



Fauna Note No. 2

Scaring and Repelling Birds to Reduce Damage

Birds and Legislation

Native birds are protected under provisions of the *Wildlife Conservation Act 1950*, administered by the Department of Environment and Conservation (DEC). Under the provisions of this Act many problem birds can be controlled by scaring, without obtaining approval (via a damage licence) from the DEC to do so.

However some problem native birds require special protection because they are rare or likely to become extinct. Such species *may not be shot or destroyed* and damage licences, permitting the scaring of such birds, must be obtained from DEC. Examples include Baudin's Cockatoo *Calyptorhynchus baudinii*, Carnaby's Cockatoo *Calyptorhynchus latirostris* and Muir's Corella *Cacatua pastinator pastinator*.

Some native birds are declared pests of agriculture under provisions of the *Agriculture and Related Resources Protection Act 1976*, administered by the Department of Agriculture and Food Western Australia. Their declaration signifies that a management program for the species should be implemented in certain areas of the State.

The local DEC office can provide information on when damage licences to scare birds are needed.

Effectiveness of Scaring and Repelling

Scaring and repelling involves the use of audible, visible, physical or chemical means to discourage or frighten birds so that they move to other sites. The birds may be frightened by something new and unusual in their environment (e.g. flashing lights or strange sounds) or by something that simulates a threat (e.g. a gun or predator).

Repellents

Chemical repellents do not appear to reduce crop damage by birds. The lack of effectiveness is likely to be related to related to the fact that a bird's sense of taste is quite different from that of mammals. This is understandable given the diversity of plants they eat. However research into the use of repellents is continuing, particularly for ducks. If chemicals are used, it is important to use only those registered as bird repellents and to read the label before doing so.

Methiocarb was previously applied to fruit, particularly grapes, as a repellent against Silvereyes, *Zosterops lateralis*. This chemical is no longer registered for this use, because it was found to contaminate wine made from grapes sprayed with the chemical.

Scaring Devices

Studies indicate that scaring devices used in isolation are ineffective, but when a number of methods, including Gas Guns and Bird Frite[®], are used in combination, damage can be reduced. This method has been effective in stopping crop damage by the Little Raven *Corvus mellori* in South Australia. When the strategies outlined below are followed, scaring can be effective against parrots, cockatoos and other bird species.

Scaring is safer in built-up areas than live ammunition and it is a non-lethal method for dealing with bird damage. However, scaring devices are usually expensive and gas cannons and explosive cartridges (Bird Frite[®]) can pose a minor fire risk. Some devices may breach noise regulations and/or cause conflict between neighbours, so if in doubt, enquire with the local shire and your neighbours.

It is important not to allow the birds to develop a habit of feeding at the crop. The birds should be repelled as soon as they approach. The firing interval should be changed frequently. Gas guns should be moved every two days, turned off at night and during the middle of the day.

Scaring Methods

General Points

- Plan your pest control program in advance, because damage usually occurs at the busiest time of year. Consider employing a part-time worker to run the program.
- Check trees for signs of damage regularly. Early action can then be taken before the birds become reliant on the crop for food or develop a habit of coming to the crop.
- Scare or shoot to scare occasionally throughout the year to maintain a degree of wariness in the birds and to indicate that the area is not safe for feeding.
- Be persistent. Use scaring devices throughout the damage period, but early and late in the day, when the

birds are likely to be feeding in the area. This will increase the time taken before the birds become used to the devices.

- Combine a number of devices and use them in rotation to maintain variety. This will reduce the chances of the birds becoming used to the devices.
- Co-operate with neighbours to ensure they use methods that compliment yours.
- Remove gas guns and put them out of sight immediately if the birds start to ignore them. If scaring devices are left in place, the birds may begin to associate them with a good source of food.

Specific Points

- Shoot to scare before using other scaring devices to establish an association between noise and real danger.
- Wear brightly-coloured clothing when shooting to scare. Similar clothing should be worn by workers and scarecrows so that the birds associate the colour with danger.
- Introduce gas guns after the birds have developed a fear of scare-shooting. Some shooting to scare may be needed to reinforce the effect of other scaring devices.
- Vary the timing and frequency of gas gun use to maintain the 'startle' effect. Several blasts in very quick succession with 10-15 minutes between volleys is preferable. All devices around the crop (including those of your neighbours) should fire at roughly the same time.
- Point gas guns down-wind to maximise the sound produced. The gas guns should also be camouflaged so that the birds do not associate the sound with the device.
- Place the gas guns near the centre of the property pointing outwards to scare the birds away from the orchard rather than at the edge pointing inwards where they would scare the birds further into the property.
- Don't place noise-generating devices close to neighbouring houses or operate in hours of darkness. Familiarise yourself with the laws governing noise production (e.g. [Environmental Protection \(Noise\) Regulations 1997](#)).

Monitoring and Evaluation

This is often the most forgotten aspect of a pest management program. Commercial growers should determine an acceptable level of damage, assess and record losses caused by birds and monitor how effective the program has been. The costs and benefits of damage control can then be assessed, and the program can be modified, to achieve better control in the following seasons.

Case Study of a Successful Scaring Program

A grower from South Australia spent about \$8,000 buying a small number of scaring devices and employing a person to run a scaring program for 2.5 months on a 150 ha vineyard. The estimated benefit, based on the value of the loss in the previous year, was between \$70,000 and \$100,000.

Further Reading

- Fauna Note No. 3. [Netting to Reduce Bird Damage](#). DEC, Western Australia.
- [Bird Control in Orchards](#). DEC, Western Australia.
- [Bird Control and Damage: understanding the relationship](#). Department of Agriculture, Fisheries and Forestry, Bureau of Rural Sciences, Australia.

References

Bomford, M. and Sinclair, R. (2002) Australian research on bird pests: impact, management and future directions. *Emu* 102: 29-45.

Environment and Natural Resources Committee, Victorian Parliament. (1995) Report on problems in Victoria caused by long-billed corellas, sulphur-crested cockatoos and galahs. No. 67 Session 1994/95. Victorian Government Printer, Melbourne.

Long, J.L., Mawson, P.R. and Littley, M. (1990) Evaluation of some scaring devices for preventing damage to cultivated fruit. Technical Series No. 5. Agriculture Protection Board, South Perth.

Further Information

Contact your local office of the Department of Environment and Conservation.

See the Department's website for the latest information: www.naturebase.net.

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