Department of Environment and Conservation
Our environment, our future

Fauna Note No. 3
Netting to Reduce Bird Damage

The use of anti-bird netting can be an effective means of reducing damage by birds to horticultural crops in Western Australia. A number of nets are available, including: throw-over nets for single trees; netting for rows of low plants; and semi-permanent or permanent structures for large areas.

Economic analyses indicate that netting can be cost-effective when used to protect high-value crops such as table grapes, even when damage levels are not significant every year. However, netting may not be economical for protection of low-value crops.

Before deciding on netting, consider whether the following advantages outweigh the disadvantages.

Advantages

1. Almost totally effective in preventing damage when installed correctly.
2. Humane way of reducing damage.
3. Long-term solution that is usually guaranteed for some years.
4. Labour-free protection once installed.
5. May provide protection from hail and wind damage.
6. Will not contravene noise regulations like some noise emitting devices.

Disadvantages

1. High initial capital outlay (cost of design, materials and erection), but can pay for itself in the first few years if damage is severe.
2. May obstruct some farming practices.
3. Requires regular maintenance to ensure that holes or gaps in the netting are not exploited by the birds.
4. May reduce the entry of pollinating insects.
5. Birds or other animals may become entangled in the net and may suffer or die if not released.

Material

Netting is manufactured from polyethylene or polypropylene. The material is either stretched to produce extruded netting or woven together to produce knitted or knotted netting. The latter tends to last longer. Netting comes in either black or white and white netting may provide an additional visual deterrent to the birds.

Aperture

The aperture of the netting must be suitable for the bird species causing the damage. For example, some growers have erected netting with large aperture to deter parrots and cockatoos, only to have their crops damaged by smaller birds capable of entering through the holes. Netting with a 15 mm aperture will exclude all types of birds, including Silvereyes *Zosterops lateralis*.

Lifespan

The lifespan of netting depends on the amount of use the netting receives, its strength and its stability in ultra-violet light. The lifespan can be increased by:

- Minimising damage caused by animals (e.g. kangaroos and livestock).
- Repairing damage immediately.
- Taking care to avoid damage when moving netting between crops
- Minimising exposure to sunlight. For example, only use during the critical damage period then remove, repair and store.
- Correctly installing and maintaining the support structure.

Obtaining Materials and Advice

Netting is available from a number of specialist companies as well as through rural suppliers and hardware stores. The cost of netting varies depending on type and quantity, but a number of studies have shown the average cost is around $40,000 per ha. Support structures are custom made for the situation and good design and construction (in particular, tensioning) will increase the lifespan of the netting and minimise maintenance.

Always consult a professional designer or contractor during the planning stage of a netting project. Most companies offer free or low-cost design and construction quotes. They should recommend and supply the appropriate materials or manufacture them to your requirements.

Figure 1 Netting protects this persimmon orchard from damage by Carnaby's Cockatoo.

Case Study of a Successful Netting Structure

Phil and Cheryl Moyle, Harvey

The Moyles' netting and support structures covered an area of 2 ha of table grapes. The netting was erected by a contractor, but some parts of the structure were completed by the Moyles to reduce costs. The netting was totally effective in stopping bird damage and also appeared to reduce wind damage. Wind netting has been incorporated into part of the structure and trees were used as a wind break. The net and structure were guaranteed for 10 years.

The Moyles calculated that the costs of materials and construction could be recovered in the first year of production. They continued monitoring and maintenance of the net and structure to extend its life.

Further Reading

- Fauna Note No. 2. Scaring and Repelling Birds to Reduce Damage. DEC, Western Australia.
- Bird Control in Orchards. DEC, Western Australia.

References

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

Marsack, P.R., Hector, J.M., Massam, M.C., Long, J.L. and Mawson, P.R. (1989) Agriculture Protection Board research trials to control parrot damage in apple orchards, January, February 1989: Report for information and discussion. Agriculture Protection Board, Unpublished Report.

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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