

Naturalure*

Fruit Fly Bait Concentrate



Fruit fly control with no withholding periods, no impact on export crops and with organic certification.

Background

Naturalure Fruit Fly Bait Concentrate is the first self-contained fruit fly bait concentrate available in Australia. It includes a number of volatile and food-based fruit fly attractants, sugars that act as feeding stimulants and humectants which keep the bait droplets soft and attractive and, unlike other fruit fly baits, also includes an organically approved active component that controls fruit fly.

The active component in Naturalure is spinosad – one of a new class of naturally produced metabolites from living organisms that provides excellent control of Fruit Fly, compatibility with integrated pest management principles and with low human risk.

Organic Certification

Naturalure has been certified by BFA as an allowed input, number 2005AI. Naturalure is also certified for use in organic production by OMRI in the United States. Spinosad, the active component, is approved for use in organic production in many other countries including Germany and New Zealand.

Australian Label -

Naturalure is registered for use in all States of Australia by the Australian Pesticides and Veterinary Medicines Authority.

Situation	Pest	Use rate	Critical Comments
Tree, fruit, nut, vine and vegetable crops and ornamentals	Fruit flies, including: Queensland fruit fly (<i>Bactrocera tryoni</i>) &Mediterranean fruit fly (<i>Ceratitis capitata</i>)	1 L/ha	Mix 1 part of Naturalure Fruit Fly Bait Concentrate with 6.5 parts of water. Spray solution can be applied as a band or spot spray (see Application section)
Non-crop vegetation and other fruit fly resting sites (for use in area-wide fruit fly eradication or control programs)			Dilute as above or use as a concentrate spray by mixing 1 part of Naturalure Fruit Fly Bait Concentrate with 1.5 parts of water and apply as a spot spray (see Application section).

AVOID spraying the fruit as phytotoxicity may occur. Mangoes and pears are particularly susceptible to blemishes, discolouration or severe spotting (superficial on the skin only) from protein-based baits. The risk of phytotoxicity is increased during hot, dry conditions and re-application of spray to the same location on the plants. If using a weekly spray program, alternate tree or crop rows to which the product is applied. Re-apply if rain washes bait off the foliage.

Read the complete product label before use.

Withholding and Re-entry Period

There is no harvest withholding period where Naturalure is used as directed and there are no restrictions on workers entering the treated area.

Interstate Certification Assurance Protocols

Naturalure is approved for use under ICA 28 which covers the control of fruit fly in citrus crops in parts of Queensland for movement of fruit to Victoria. Inclusion in ICA's 18 and 19 is pending



Compatibility

To maximise attractiveness of the bait and to ensure optimum fruit fly control, Naturalure should not be mixed with any other product. No wetters, spreaders or stickers should be added.

Application

Band sprays (concentrated or dilute solution):

Apply as a coarse spray in a 1m wide band to the skirt of trees. Apply to one side of every row or every second row of trees.

Spot sprays of the concentrated solution:

Apply to trees and foliage as coarse spots of 20mL per spot of 1m². Apply 125 spots per hectare.

Spot sprays of the dilute solution:

Apply to trees and foliage as coarse spots of 50mL per spot of 1m². Apply 150 spots per hectare.

Spots should be distributed evenly throughout an orchard to optimize effectiveness. Adjust the application of the spots to suit the number of trees per hectare, but do not exceed the application rate above.

If using a weekly spray program, alternate tree or crop rows to which the product is applied.

Control under high fruit fly pressure

When fruit flies are present in high numbers particularly susceptible fruit crops such as stone fruit may require the application of occasional cover sprays as well as baiting and male annihilation for successful fruit fly control.

Area-wide Management Programs

Naturalure can be used for the control of fruit flies in area-wide management programs through application of the bait both in orchards and on surrounding vegetation. It may also be used in baiting programs in urban areas.

Whilst Naturalure will control both male and female fruit flies, for best results it should be applied in conjunction with male annihilation either using appropriate traps or other MAT devices.

Crop Selectivity

Whilst Naturalure is safe on most crops and on non-crop vegetation, protein-based baits can cause phytotoxic reactions in some crops and on some fruit. For this reason application should be targeted at foliage and should be made to avoid contact with fruit.

Naturalure can also be applied to non-crop targets but best results are achieved where these are placed at tree height rather than on grass under trees or in the inter-row.

Stability in the Environment

Spinosad, the active ingredient, breaks down under ultra-violet light and does not persist in the environment. Its breakdown products are carbon dioxide and water.

However, whilst the bait droplets are active on the foliage or on fruit fly resting sites spinosad is protected against breakdown.

Rainfastness

Where Naturalure is applied at a 1:1.5 dilution it does exhibit some resistance to wash off. However, when Naturalure is applied at a 1:6.5 dilution it exhibits the same susceptibility to wash-off as conventional fruit fly baits.

Naturalure must be re-applied if rain washes bait off the foliage.

Cleaning of Application Equipment

Naturalure contains a number of specific sugars which act as feeding stimulants and which maintain the attractiveness of the bait under dry conditions. As organic approval precludes the addition of biocides to the formulation, naturally-occurring yeasts and other micro-organisms may build up in application equipment using these sugars as a feed source.

It is recommended that applicators only mix up that volume required for application on a daily basis. Application equipment must be cleaned after each day's use.

For More Information

Contact Dow AgroSciences Australia Limited, toll free on 1800 700 096.

* Registered trademark of Dow AgroSciences

