



THE KEY BENEFITS OF VELOCITY

- Fast, robust control of susceptible and resistant wild radish and other 'tough' broadleaf weeds.
- Excellent crop safety from the 2-leaf stage when used as directed.
- Early application can improve yield and profitability.
- Potential to extend the usefulness of less effective products as follow-up sprays.



VELOCITY®

VELOCITY® SELECTIVE HERBICIDE

PRODUCT GUIDE

Early clean-up of problem broadleaf weeds to protect crop yields



RESISTANCE IS NO ILLUSION



So don't wear out a single solution

It's all too easy to ignore increasing herbicide resistance until it's too late. But resistance is real, and now affecting every cropping area in Australia. Using different modes of action in rotation and using non-chemical weed control methods is essential to help keep your existing herbicides viable longer. Visit our website to review your options.

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Disclaimer

Always read the label for full instructions.

The information and recommendations set out in this brochure are based on tests and data believed to be reliable at the time of publication. Results may vary, as the use and application of the products is beyond our control and may be subject to climatic, geographical or biological variables, and/or developed resistance. In graphs where trial numbers are not the same for each treatment, they can only be viewed as indicating the reliability for a product and cannot be directly compared or compared for mean result. Any product referred to in this brochure must be used strictly as directed, and in accordance with all instructions appearing on the label for that product and in other applicable reference material. So far as it is lawfully able to do so, Bayer CropScience Pty Ltd accepts no liability or responsibility for loss or damage arising from failure to follow such directions and instructions.

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GIVE YOUR CROP A CLEAN START

WHAT VELOCITY CAN DO

Control a wide range of broadleaf weeds, including:

- | | | |
|-------------------------|------------------------|---------------------|
| ✓ BEDSTRAW | ✓ INDIAN HEDGE MUSTARD | ✓ ANNUAL SOWTHISTLE |
| ✓ BIFORA | ✓ PATERSON'S CURSE | ✓ TURNIP WEED |
| ✓ BINDWEED | ✓ PRICKLY LETTUCE | ✓ WILD RADISH |
| ✓ CAPEWEED | ✓ SAFFRON THISTLE | ✓ WILD TURNIP |
| ✓ CORN GROMWELL | ✓ SHEPHERD'S PURSE | ✓ WIREWEED |
| ✓ DEADNETTLE | | ✓ YELLOW BURRWEED |
| ✓ DOUBLEGEE/ SPINY EMEX | | |
| ✓ FUMITORY | | |

Control volunteers, including:

- | | | |
|--------------|--------------------------------|------------------------------|
| ✓ LUPINS | ✓ SEEDLING LUCERNE | ✓ VETCH (SUPPRESSION ONLY) |
| ✓ FIELD PEAS | ✓ FABA BEANS | |
| ✓ CANOLA | ✓ CHICKPEAS (SUPPRESSION ONLY) | ✓ LENTILS (SUPPRESSION ONLY) |
| ✓ MEDIC | | |

In four cereal crops:

- ✓ WHEAT ✓ BARLEY ✓ CEREAL RYE ✓ TRITICALE



- Velocity can be applied from the 2-leaf crop stage to provide a range of important advantages:
- **Very early and robust control of wild radish**, including populations that have developed resistance to Group B, F and I herbicides.
 - **Proven extra yield and profit** compared to using other broadleaf herbicides as the first spray.
 - **No 'yield drag'**, because the crop is not held back by this early spray.
 - **Fewer weed escapes to compete with the crop** and compromise future weed control.
 - **Extended usefulness for less effective, older products** when used as follow-up sprays once weed pressure is lower.

RESISTANCE MANAGEMENT

GROUP **HC** HERBICIDE

With its two active ingredients, Velocity is both a Group H (HPPDs) and a Group C (PS II inhibitors) herbicide.

Pyrasulfotole is proving to be an effective tool in the management of broadleaf weed populations that are resistant to various modes of action, including the Group B ALS inhibitors (e.g. sulfonylureas, like triasulfuron, chlorsulfuron & metsulfuron), Group F PDS inhibitors (e.g. diflufenican & picolinafen), Group I synthetic auxins (e.g. MCPA, 2,4-D) and Group C PS II inhibitors (metribuzin). When used in conjunction with Integrated Weed Management (IWM) practices, pyrasulfotole (e.g. Velocity) will continue to help control herbicide-resistant broadleaf weeds.

THE VALUE OF EARLY APPLICATION



Applying Velocity early has multiple advantages. Trials show that Velocity typically achieves better levels of control than other products are likely to, and that extra early reduction in weed competition results in higher yields.

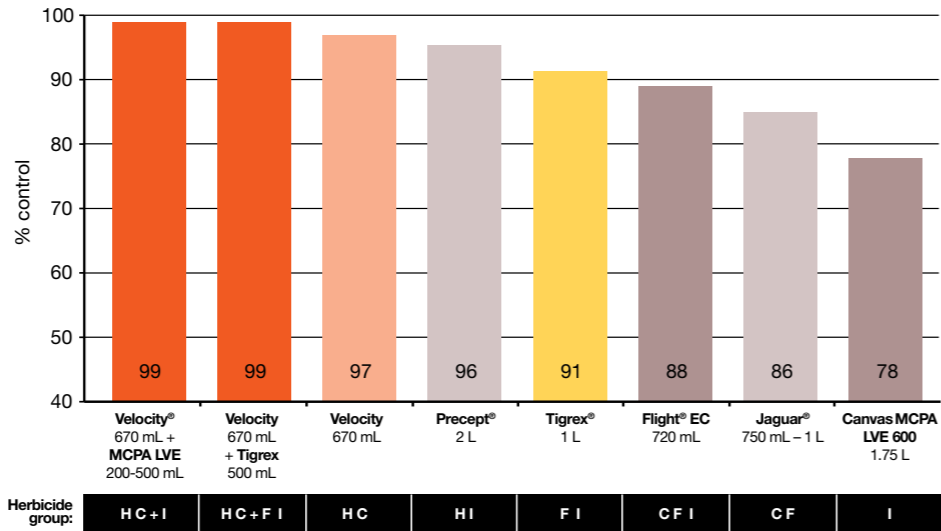
COMPARATIVE CONTROL AT EARLY TIMINGS

Excellent levels of wild radish control.

This summary of 2012 and 2013 trials comparing a range of products at the same early spray timings shows that all three Velocity treatments produced superior control to any other product or combination. Velocity alone does not control secondary wild radish emergence, but even products that can provide residual activity (e.g. Jaguar) will also require a two-spray strategy in severe wild radish populations.

Trial ID: Bayer Application Trials 12WE20, 12WE21, 12WE22, 12WE23, 12WE25, 12WE26, 13WE27, 13WE29, 13WC03, 13WC04, 12WC12, 12WC13.

All rates per hectare.

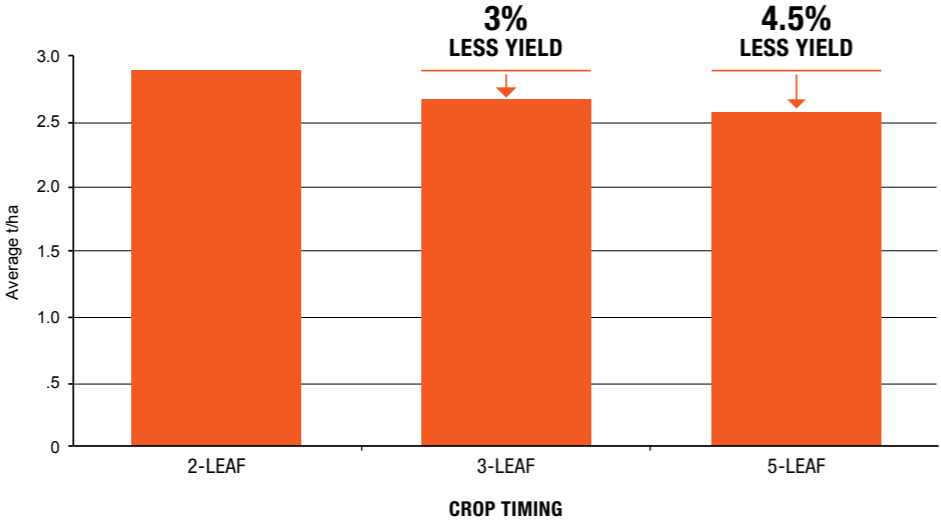


YIELD LOST BY DELAYED APPLICATION

Delaying your spraying can be very costly.

As this graph based on a 2013 trial shows, even a short delay in spraying wild radish can result in less yield. Waiting to spray compromises the level of control and allows more wild radish plants to compete with the crop for longer than if they were controlled earlier. Previous work by the Australian Department of Agriculture has shown that early spraying provides the best grain yield response. The differences are not statistically significant in this trial but do follow the known trends for early spraying.

Trial ID: Bayer Application Trial 38MIG13.



COMPARING SPRAY TIMINGS

Experience and trial data show that using Velocity early, either as the only post-emergent broadleaf treatment or the first product in a two-spray program, delivers extra yield and return on investment.

The results shown here are from a 2012 trial at Yumali in South Australia that used sprays at the following timings:

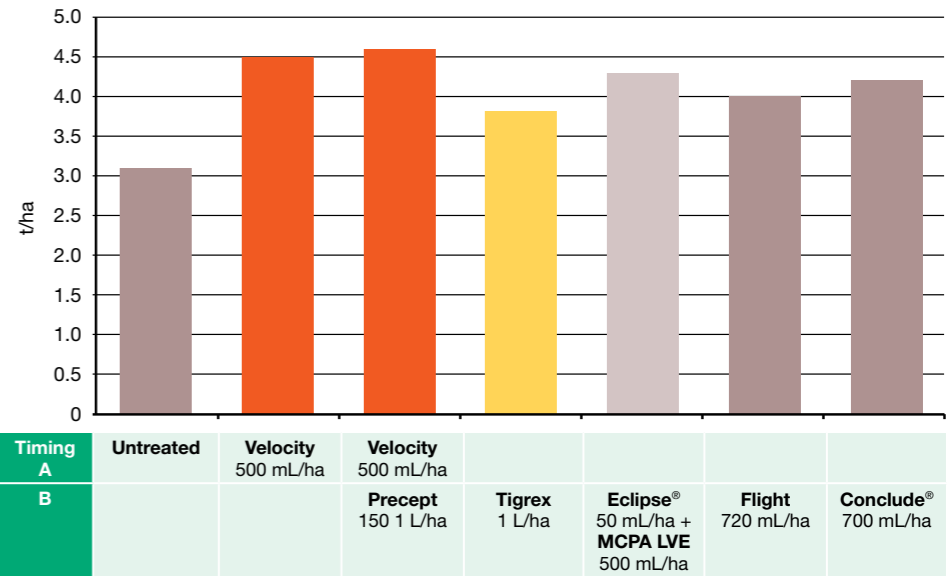
| Timing | Date | Days sow to spray | Crop growth stage | Wild radish growth stage |
|--------|------------|-------------------|-------------------|------------------------------------|
| A | 05/07/2012 | 44 | 4 leaf | cotyledon to 6 leaf (92% 2-4 leaf) |
| B | 30/07/2012 | 69 | 5 to 6 leaf | cotyledon to 8 leaf (68% 5-8 leaf) |

COMPARATIVE WHEAT YIELD

Early timing produces extra yield.

The key to increased yield was the early timing of the first spray – and this was not the earliest timing at which Velocity can be used. Even at the 4-leaf crop stage, the Velocity treatment added half a tonne per hectare compared to Flight.

Trial ID: HP12AUSBG1SB10.

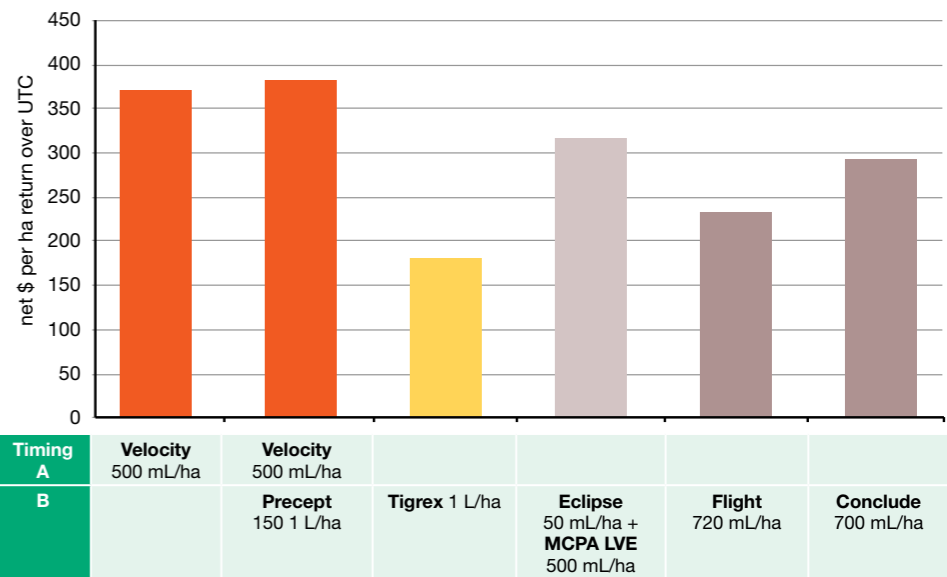


RETURN ON INVESTMENT

Extra effectiveness pays off.

Even in an area where the Group B chemistry of Eclipse is still effective, Velocity produced a higher return on investment. And using Precept as a follow-up spray was even more profitable.

Trial ID: HP12AUSBG1SB10.

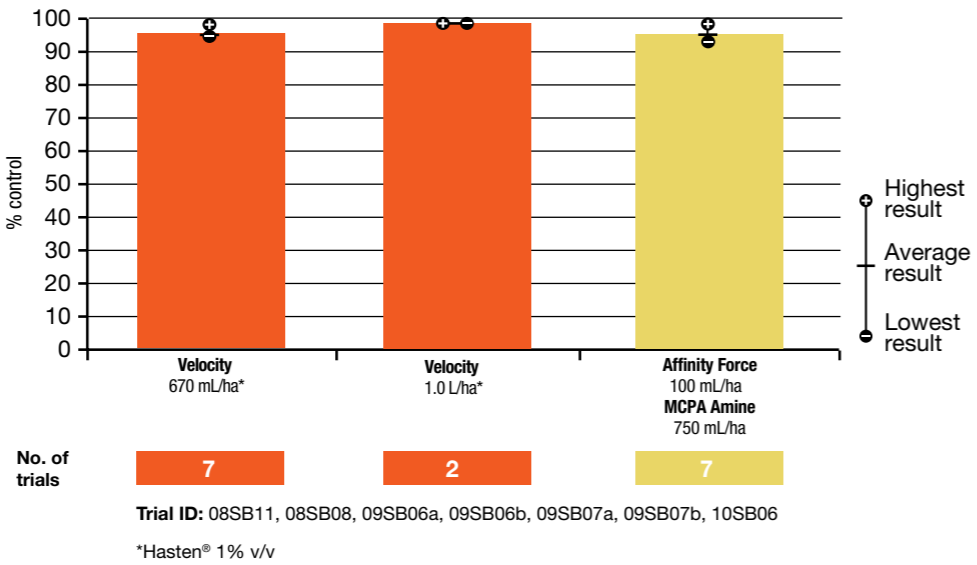


REPRESENTATIVE TRIAL RESULTS



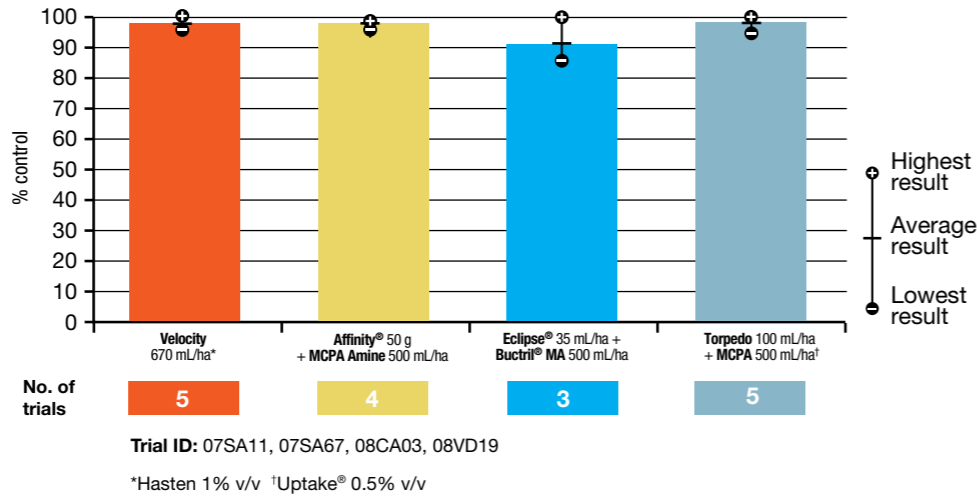
BIFORA

A more compatible control option.
Velocity provides equally excellent control as Affinity Force®. Velocity also offers much greater tank-mix compatibility and the option of earlier application.



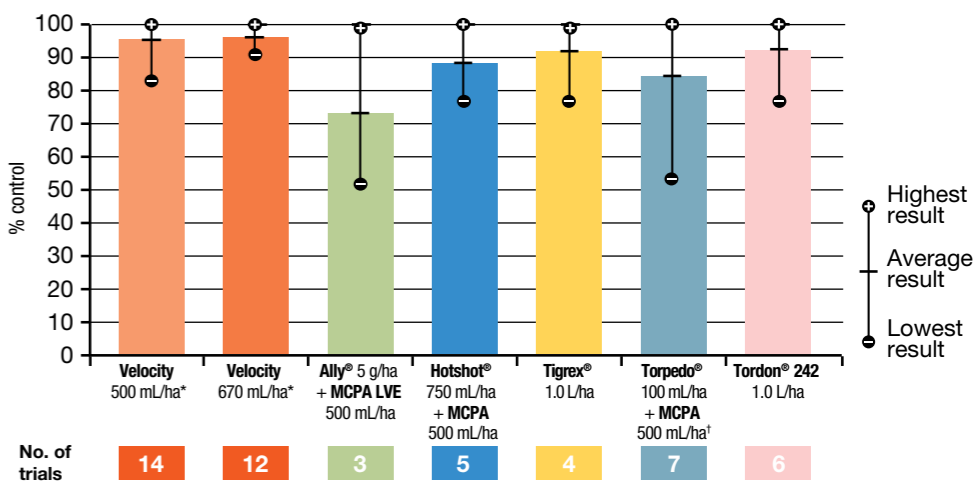
BEDSTRAW

Consistently high levels of control.
Consistency is the hallmark of the performance of Velocity on bedstraw, and that translates into reliability for growers. In these trials, the lowest level of control was still well over 90%.



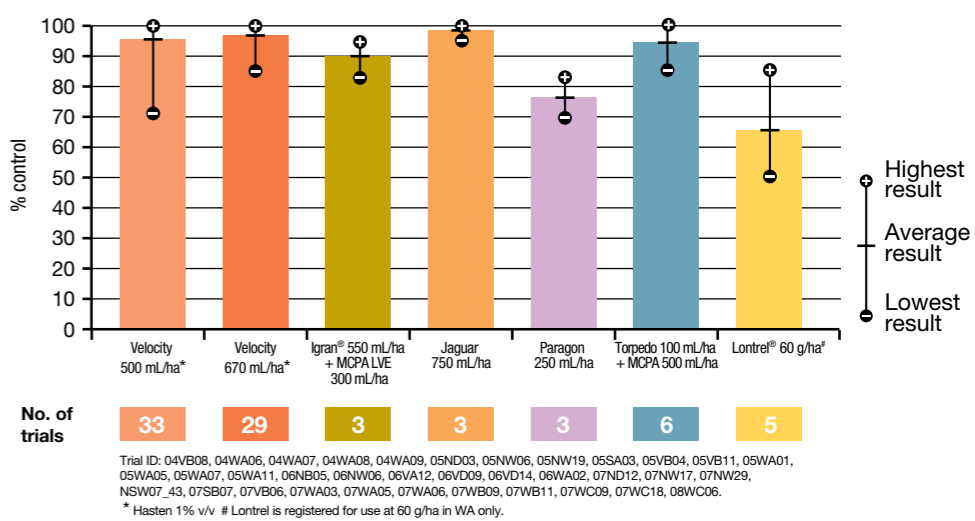
ANNUAL SOWTHISTLE (MILK THISTLE)

The best control available
In this comparison with five other products, both rates of Velocity averaged a higher level of control than any of the alternative herbicides – although all of them achieved 100% control in at least one trial.



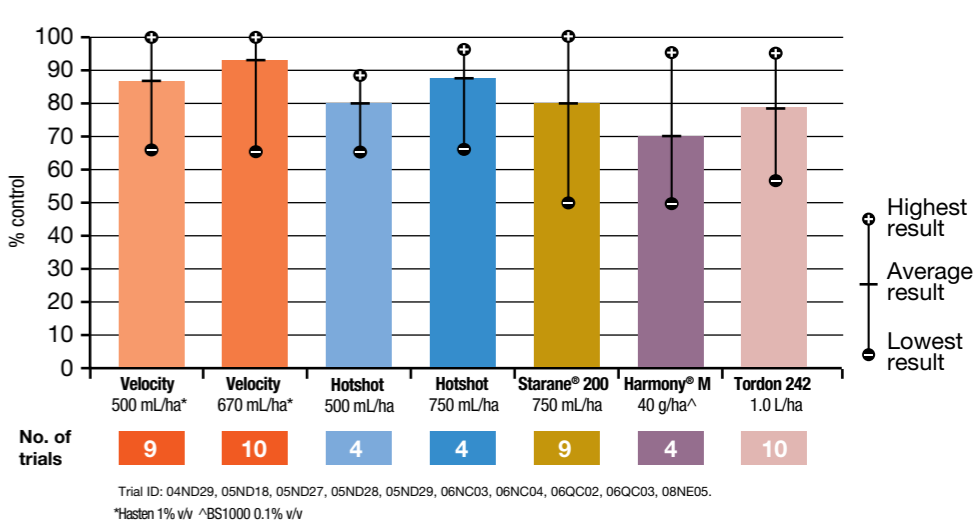
CAPEWEED

Outstandingly reliable control
Capeweed is another ‘problem weed’ for which Velocity provides exceptionally reliable control. Although a single trial in this long series produced disappointing results, Velocity achieved 100% control in the majority of trials at both rates.



BINDWEED

Very effective under good conditions
While there was some variability in these results, Velocity at 670 mL/ha provided 95–100% control in 7 of the 10 trials. A follow up spray may be required to control secondary bindweed germinations.



GETTING THE MOST OUT OF VELOCITY



Using Velocity early, especially as the first product in a 2-spray strategy, gives it every chance of succeeding. But it is also important to make sure you get full value from your investment in Velocity by following the application guidelines, which are based on years of trial work.

SUCCESSFUL APPLICATION

Time of day

Because Velocity performs best in warmer temperatures with good light intensity, it should be applied **during the day and at least 1 hour before sunset** – especially if low overnight temperatures are expected.

Adjuvants

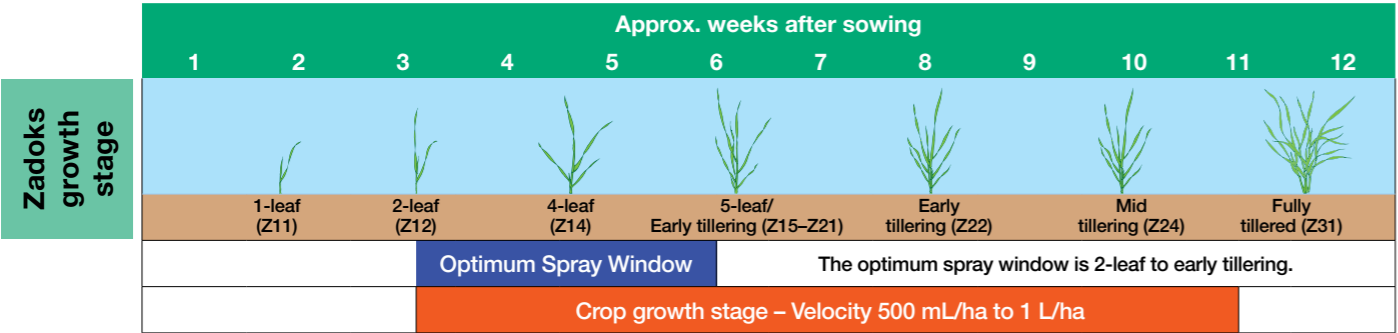
When applying Velocity alone (without a tank-mix partner), one of the following crop oils must be used: Hasten (1% v/v), Uptake® (0.5% v/v) or Supercharge® (0.75% v/v).

Spray set-up

Velocity must be applied with properly calibrated spray equipment because thorough coverage is essential.

- Use a standard low boom sprayer fitted with by-pass or mechanical agitation.

Velocity – optimum crop stage timeline

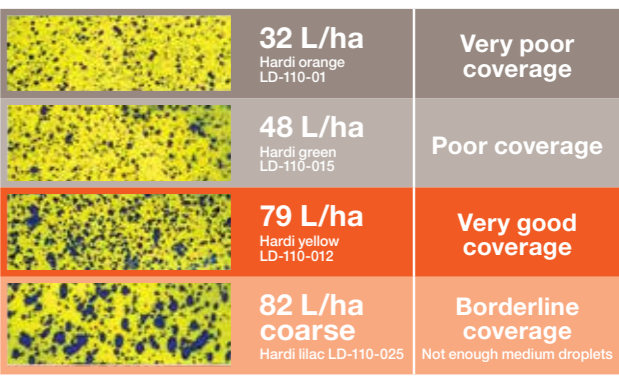


The addition of MCPA LVE to Velocity may assist in increasing control on heavy weed densities or other factors that reduce herbicide coverage on weeds, such as dense crop or stubble. Note that MCPA can only be used from the 3-leaf stage of the crop. Refer to the product label for full details on the use of adjuvants.

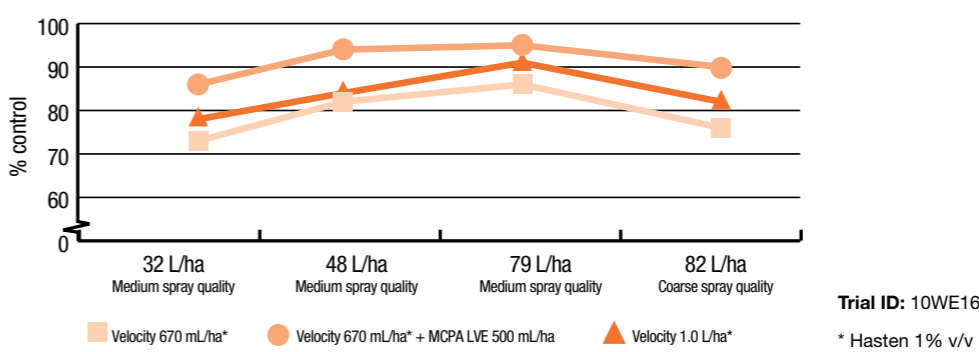
SPRAY QUALITY, WATER RATES AND EFFICACY

Increasing water rates from 50 L/ha to 80 L/ha can increase control when a medium spray quality is used. However, increasing water rates is inefficient if spray quality is not maintained. Coarse droplets can reduce control even at the higher rate of 80 L/ha when compared to a medium spray quality.

When heavy weed densities make it hard to achieve adequate coverage, the addition of MCPA LVE to Velocity can help with translocation of the active to improve control.



RATES OF COVERAGE VS RATES OF CONTROL



GETTING THE RATES RIGHT

The potential for achieving complete spray coverage on target weeds plays a key part in choosing effective application rates and water volumes. Use this table as a guide to appropriate rates, but always read the label for full instructions.

Complete coverage + less than 75 weeds/m²

| Weed stage | Velocity rate/ha | Water rate/ha |
|------------|------------------|---------------|
| 2-leaf | 500–670 mL | 50–150 L |
| 4-leaf | 500–800 mL | 70–150 L |
| 6-leaf | 670 mL–1.0 L | |
| 8-leaf | | |

Complete coverage = when spraying conditions are such that many spray droplets hit all parts of **every target weed**, including the rosette centres and leaves.

Partial coverage OR more than 75 weeds/m²

| Weed stage | Velocity rate/ha | Water rate/ha |
|------------|--|---------------|
| 2-leaf | 670 mL–1.0 L | 50–150 L |
| 4-leaf | 670 mL–1.0 L OR 500–800 mL + 440 mL MCPA LVE (570 g/L)* | 80–150 L |
| 6-leaf | | 90–150 L |
| 8-leaf | | |

Partial coverage = when weeds, crop, stubble or other material shade the target weeds, preventing spray from reaching all parts of the weed leaves and rosettes.

* The addition of MCPA LVE or increased water rates will improve reliability of control in situations where complete spray coverage cannot be achieved. For best results always use a rate that will control the largest weeds present.

RE-CROPPING INTERVALS

These are the label recommendations for minimum re-cropping intervals. Re-cropping intervals may need to be extended in the event of low rainfall (less than 250 mm for winter crops; less than 300 mm for summer crops) or very patchy rainfall.

Application to soils with a pH greater than 8.4 (soil in water) has not been tested and is not recommended. Re-cropping intervals may be reduced on acid soils (pH <7).

| Crop – Winter-sown | Velocity rate applied | Rainfall | Re-cropping interval |
|---|------------------------------------|-----------------|----------------------|
| Wheat, barley, oats, triticale | 1.0 L/ha | Not stipulated | 3 weeks |
| Canola, clover*, chick peas, faba beans*, field peas, lentils*, lucerne, lupins, vetch | 670 mL/ha | At least 250 mm | 9 months |
| Alkaline or neutral soils; canola, chick peas, field peas, lucerne, lupins, vetch | 1.0 L/ha** | | |
| Acid soils (pH<6.5 in water, pH<6.0 in CaCl ₂); canola, chick peas, clover, faba beans, field peas, lentils, lucerne, lupins, medic, vetch | 1.0 L/ha | | |
| Alkaline or neutral soils; lentils, medic Note: On soils with free limestone do not use Velocity above 670 mL/ha unless substantial biomass reduction (medic) or discolouration (lentils, medic) is accepted in areas of boom overlap. | 1.0 L/ha (see note in Crop column) | At least 500 mm | 21 months |

For winter re-cropping, transient biomass reduction or discolouration may occur where re-cropped following Velocity application. When used as directed grain yield is not compromised where transient biomass reduction or discolouration occurs.

* Where Velocity at 670 mL/ha is applied on alkaline soils, re-cropping areas that receive double rates (boom overlaps) may show increased symptoms of damage in crops such as clover, faba beans and lentils. This is generally restricted to discolouration (bleaching) of the crop but may also result in biomass reduction or reduced yields in some situations.

**Where Velocity at 1.0 L/ha is applied on alkaline soils, re-cropping areas that receive double rates (boom overlaps) may show increased symptoms of damage in crops such as canola, field peas, lentils, lupins, medic and vetch. This is generally restricted to discolouration (bleaching) of the crop but may also result in biomass reduction or reduced yields in some situations.

| Crop – Summer-sown | Velocity rate applied | Rainfall | Re-cropping interval |
|-----------------------------|-----------------------|-----------------|----------------------|
| Maize, sorghum | Up to 1.0 L/ha | Not stipulated | 8 weeks |
| Cotton, soybeans, sunflower | Up to 670 mL/ha | At least 300 mm | 14 months |
| Mung beans | Up to 1.0 L/ha*** | | 14 months |
| Cotton, soybeans, sunflower | Up to 1.0 L/ha*** | At least 500 mm | 14 months |

For summer re-cropping, transient biomass reduction or discolouration may occur where re-cropped after Velocity application. When used as directed grain yield is not compromised where transient biomass reduction or discolouration occurs.

***Where Velocity at 1.0 L/ha is applied, re-cropping areas that receive double rates (boom overlaps) may show increased symptoms of damage. This is generally restricted to discolouration (bleaching) of the crop but may also result in biomass reduction in some situations.

TANK-MIXING VELOCITY

Compatible herbicides & adjuvant recommendations

For added grass weed control:

| | |
|---------------|--------------------------------------|
| Achieve® | + Supercharge 0.75% v/v |
| Atlantis® OD | + Hasten 1% v/v |
| Axial® | + Adigor® 0.5% v/v |
| Cheetah® Gold | + Hasten 1% v/v or Uptake 0.5% v/v |
| Decision® | + Hasten 1% v/v or Uptake 0.5% v/v |
| Hussar® OD | + Hasten 1% v/v |
| Topik® | + Hasten 0.5% v/v or Uptake 0.5% v/v |

For added broadleaf weed control:

| | |
|-----------------|---------------------------------|
| Ally® | 5 g/ha + Hasten 1% v/v |
| Hussar® OD | Label rates + Hasten 1% v/v |
| Lontrel® 750 SG | Label rates + Hasten 1% v/v |
| MCPA LVE | up to 500 mL/ha + Hasten 1% v/v |
| Tigrex®* | up to 500 mL/ha + Hasten 1% v/v |

* Increase in crop effect may be observed.

Insecticides & fungicides

Velocity is physically compatible with the following insecticides and fungicides. These products have not been tested for biological compatibility.

| | | |
|-----------------------|-----------------|-------------|
| Insecticide and rate: | Omethoate | Label rates |
| | Fastac® Duo | 240 mL/ha |
| | Decis Options® | Label rates |
| | Dimethoate | 85 mL/ha |
| | Lorsban® 500 EC | 900 mL/ha |

| | | |
|---------------------|-----------------|-----------------|
| Fungicide and rate: | Prosaro® 420 SC | Label rates |
| | Folicur® 430 SC | Label rates |
| | Amistar® Extra^ | up to 800 mL/ha |
| | Tilt® Extra | 500 mL/ha |
| | Opus® 125 EC | 500 mL/ha |

^ Constant agitation required.

Withholding periods

Harvest: Not required when used as directed.
Grazing/Stockfood: DO NOT graze or cut for stockfood for 6 weeks after application.

Refer to the current product label for full details