



Application of Waiken gives apple and cherry growers greater control over bud break, flowering and time of maturity.

Depending on when it is applied, it can be used to bring forward, or to delay bud-break.

- Generally:
- To advance bud-break, apply 35–50 days before bud-break would normally occur
 - To set back bud-break apply from 20 days before bud-break would normally occur, up to the time of green-tip.

How to utilise Waiken in the orchard

Waiken induces a period of dormancy after which the flowers all come out fairly rapidly and uniformly. This means it can be used as a management tool to:

- bring forward or set back bud-break to help align flowering across varieties to achieve cross pollination
 - bring forward or set back bud-break to stagger maturity to improve productivity at maturity and harvesting
 - compact the flowering period to significantly improve the effect of chemical thinning treatments and improve productivity at picking
 - promote limb growth in young fruit trees.
- Thanks to its proprietary chemistry, Waiken allows growers to capitalise on the more profitable early markets.

such as hydrogen cyanamide, which is toxic. Waiken is an emulsified vegetable oil compound.

Tips to improve effectiveness

- Fruit trees have a cyclic crop load from year to year: heavy, light, heavy etc. Waiken compacts flowering, so care needs to be taken if using primary thinners when a light crop is expected. An application of primary thinners such as NAA, Ethrel or ATS in this situation could severely limit fruit set and crop load. Secondary thinners such as Cylex are a safer alternative as the decision to thin is made later, when fruit set is visible.
- Ensure that sufficient pollinators and bees are available. This is very important as a reduced flowering period could result in reduced fruit set if the weather is unfavourable during this time.
- In the first year, carry out limited trials. Apply Waiken at two different timings and two rates. This provides important information to enable optimum timing and rate for subsequent seasons.
- Recommended rate is 4% on apples and cherries. Water volume should be sufficient to obtain good coverage of the buds to the point of run-off. This generally requires 1000–2000 L/ha water for apples and cherries.

Non toxic

Tools available for manipulating bud break include common chemical rest-breaking agents

Apple grower says Waiken essential for pollination and fruit set



Effect of an application of Waiken (left) on the apple variety Dabinett. Photos taken on 31 October 2017. Untreated tree (right) flowered in December 2017 and did not set fruit.

Stuart Douglass has Western Australia's only orchard of traditional old-world cider apple varieties.

These European style, high chill apples are specially grown for cider production (*real* cider). There are 15 varieties in the orchard with key varieties being Yarlington Mill, Browns Apple and Dabinett.

"Being high chill varieties, there was some initial concern that they would not set fruit in WA's temperate climate," Stuart said.

"Some varieties are also biennial bearers and others suffer from post harvest flowering. Given these challenges, it is critical that we manage dormancy, budbreak and tree growth to ensure that we set a crop every year for the life of the orchard."

To achieve adequate and timely flowering, and to manage the growth of young trees, Stuart relies on the application of the dormancy breaker, Waiken—which has now become an essential part of his orchard management program.

"A timely application of Waiken each year is critical to breaking dormancy and to flowering and pollination," he said.

"Waiken compresses the flowering period for each variety and we can get each variety to flower at about the same time which significantly improves pollination and fruit set."

No Waiken, no crop

Stuart said the benefit of Waiken was made obvious last season when six Dabinett trees were

not sprayed adequately. (Dabinett is one of the most challenging varieties to set fruit.)

"Those six trees did not flower until December—well after all the other sprayed trees had finished flowering and had set fruit," he said.

"It proved to us just how effective Waiken is in controlling budbreak and flowering in our high chill varieties when the recommended chill hours are not met.

"With Waiken, each variety sets fruit every year, the trees remain calm, and we are better able to control vegetative growth and have minimised biennial bearing."

Stuart added that if the *real* cider industry in WA is ever to become established, it will rely heavily on the application of Waiken to manage budbreak and flowering to optimise fruit set.

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