

IN THE MATTER OF
THE FARM PRACTICES PROTECTION (RIGHT TO FARM) ACT, RSBC 1996 C. 131
AND IN THE MATTER OF A COMPLAINT REGARDING USE OF PROPANE
CANNONS ON VINEYARDS IN OSOYOOS, BRITISH COLUMBIA

BETWEEN:

JIM AND MARYANNA CAMPBELL

COMPLAINANTS

AND:

MISSION HILL ESTATE VINEYARD

RESPONDENT

HARJINDER HANS DBA HANS ESTATE

RESPONDENT

DECISION

APPEARANCES:

For the British Columbia
Farm Industry Review Board:

Daphne Stancil Presiding Member
Al Sakalauskas, Member
Diane Pastoor, Member

For the Complainants:

self-represented

For the Respondents:
Mission Hill Estate
Vineyards

David Roberts, Counsel

Hans Estate Vineyard

Balkar Hans

Date of Hearing:

June 20, 2017

Place of Hearing:

Penticton, British Columbia

INTRODUCTION

1. The complainants, James and Mary Anna Campbell have filed a complaint under section 3 of the *Farm Practices Protection (Right to Farm) Act*, R.S.B.C. 1996, c. 131 (*FPPA*). They allege that they are aggrieved by the use of propane cannons as bird scare devices by two separate vineyard operations, one operated for Mission Hill Estate Vineyards (Mission Hill) and the other by Harjinder (Harry) Hans dba Hans Estate (Hans Estate).
2. Following the case management call on November 9, 2016, the complaints were adjourned until February 28, 2017, to allow time for each the respondents to prepare and submit bird predation management plans for the purposes of settlement discussions. As settlement did not occur, BCFIRB set the complaints down for hearing. BCFIRB granted a further adjournment to allow the respondents time to retain an expert witness to prepare a report.
3. The British Columbia Grapegrowers Association (BCGA) applied for and since the parties did not object, BCFIRB granted intervener status to present a written and/or oral submission at the hearing.
4. Given the nature of the complaints and the relative experience and sophistication of the complainants¹ and the respondent Mission Hill, BCFIRB did not retain a knowledgeable person.
5. The panel heard the complaint in Penticton on June 20, 2017.
6. On the afternoon prior to the hearing, the panel conducted a site visit of both vineyards and the complainants' property for the purpose of putting the complaints into geographical context.
7. In brief, the complainants argue that the respondents' use of propane cannons and the magnitude of the disturbance the cannons cause goes far beyond normal farm practice. They say propane cannons should not be permitted in this area because these vineyards are surrounded by homes and seek an order requiring the farms to either restrict or cease their use of propane cannons as other feasible alternatives are available.
8. Mission Hill and Hans Estate both argue that their use of propane cannons is part of their bird predation management plan and is consistent with normal farm practice. They ask that the complaints be dismissed.

¹ Mr. Campbell is a former Ministry of Agriculture agronomist and industry specialist providing support services to the grape and tree fruit industries. In that capacity, he has appeared before BCFIRB as a knowledgeable person.

ISSUE

9. Is the use and management of the propane cannons on the respondents' farms consistent with normal farm practice?

LEGAL TEST

10. When a person files a complaint under the *FPPA*, section 3 requires the complainant to demonstrate both that he or she is aggrieved by the complained of disturbance (which arises out of a farm operation, carried on by a farm business) **and** that the complained of practice is inconsistent with normal farm practice (proper and accepted customs and standards as established and followed by similar farms in similar circumstances).
11. In these complaints, there is no issue that the respondent vineyards are both farm businesses and producing grapes is a farm operation. The issues to be determined on these complaints are whether the complainants are aggrieved by the respondents' use of propane cannons as part of their farm operation and whether the respondents' use of those cannons is consistent with normal farm practice.

SUBMISSIONS OF THE PARTIES

Complainants

12. The complainants are orchardists growing early cherries, apricots, plums, and apples; they have been farming their property since 1976. Since that time, they say that production in the area has changed from largely tree fruits to vineyards, resulting in dramatic increases in the frequency of propane cannon use. While they understand the need to control bird damage in fruit crops, they say the current use of propane cannons by Mission Hill and Hans Estate is totally unacceptable, intrusive and invasive to them and to the neighbourhood and is an unacceptable farm practice and inconsistent with production guidelines issued by the Ministry of Agriculture.
13. The specifics of the complaint relate to the 2015 and 2016 crop years where Mr. Campbell says that cannons were routinely used from 6AM until well after 7PM and sometimes as late as 9PM from mid-August until mid-October, 7 days per week. He does acknowledge that once they filed complaints, both farms significantly curtailed their cannon operation with less use during the day and no cannon use at night after dark.
14. The complainants work outside on their orchard from morning to night and are subjected to the noise which they describe as similar to shotgun blasts. The blasts hurt their ears and Mrs. Campbell says the cannons impact her mental health, upset their pets and their grandchildren who live on the property.

15. On the issue of normal farm practice, the complainants argue that birds become habituated to prolonged cannon use. Mr. Campbell pointed to a Transportation Canada document which reviews the use of propane cannons to disperse birds from airports and concluded the “cannons should not be relied upon as the sole or even the major component of an integrated airfield bird control program”.
16. Mr. Campbell says that propane cannons are becoming a rarely used practice in the Okanagan Valley referencing quotes from Dr. Jim Willwerth, CCOVI Scientist Brock University, St Catharines, Ontario and Dr. Pat Bowan of the Summerland Research and Development Centre (who he describes as leading researchers) to the effect that birds (starlings) quickly habituate to noise deterrents like propane cannons making them a fairly ineffective control technique.
17. Mr. Campbell argues that most growers do not use propane cannons and instead are using netting (complete or partial) with the occasional use of pistols and other control measures such as laser control or the use of predator birds. He also observes that regional districts and the grower associations are sponsoring starling trapping programs which, in his view, have significantly reduced the starling population.
18. Mr. Campbell acknowledges that cannons are cheap to operate as they can be set to run while the grower is offsite and in comparison, netting can be expensive. He says netting costs about \$800 per acre but that cost can be spread over a number of years. Mr. Campbell says partial netting just the outside row is an accepted practice by many of the neighbouring growers in this area and the Oregon Winegrowers Association publication *Standards for Bird Control in Vineyards* specifically states that partial netting is effective in controlling bird damage. In response to questions from the panel, Mr. Campbell identified four farms in the area that he says use at least partial netting.
19. Mr. Campbell also references a recent article from a May 2017 issue of *Fruit & Vegetable* magazine discussing a recent trial of laser technology (described as new to BC) at an orchard in Lake Country that lead to a dramatic shift in bird populations for starlings and sparrows. He is of the view that lasers are a viable option as an element of a predation management plan.
20. With respect to whether the respondents were following normal farm practice, Mr. Campbell says in 2015 and 2016 their use of propane cannons was not consistent with the Ministry of Agriculture’s 2014 *Interior BC Wildlife Damage Control Guidelines (2014 Interior Guidelines)*. He compares the practices of the Hans Estate and Mission Hill winery against the guidelines:

	Farm Practice Guideline	Hans Estate Practice	Mission Hill Practice
	Farmers:		
1.	should operate devices only between one	Generally complied	Always started okay but

	half hour before sunrise and 7:00 p.m. local time or dusk, whichever is of lesser duration (sunrise as provided by Environment Canada)		continued after 7 PM, often well after 8PM. On several nights the cannons operated during the night at 2AM-3AM from August to October, 2015. September 11, 2015, the cannon in operation on and off all night.
2.	should locate the device in a manner to minimize the impact on surrounding residences while maintaining bird control effectiveness	Not evident	Not complied, one cannon was situated very close to the complainants' residence
3.	should try to alternate or relocate devices being used on a farm operation on a frequent basis to maintain effectiveness	Some relocation but limited; sometimes located very close to neighbours	Some relocation but limited; sometimes located very close to neighbours
4.	should maintain devices, including timing mechanisms, to ensure they operate properly and especially not outside the recommended hours of operation	Generally complied	Not in compliance
5.	should use devices only as part of a grower-prepared management plan	Did not appear to have a plan	Did not appear to have a plan
6.	should establish a local monitor person for each farm where the owner/operator does not live within hearing range of the farm where devices used;	Knew who to contact and did contact the family; some concern because Mr. Hans was usually away working in Keremeos in the day time hours	No one provided; did not observe anyone monitoring
7.	may use devices for the protection of crops between May 15 and November 15	In compliance	In compliance
8.	should reserve early morning device use for the heaviest bird pressure	Cannons operated all day from early morning to dusk from mid August to mid October	Cannons operated all day from early morning to well after dusk from mid August to mid October. Typically, 8-9 PM
9.	should operate no more than one device per two hectares of cropland at any one time	In compliance	In compliance
10.	should operate devices with a firing frequency of no more than one firing per 5 minutes for single shot devices and no more than 11 activations or maximum of 33 shots in any hour for a multiple-shot device. Multiple shots from a device are considered as one activation if they occur in less than a 30-second period	Considerable variance from every 5 minutes to 90 seconds apart. One cannon operated behind the garage every 1.5 minutes	Generally, every 5 minutes. In 2015 practice was every 3 minutes.

21. Mr. Campbell says that Mission Hill (in the 2015 and 2016 crop years) was in compliance with only three of the *2014 Interior Guidelines* while Hans Estate was in compliance with 5. He says their new predation management plans for 2017 do not

properly address the *Guidelines* as they should only use cannons for the early morning and other methods for the rest of the day.²

22. The complainants strenuously argue that an industry that relies on local public support should not utilize a practice that so severely impacts their neighbours; Mission Hill (given the size of the corporate entity) especially should make every effort to mitigate the impact on neighbouring properties. While Mr. Campbell may be satisfied with modification and restricted use of cannons, Mrs. Campbell strongly argues against the use of any propane cannons in this area as these vineyards are surrounded by homes on all sides and residents and pets are severely impacted by the noise. She says she will not accept any propane cannon noise near her home as there are other viable options available which should be used, and for years farmers managed in the Okanagan Valley without the use of propane cannons. She concluded that if she cannot get relief from this panel, she will get it somewhere else.
23. By way of remedy, the complainants seek an order requiring the respondents to modify their predation management plans to employ other feasible alternatives including netting, partial netting, lasers, and birds of prey. They also argue that the Ministry of Agriculture in part because it has encouraged the planting of so many grape operations and provided the regulatory framework to support the replant, should review its *2014 Interior Guidelines* taking into account new technologies for bird control and the increased population in rural areas.
24. Further, they ask BCFIRB to recommend that the BCGA review its position on bird control methods and consider a study on bird damage and the methods used for control. The study should include species of birds causing the damage and the best way to control them. Further, the Province could consider offering a netting program perhaps through the Growing Forward environmental program.

Respondent Mission Hill

25. Mission Hill does not take issue with the fact that the complainants are aggrieved by the noise from its propane cannons and agrees that cannons can be a nuisance. However, it says cannons are a common and well-practised method of bird control. Mission Hill argues that its bird predation management plan for 2017 including its use of propane cannons is consistent with normal farm practice. It uses multiple methods and tries to balance crop protection with reducing the impact on neighbours.

² Mr. Campbell interpreted this Guideline which says “reserve early morning device use for the heaviest bird pressure” to mean only use device in early mornings and other devices for rest of the day. Mission Hill’s interpretation, based on advice from Mr. Sweeney, was the cannon should be utilized during the time of heaviest bird pressure in the morning, but could also be used throughout the rest of the day as needed and as provided by the Guidelines. The panel considers this disparity later in this decision.

26. Mission Hill called three witnesses, it's Crop Manager John Hopper, Troy Osborne Director of Operations for another production operation for another winery, Constellation Farms, and Mark Sweeney, P. Ag, a former Ministry of Agriculture employee and horticultural expert in the area of berry production and the use of propane cannons and the design of bird predation management plans.
27. Mr. Hopper has a Bachelor Degree in Engineering and 17 years of experience managing wineries. He was recruited by Mission Hill from Australia in 2005 and has been the senior director of the horticultural side of the business for one year. He is new in this position and recognizes that managing grape production is all about managing birds. His focus is developing new plans to manage bird predation and describes this as a "new day" for Mission Hill.
28. Mr. Hopper is not aware of any mishandling of bird predation management in 2015 as that was not part of his job. He acknowledges the complainants' skepticism regarding Mission Hill's use of cannons and its 2017 predation management plan but wants a chance to do better.
29. Mr. Hopper explained that Sebastian Farms is the grape production "arm" for Mission Hill. Sebastian Farms operates 450 hectares, comprised of 33 individual vineyards ranging from 2 to 250 hectares. Some vineyards are close to residences, some are not. He says managing bird predation is not a one size fits all approach, rather each farm is different and plans are designed to address the specific needs of the vineyard. Starlings move in different patterns and can attack an area, completely destroying a crop.
30. Mr. Hopper referred to the vineyards which are the subject of the complaint as vineyards 3, 20 and 28. They are to the southwest of Highway 3 and are 27 hectares in size. These vineyards are located to the north, east and southeast of the Campbell's property; none are directly on the Campbells' property line, but are in close proximity. Mr. Hopper explained using a map that the closest propane cannon will be (and was) located approximately 350 metres from their residence. The planned locations for several sites for the cannons are between 350 and 700 metres from the Campbell residence and one of the 10 sites planned for propane cannons in these vineyards is about 1 km away.
31. Mr. Hopper explained that the bird pressure is greatest in the southwest gully area, so southeast of the Campbell property and on the eastern boundaries of the Sebastian Farms properties. Bird pressure begins as grapes ripen in August and continues to the last week of October. Harvest starts in early September, when the vineyards experience the worst bird pressure.
32. Mr. Hopper described Mission Hill's 2017 bird predation management plan which includes the use of cannons, orchard pistols, and visual deterrents (shiny objects and reflectors). This management plan places more reliance on netting the sides of the

vineyards than in 2015 and 2016, and reduces cannon use at any one time, from 6 down to 3. Mr. Hopper indicated that Mission Hill is interested in testing laser technology after making some preliminary inquiries. Mission Hill has leased a laser unit for the upcoming season for testing on these properties. If it proves to be a successful bird deterrent, Mr. Hopper indicated that Mission Hill will acquire a laser for use as part of its tool kit for managing birds.

33. Mr. Hopper says the plan for 2017 is compliant with the *2014 Interior Guidelines*; it relies on 3 triple shot cannons employed from sunrise to sunset with a firing frequency of 8-16 minutes with cannons moved to 10 different locations, and monitored daily and consistently by newly trained staff. The cannons are “Triple Johns” that shoot and rotate with each shot; they have 4 settings and a manual timer and a photo cell to prevent firing after dark. Malfunctioning cannons are to be looked after by the vineyard manager (his contact information is posted) and response time is expected to be within an hour. Mr. Hopper is candid that he does not know how successful the 2017 plan will be but he is training staff to monitor bird pressure and will make recommendations for more monitoring should it be necessary.
34. Mr. Hopper disagrees with the complainants’ view that propane cannons have reduced effectiveness. He says they are extremely effective as they stop the starlings from getting comfortable in the vineyard and the cannons keep them moving. He says that in one area on the vineyard without bird control, Mission Hill lost half an acre of grapes in a short period of time after a flock of starlings landed there. He explained that the noise from the cannon is intended to prevent the starlings from developing a pattern of repeated use of the vineyard for habitat and food and if possible to keep them on the wing over the vineyard.
35. With respect to the effectiveness of trapping starlings, he describes eradication as a noble effort but while the BCGA may know how many birds have been eradicated, it does not know what bird populations remain. There simply is insufficient knowledge of the bird populations overall and their behaviours to know if trapping is a useful tool. Further, their field research is done on feed lots and landfills not vineyards.
36. In response to a question from the complainant, Mr. Hopper described the vineyards close to the Campbells’ property as high density grape fields, designed and planted to be machine harvested due to the size of the properties. He explained that complete use of netting is manageable in smaller vineyards where netting and harvesting is done by hand. It is very difficult to machine harvest a netted field as it is time and labour intensive (it may require up to 50 or 60 people to remove the netting) and nets cannot be removed in the 12 hour time frame vineyards are given to commence harvesting by the winery.
37. Mr. Sweeney, P. Ag. was retained to review Mission Hills’ 2017 predation management plan and prepare an expert report for this hearing. He also conducted a site visit. His

conclusion is that Mission Hills' 2017 predation management protocol is compliant with the *2014 Guidelines* and not overly dependent on propane cannons; it takes an integrated approach utilizing multiple strategies and tools, including netting where practical, to prevent damage and minimize bird habituation. It contains a monitoring protocol to ensure that audible devices are activated only when necessary and assigns an individual to be responsible for cannon deployment, maintenance and to address any potential malfunctions. He says this program is typical for well-managed vineyards in the Okanagan Valley and blueberry farms in the Fraser Valley. In his view it should be considered "normal farm practice"³.

38. Mr. Sweeney did however, make some recommendations for improvements based on his experience with bird management in blueberry farms, which include:
1. Frequency of monitoring. According to the protocol, formal bird monitoring will occur twice per week. Because of the variability and unpredictability of bird predation, this is not frequent enough. Managers and workers, particularly the person assigned to manage the cannons, should be trained to informally assess bird activity whenever they are in the field. This continuous assessment will ensure that cannons will only be used when necessary which will reduce habituation time and minimize impact on neighbours.
 2. Hawks, kestrels and other resident raptors, if present, can be very effective in keeping starlings out of the vineyards. As part of the monitoring protocol, the presence and activity of raptors should be assessed.
39. Mr. Sweeney indicated that since he prepared his report, Mission Hill has revised its 2017 plan to include his recommendations regarding monitoring frequency. He elaborated on the recommendations regarding observing raptors and suggested that if raptors, such as kestrels are in the vineyard, this may be a time for lower reliance on noise deterrent devices. With respect to hiring a falconer, he says that is an option for large blocks of land but may be less effective for smaller blocks, such as those to the east of the Campbell property.
40. Mr. Campbell questioned Mr. Sweeney about the application of the Ministry Guideline which he interprets as reserving early morning device use for the heaviest bird pressure. In Mr. Sweeney's view, this guideline reflects the necessity for monitoring. Bird predation can happen at any time, it is unpredictable and monitoring is necessary to ensure the device is used only when pressure is evident. The spirit of the *2014 Guidelines* is to use deterrents in an effective and respectful way and while it is difficult to capture the intent in words, a farm has to make judgments on how to best deploy its plan.

³ While Mr. Sweeney is of the opinion that propane cannon use is normal farm practice, the determination of normal farm practice is for the panel. We accept his comments as extremely useful evidence regarding proper and accepted industry practices.

41. In response to panel questions, Mr. Sweeney testified that sporadic cannon use is an indicator of monitoring. He agrees that birds can become habituated but deployment when required as determined as a result of patterns detected through monitoring, but also onsite observation, combats habituation and interferes with the birds' ability to establish a continuous feeding pattern. He responded that if the cannons are used without a predictable frequency in a targeted way they are most effective. He says effective bird predation management that reduces crop losses requires the farm to use as many different techniques as possible.
42. Troy Osborne is the Director of Operations for Constellation Farms which produces grapes for wineries other than Mission Hill. He describes himself as a peer of Mr. Hopper's, but conceded that Constellation Farms and the wineries it supports could be seen as competitors to Mission Hill. He advised that he is responsible for production from approximately 1100 acres of vineyards from Okanagan Falls to Osoyoos. He has been growing grapes for 25 years, 17 of which have been in the south Okanagan. He has three managers responsible for vineyards in different regions which range in size from 2 to 240 acres. In Osoyoos, there are two large east bench vineyards 230 acres and 180 acres sloping towards Osoyoos Lake, approximately 8 km north of the Mission Hill vineyards. Apart from proximity to the lake, he describes these vineyards as similar to those of Mission Hill. Until 4 years ago there were 5 residences nearby, now there is a new development with 300 cottages going in near the north end of Osoyoos Lake. At the time of the hearing about 100 had been built.
43. Mr. Osborne describes the bird predation pressure as highly variable from year to year, but over the past 8-10 years he considered the bird pressure on the Osoyoos bench area as moderate. Constellation uses a variety of methods to control bird pressure including scarecrows, reflectors, bangers, screamers and propane cannons. They use one cannon per every 20 acres and situate it as far away from residences as possible. The cannon is deployed at different times depending on the grape variety. He has observed birds roosting on telephone and power lines and trees so cannons are situated near the powerlines. More powerlines exist today as they service the new cottage development and the starlings roost on them. Constellation uses single and triple shot cannons but place the triple shot cannon away from residences. They generally do not use netting as it is cost prohibitive, \$1,300 per acre to purchase and install and in the fifth year they must be replaced again. Mr. Osborne described the effect of installing netting was approximately a 20% loss of the profit margin off the top for a four year period or 5% per year if amortized over that time. Netting has been used where it is absolutely necessary, an example of which was a small 50 acre vineyard near a feedlot.
44. In his 25 years of experience, Mr. Osborne says cannons have been regularly used depending on the site, using other methods is ideal but every vineyard needs to be assessed individually.

45. Mr. Osborne says Constellation uses cannons from dawn to dusk with more pressure seen in the morning and evening. Their predation management plans vary from year to year and pressure from resident and migratory starlings is monitored by staff. Constellation has received complaints from neighbours related to faulty timers but there is list of numbers for them to call to rectify any issue and in his experience, the problems have been rectified. Crops on the bench are 80% machine harvested; the remaining 20% is hand harvested as either the size or slope precludes machine harvest. There is no netting on these sites.

Respondent Hans Estate

46. Balkar Hans, the son of Harjinder Hans, testified on behalf of Hans Estate. Mr. Hans works off the vineyard and assists his parents with paperwork and communications. He says the property was initially an orchard but his parents changed over to a vineyard in 2006 and produced their first crop in 2009. Their nine acre vineyard is located just south of one of the Sebastian Farm (Mission Hill) properties, and north and across a road from the Campbell property.
47. The farm has recently developed a bird predation management plan for the 2017 crop year. Mr. Hans says his family wants to be a good neighbour and acknowledges the loudness of the propane cannons. He points out that the Campbells use frost machines and other loud equipment on their orchard at certain times of year and there needs to be a give and take between neighbours.
48. The farm tries to situate its cannon at the farthest edge of the property to minimize impact on neighbours and the family is constantly discussing cannon placement but the size and layout of the Hans farm and proximity to the Campbell property limits options. Another dwelling building has recently been added to the Campbell property close to the Hans vineyard which further limits where the cannon can be placed.
49. Prior to creating the written plan for 2017, Mr. Hans says his family was aware of the rules and tried to abide by them. In his view, 80% of growers would not be following a written plan. The requirement to log bird pressure creates a lot of work for farmers and on small farms like theirs where the farmer lives onsite, there is constant management and discussion. Since becoming the subject of this complaint, he says the farm has been burdened with extra work.
50. Mr. Hans says their ATV, an orchard pistol, a cannon, a pet dog and car activity along the driveway all scare birds. He plans to use one Triple John cannon, relocate it every 15 days and for times of high bird pressure set it to deploy once every five minutes and less frequently with lower bird pressure. When staff or family are using the ATV, they will have the orchard pistol ready for use with them and deploy as necessary.

51. The farm does not use netting throughout the property as the vineyard is on a steep slope; it would be a big investment and be difficult to install and remove. Further, it would need to be replaced. The farm tried netting for three seasons but still experienced bird damage. In his view, netting is not viable for a small operation like theirs as the sole bird predation tool. Mr. Hans indicated that for 2017, they will net 1.5 acres of the property, in particular below powerlines and an area at a southern leading edge of the property.
52. Mr. Hans testified it would be ludicrous for a small farm to invest \$15,000 in an agrilaser for 9 acres of production. He indicated he would explore with Mr. Hopper of Mission Hill options to determine if the laser on the Mission Hill property could be situated so that the Hans property could benefit from its use.
53. In summary, Mr. Hans describes his family's plan as one triple shot cannon, one orchard pistol, an ATV and partial netting. His father manages a farm in Keremeos and cannot be in two locations at once. They do have hired help on site daily that could be trained on orchard pistols. Since the complaint was filed, his family has spent \$2000 modifying their practices. They use a timer on the cannon; its planned usage is reduced from 2015 and they have changed the sound levels all in an effort to appease the Campbells. Mr. Hans says his family is willing to compromise.
54. In response to questions from the panel. Mr. Hans agreed that people are on site daily and in effect "they are the plan". They adjust the cannon if there is no bird predation. Mr. Hans indicated that his uncle also has vineyards in the area and he has chosen to use netting only. He has 40 employees and netting is more of an option for him. No party called this producer as a witness to provide details of his operation.

Intervener BCGA

55. The BCGA attended the hearing and presented a written submission. The BCGA suggests it represents approximately 345 table grape and wine grape growers across the province with 70% of their members in the South Okanagan. For these growers, the BCGA reports that European Starlings are the main wildlife predator of grapes; they are known to be an invasive species, prolific breeders and their population balloons just as grapes are ripening on the vines. Flocks of starlings have been known to wipe out whole blocks of grapes in minutes.
56. The BCGA says propane cannons are a well-established tool in farm industry practices and used widely as a method for managing bird predation in grape growing. A 2017 poll of tree fruit and grape growers in the Okanagan Valley confirmed 40% of the respondents used propane cannons as part of their bird predation management plan.
57. The BCGA recommends growers establish a predation management plan based on the BC Winegrape Council's *Best Practices Guide for Grapes for British Columbia Growers* which suggest the simultaneous use of visual repellants such as hawk kites, plastic tapes

and streamers, noisemakers including crackers, whistler shells, propane exploders (cannons), electronic AV-alarms and phoenix wailer systems, starling distress calls, trapping and netting. None of the tools are 100% effective but following these best practices is in the best interest of growers.

58. The BCGA reports that starlings are known to be intelligent and the experience of farmers suggests they quickly acclimatize to repetitive noise and movement. Effective predation management starts as soon as the fruit develops and must be continually moved and changed until harvest. Propane cannons are widely used; they are a financially viable, effective tool for keeping birds away from grapes with little environmental impact.
59. The BCGA submits that in the last 25 years, the grape growing industry has grown in the South Okanagan, and so has residential development. Balancing the differing interests of neighbours has become a factor that growers have to consider in their predation management methods. The *2014 Interior Guidelines* for audible scare devices outline best practises for the number of machines, placement, and rotation.
60. Based on the experience of its members, the BCGA suggests that there are many factors that influence a grower's predation management tools including financial concerns, geographic influences, the size of the acreage, staffing levels and proximity to bird nesting sites. One size does not fit all and what works in one area or for one grower may not work in a different part of the valley. The BCGA strongly supports growers' freedom to choose the combination of bird predation methods for their orchards and farms. Growers' knowledge of the local bird population behaviour and the particular vineyard's operation are the key to bird predation management.

Analysis

61. The Campbells filed this complaint under section 3(1) of the *FPPA* which provides:

3(1) If a person is aggrieved by any odour, noise, dust or other disturbance resulting from a farm operation conducted as part of a farm business, the person may apply in writing to the board for a determination as to whether the odour, noise, dust or other disturbance results from a normal farm practice.

As noted above that Mission Hill and Hans Estate were "farm businesses" conducting "farm operations" and this was not at issue in this appeal.
62. "**Normal farm practice**" means a practice that is conducted by a farm business in a manner consistent with proper and accepted customs and standards as established and followed by similar farm businesses under similar circumstances.
63. Panels considering an *FPPA* complaint undertake a two-step analysis. The first step involves standing, that is, complainants must establish that they are aggrieved by the odour, noise, dust or other disturbance that results from a farm operation conducted as

part of a farm business. If the answer to that question is yes, the panel goes on to determine whether the disturbance complained of results from a normal farm practice. The purpose of the hearing was to give the parties an opportunity to introduce fact and context specific evidence regarding these two questions.

Is the complainant aggrieved by the respondents' use of propane cannons?

64. In the present case, the complainants provided evidence as to the frequency and duration of use of the propane cannons on the respondents' vineyards in 2015 and 2016. There is no dispute that the noise from cannons deployed on the Mission Hill and Hans Estate properties has interfered with the Campbells' use and enjoyment of their property as well as that of other family members and pets living on the property.
65. As such, the panel finds that the complainants have established that they are aggrieved by noise as a result of the use and operation of propane cannons on the respondents' vineyards.

Is the respondents' use of propane cannons consistent with normal farm practice?

66. To determine whether a complained of practice falls within the definition of normal farm practice, the panel must determine whether the practice is "consistent with proper and accepted customs and standards as established and followed by similar farm businesses under similar circumstances." The panel must also consider the specific circumstances of the respondent farm itself and in relation to properties around it, to determine if there are any factors that would apply to cause an increase or lessening of the standards that would represent what is normal farm practice for the particular farm.

Use of 2014 Interior Guidelines

67. In previous complaints dealing with propane cannons, BCFIRB has found that the Ministry *Guidelines* in existence at the time of a particular complaint represent "proper and accepted customs and standards as established by similar farm businesses under similar circumstances" for the use and operation of propane cannons and other audible bird scare devices: see *Paynter v. Gidda*, (BCFIRB, May 20, 2010), *Mitchell v. Bhullar*, (BCFIRB, June 10, 2011), *Fischer v. Sidhu*, (BCFIRB, May 24, 2013). The general approach by panels has been to accept that the *Guidelines* apply to the respondent farm unless on a contextual analysis, there is a reason why the *Guidelines* should be modified to reflect normal farm practice.
68. In this case, the complainants have argued that the *2014 Interior Guidelines* are out of date and need to be modified to reflect new technology for bird control, increased population in rural areas and the fact that regulatory support for wine grapes has encouraged new plantings and profitable grape production. Mr. Campbell, as a retired Ministry employee who for many years was a fruit industry specialist, is certainly well

versed in the industry and while we consider him more knowledgeable in this area than the average neighbour, we reject this argument for the following reasons.

69. The evidence of Mission Hill and Constellation Farms (two large corporate vineyards) and Hans Estate is that accepted industry practice is to rely on noise-making devices and propane cannons by following the *2014 Interior Guidelines*. Mr. Sweeney, also a retired Ministry employee endorses the use of cannons as part of a bird management plan, so long as the *Guidelines* are followed. He says the *Guidelines* were developed to ensure noise deterrents are used in an effective and respectful way. The BCGA also confirms that for its 345 provincial members the *2014 Interior Guidelines* represent best practises for audible scare devices.
70. Mr. Campbell asserts that the *2014 Interior Guidelines* need to be changed to reflect new technology. He relies on quotes from leading researchers and a paper published by Transport Canada regarding bird management at airports to suggest that birds quickly habituate to noise deterrents such as propane cannons making them a fairly ineffective control technique. None of the farmers testifying before us suggested that propane cannon use alone was an effective strategy. Mr. Sweeney acknowledged bird habituation to noise deterrents, especially cannons, and both Mr. Hopper and Mr. Osborne indicated that cannons alone cannot effectively eliminate crop predation by birds. The BCGA report also acknowledges this. All of these witnesses understood that the key to an effective bird predation management strategy begins as the fruit develops and requires constant monitoring and managing. They agree that whatever the strategy being employed, deterrent technologies must be continually moved and changed in response to bird pressure until crop harvest, in order to address bird habituation concerns. The panel concludes this is not in dispute.
71. In our view based on the grape growers' evidence, Mr. Sweeney's evidence and the submission of the BCGA, the *2014 Interior Guidelines* represent normal farm practice for propane cannon use by grape growers in this area. Farmers are responsible for preparing and implementing a bird predation management plan comprised of a range of devices and techniques, and are also responsible for regularly monitoring bird activity on their farms and using propane cannons in response to the changing patterns of the birds. This kind of active management through targeting the noise deterrent use is desirable because it not only addresses both unnecessary use and associated adverse impacts on neighbouring residences, but also helps optimize the usefulness of these devices to prevent bird habituation.

2014 Interior Guidelines and 2015 -2016 Crop Year

72. Despite Mr. Campbell's argument that the *2014 Guidelines* need to be changed, he appears to accept that these are the best practices for the industry against which the respondents' farms must be measured. The complainants argue that in 2015 and 2016,

neither farm was compliant with the *2014 Guidelines*. Mission Hill was not compliant with the requirement to operate devices only between one half hour before sunrise and 7:00PM., especially in September, when a cannon malfunctioned and went off all night. The complainants note that both Mission Hill and Hans Estate had situated a cannon very close to the complainants' residence. They also note that relocation of the cannon was inconsistent. Up until 2017 Mr. Campbell suggests that neither farm had a written plan nor did Mission Hill post contact information for a local contact person. This was less of an issue for Hans Estate as the Campbells have direct access to them as immediate neighbours. The vineyards failed to restrict device use to be effective and they often fired more than every five minutes.

73. Mission Hill did not address the issue of its non-compliance with the *2014 Guidelines* in 2015. Its witness, Mr. Hopper took on operational responsibility in 2016 but it is unclear whether Mission Hill had a written plan before this complaint was made. He did not appear to be aware of night time cannon usage and said the cannons should be on timers. In comparing the 2015 plan with the 2017 plan, Mr. Hopper acknowledged that fewer cannons were being used, and they were not being operated past 7 PM. There is now an identified contact person and how to contact that person is posted. There is a monitoring program and records are being kept of the monitoring.
74. Mr. Hans acknowledges that his family did not have a written plan but says they knew the rules. He says the requirement to log bird pressure is onerous but his family will provide more relief from cannons in the morning going forward.
75. Based on the complainants' evidence and the respondents' answers to this evidence, the panel accepts that there were compliance issues with the *2014 Guidelines* in 2015 and 2016 for both respondents. The fact that one or both of the farms operated cannons in non-compliance with the *Guidelines* as set out above, was not strongly refuted. At differing times, one or both of the respondents were not in compliance with the *Guidelines*. Based on this finding, the panel concludes that for the 2015 and 2016 growing season both Mission Hill and Hans Estate failed to follow normal farm practice in their use of propane cannons on their vineyards.

2017 Bird Predation Management Plan

76. However, that conclusion is not the end of the matter. As a result of the Notices of Complaint, the respondents both undertook a review of their operations and created bird predation management plans. The complainants, perhaps rightly so given the circumstances which lead to this complaint, are skeptical that these written plans will result in better on farm management and decreased propane cannon use. They argue that these plans do not properly address the *2014 Guidelines* which they interpret as saying cannons should only be used for the early morning and other methods used for the rest of the day. In terms of industry practice, they say that propane cannons are becoming a

rarely used practice; most growers in the area do not use propane cannons and instead rely on netting (complete or partial) with the occasional use of pistols and other control measures such as laser control or predator birds. Mr. Campbell pointed to four local growers who use partial netting although we did not hear from any of these growers.

77. In terms of remedy, Mr. Campbell wants performance measures imposed on the respondents as well as significantly reduced cannon use and reliance on less intrusive strategies such as netting or partial netting. Mrs. Campbell argues that the fact that these vineyards are surrounded by homes on all sides, and residents and pets are severely impacted by the noise, justifies an order that the respondents cease using propane cannons altogether and instead rely on other management tools.
78. Mission Hill argues that the complainants have not demonstrated that its 2017 predation management plan is inconsistent with normal farm practice. Apart from hearsay and anecdotal evidence, the complainants have not led any evidence regarding similar farms in similar circumstances. Mission Hill now farms in a manner consistent with the *2014 Guidelines* and other industry codes of practice and has gone to considerable lengths to try and accommodate the complainants' interests. The evidence is that Mission Hill has made changes to its predation management plan to include the use of some netting in areas where practical to install and remove; and intends to add additional monitoring. Its 2017 plan complies with the *2014 Guidelines* and is not overly reliant on cannons. Mr. Sweeney's evidence is that the plan is consistent with other vineyards and blueberry growers in the Lower Mainland. The evidence from Constellation Farms, is that its operational practices are very similar to the practices of Mission Hill.
79. Mission Hill argues that BCFIRB has recognized that propane cannons are an accepted farm practice and some level of noise is permitted, see: *Fischer v. Sidhu*, (BCFIRB, May 24, 2013). The evidence adduced by Mission Hill demonstrates that it is following normal farm practice and other farms follow similar practices. The complainants have not provided adequate evidence to the contrary to suggest otherwise.
80. Mission Hill also relies on an earlier decision of the then Farm Practices Board in *Clapham v. Monga*, (FPB, September 22, 1997) which stated at paragraph 47:

... While the Complainants' anecdotal descriptions of the noise and its impact were useful, the Panel reiterates that this is not a nuisance statute and that the test for breach of the Act is not merely whether a farm practice causes emotional upset and frustration. The Act is designed to protect the right to farm. The test is whether the farm practice is consistent with proper and accepted customs and standards as established and followed by similar farm businesses under similar circumstances.
81. Mrs. Campbell wants no propane cannons whatsoever, Mission Hill says it is not possible to do so. Mission Hill has agreed to operate under the *2014 Guidelines* and has reduced the number of cannons used from 6 to 3. This is all consistent with normal farm practice.

82. Hans Estate questions the sensibility in singling out one farmer but says that where there is wrongdoing, the farm will correct it. Hans Estate wants a profitable farm while still adhering to the *2014 Guidelines*. Mr. Hans reiterated that his family, as a compromise, has agreed to net a portion of the farm and argues that the Hans Estate practices planned for 2017 are consistent with the *2014 Guidelines*.
83. We have considered the 2017 bird predation management plans of both farms for 2017 and find that they are consistent with the *2014 Interior Guidelines* and agree that neither plan is overly dependent on propane cannons. Both take an integrated, active and responsive approach utilizing multiple strategies and tools, including netting, to prevent damage and minimize bird habituation. Both farms have improved their monitoring protocol to ensure that audible devices are activated only when necessary and identify individuals to be responsible for cannon deployment, maintenance and to address any potential malfunctions. For these reasons, we find the 2017 plans consistent with normal farm practice.
84. We do not agree with the complainants' interpretation that the *2014 Interior Guidelines* should only be used for the early morning and other methods used for the rest of the day. Rather when read as a whole, we conclude that the *Guidelines* ask farmers to restrict their use of early morning cannon to only those times where there is heavy bird pressure. Presumably the reason for this is recognition that early morning cannon use can be disruptive for sleeping neighbours and therefore should be used to a minimum.
85. Further, we do not agree that netting is always a solution. It is very costly both to install and remove. We note here that Mission Hill's witness estimated a cost of \$1300/acre as opposed to the \$800/acre estimated by Mr. Campbell. We also heard that the time constraints under which harvest must occur can be a limiting factor as there is simply not enough time to remove the netting. The physical features of a property, such as slope, can inhibit the application of netting. Both farms have looked at their operations and made strategic decisions on where netting can be effectively used. As we find this consistent with normal farm practice, we cannot make any further order with respect to netting.
86. We are also not prepared to order either farm to use an agrilaser. This is new technology; it is very expensive and to date unproven in the industry. The use of an agrilaser is not yet an accepted industry practice, although it appears worthy of further investigation in the circumstances of these vineyards. Mission Hill is exploring the effectiveness of the laser and indicates it will likely acquire one if it proves to be effective. Mr. Hans says Hans Estate will discuss with Mission Hill the potential for cooperative arrangements around its use should the laser prove effective. We find this approach consistent with normal farm practice.
87. Ultimately the success or failure of the 2017 bird predation management plans will depend on their implementation. Active management by the respondent farms will be

necessary to ensure that any predation management tool being used is effectively responding to actual bird pressure that may exist at any given time.

Consideration of Contextual Factors

88. Finally, we have considered the contextual factor raised by Mrs. Campbell relating to the fact that these vineyards are surrounded by homes on all sides and residents and pets are severely impacted by the noise which in her view requires these respondents to do something over and above what would generally be considered accepted practice.
89. These vineyards are located on the east side of Osoyoos below Highway #3. Looking at the air photo of the Sebastian Farm Vineyards, and having the benefit of visiting both the respondents' vineyards and the complainants' orchard, the area can be described as highly agricultural. Land is under cultivation with different crops including tree fruit and vineyards. The complainants' property is a small acreage similar in size to Hans Estate and many other adjoining properties. The proximity of the complainants to the vineyards and the propane cannons is not unusual in the Okanagan Valley. The evidence is that there is approximately 350 metres between the nearest cannon and the complainants' residence. We do not agree with the characterization that these vineyards are surrounded by homes on all sides. This is not a situation where a vineyard is surrounded by a subdivision of residential lots like *Wright v. Lubchinski*, (FPB August 12, 2002). Instead this is an agricultural area comprised of homes on small acreages. This configuration of homes does not require these respondents to do something over and above that which would generally be considered accepted industry practice to accommodate these neighbours.

Remedial Relief Sought By Complainants

90. The panel has outlined its findings in the preceding analysis. Given these findings, the panel is not prepared to grant the complainants the remedies they seek to cease or modify their farm practices in relation to propane cannon use. The panel agrees that it is important that the Ministry *Guidelines* are regularly updated to ensure they reflect the most current proven technologies and their use, and accepted farm practices for wildlife damage control. BCFIRB does not have the jurisdiction to direct the Ministry of Agriculture to review its *2014 Interior Guidelines*, to ask the BCGA to review its position on bird control methods, study of bird damage and the methods used for control or to recommend that the Province could consider offering a netting program perhaps through the Growing Forward environmental program.

ORDER

- 91. The panel finds that the respondent Mission Hill’s use of propane cannons in 2015 and 2016 was not consistent with normal farm practice.
- 92. The panel finds that the respondent Hans Estate’s use of propane cannons in 2015 and 2016 was not consistent with normal farm practice.
- 93. Given that both Mission Hill and Hans Estate have prepared a bird predation management plan for 2017 that modifies their practices from those used in 2015 and 2016 to respond to the Campbells’ complaints and to meet the *Guidelines*, we find it unnecessary to modify their practices further. We find both respondents’ 2017 predation management plans are consistent with normal farm practice and order Mission Hill and Hans Estate to follow the terms of their respective bird predation management plans for 2017 and in the future to develop and apply bird management plans consistent with normal farm practice.
- 94. The panel makes no order as to costs.

Dated at Victoria, British Columbia, this 28th day of August, 2017.

BRITISH COLUMBIA FARM INDUSTRY REVIEW BOARD

Per:



Daphne Stancil, Presiding Member



Al Sakalauskas, Member



Diane Pastoor, Member