

Protecting commercial crops from flying-fox damage

For landholders

Flying-foxes are nomadic mammals found mainly along northern and eastern Australia. They are important to native Australian ecosystems as they spread seeds and pollinate native plants.

Three species of flying-fox are found in NSW. They are the grey-headed flying-fox, the black flying-fox and the little red flying-fox.



All three are protected native species. The grey-headed flying-fox is also listed as Vulnerable to extinction under the *Threatened Species Conservation Act 1995*.

Flying-foxes have a slow reproductive cycle, with adult females birthing only one pup per year. Flying-foxes are unable to increase their population numbers rapidly, so the impacts of habitat loss and shooting place a significant threat to the sustainability of these populations.

Protecting commercial crops

Full-exclusion netting is the most effective method for protecting fruit crops from flying-fox damage.

The Queensland Department of Employment, Economic Development and Innovation has published guidelines and information on netting. See *To Net or Not to Net* at www.dpi.qld.gov.au/documents/BusinessAndTrade_BusinessDevelopment/Orchard-Netting-Report.pdf

The NSW Rural Assistance Authority (RAA) administers the Flying-fox Netting Subsidy Program. Commercial orchardists in the Sydney Basin and Central Coast regions may be eligible for 50 per cent of the cost of installing full exclusion netting, up to June 2014. See www.raa.nsw.gov.au/assistance/flying-fox-netting

The NSW RAA also offers low interest loans under a Special Conservation Scheme for the netting of commercial crops to protect them from flying-fox damage. See www.raa.nsw.gov.au/assistance/scs.

Other non-lethal methods to protect crops include the use of tunnel netting, flashing strobe lights, scare guns (e.g. birdfrite cartridges), recorded sounds and loud noises, decoy trees or

reflective strips/balloons/plastic bags placed in trees. Options should be discussed with your local area or regional National Parks and Wildlife Service (NPWS) office, and should only be used to protect commercial crops. None of these methods will be as effective as full-exclusion netting.

Shooting flying-foxes to mitigate commercial crop damage may be licensed in NSW under the *National Parks and Wildlife Act 1974*.

Documents to download

www.environment.nsw.gov.au/wildlifelicences/s120Licence.htm

- Policy and procedural guidelines for the mitigation of commercial crop damage by flying-foxes, including the:
 - application for a Section 120 General licence to harm flying-foxes in New South Wales
 - application for a Section 120 General licence variation
 - Section 120 General licence conditions (sample General licence)
 - Standard operating procedure for the shooting of flying-foxes in NSW
- Victorian Department of Sustainability and Environment publication *Bird and Flying-fox Damage to Orchard Fruit* may be useful if you are unsure what is causing damage to your fruit.
- NSW Flying-fox Licensing Review Panel report 2009
- annual reports on licences issued

Contacts and further information

For more information on flying-foxes:

- website: www.environment.nsw.gov.au/flyingfoxes
- phone Environment Line: 131 555 or (02) 9995 5550, or
- visit www.environment.nsw.gov.au/contact, to find your local OEH office.

Section 120 General licence procedure for landholders

Note that the following steps are a guide only, and do not constitute licence conditions.

Obtaining a licence

Landholders affected by flying-fox damage should discuss their options with the local NPWS office. If no non-lethal management alternatives are feasible, a s.120 General licence may be applied for.

A link to the s.120 General licence application form is above. Forms are also available from NPWS offices. Licences can be submitted in person or by fax, email, or post.

The application form should include a statement that the property cannot, at the time of signing, be netted due to economic, logistic or other considerations.

Only one application per property is required to license up to five shooters to shoot a strictly limited number of flying-foxes. However, only two shooters are permitted to operate on the property on any given night. All potential shooters must be identified on the application form, including personal details and signatures.

Property inspection

Before an application is approved, a property inspection must be undertaken by NPWS staff to confirm damage by flying-foxes. Where this is not possible within 48 hours, an interim licence may be issued. Landholders should contact their local NPWS office for information.

Animal welfare

Shooters should have sufficient experience and be proficient at accurately shooting moving targets with a shotgun. No shooting is to proceed until the relevant licence has been approved and received by the landholder.

The landholder and licensed shooters should ensure they are familiar with, and adhere to the licence conditions, including the number and species of adult flying-fox allowed to be killed (by shooting), the Standard Operating Procedure and the requirements to fill in and return Flying-fox Record Sheets (FFRS). Shooters should ensure they are able to accurately identify the different flying-fox species.

Failure to comply with licence conditions may result in prosecution. The success of future licence applications is subject to previous adherence to licence conditions.

Commencing shooting

Prior to the commencement of shooting, the landholder should ensure neighbouring properties are aware of the licence and intention to shoot flying-foxes on the licensed property.

Where the flying-fox shooting quota has been reached, and damage to flying-foxes is still occurring, a variation to the licence may be sought. This variation may allow for an additional number of flying-foxes to be killed.

Variation requests can be made by submitting a completed s.120 Licence Variation form to the issuing NPWS office and accompanied by a complete FFRS. Clear justification for the variation must be provided. An additional property inspection will take place.

Planning crop management

It is recommended that landholders attempt to net a portion of their crop each year.

Flying-fox safety

Catching a disease from a flying-fox is extremely unlikely; however flying-foxes may carry Australian bat lyssavirus.

- Thick protective gloves should be used when moving dead flying-foxes.
- If you are bitten or scratched by a flying-fox, thoroughly wash the wound, apply an antiseptic solution and see your doctor immediately.
- Live flying-foxes should not be handled.

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