

# Chemical use in forestry



## Key points

- Chemicals are not used extensively in production forests, but limited use is important for controlling weeds and insect pests in plantations.
- Fertilisers are also important for ensuring the healthy growth of plantation trees.
- Sustainable Timber Tasmania follows strict government and internal guidelines whenever chemicals are used.

*Above: Leaf beetle eggs hatch in mid to late November and feeding larvae can cause severe defoliation through until late December at which time they fall from the tree to pupate.*

## How are chemicals used?

Sustainable Timber Tasmania minimises chemical use in the forests we manage.

However, used with care, chemicals can be important for controlling weeds and outbreaks of insect pests, and for promoting healthy plantation growth. Chemicals are occasionally used to assist regeneration of native forests by preparing harvested coupes for burning.

All chemicals are used in accordance with Australian Pesticide and Veterinary Medicines Authority (APVMA) guidelines and strict Codes of Practice regarding aerial and ground-based applications which protect natural values, neighbours and water quality.

We also use a CSIRO-developed program, the Pesticide Impact Rating Index (PIRI), which guides chemical application, particularly near water catchments. Sustainable Timber Tasmania has a long history of water samples taken after chemical application from streams within production forests having no detectable chemicals present in the samples.



*Monitoring water quality during plantation aerial fertilisation to avoid any impacts on water quality.*



*Leaf beetles are the primary cause of chronically thin crowns in eucalypt plantations in certain areas of the state. Growth can be impacted by up to 90%.*

## Weed control

Effective weed management is an essential part of establishing a successful plantation. Where necessary we apply herbicides before planting to control target weeds and this, in combination with appropriate site cultivation and direct fertilising, leads to fast tree development and lays the foundation for longer-term productive growth. Herbicides are rarely used during the rest of the plantation growth cycle.



*Refilling the helicopter bucket during aerial fertilisation operation in a plantation.*

## Insect pest control

Insect pests, such as leaf beetles, can cause serious damage in eucalypt plantations. Wherever possible, we prefer to monitor insect pests and rely on natural predators to control populations. However, chemical control is sometimes needed when significant outbreaks occur.



*Leaf beetles of the genus *Paropsisterna* are a major defoliating pest in eucalypt plantations.*

## Fertilisers

Managing tree nutrition is important for promoting and maintaining healthy, productive plantations. Where required, plantations may receive applications of fertiliser.

All fertiliser programs are managed according to soil and site conditions, tree requirements, predicted growth responses and economic returns, along with strict environmental guidelines and careful monitoring which includes field inspections and tree health surveillance.

