

Use of pesticides in plantations

Pesticides (chemicals such as herbicides and insecticides) are widely used across Australia, but the forestry industry uses less than 2% of total national pesticide use. Forestry Tasmania only applies pesticides in plantations - native forests are chemical-free.

All pesticide application for forestry in Tasmania is regulated by the Forest Practices Code to ensure sprays are not applied outside the target area. Internal roads, drains and streams are also excluded from spraying, and there are controls on the proximity of plantations to river banks.

Eucalypt plantations are often sprayed once at establishment with herbicides, but rarely during the rest of their growth cycle. Forestry Tasmania has not used the triazine herbicides atrazine or simazine since the mid 1990s.

An annual average of about 1% of the Forestry Tasmania eucalypt plantation estate is aerially sprayed with insecticides to control defoliation by leaf beetles. The only insecticides used for aerial spraying of plantations are alpha-cypermethrin and spinosad.

- Alpha-cypermethrin (Dominex®, Fastac®) is a synthetic pyrethroid, similar to the organic pyrethrum. It is toxic to all insects, fish and crustaceans, moderately toxic to oysters, algae and humans, and has low toxicity to birds. After spraying, it remains toxic to insects for only 2 weeks and does not persist in the environment.
- Spinosad (Entrust®, Success®) is an organic insecticide derived from a fungus; Entrust is approved for use on organic crops. It is toxic to larval but not adult beetles and moths, and toxic to bees and wasps if oversprayed but not when the spray has dried. Toxicity to humans, birds, fish, crustaceans and algae is low, while toxicity to oysters is moderate. After spraying, it remains toxic to insects for only 4 days and does not persist in the environment.

Water samples are analysed after spraying of Forestry Tasmania plantations. No insecticides have been detected in hundreds of these water samples. Very rarely, herbicides have been detected after spraying, but none have been anywhere near the official health limits for drinking water. Forestry Tasmania reports the results of its water monitoring program in its Annual Forest Sustainability Report.



Forestry Tasmania participated in the Tasmanian River Catchment Water Quality Initiative project, which developed the CSIRO Pesticide Impact Rating Index (PIRI) for Tasmanian conditions. Tasmania PIRI is now used extensively in agriculture and forestry operations to minimise risks of pesticides contaminating water.

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