley. Mr. Casanave and Mr. Huxham testified that they face starling pressure on their farms but the pressure is not as great as that faced by the respondent farm. They stated that they would consider using cannons in the future if the problem did rise to that level. Mr. Fowler said he believes the starling population on the respondent farm is a serious problem and controlling it is a high priority for the farm. The Ministry fact sheet, "Starlings and Livestock Farms" (referred to in the KP Report at p. 10) also refers to the use of propane cannons as



one kind of noise scare device to be used to deter birds from preying on livestock feed.

80. The panel concludes from the testimony cited above that bird pressures can rise to a level on dairy farms in British Columbia where some form of mitigative action is deemed by the farmer to be required. The panel further accepts that dairy farmers who see the need to take action use or have used a range of measures, including exclusion barriers, trapping and noise making devices, such as propane cannons. The panel finds that the use of propane cannons is a practice used by some dairy farmers in British Columbia who decide to take mitigative action to deal with what they deem to be an unacceptable level of starling pressure.
81. The panel accepts the evidence of the respondent farm and, in particular, that of Mr. Fowler, Dr. Parke and Mr. Knopp, that the starling numbers on the respondent farm were significant and that, as a result, animal health was being affected and feed costs were higher than would have otherwise been the case. In the circumstances, the panel finds that it was proper and accepted farm practice for the respondent farm to adopt measures to reduce the impact of the starlings.
82. The panel notes that although Mrs. Knopp is an employee of Dr. Parke, there was no evidence to conclude that this relationship affected the credibility or reliability of his evidence.
83. The panel finds that the respondent farm was similar to other farms faced with a starling infestation issue in that both the respondent farm and the other farms deemed it necessary to implement mitigative measures. Mitigative measures on other farms have included use of a propane cannon. The testimony of Mr. Casanave and Mr. Huxham was that, if the starling issue on their farms was to the level of that faced by the respondent farm, they too would consider using a propane cannon.
84. The evidence before the panel is that propane cannon use on dairy farms in British Columbia is not common and is not currently used by any other dairy farm in the Comox Valley. However, the panel questions whether the frequency of use is a component of the definition of normal farm practice. Does a practice have to be commonly used by similar farm businesses to be judged by BCFIRB to be a normal farm practice? The definition of “normal farm practice” is a practice consistent with proper and accepted customs and standards as established and followed by similar farm businesses under similar circumstances. The evidence is that other dairy farms followed the practice of using a propane cannon to deal with the damage to dairy farms caused by starlings. In the past, other dairy farms in the Comox Valley have used propane cannons. The evidence of the KP was that there are currently dairy farms in the lower mainland that use a propane cannon to counter starlings infestations. The panel, therefore, concludes that the use of propane cannons on dairy farms is a practice that is conducted by similar farm businesses, even if the practice is not widespread. The reason it is not widespread

may be because other dairy farms do not have a starling infestation of a magnitude that the use of propane cannons is deemed to be necessary. The evidence is that Mr. Knopp had a significant starling problem and, in the absence of evidence on the nature of the starling problem on other dairy farms using cannons, the panel draws the conclusion that Mr. Knopp's circumstances were as serious as other dairy farms using the propane cannon and was, therefore, in similar circumstances. The panel concludes that both the respondent farm and other dairy farms using a propane cannon were in the circumstance where they found the starling problem to be of a magnitude that required the use of a propane cannon as a mitigative measures to control a serious starling infestation.

85. The panel cannot accept that legislation that is to protect farm practices would result in a practice, which is a normal farm practice in another part of the farm industry and known to be an effective tool, not being available to other parts of the farm industry for a similar use. The evidence before the panel indicates that dairy farmers have assumed that propane cannons are one of the tools that they can use to deal with significant and damaging starling infestations.
86. Having found that the use of propane cannons on the respondent farm is a practice followed by similar farm businesses in similar circumstances, the panel must now determine whether the respondent farm's use of a propane cannon as a bird deterrent, at the time of the complaints, accorded with proper and accepted customs and standards.
87. In previous farm practice complaint hearings, BCFIRB panels have found that the 2009 Guidelines for the use of propane cannons represents normal farm practice for blueberry growers in the Lower Mainland (e.g. *Fisher v Sidhu*, BCFIRB, May 24, 2013).
88. Mr. Fowler submitted that the Guidelines are of limited relevance to dairy farms because they address starling predation of seasonal crops grown in fields whereas, on dairy farms, the bird threat is year-round and confined primarily to buildings. The panel acknowledges this distinction in the farming activities, however, it agrees with Mr. Luymes that there are key elements in the Guidelines that are of general application and which should be adopted as a standard for the use of propane cannons on any farm. These include:
  - The preparation of a bird predation management plan that provides for the use of a range of approaches and techniques to minimize the use of audible bird scare devices and the birds' habituation to them; and
  - Assignment of one person who is familiar with the bird predation management plan who will regularly check the device to ensure it is functioning properly and who will monitor and record bird numbers to ensure that the noise device is activated only when bird pressure is sufficient.

89. The panel also finds that a key principle underlying the Guidelines is that they are intended to reduce the impact of audible devices on neighbours. Consequently, the Guidelines provide that propane cannons must not only be used in response to actual bird pressure but must also be located no closer than 200 metres from residences (unless a written waiver is obtained) and operated only between dawn and dusk or 6:30 am to 8:00 pm. (whichever is of lesser duration). The panel finds that these standards (as well as those set out in paragraph 88) are also appropriate standards to be met for the operation of a cannon as a bird deterrent on the respondent farm to accord with proper and accepted customs and standards related to the use of a propane cannon on dairy farms and, therefore, be a normal farm practice.
90. The panel finds that the respondent farm's use of a propane cannon between November 2012 and March 2013 did not accord with normal farm practices insofar as the farm did not prepare a bird predation management plan prior to its use of the propane cannon nor did it keep written monitoring records of bird pressure. The panel acknowledges the respondent's testimony that, as of February 2013, the farm had hired an avian specialist to prepare a bird predation management plan and to develop an integrated approach to bird predation and had implemented other measures such as Bird Gard devices in barn structures and traps.
91. The panel finds that the farm's use of the propane cannon did accord with proper and accepted customs and standards insofar as the cannons were located in excess of 200 metres from neighbouring residences and they were operated generally between the lesser of dawn and dusk or 6:30 a.m. to 8:00 p.m. Although Philip Lanyon gave evidence that he believed the cannon fired outside of these times, the evidence of the farm and that of the complainants, Mr. Lanyon and Mrs. Pederson, was that the cannon fired from dawn to dusk. Consequently, the panel concludes that if the cannon fired outside of these times, they were likely isolated incidences caused by a malfunction.
92. The complainants submitted that the farm has not made reasonable efforts to integrate other methods and techniques of managing predatory birds and that it would be unfair for them to have to be subject to propane cannon noise year-round.
93. The panel finds that the possible year-round use of the propane cannon on this dairy farm makes the cannon use significantly different from the seasonal cannon use on crop farms. The decision of the panel is that this factor requires the farm to take different measures than what is usual and accepted practice on crop farms to reduce its reliance on propane cannons. The panel finds that while the farm has taken some steps toward implementing an integrated bird management plan, such as installing Bird Gard devices and partially netting some of its buildings, these measures do not go far enough in reducing the farm's reliance on the propane cannon and the resulting noise impact on its neighbours. The panel accepts the

opinion of Mr. Luymes and the Ministry fact sheet, Starlings and Livestock Farms, that the incorporation of exclusion barriers is the most effective, long-term way of keeping starlings out of the barns.

94. The panel finds that for this farm, normal farm practice requires that in addition to adopting the Guideline standards set out in paragraphs 88 and 89 above, it must also incorporate additional exclusion barriers in its farm buildings as part of an integrated bird predation management plan.
95. Although the fact sheet, Starlings and Livestock Farms, advocates the use of other exclusion devices such as plastic or rubber strips in doorways where equipment has continuous access, it is the panel's decision not to order these further exclusion methods in the barns as it is satisfied (based especially on the evidence of Mr. Fowler) that they would likely have little lasting impact on reducing the bird pressure.
96. The panel has considered the respondent farm's submission that exclusion netting could be expensive, however, the panel is also mindful of the respondent farm's evidence that it has recovered significant savings in terms of the reduction of feed loss and increases in cow productivity by reducing bird numbers in the barns.
97. The panel also finds that where year-round use of the propane cannon is contemplated, there is less predictability on the part of neighbours as to when it may be used. This was a great concern to Mrs. Ellicott, for example, when handling her horses. Consequently, the panel adopts Mr. Luymes' recommendation that the respondent farm should make its bird predation management plan available to any affected neighbours who request a copy. In addition, the respondent is encouraged to inform neighbours when it plans to use the cannon and to limit the number of days the cannons is used over a given period. The panel considers the cannon to be a practice of last resort to be used only when other methods are not adequate and then only for a relatively short duration. The panel does not have expert evidence to decide what the frequency and duration should be but expects that with proper monitoring, the farm will reduce the use of the propane cannon as much as possible.

## **ORDER**

98. The panel orders the respondent farm, pursuant to s. 6(1) of the *Act*, to modify its practice for the use of a propane cannon in order to comply with normal farm practice as follows:
  - a) **Prepare a Bird Predation Management Plan** – The respondent farm must have a bird predation management plan prepared by a qualified expert and, prior to operating the cannon, the plan must be fully implemented, except for the bird exclusion measures detailed in subsection (e) below. The plan must include a range of measures other than a propane cannon for managing starling

populations, strategies for minimizing bird habituation to the cannon and ways to minimize the impact of cannon use on neighbours. The plan must be on the farm site at all times and be sent to any neighbours who request a copy;

- b) **Monitoring** – The respondent farm must assign a person who will be responsible for monitoring and recording the presence of starlings and only activate the cannon when starlings are in sufficient numbers to pose a significant risk to the dairy operation. On any day when it has been determined that cannon use is warranted and after notifying complainants in accordance with subsection (f) of this Order, the initial activation of the cannon must be done manually. Once the cannon use has been initiated manually, subsequent activations on that day can be controlled by a timing device. Written monitoring records must be retained on the farm site at all times;
- c) **Number of Propane Cannons** –The respondent farm must not use more than one cannon at the same time;
- d) **Hours of Operation and Frequency of Activation** – The respondent farm must only operate the cannon from dawn to dusk or 6:30 a.m. to 8:00 p.m. (whichever is the shorter duration) and operate the cannon at the lowest firing frequency and firing volume unless the bird pressure justifies increasing the frequency and volume;
- e) **Exclusion Devices** – The respondent farm must install exclusion measures under all trusses in all farm buildings frequented by starlings within one year from the date of this decision; and
- f) **Notification of Use** – After a period of time when the cannon has not been in use, the respondent farm must provide 24 hours advance notice of its intention to begin using the propane cannon to those of the complainants who wish to so be advised and who have provided a means to be advised (such as an e-mail address or telephone number).

Dated at Victoria, British Columbia this 6<sup>th</sup> day of January, 2014

**BRITISH COLUMBIA FARM INDUSTRY REVIEW BOARD**

**Per:**



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Ron Bertrand, Vice Chair  
Presiding Member



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Diane Fillmore, Member

## **DISSENTING REASONS OF C. MANARIN, MEMBER**

1. I have read the decision of the majority, however I respectfully disagree with their conclusions that:
  - (a) it is normal farm practice for dairy farms to use propane cannons for bird control where a farmer deems that he or she has an unacceptable level of bird predation;
  - (b) there is sufficient evidence to find that it is normal farm practice to use propane cannons on dairy farms that have a “significant starling problem;” and
  - (c) the respondent farm’s practice of using a propane cannon for bird control accords with normal farm practice because its circumstances are similar to other dairy farms that have used propane cannons.
2. I do not share the majority’s finding of normal farm practice as I have found insufficient evidence upon which to make such a determination. In his testimony, the knowledgeable person, Mr. Luymes made reference to a third dairy farmer in the Fraser Valley who reportedly stopped using propane cannons after tens of thousands of starlings were driven out by three owls. It is also important to note that the evidence of use of propane cannons by three farmers in the Fraser Valley was not included in the KP’s Report but arose in response to a question from one of the complainants (Ms. Ellicott) who sought the identities of the farmers in question but this request was overruled by the panel chair with the result that the complainants had no opportunity to test the reliability of that evidence. While s. 7(3) of the Act gives the panel discretion to accept evidence that would not be admissible by a Court, in my view this evidence should be given little weight.
3. I also disagree with the majority in terms of the weight to be given to Mr. Luymes’ testimony where he “estimated” that approximately 5 – 10% of dairy farmers had experimented with propane cannons. Mr. Luymes’ testimony was that he was making a “guess” and accordingly he cautioned the panel that there was “no scientific basis” to support it.” It is also important to note that this opinion is outside of the area of the expertise for which he was qualified and he admitted during his testimony that he had very little experience dealing with starling predation. Consequently, in my view this evidence should be given little weight.
4. I also disagree with the majority in terms of their interpretation of the evidence of Dr. Parke and Mr. Fowler who both testified that they were aware of two dairy farms in the Comox Valley in the past 20 years that had used propane cannons for bird control. It was unclear on the evidence whether these witnesses were referring to the same two farms or different farms given that they were not identified. In any event, it is important to note that there was no evidence as to what the level of bird predation was on those farms or what measures (if any) had been tried to manage bird predation. By way of clarification, Dr. Parke’s

testimony was that the starling level on the respondent farm appeared to him to be at a higher level compared to other clients' dairy farms he had seen in the Comox Valley "for whatever reason" and that the bird control measures taken on the other dairy farms appeared to be working reasonably well.

5. In my view, consideration must be given to other evidence of normal farm practice. For example, Mr. Luymes testified that bird predation on cattle feed is normal in open style barns with drive through centre lanes and therefore "quite a few dairy farmers choose to absorb the expense of putting netting in new barns" because they are "very aware of the challenges of bird pressures" even if it does not exist at that particular time. He also testified that exclusion netting together with human presence are two of the top 15 effective measures for keeping birds out of farm structures. He further testified that after speaking to a number of dairy farmers, he was surprised to learn that many of them resigned themselves to the belief that feed losses from bird predation were a fact of life. Mr. Huxam for the intervener, Comox Valley Farmers Institute, also testified that while he considered his current level of bird predation to be at a "reasonable level," he also agreed that he felt it was a fact of life and a cost of doing business.
6. In my view, consideration must also be given to the evidence that there are other dairy farms that allegedly experience significant bird predation but which do not use propane cannons. For example, in his letter of February 5, 2013 the Comox Valley by-law officer, George Doerksen, identified five farms (by name and address) that he contacted about propane cannon use in the Comox Valley and noted that of them, one used a propane cannon 12 years ago but discontinued its use of the cannon due to concerns about the noise. He noted that another farm reportedly had a significant starling problem but did not use propane cannons. All reported that they do not use propane cannons and knew of no other dairy farm that uses them. I also find it significant that Mr. Fowler testified that over his 22 year career, he had worked with other dairy farmers who experienced significant starling numbers and he referred to one in particular that had circumstances similar to the respondent farm's and used mist nets to manage the starlings. He did not suggest in his testimony that any of these farms used propane cannons.
7. In summary, I find that the unverified evidence of Mr. Luymes about the use of propane cannons by three dairy farms together with the evidence of Mr. Fowler and Dr. Parke that somewhere between two and four dairy farms in the Comox Valley have used cannons in the past 20 years insufficient to support the conclusion that it is a proper and accepted practice for dairy farmers to use propane cannons for bird control when there is a significant bird presence, especially when that conclusion fails to take into account the evidence to the contrary.
8. I do agree with the majority that the Ministry's Fact Sheet, "Starlings on Livestock Farms" shows that the Ministry acknowledges that there is an application for the use of propane cannons on livestock farms to control bird

predation when used in conjunction with traps and other deterrents such as exclusion barriers and other audible and non-audible bird scare devices. However, I do not agree that this publication is evidence of practice standards for bird management on livestock farms.

9. I also agree with the majority that it may be possible for a normal farm practice to exist where only a small number of farmers in an industry adopt a practice but in my view this would likely be the case only in exceptional circumstances. For example, it may not be a proper and accepted practice to use a propane cannon on a dairy farm when other, less bothersome bird deterrent measures are sufficient to keep bird populations at a reasonable level. However, where a farmer has taken all reasonable steps to mitigate bird pressure such as for example, incorporating exclusion netting in farm buildings and using other audible or non-audible bird scare devices and those measures prove ineffective to control significant bird predation, then cannon use may be found by a future BCFIRB panel to be a proper and accepted practice in those circumstances. However, a farmer would still have to demonstrate that cannon use is a proper and accepted practice in his or her industry by providing some evidence to show that there are other dairy farms using propane cannons in circumstances where they have tried other bird control measures but still experience a similar, significant level of bird predation or other exceptional circumstance.
10. I also disagree with the majority's conclusion that the respondent farm's use of a propane cannon as a bird control measure accords with normal farm practice because its circumstances are similar to those of other dairy farms that have used cannons. With the exception of Mr. Luymes' account of one farm in the Fraser Valley that allegedly used cannons to manage tens of thousands of starlings, there was no other evidence before the panel of the circumstances of the few dairy farms that have used propane cannons in the past or of the two other dairy farms that allegedly use them "on occasion." Furthermore there was also no evidence whether the farmer that had tens of thousands of starlings resorted to using propane cannons because other methods such as exclusion netting proved ineffective or not.
11. Mr. Luymes and Mr. Fowler testified that a farmers' decision to use propane cannons may be the result of an unmanageable pest problem and/or it could be the result of the farmer in question having a lower tolerance level and greater willingness to use "heightened measures" in response to a pest problem despite the impact on his neighbours. Consequently, it could equally be argued that those farmers who resorted to the use of propane cannons may have done so because they had a lower tolerance level for pests and a greater willingness to use cannons despite the noise impact on their neighbours. In my view, there is simply insufficient evidence to conclude that the respondent farm or the other dairy farms who have tried propane cannons did so solely because they had a severe pest problem (compared to other dairy farms) that could not be managed by other means.



12. I accept the evidence of the witnesses on behalf of the respondent farm that it experiences heavy starling predation in the winter months and that it is difficult to prevent the birds from entering the barns to feed because the doors must often be left open to allow the movement of machinery. Nevertheless, I find that there is insufficient evidence to conclude that the number of birds experienced by the respondent farm is significantly greater than that experienced by most other dairy farms in British Columbia, who have not in the past, and who currently are not using propane cannons for bird control. I am also mindful of the evidence of Mr. Luymes that one farmer who used propane cannons reported having tens of thousands of birds, significantly more than the 5,000 birds Mr. Fowler testified that he had seen on the respondent farm “on occasion.”
13. According to Ms. Ellicott’s documentary evidence<sup>3</sup>, there were “679 commercial shippers” (or dairy farms) in BC in the period, 2009 – 2011, with approximately 70% of those being in the Fraser Valley, 20% being in the interior region and 10% being on south-east Vancouver Island. The evidence before the panel was that of the dairy farms in BC, only two (other than the respondent) are known to use propane cannons occasionally for bird control. The survey conducted by by-law officer, Doerksen, and the evidence of Mr. Fowler suggests that there likely are other dairy farms who experience significant bird predation yet who do not use propane cannons. In my view, the weight of the evidence suggests that most dairy farms in British Columbia have found other ways to manage the predation of starlings and other birds.
14. According to Mr. Luymes, Mr. Fowler and Dr. Parke, starling predation on cattle feed is an unavoidable consequence of having an open style barn and one that dairy farmers with this type of operation must deal with. Although Mr. Fowler’s evidence was that the respondent farm took steps during the reconstruction of the main barn to minimize roosting and tried many of the same bird deterrent measures as other dairy farms that have been able to manage starlings, I prefer the evidence of Mr. Luymes that the farm has not incorporated exclusion netting in the rafters of the farm buildings to keep birds from the roosting nor has it sufficiently netted off the calf hutch area and Mr. Knopp stated that he was unwilling to do so due to the expense. Mr. Luymes testified that exclusion netting is incorporated into new barns by many dairy farmers whether or not they have an existing bird problem because dairy farmers are aware that birds come with the territory and can be a serious problem. As a result, it was Mr. Luymes’ opinion that exclusion netting is generally effective and highly recommended as a means to deter birds from roosting. Consequently, I do not agree that the respondent farm has taken the same measures as other dairy farms that do not rely on propane cannons to manage birds.
15. The evidence of Mr. Fowler and Mr. Luymes was that the reluctance of farmers to subject their neighbours to propane cannon noise may be one reason why they are not used more on dairy farms. As the majority pointed out, bird predation on

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<sup>3</sup> <http://www.al.gov.bc.ca/dairy/overview.htm>.

livestock feed is a year round concern on dairy farms and it is this factor that is significantly different from some other farming industries (such as berry and grape farming) that use propane cannons for bird control for only a few months of the year. As I understand the evidence of the complainants, it was not the use of the cannon by the respondent farm, per se, but rather its continuous, daily use for a 4 ½ month period and anticipated use year round that gave rise to their complaints.

16. I also disagree that a normal farm practice is established when a farmer deems that he or she has a need for it even though it is not a practice used by the vast majority of that particular farming industry. It is important to note that while the definition of normal farm practice provides for the situation where a farmer is the first in their industry use of “innovative technology,” that is not the case here because propane cannons have been commonly used by other farming industries (berries and other field crops, for example) for bird control for decades, yet they have not been adopted by the dairy industry during that same period of time. In my view, if the legislators intended that standards from one industry should be available to another industry to address a similar pest, they could have defined a normal farm practice as one used by “farms with similar circumstances,” however they did not do so.
  
17. In my view, it was not the intention of the Act that individual farmers should establish practice standards for the whole industry. The legislative debates undertaken prior to the proclamation of the Act reveal that the legislators intended for the farming industry in question to develop farm practice standards. At p. 15681, the Hon. D. Zirnhelt (then Minister of Agriculture) stated as follows:

...It is not their [BCCFIRB’s] job to establish farm practices. They aren’t going to set the standards and then hear appeals about those standards; they’ll have to take existing standards. If they don’t exist, then they may point to a need for such a standard to be developed by the appropriate authority, but they’re not the appropriate authority.<sup>4</sup>
  
18. I am mindful of the submissions of the intervener, Comox Valley Farmer’s Institute, that dairy farmers would like the option to use propane cannons as a bird control tool if their current measures prove ineffective to deal with increased starling predation in the future. However, unlike the Ministry Guidelines for crops, there are currently no similar guidelines for the use of propane cannons on livestock farms. Nor has the Lieutenant Governor in Council enacted any such standards. Based on the foregoing, I conclude that the intention of the legislature was that if a practice standard does not exist in an industry, it is not up to BCFIRB to fill that void by establishing standards but rather the appropriate course is for

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<sup>4</sup> <http://www.leg.bc.ca/hansard/35th4th/h0619pm1.htm>

the particular farm industry or industry association to develop appropriate standards.

19. In summary, I agree with the majority that propane cannons are not used by most dairy farms in B.C. for bird control. However, I do not agree that a normal farm practice can be established whenever a farmer deems there is a need to adopt a practice nor do I find sufficient evidence to conclude that it is normal farm practice for dairy farms to use propane cannons when they experience significant levels of bird predation. As a result, I have concluded that the respondent farm's use of a propane cannon does not accord with normal farm practices.
20. Having found that it is currently not normal farm practice to use propane cannons on dairy farms as a bird management practice, I would order the respondent farm to cease its use of propane cannons. I would not foreclose the possibility that in a future case, if a BCFIRB panel was presented with sufficient evidence it might be able to find that it is normal farm practice for dairy farms to use propane cannons as part of an integrated bird control program in response to exceptional circumstances. However in my view, that has not been demonstrated in this case.

Dated at Victoria, British Columbia this 6<sup>th</sup> day of January, 2014

**BRITISH COLUMBIA FARM INDUSTRY REVIEW BOARD**

**Per:**



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Carrie Manarin, Member