

Safety steps growers must take

Here are the steps kiwifruit growers must take to minimise spray drift and maximise safety:

Make a spray plan – before the season starts, growers plan their spraying for the season, outlining what products they plan to use and when.

Tell the neighbours – different councils have different requirements but in general, growers must notify neighbours at least 12 hours before spraying. For information specific to your region, please contact your local regional council. Notice can be given in person, over the phone, by text or by email. If spray plans change, the spray applicator should tell the grower as soon as possible, so they in turn can let the neighbours know.

Display signs – 'spraying in progress' signs must be displayed at the orchard entrance before spraying starts and taken down when it's safe to re-enter. Signs must be displayed identifying the agrichemical being used, when it's safe to re-enter and the contact details of the person applying it.

Check wind conditions – including wind direction to make sure spray doesn't drift. Growers should spray on a dry day with a slight breeze so they know where the drift will go and can aim it towards other parts of the orchard.

Sprays shouldn't be applied if wind conditions are more than a slight breeze.

Effective shelter – shelterbelts help control spray and partly absorb any drift that might occur, so orchards should have shelter on boundaries, especially road frontages. If there's no shelter or gaps in the shelter, growers should use a no-spray buffer along the outer edge of the block or other methods to make sure spray doesn't drift onto neighbouring properties and roads.

Use low-drift technology – AI nozzles spray larger, heavier droplets which are far less likely to be blown away. Drift-reducing adjuvants, such as DriftStop, further reduce spray drift by reducing the percentage of very small driftable droplets within the spray mix.

Take care – applicators must always take special care around roads, walkways and schools to avoid people especially children, posties, cyclists and dog walkers. Growers need to develop a spray plan to help applicators identify sensitive areas and decide how to apply sprays in a way that will minimise spray drift.



What can you do to keep yourself safe?

If you live near an orchard, you might like to introduce yourself to your kiwifruit neighbours (if you haven't already done so). Orchards are workplaces so do let your neighbours know ahead of time before walking onto an orchard.

Most kiwifruit sprays are not harmful, and work continues on orchard immediately after application. There are special requirements for hydrogen cyanamide so when it's being sprayed, keep yourself and any kids and pets away from orchard boundaries. Dogs are particularly sensitive to hydrogen cyanamide – so keep your dogs and their food and water bowls inside while spraying is taking place and out of the treated areas for five days after spraying.

Get in touch

We're committed to ensuring our industry protects the quality of our water, air and soils for current and future generations. We have high standards for our industry, and we work with the community to make sure everyone's aware of their rights and our growers' responsibilities.

There are several places you can go if you would like to know more about spray management, grower responsibilities or safety tips. The kiwifruit industry operates an independent spray complaint line through the growers' organisation NZKGI. They will investigate any complaints and ensure that growers are meeting their requirements, as well as answer any questions you may have. You can also contact your local regional council which has specialist enforcement officers available to assist. You can contact NZKGI by phoning 0800 232 505 or via email at info@nzkgi.org.nz.



Spray safety

A community guide to kiwifruit spraying season

As we head into another kiwifruit season, we want to make sure our communities have all the information they need to understand what happens on our orchards, what products we use and how we use them, and what you can do if you have any questions or concerns.

The kiwifruit industry contributed over \$3 billion to the New Zealand economy last year, providing thousands of jobs and opportunities for Kiwis. We're committed to working alongside our communities, to being good neighbours and to ensuring we make a positive impact on those communities and our environment.

Key seasonal orchard activities

A kiwifruit orchard is a hive of activity throughout the year, from pruning and fertilising to thinning and harvesting. Here's what to expect each season:

WINTER is the quietest time on the orchard. Vines are pruned and sprayers apply budbreak sprays to ensure consistent kiwifruit production

As **SPRING** arrives, things become busier with beekeepers moving bees in and out to pollinate the vines, and growers applying sprays to manage pests and diseases



AUTUMN is harvest time! Fruit is picked off the vine and packed into trays in packhouses before being exported to millions of consumers around the world.

SUMMER means thinning the canopy with more pruning, irrigating and managing the growing crop

Spray management

There are a whole range of products which you might see sprayed on a kiwifruit orchard including water, fertiliser and agrichemicals. Some sprays control pests like leafroller caterpillar and diseases such as the vine disease Psa which has a devastating effect on vines if not controlled appropriately. Other products such as foliar fertilisers help with plant growth. Without these controls, kiwifruit quality and yield production levels would be significantly lower than they are today, meaning fewer jobs and less benefit to New Zealand and to rural communities.

Sprays are applied when needed with modern equipment, by professional spray operators, at specific times and in considered conditions to minimise spray drift.

What types of sprays are used on kiwifruit orchards?

There are a variety of sprays used throughout the year to improve the health of the vines and the quality of fruit harvest. *Copper* is commonly used to protect against Psa and *fertilisers* are sprayed on leaves and applied to the soil to encourage growth. *Biologicals* are sprays which have microbes, rather than chemicals, as the active ingredient. Modern *insecticides* are formulated to target specific pests and are typically applied in early spring, before flowering.

Hydrogen cyanamide, often known by the brand name *HiCane*, is used in late winter from late July to early September. This spray helps the vines to develop more flowers at the same time (which means more fruit that ripens at the same time) and helps ensure the growers have enough fruit for the season. It also makes the job of picking

and packing to send to the markets much easier. Kiwifruit vines need cold winters to develop fruit in spring and hydrogen cyanamide helps growers in warmer locations to produce fruit. It's only applied once to each block of the orchard each year and growers are provided with strict guidance on how to do so.

Hydrogen cyanamide is approved for use in New Zealand by the New Zealand Environmental Protection Authority (and must be used in accordance with the controls applied as part of that approval). Like any chemical, it can be toxic to humans and animals if not used appropriately so it's important growers understand their responsibilities, including ensuring their neighbours are informed prior to spraying. Its continuing use relies on the whole industry using this product responsibly.

What's spray drift?

Occasionally, due to weather conditions, how the spray is applied, or the orchard landscape, spray droplets are carried off target a short distance. This is known as spray drift.

To minimise any drift on to neighbouring properties or waterways, all growers who apply hydrogen cyanamide are required to use Air Inclusion (AI) nozzles along with a drift-reducing adjuvant, such as DriftStop. This has been a requirement since 2013 and is a key part of the kiwifruit industry's ambition to make sure we act responsibly.

Growers and their spray contractors are responsible for keeping sprays on the orchard and minimising drift on to neighbouring properties. The good news is that spray drift can be managed – growers need to plan in advance and keep a good eye on the weather conditions.

BEST PRACTICE: What systems are in place to support safe orchard practices?



The industry has developed best practice guidelines including training for orchard owners and managers.



The industry also operates a 'KiwiGreen' programme to help growers manage pest and diseases in a holistic way. This means products like agrichemicals are only used when necessary.



Growers develop a spray plan which helps applicators to identify areas sensitive to spray and decide on methods that will minimise spray drift.



Those applying sprays must be GROWSAFE registered, meaning they're trained in using sprays and spray equipment safely and efficiently.



All agrichemicals, including products used on kiwifruit, must be approved under the Hazardous Substances and New Organisms (HSNO) Act and the Agricultural Compounds and Veterinary Medicines (ACVM) Act. Approval is given by the government regulators, the Environmental Protection Agency (EPA) and the Ministry for Primary Industries (MPI) along with directions on the permitted use conditions.