

IN THE MATTER OF THE
FARM PRACTICES PROTECTION (RIGHT TO FARM) ACT, RSBC 1996, c. 131
AND IN THE MATTER OF A COMPLAINT
RESPECTING WIND DAMAGE ARISING FROM THE USE OF A WIND
MACHINE IN A VINEYARD
BETWEEN OLIVER AND OSOYOOS, BRITISH COLUMBIA

BETWEEN:

HELEN LEAL

COMPLAINANT

AND:

MANMOHAN GILL

RESPONDENT

DECISION

APPEARANCES:

For the British Columbia
Farm Industry Review Board

Suzanne K. Wiltshire, Presiding Member
Ron Bertrand, Member
Diane Fillmore, Member

For the Complainant

Helen Leal

For the Respondent

Manmohan Gill

Date of Hearing

August 28, 2012

Place of Hearing

Osoyoos, British Columbia

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 BCFIRB for a determination as to whether the disturbance results from a normal farm practice. If, after a hearing, a panel of 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.
3. The complainant, Mrs. Helen Leal, lives on a 1 acre property located between Osoyoos and Oliver, British Columbia. The property fronts on the west side of Highway 97 and is surrounded on the other 3 sides by the respondent's property. Mrs. Leal's parents had at one time owned both properties and grew tree fruits for many years. The 1 acre home site was subdivided from the rest of the property and the remaining 10 acres of orchard lands were sold in 1993.
4. The respondent, Mr. Manmohan Gill, acquired the orchard lands in 2004 and converted the orchard to a vineyard in 2007. The lands are located in the Agricultural Land Reserve.
5. Mr. Gill installed a wind machine in April 2010 primarily for the purpose of protecting his crop from damage due to frosts in the fall of the year. The machine is located approximately 36 feet from the northwest corner of the Leal's property and approximately 165 feet from the nearest corner of the Leal house. The Leal's have two out buildings located in the northwest corner of their property very close to the property line.
6. Mrs. Leal filed a complaint with BCFIRB on October 19, 2011. She complains that the air movement caused by the wind machine is of such force that it has caused damage to metal siding and roofing on the out buildings, shingles on the roof of her house and trees on her property.
7. Mr. Gill's response is that the wind machine is necessary to protect the grape crop and was sited to give the best coverage of the vineyard.
8. The complaint was heard in Osoyoos on August 28, 2012. On the evening before the hearing, the panel visited both the complainant's property and the respondent farm to place the complaint in geographical context. Each party was present on their respective property during the site visits.

ISSUE

9. Does the force of the wind generated by the siting and operation of the wind machine on the respondent farm result from a normal farm practice?

KNOWLEDGEABLE PERSON

10. Mr. James Campbell was asked by BCFIRB to act as a Knowledgeable Person for this complaint.
11. He visited the site in question on February 1, 2012 and subsequently prepared a report that summarized the issues, compared British Columbia practices with respect to wind machines to guidelines in place in Ontario, and provided options for resolving the issue.
12. Mr. Campbell has a degree in agriculture from the University of British Columbia and is an Agrologist. He has been employed by the Ministry of Agriculture for the past 17 years. As an industry specialist, he provides support services to the grape and tree fruit industries. He also owns and operates an orchard. In both his professional and personal capacities, he has practical experience with the use of wind machines for crop and plant protection. Mr. Campbell was qualified by the panel to testify as an expert in the areas of grape production and the use of wind machines for crop and plant protection.
13. Mr. Campbell testified that wind machines have been used in the Okanagan region for over 40 years and a 2007 inventory identified 165 machines in operation in the South Okanagan.
14. Mr. Campbell explained that the blade on a wind machine rotates fast and on a slight angle to bring warmer air down from blade level to mix with colder air below raising the temperature level. The gear box at the top of the tower on which the blade is fixed also rotates 360 degrees about every 5 minutes. Mr. Campbell was not able to provide any specifications as to the force of the wind generated by a wind machine such as Mr. Gill's.
15. He noted that for grapes, wind machines are used primarily in the fall once temperatures drop below freezing (-1 degree C) to prevent leaf damage and permit the grapes to mature longer. He indicated it was his understanding that Mr. Gill was using the wind machine during the fall for this purpose. He observed that some large vineyards were also using wind machines during the winter to prevent bud and vine damage and that this could be problematic as the machines might be used for a number of days and nights at a time.

16. Mr. Campbell described the Gill wind machine as an Orchard-Rite wind machine having dual mufflers and an automatic start, with a temperature probe 36 inches above ground. The machine was purchased, used and installed in April 2010 and has been operated on average 120 hours each year since then. Mr. Campbell observed that Mr. Gill had not recorded the dates or hours of use of the wind machine.
17. At the time of the site visit Mr. Gill told Mr. Campbell that the machine was set to start up at a temperature of -1 degree C and to shut down if the temperature drops below -3 degrees C or rises above +1 degree C. Mr. Campbell observed in his report that these settings accorded with the general practice for fall critical temperatures in the Okanagan. Mr. Gill subsequently confirmed these start and shut temperatures in his testimony at the hearing.
18. Mr. Campbell noted that there are no guidelines for the use of wind machines in British Columbia. He compared the Ontario guidelines for wind machine operation to actual practices in the Okanagan. He observed that one of the key differences is with respect to distance of machines to neighbouring residences. The Ontario guidelines specify a separation of at least 125 metres. In contrast, approximately one third of the machines in use in the Okanagan region would not meet this standard, including the subject machine which is approximately 50 metres from the Leal house.
19. Mr. Campbell testified that it is common for wind machines in the Okanagan to be located much closer to residences than specified in the Ontario guidelines. However, in those cases of which he is aware, the residences in question belong to the owner of the vineyard and the wind machine. He is not aware of another wind machine sited as close to a neighbour's residence as the Gill machine.
20. Mr. Campbell stated that in seeking out options to resolve the complaint, he spoke with the current Orchard-Rite wind machine representative who suggested that the machine be relocated 80 to 100 feet to the west and 40 to 60 feet to the north of the current site.
21. In light of the absence of a similar guideline in British Columbia and the fact that a third of wind machine installations in the Okanagan would not comply with the Ontario guideline, Mr. Campbell did not consider it reasonable to expect growers in the Okanagan to comply with the Ontario guideline specifying a 125 metre separation distance from any homes. However, he considered the Orchard-Rite representative's suggested relocation of the Gill wind machine as being likely to reduce wind impacts on the complainant's property. He recommended the relocation of the wind machine as suggested by the Orchard-Rite representative as one of the options (Option 2) to resolve the complaint. He noted "...growers who

install wind machines near residences should be aware that very close installations are bound to cause trouble and should operate under a good neighbour policy and install such machines where [the principle of] least disturbance is respected.”

22. Mr. Campbell acknowledged that the suggested relocation would further reduce coverage to the southeast corner of the vineyard, indicating that this area already has lesser coverage because it lies to the south of the complainant’s lot and boundary fencing.
23. Mr. Campbell also made other suggestions (Option 1 in his report), including:
 - a monitoring and operational plan be developed that might reduce operating hours;
 - communication with the complainants be improved by providing advance warning of forecast frost, recognizing that this may not always be possible since frost sometimes comes when not forecasted;
 - the engine be located so that the mufflers face away from the residence;
 - a sound barrier be constructed between the machine and residence to reduce engine noise ;
 - the machine be run at low rpms during times of marginal risk of frost damage.

Although the panel has more to say in paragraph 57 regarding these suggestions, the panel notes that some of these suggestions are directed to noise reduction but that in this instance noise is not the subject of complaint.

COMPLAINANT’S CASE

24. Mrs. Leal submits that the air movement caused by the wind machine is damaging buildings and vegetation on her property due to its proximity to her house (165 feet) and nearest outbuildings (56 feet).
25. The complainant described the nature of the damage incurred since the installation of the wind machine and entered as evidence a number of photographs showing the damage. The photographs show shingles on the Leal residence roof that are turned up in the northwest corners, metal roofing and metal siding on outbuildings that have lifted, trees where limbs have broken off and shrubs in direct line with the wind machine that are leaning to the east away from the wind machine. Mrs. Leal testified that there had never been wind damage on the property from 1980 until after the wind machine was installed.

26. The complainant submits that the damage shown in the photographs was caused by the wind generated by the wind machine. She argues that this damage could not have been caused by the prevailing winds because the prevailing winds are in a north to south direction and the damage is caused by air movement from the west and northwest. Mrs. Leal argues that this damage is unacceptable and the machine needs to be moved a greater distance from her property.
27. Mrs. Leal also entered as evidence letters she had obtained from Don Cachola, a wind machine installer, Frank Huschek, another wind machine installer, and Brian Amos, a realtor. Much of the information provided is in the nature of opinion and since none of these individuals appeared or was qualified as an expert, the panel gives the opinion evidence no weight.
28. Mr. Cachola provided some factual information with respect to wind machines, indicating they rotate at the top once every 4.5 minutes (which we note is consistent with Mr. Campbell's evidence). He also indicated that the blade produces 1350 pounds of thrust, with the maximum force at the 100 to 150 foot mark from the machine and that at approximately 20,000 cubic feet per minute these machines will move 1.5 million pounds of air per hour.
29. Mrs. Leal submits that the wind output of the machine as detailed by Mr. Cachola shows more than enough wind force to create the damages she described and as shown in the photographs.
30. Mrs. Leal asked Mr. Huschek for advice on wind machines, describing the Gill property. Mr. Huschek indicated that as it rotates at the top the Orchard-Rite machine has effective coverage of about 325 feet allowing it to cover about a 10 acre square field. Given the rectangular area of the vineyard in the present case, he indicated consideration might be given to using two smaller machines.
31. Mrs. Leal stressed that while the wind machine is noisy, she is not complaining about the noise from the machine. She recognizes the need for crop protection, but the wind damage caused by the machine to her property is unacceptable. Her complaint is confined to the impact of the air movement caused by the machine.
32. Mrs. Leal submits that Mr. Gill has sited the machine to best suit his own purposes and without giving consideration to its impact on her property. In her testimony she noted the machine has been located at the end of a pre-existing access road running from Highway 97 along the northern boundary, and stopping just past the northwest corner, of her lot. This siting has permitted Mr. Gill to access the machine without removing any grape vines.

33. While Mrs. Leal suggested to Mr. Gill that the use of two smaller wind machines placed at each end of the Gill property might be a better option for providing crop protection and also resolving the complaint, Mr. Gill rejected that as an option. Mrs. Leal confirmed to the panel that she is willing to accept relocation of the existing machine 80 to 100 feet to the west and 40 to 60 feet to the north of where it is currently situated. This is the suggested relocation indicated as Option 2 in Mr. Campbell's report.

RESPONDENTS' CASE

34. Mr. Gill submits that the wind machine is essential for protecting his crop from frost damage.
35. Mr. Gill testified that he installed the machine after cold weather killed 90% of the grape plants in the vineyard in 2009, necessitating replanting. At that time he had been using a smaller machine commonly used in California but this machine did not provide adequate protection. Therefore, in 2010 he purchased the current machine, a larger Orchard-Rite model, and had it installed. Mr. Gill has used this machine in the fall for crop protection. He says that he could use the machine for whole plant protection in the winter but has not needed to do so to date.
36. Mr. Gill testified that he decided upon the site for the current machine in 2007 when he first planted the vineyard. At that time he discussed with an Orchard-Rite representative where to site a larger machine so that in laying out the vineyard rows space could be left should he later decide to install one. Mr. Gill stated the siting of the current wind machine is in the approximate location suggested in 2007 by the Orchard-Rite representative to best cover the vineyard. Mr. Gill said he tried using the smaller wind machine first because he thought the site for the larger wind machine was too close to the Leal property. Then, when the current wind machine was installed in 2010 he had it installed two rows north of the site originally suggested.
37. Although Mr. Gill does not live near the vineyard, he testified that his machine is monitored by a neighbouring farmer who also has machines in the vicinity. It is common for this neighbour to phone (regardless of the time) should he have any concern that Mr. Gill's machine is not operating properly.
38. Mr. Gill argues that the damage to the buildings and vegetation on the Leal property is not caused by the wind machine. He stated that he has experienced tree and building damage to another property he owns in Osoyoos caused by the prevailing winds. He added that when he was operating the subject property as an orchard prior to converting it to a vineyard he noticed that many of the fruit trees leaned toward the south

because of wind from the north. He submitted that the damage to the roof of the Leal residence could be due to its age of 20 years.

39. Mr. Gill confirmed that he did not consider the impact of the wind machine on the Leal property except for moving the machine a couple of rows to the north of the location recommended by the Orchard-Rite representative in 2007.
40. Responding to a question from the panel, Mr. Gill stated that he does not want to relocate the machine as suggested in Mr. Campbell's report (Option 2). He argues that the current location provides adequate coverage to the entire 10 acres and that relocation as suggested would result in less coverage of the southeast portion of the vineyard. He stated that in 2009, the southeast portion experienced significant cold weather damage to the plants.

ANALYSIS AND DECISION

41. A complaint under the *Act* involves a two-step analysis. The first step involves standing; a complainant must establish that they are aggrieved by the odour, noise, dust or other disturbance that is the subject of the complaint.
42. The complaint from Mrs. Leal is that her property has been damaged by the force of the air generated by the wind machine on the Gill property. The respondent Mr. Gill disagreed that the wind machine had caused the damage on the Leal property.
43. The evidence is that the prevailing winds are in a north south direction whereas the damage on the Leal property, as established by Mrs. Leal's testimony and the photographic evidence, is due to wind coming from the west and northwest. In addition we accept Mrs. Leal's testimony that there was no such property damage before the wind machine was installed.
44. While Mr. Gill referred to property he owned elsewhere having been damaged by natural wind gusts, this does not preclude damage from the wind generated by the wind machine. We consider based on the evidence available that the air movement generated by the wind machine would be sufficiently forceful given the machines proximity to the Leal property to cause the damage shown in the photographic evidence and find that such damage is consistent with the direction of the wind generated by the wind machine in its present location. While the roof is 20 years old, those portions of the roof that are more directly exposed to the northwest corner of the property show greater deterioration and the shingle corners turning up lie in a direct line to the wind machine.

45. Accordingly, the panel finds that the damage to the Leal property has been caused by the wind generated by the wind machine on the Gill property.
46. The panel accepts that the complainant has satisfied the first step of establishing that she is aggrieved due to the damage caused to her property by the force of the wind generated by the wind machine in its current location.
47. Once the initial step has been satisfied, the panel must go on to make a determination as to whether the grievance results from a normal farm practice.
48. Section 1 of the *Act* defines normal farm practice:

"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).

49. In determining whether a complained of practice falls within the definition of normal farm practice, the panel looks to whether it is consistent with proper and accepted customs and standards as established and followed by similar farm businesses under similar circumstances. The analysis involves 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 proximity of neighbours, the use of their lands, geographical or meteorological features, types of farming in the area, and the size and type of operation that is the subject of the complaint.
50. The evidence of Mr. Campbell is that there are no guidelines for use of wind machines in British Columbia and the south Okanagan in particular. He cautioned against adopting the Ontario guidelines because, in the Okanagan region, many existing wind machines have been installed in places that would not comply with the Ontario guidelines and where it would not be feasible to relocate the machines so as to comply with the Ontario guidelines.
51. In the panel's view this is a site specific case given the unusual configuration of the two properties involved as a result of the earlier severance of the home site from the original orchard lands. It is also a very

focused complaint in that it concerns damage caused by wind generated by the wind machine because of its siting in close proximity to the complainant's property. As such the panel has addressed this complaint as one requiring a site specific analysis and resolution and not one where the panel would propose to make any broader judgments about the relevance of the Ontario guidelines to British Columbia and siting and operation standards for wind machines in general.

52. Based on Mr. Campbell's report and testimony, the panel accepts that the use of wind machines to protect crops from frost damage in the fall is a normal farm practice in the Okanagan region. However, Mr. Campbell's evidence also establishes that the siting of a wind machine as close to a neighbouring residence as here is not usual and that this is the only instance to his knowledge where a wind machine has been located so close to a neighbour's residence.
53. The panel notes a previous BCFIRB panel's comments on the need for farmers to consider the impact of their farm operations on their neighbours. In the decision of *Eason v. Outlander Poultry Farms Ltd.*¹, March 10, 2000 the panel stated:
 69. A normal farm practice means a practice conducted in accordance with "proper and accepted customs and standards as established and followed by similar farm businesses under similar circumstances". Applying that test to these facts has been difficult in the sense that these circumstances are quite unique ... Nevertheless, implicit in the test ... is the existence of practices showing some threshold of consideration for one's neighbours.
 70. In our opinion, it is not proper and accepted practice for farmers ... to conduct farm operations in such a fashion so as to expose their neighbours to invasive and overwhelming odours, as arise in this case, without taking reasonable steps aimed at mitigating those effects.
54. Although use of wind machines to protect crops from frost damage is normal farm practice, the panel finds that it is not normal farm practice to site and operate a wind machine so close to a neighbour's property that the air movement from the machine causes damage to the neighbouring property.
55. Consistent with the comments in the *Eason* decision, normal farm practice must include considering the impacts of one's farm operations on neighbours and taking reasonable steps to mitigate disturbances resulting from the farm operations. We agree with the complainant that in this case, the respondent appears to have given little consideration to the impact of siting the wind machine essentially at the corner of the complainant's property. Amelioration, short of removing the machine from the property, of

[Eason v Outlander Poultry Farms Ltd.- March 10, 2000](#)

necessity would have to include relocating the machine to a site that is further away from the Leal property.

56. The complainant in this case has indicated that relocation of the wind machine as suggested in Option 2 in Mr. Campbell's report would satisfy her. Mr. Campbell has indicated that such relocation is likely to reduce the impact of the wind generated by the machine. While the panel accepts that the suggested relocation will probably result in somewhat lesser coverage of the southeasterly portion of the vineyard, relocation is necessary because leaving the machine in its present location resulting in ongoing damage to the Leal property does not accord with normal farm practice.
57. In paragraph 23 above we have noted that Mr. Campbell made additional recommendations directed to the mitigation of disturbance resulting from the use of wind machines for crop protection (Option 1 in his report). The first of these suggestions appears to address the fact Mr. Gill kept no records of the dates and hours that the wind machine operated or the reason for use of the machine at any given time. Monitoring and record keeping as part of an operational plan to reduce use to those periods needed for crop protection is in our view a good practice for farmers using wind machines. Other recommendations are clearly directed to noise mitigation. While noise disturbance is not the subject of complaint in this case, we recognize that noise could give rise to complaint in other instances and is a matter farmers need to consider in siting and using wind machines. We consider all of the suggestions in Option 1 to be sound management practices. We make no order requiring Mr. Gill to take such actions but recommend that he give consideration to implementing them as part of being a good neighbour.

ORDER

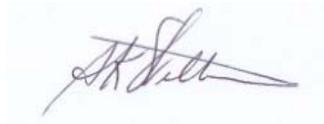
- 58. After the conclusion of the 2012 grape harvest, the respondent is ordered to cease using the wind machine so long as it remains in the present location.

- 59. If the respondent intends to continue to use the machine, the respondent is ordered either to relocate the machine 80 to 100 feet to the west and 40 to 60 feet to the north of its present location (in accordance with Option 2 in Mr. Campbell’s report) or to implement a different relocation option that provides the same or a greater level of protection to the complainant’s property and is agreed to by the complainant.

Dated at Victoria, British Columbia this 10th day of October, 2012.

BRITISH COLUMBIA FARM INDUSTRY REVIEW BOARD

Per:



Suzanne K. Wiltshire, Presiding Member



Ron Bertrand, Member



Diane Fillmore, Member