

European wasp pilot control program 2018-19

Viticulture Skills Development Program 2014–19

October 2018, Primefact 1660, First edition

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This primefact expires 30 September 2023.

In September 2018, the Australian Pesticides and Veterinary Medicines Authority (APVMA) approved permit [PER86492](#) for control of European wasps in orchards, vineyards and berry farms with the active ingredient non-repellent fipronil (100 g/L). As the applicant for the permit, the NSW Department of Primary Industries (DPI) is the permit holder.

This PrimeFact outlines:

- important European wasp management options
- APVMA permit – [PER86492](#)
- DPI Skills Development Program 2014–19 response to European Wasps.

European wasp identification

European wasps (Figure 1) are identified by:

- black and yellow body
- yellow legs
- triangular markings on abdomen
- black antennae.



Figure 1. European wasp.

Vineyard and cellar door pests

European wasps are scavengers. Attracted to meat and sweet foods (including grapes), they are commonly a nuisance around winery cellar doors and vineyards as berry-sugar increases.

The European wasp is not aggressive to humans or other animals if left alone. However, if disturbed, individual European wasps can sting multiple times and if nests are threatened the wasps release a chemical triggering the colony to attack.

European wasps prefer to nest in cavities such as burrows or holes in the ground, tree hollows, or human-made structures like abandoned cars and sheds.

European wasp life cycle

Winter

Cold weather typically kills the worker population, although in milder climates the entire nest can survive the winter.

Mated queens overwinter alone in protected sites, including:

- wood heaps
- under bark
- in clothing left outside
- buildings e.g. sheds and garages.

Spring

The queen leaves the protected site once daytime temperatures exceed 12 °C, seeking a nest location and sugary food sources; they love apples. Queens lay eggs and raise the first worker population for the season.

Summer

Hive population increases. Once the queen has produced a number of workers she remains in the hive.

Population increases slowly during early summer. By mid-December numbers start to grow rapidly, and the wasps seek out protein-rich foods. Worker numbers peak in late summer and autumn. This is the key time for non-repellent fipronil baiting.

Autumn

As the weather cools, hive activity slows. New queens mate and prepare to leave the hive and seek shelter over winter.

Actions to reduce risk

To discourage European wasp development on your property:

- remove fallen fruit or food scraps
- avoid leaving uneaten pet food outside or in locations where wasps can feed
- ensure rubbish bins are sealed
- keep compost covered at all times
- cover exposed food at barbeques and outdoor events
- check drink cans or bottles before drinking and use clear containers.

Fipronil baiting

APVMA permit number [PER86492](#), in force from 14 September 2018 to 30 September 2023, outlines requirements to treat European wasps in NSW with the active ingredient of 100 g/L non-repellent fipronil.

Baiting technique

Non poisoned baits

Start with a non-poisoned tin of 85 g cat food. European wasps are more attracted to seafood or sardine cat foods.

Place non-poisoned cat food into an EnvironSafe™ fly trap (available at retail outlets such as Bunnings) and install the traps following permit instructions.

Ensure traps are less than 150 m apart. European wasps have been sighted up to 500 m from their hive but prefer to forage within 100–150 m.

Monitor until 3–5 wasps are feeding during the warmest part of the day. European wasps smell food on other wasps returning to the nest and follow their co-workers back to the food source.

European wasps will generally eat the bait and fly back to the nest to feed the queen and larvae.

Once 3–5 wasps are identified feeding on non-poisoned baits and there is no risk to native or non-target pests, remove non-poisoned cat food.

Poisoned baits

Replace non-poisoned bait with a poisoned bait by adding 3–4 drops 100 g/L non-repellent fipronil to 85 g of cat food (17.5 mg fipronil), and reinstalling into the EnvironSafe™ fly trap.

If more than 4 drops are used the European wasps will die before returning to the nest and will therefore not kill the remaining wasps in the nest.

When the returning worker returns to the nest and dies from ingesting fipronil, they are cannibalised and this is how the rest of the nest is poisoned.

Allow three days to a week for the nest to be killed.

End of baiting program

At the finish of the baiting program all poisoned baits are to be buried 500 mm below ground and containers disposed of at an approved management facility.

Record keeping

Records required as per APVMA [PER86492](#):

- date and location of bait placement
- amount of product used
- names and address of persons undertaking use
- pre-baiting non-target monitoring and observations.

First aid

If stung by a European wasp apply ice or cold pack to reduce swelling. Stings to the face or neck, or multiple stings can cause severe swelling or allergic reaction. Seek immediate medical advice or

Call 000 in emergency situation.

If poisoning occurs contact a doctor or call **Poisons Information Centre 13 11 26**.

Further information

A DPI pilot control program of PER86492 is planned for December 2018 in the Orange wine region through the DPI skills development program 2014–19.

This pilot program will target five vineyards and wineries with a history of European wasp problems.

If you are interested in the pilot control program please contact DPI Development Officers for Viticulture:

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Reference number PUB18/662.

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