

THE USE OF AUDIBLE BIRD SCARE DEVICES IN BRITISH COLUMBIA IN 2001

Report to the Minister of Agriculture, Food and Fisheries.

British Columbia Ministry of Agriculture, Food and Fisheries

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EXECUTIVE SUMMARY

This report has been prepared at the request of the Minister of Agriculture, Food and Fisheries to address complaints regarding the use of audible bird scare devices to protect agricultural crops from damage by birds. All noise complaints in 2001 were directed to one ministry staff member for documentation and investigation. The Farm Practices Board continued to address “formal” complaints during this period.

Background

Crop destruction by birds is a worldwide agricultural concern. Birds can eat the product or damage it by pecking or knocking it to the ground. In BC, the European starling causes the most crop damage followed by robins, crows and various songbirds.

In an attempt to minimize crop losses, a variety of different protection methods are used. Audible bird scarers are the most commonly used followed by bird netting and visual bird scarers. Blueberries, sweet cherries and grapes are the main crops being protected by farmers. Blueberries are concentrated in South Coastal BC and cherries and grapes are mainly grown in the Okanagan Valley. The area planted to blueberries and grapes has expanded from about 2400 to about 5900 hectares over the last 10 years. Propane-fueled exploders, also known as propane cannons, are used on about half of the farms producing these crops.

The production of these crops occurs in the most densely populated areas of the province. In fact, over 15% of BC’s farm population live in areas defined as urban by Census Canada. In addition about three-quarters of the people living in farming areas are non-farmers. Population growth rates in these areas have been among the most rapid in Canada.

Regulations

British Columbia has taken steps to preserve its farmland. In the early 1970’s an Agricultural Land Reserve (ALR) was established based on the capability and suitability of the land, present use and local zoning. The Reserve comprises about 5% of BC’s land base.

In 1996 a number of legislative changes were made in order to ensure that land within the reserve can be effectively farmed. Amendments were made to the *Local Government Act* and *Land Title Act* to give local governments greater planning opportunities for agriculture. Under the

Local Government Act local governments can now create farm bylaws to regulate farm practices subject to the minister's approval.

The enactment of the *Farm Practices Protection (Right to Farm) Act* (FPPA) in 1996 protects farmers from injunctions or liability in nuisance for their farm operations provided they follow normal farm practices on land within the ALR or on land zoned for agriculture. The FPPA enabled the creation of a Farm Practices Board, which formally hears complaints and determines what is 'normal farm practice'.

To assist in resolving conflicts between farmers and their neighbours, the Ministry of Agriculture, Fisheries and Food (Ministry) publishes guidelines for generally accepted farm practices. Due to the number of complaints regarding the use of propane cannons, the Board carried out a public review of the Ministry's Wildlife Damage Control Guidelines as they apply to the operation of propane cannons in 1999.

Under the FPPA, the provincial government may make regulations for defining 'normal farm practice' as well. Currently there are no farm bylaws or provincial regulations passed regarding the use of audible bird scare devices.

Complaints

In an attempt to address peoples' concerns or complaints regarding the use of audible bird scare devices the Ministry of Agriculture, Food and Fisheries designated one staff person for the 2001 crop season to record and address complaints. Where the farm could be identified from the complainants' information, there was follow-up with the farmer. Where complaints were concentrated in an area, a survey was carried out to identify farms growing crops which may use bird scare devices.

A total of 76 complainants were recorded for 2001. Most of the complainants lived in Abbotsford, Surrey or Delta. This area grows a large portion of the blueberries, which is the commodity that received most of the recorded complaints. The centralized ministry office for receiving complaints began July 6 after the cherry season was well underway. Four complainants were recorded for cherries, 68 for blueberries and 5 for grapes. One complainant complained regarding both cherries and blueberries in the Okanagan.

Propane cannons received far more complaints than other devices with 72 complainants whereas birdcall devices, electronic noisemakers and orchard pistols received 1, 1, and 3 complainants respectively. One caller complained against the use of both a propane cannon and orchard pistol.

Most complainants indicated that the use of propane cannons interrupted their sleep due to all-night use or cannons starting early in the morning. About one-third of the complainants mentioned that they felt 6am was too early for cannons to start. Others argued that they should be able to sleep in (without scare devices being used) on Sundays and holidays. The frequency of firing of propane cannons was another issue commonly raised.

Discussion

Ministry staff used the Wildlife Damage Control guidelines proposed by the Farm Practices Board in their 1999 report to evaluate the farm practices of the farms that received complaints. The most common failure to follow the guidelines involved not following the permitted hours of operation. All-night firing of propane cannons was the largest issue followed closely by cannons, which started too early and/or stopped too late in the day. Maintenance of cannon timers may have been part of the issue for cannons firing outside of permitted hours, however, the use of light sensors to switch cannons on and off was likely the major issue. Light sensors are not reliable switches for the 6am to 8pm permitted hours of operation. Clock timers are now available for cannons used in BC.

Farmers generally followed the cannon density and direction of firing guidelines. Frequency of cannon firing and separation distance between cannons and neighbouring residences are not specifically mentioned in the guidelines. However, ministry staff informed farmers that cannons should not fire more frequently than once every 3 minutes and a separation distance of at least 100 m should be maintained between cannons and neighbouring residences. Cannon separation distance was less than 100 m in about 5 cases, however, the farmers relocated the cannons to meet the criteria in all cases. Firing frequency was often a source of complaint and many farmers were reluctant to change the frequency. Some farmers who reduced the frequency at ministry staff request then switched back to the higher frequency in a matter of days.

Many complainants questioned the effectiveness of audible bird scare tactics. However, farmers using the devices found them to be an important tool in the protection of their crops. The literature reports that when various scare tactics are used in an integrated planned manner, they are effective in reducing crop loss and damage due to birds.

The perception of sounds as noise and a nuisance is dependent on the listeners' attitude. Level of annoyance varies depending on the individual.

People's contrasting perspectives on the function of rural areas has a significant effect on perception of a nuisance. While most farmers consider the rural area to be a 'place of business', many non-farm residents believe the rural area is a place that offers a lifestyle of open space, peace and quiet. In some cases, communicating the reasons behind the farm practices and/or perceptions helped to increase understanding of a situation and may have reduced the level of annoyance.

Sound level measurement is a complex operation that requires specialized training. Increasing separation distance from an audible bird scarer generally reduces the sound level. Using separation distance between a neighbouring resident and an audible bird scare device, as an approximation to sound levels, is easier to measure.

Covering crops with bird netting is often suggested as an alternative to using audible bird scare tactics to protect crops. However, this protection comes at a higher cost and requires more labour to erect and take down each season. Increased costs of production cannot be directly passed along to consumers in the global agricultural marketplace. Blueberries, cherries and grapes are all perennial crops that take a long time to mature while each have high establishment costs. The cost of bird netting exacerbates this issue.

Starling population control is often suggested as the key to the problem. Starling populations are stable or in decline and a search of the literature suggests that population control is not a practical solution for protecting crops from bird damage.

Recommendations

1. Endorse and Add to Current Guidelines

There are three areas where the current guidelines do not provide specific guidance for operating propane cannons which are important in reducing the amount of noise neighbouring residents are exposed to. These areas are cannon firing frequency, separation distance and owner contact information. Separation distance provisions are also required for other fixed audible bird scare devices such as birdcall devices and electronic noisemakers. Propane cannons are described as Category 'A' devices. Fixed bird scaring devices that do not create impulse sounds are classified as Category 'B' devices (eg. birdcall and electronic noise devices).

Category 'A' devices

- **It is recommended that a firing frequency of no more than one firing per 5 minutes for single shot cannons and no more than 11 activations or 33 shots in any hour for a multiple shot cannon be included in the Guidelines. Multiple shots from a cannon are regarded as one activation if they occur in less than a 30 second period.**
- **It is recommended that a 150 m separation distance between a propane cannon and neighbouring residences be included in the Guidelines.**
- **It is recommended that a 300 m separation distance between propane cannon use and an urban-residential/ALR edge be included in the Guidelines.**

Category 'B' devices

- **It is recommended that a 100 m separation distance between a Category B device and neighbouring residences and a 200 m separation distance between a Category B device and an urban-residential/ALR edge be included in the Guidelines.**

Category 'A' and 'B' devices

- **It is recommended that devices operate only between 6:00 a.m. (6:30 a.m. for South Coastal region) and 8:00 p.m. local time or dawn to dusk, whichever is of lesser duration.**
- **It is recommended that a requirement for all fixed audible bird scare devices must be legibly marked with the operator's name and 24-hour phone number be included in the Guidelines.**
- **It is recommended that a local contact person be established for each farm where the owner/operator does not live within a reasonable distance of their farm(s) where audible bird scare devices are used.**
- **It is recommended that industry and/or local governments create a registry of stationary audible bird scare devices annually to be made available to enforcement agencies.**

2. Develop Provincial Standards for Farm Bylaws

- **It is recommended that the new Guidelines (Wildlife Damage Control) be adopted as standards for farm bylaws.**

- **It is recommended that separation distances be used to regulate noise from audible bird scare devices rather than sound level limits.**

3. Local government land use planning

- **It is recommended that the ministry encourage local governments to use development permit areas and other means to establish buffers on the urban side of the ALR edge. Guidelines for landscaped and siting buffers should be developed by the ministry to aid local governments in implementing these buffers.**

4. Local government audible bird scare device committees

- **It is recommended that the ministry, local governments and industry form committees for the purpose of improving communication and the farmers' compliance with the Wildlife Damage Control Guidelines.**

5. Netting fund

- **It is recommended that one-time funding options be available to farmers for netting cropland for protection from bird predation. Funds may be prioritized to go to existing farms within 300 m of an urban-residential/ALR edge.**

Concluding Remarks

This report recognizes the importance of crop protection from birds and supporting farming within the Agricultural Land Reserve (ALR). The report also acknowledges the impacts that scare devices have on nearby residents. Understanding and compromise is required from both the farming and non-farming communities.

Adoption of the recommendations will reduce the amount of noise the neighbours living closest to the scare devices will be exposed to. In urban areas adjacent to the ALR, residents will be exposed to reduced noise as well. Farmers will have fewer options to protect crops that are close to neighbouring residences and urban areas adjacent to the ALR. Financial assistance to farmers impacted by these changes is recommended.