Department of Environment and Conservation Our environment, our future

Fauna notes

Information about Western Australia's fauna



No.13 **Decoy feeding** *Providing alternative foods to birds to reduce damage*

Some birds can damage agricultural crops and kill young livestock in Western Australia. Damage may be reduced by encouraging the birds to move from the crop or livestock paddock to alternative foods. The effectiveness of this technique varies with the bird species, crop type and the effectiveness of the pest management program. Thus, it should be used with caution as part of a well planned and monitored integrated pest management program.

Birds damage crops and may take dead, dying or weak animals either because they are hungry, the crop or animal is an easy source of food and/or they happen upon the food.

Planning the program

- Provide hungry birds with a feeding area away from the crop or stock paddock. If alternative feeding areas are not provided, the birds may return to protected paddocks despite other control efforts like scaring and shooting.
- Take action early to encourage the birds to the feed on the alternative food. Monitor crops and stock to determine when birds first arrive and begin causing damage. It will be more difficult to move the birds on if they develop a habit of coming to the crop/stock or if they have found an easy-to-obtain food.
- Sacrifice a small section of the main grain crop as an alternative food source for the birds if possible.
- Cooperate with neighbouring farmers as part of a district-wide strategy.
- Provide food throughout the damage season to prevent birds from returning to the protected paddock.

Decoy foods

Studies have identified features of crops that make them attractive to birds, so make these the features of decoy crops, not commercial crops:

- Early ripening or planted/placed in a way that attracts the birds before the commercial crop becomes attractive.
- Nutritional value equal to or better than the commercial crop.
- Uneven plant height (birds prefer tall plants).

- L ow or irregular plant density (birds prefer thin patches).
- Weedys
- Near trees, particularly dead trees, fences, powerlines or windmills.
- Small crops or crops with an irregular shape and a high ratio of edge-length to crop area (for decoy foods, grain run out in trails is preferable to small feeding stations).
- Good all-round visibility for feeding birds (sloping ground is attractive).
- On a bird flight path.
- Presence of other feeding birds.
- Undisturbed.

Place decoy foods:

- In a quiet area where no shooting or scaring takes place. Shooting and/or scaring should continue at the protected paddock so the birds are encouraged to move to the undisturbed food source.
- Close to areas of native vegetation or waterways which many birds use as flight paths, 'look out' perches, nest and roost sites.
- Near feed lots, stubble, grain-fed stock or rubbish dumps away from the main crop or lambing paddock. These are areas where the birds have become used to obtaining food.

Effects on different species

Providing alternative food for corellas and galahs (*Cacatua* spp.) at sowing time (autumn and winter in the south) should not lead to an increase in population numbers because it is not a time of food shortages for these birds. This strategy is reported to be effective in some situations.

Providing alternative food for Australian ringnecks (*Barnardius zonarius*) and red-capped parrots (*Purpureicephalus spurious*) in summer is not recommended. This is a time of food shortage and provision of food could lead to a population increase.

Australian ravens (*Corvus coronoides*) and wedge-tailed eagles (*Aquila audax*) may be diverted from lambing paddocks by providing them with carcases away from lambing paddocks.

Silvereyes (*Zosterops lateralis*) prefer other foods to grapes. Thus, providing vegetation that produces fruit and nectar, such as figs, nightshade, saltbush (*Rhagodia* sp.) and (*Grevillea* sp.), may assist to diverting them from orchards and vineyards.

Case studies

Oats seconds

In a South Australian trial of alternative feeding, up to 4,000 eastern long-billed corellas (*Cacatua tenuirostris*), were fed 20 tonnes of oats over a ten week period during the main sowing and germination phase of winter cereal crops. When the value of the grain, wages and on-costs were taken into account, there was an estimated 10-15 fold benefit in increased production.

Supplying oats in covered hopper feeders at the times of year when damage is most likely has been found to halve the damage to blue gum (*Eucalyptus globulus*) crops by Australian ringnecks. The effectiveness of supplying alternative food in diverting Australian ringnecks from other crops is unknown.

Ploughing onion grass

In Victoria, a grain farmer had some success with supplying corellas and sulphur-crested cockatoos (*Cacatua galerita*) with alternative feed to distract them during sowing. He ploughed up four hectares of onion grass 800 metres away from the paddock he was sowing. The ploughing was effective in distracting the birds away from the crop but didn't work when he repeated the activity the next year.

Weeds in vineyards

A wine grape grower from Margaret River reported that by not cultivating the vineyard, the availability of weed seeds increased. This reduced the damage caused by parrots in the vineyard.

Carrion in paddocks

A South Australian almond farmer encouraged little ravens (*Corvus mellori*) to enter his orchard after harvest by laying out carrion. The ravens cleaned the remaining almonds from the trees, which prevented disease and minimised carob moth damage. This saved the farmer an estimated \$100,000 in losses to disease and moth damage and almost eliminated the cost of spraying for carob moth.

During the growing season for almonds, the ravens were drawn away from the orchard by placing carcases in areas away from the orchard. Shooting-to-scare and other scaring devices were used in combination throughout the damage season to keep the ravens out of the orchard.

Further reading

- Fauna note no. 15 Options for corella, galah and cockatoo control. DEC, Western Australia.
- Fauna note no. 18. Options for parrot control. DEC, Western Australia.
- Living with Muir's Corella. DEC, Western Australia.
- <u>Reducing Cockatoo Damage to Crops</u>. Department of Sustainability and Environment, Victoria.

References

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

Olsen, P. (1998) Australia's Pest Animals. New Solutions to Old Problems. Bureau of Resource Sciences and Kangaroo Press, Sydney.

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

Ritson, P. (1995) Parrot damage to bluegum tree crops. Agriculture Western Australia Resource Management Technical Report 150.

Rooke, I. (1983) Research into the biology of the silvereye leading to methods for minimising grape damage in vineyards of south-west Australia. Agriculture Protection Board Technical Series No. 2.

Broome, L.S. (1979) The use of decoy crops to combat the bird pest problem on sunflower crops. Department of Ecosystem Management, University of New England, Armidale.

Further information

Contact your local DEC office.

See the department's website for the latest information: <u>www.dec.wa.gov.au</u>.

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