

Naturalure® Fruit Fly Bait, Qalcova® active Insecticide – a targeted solution for effective fruit fly control that supports pollinator safety and productivity.

What is Naturalure® Fruit Fly Bait Concentrate?

Naturalure® is a protein-based bait containing specific fruit fly attractants and feeding stimulants. It includes the active ingredient spinosad, a fermentation by-product of the naturally occurring soil bacterium *Saccharopolyspora spinosa*. Naturalure® is organically certified by Australian Organic and the Organic Materials Review Institute (OMRI).

Spinosad has been developed to control Lepidopteran (caterpillars) and Dipteran (flies) pests with minimal disruption to beneficial insects and other non-target organisms.

Naturalure® has an extremely favourable mammalian and environmental toxicity profile, making it low risk to users, workers, and beneficial insects. It is readily degraded by sunlight, requiring weekly reapplication in orchards. The combination of low use rates and low toxicity makes Naturalure® a preferred fruit fly control agent.

Bee Safety

Due to its favourable environmental profile, spinosad was registered under the US EPA's Reduced Risk Program and awarded the Presidential Green Chemistry Award in 1999, recognising its contribution to safer insect control and Corteva's commitment to sustainability.



Naturalure® emits volatile ammonia-like compounds that attract fruit flies but repel honey bees. This repellency has been confirmed in field studies published in the *Journal of Economic Entomology*. In these studies, bees trained to forage on sugar solutions consistently avoided Naturalure® bait (referred to as GF-120 in the study), even when hungry. Components such as Solulys and ammonium acetate were particularly effective at deterring bee activity. The complete bait formulation was shown to be repellent to honey bees, confirming that bees do not feed on Naturalure® and are unlikely to be contaminated by it.

Direct topical applications of Naturalure® are non-toxic to honey bees, as spinosad must be ingested to be harmful. However, if bees come into contact with wet bait, they may inadvertently ingest it via grooming. Therefore, the product label advises:

DO NOT spray on plants in flower if bees are active. Once the spray deposit has dried, foraging bees will not be affected.

Additional studies have shown that dried residues of spinosad are not acutely toxic and do not affect hive viability or brood development in honey bees or bumblebees. The collective evidence indicates that once residues have dried, the risk to honey bees is negligible. Over 20 years of product use supports this conclusion.

Contact

Any concerns regarding the use of Naturalure® should be directed to your local Corteva Agriscience representative, or contact us on **1800 700 096** or visit **www.corteva.com.au**.

References

Mangan, R.L. and Tarshis Moreno, A., 2009. Honey bee foraging preferences, effects of sugars, and fruit fly toxic bait components. *Journal of Economic Entomology*, 102(4), pp.1472–1481. <https://doi.org/10.1603/029102.0411>

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