

# STATICE CONTROL

## TAKE HOME MESSAGES

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### BACKGROUND

Statice, or winged sea lavender (*Limonium lobatum*), is a short-lived perennial which produces light blue flowers between spring and summer, and is moderately tolerant to saline soils. It is not a common weed across most of the Wimmera and Mallee, but in recent years it has become an increasing issue for farmers with red sodic clay loam soils, particularly those who farm within in a band stretching from north of Birchip (Birchip plains) across to Dumosa/Quambatook.

Statice is problematic because it is relatively tolerant to glyphosate and hormone herbicides (such as MCPA ester or amine), making it difficult to eradicate from cropping systems. In dense stands it will compete with the crop and yield losses as high as 20 to 30 per cent can result.

In 2010, BCG found that Velocity®, Precept® and Igran® were best at controlling statice (BCG 2010 Season Research Results). Overall though, not much other research into statice control has been conducted in this region. Motivated by this and increasing grower and agronomist inquiry, BCG, in partnership with AGRIVISION Consultants, attempted to fill this knowledge gap. Once again, a trial was set up to compare the effectiveness of a range of herbicides (and mixes) in controlling statice in the Mallee.

**Note: some of the herbicides used in this trial are not registered for use on barley, and were tested for experimental purposes only. Always read the label and adhere to directions when using herbicides.**

### AIM

To determine the most effective herbicide for use on statice.

### TRIAL DETAILS

|                         |  |
|-------------------------|--|
| Location:               | Marlbed (16km North of Birchip)        |
| Soil type:              | Heavy clay loam with saline constraint |
| GSR:                    | 176mm                                  |
| Crop type:              | Hindmarsh barley                       |
| Herbicides:             | See Table 2                            |
| Spray application date: | 28 August 2013                         |
| Weed growth stage:      | 6-8 leaf (10-15cm)                     |
| Assessment date:        | 16 October 2013 (49 DAA)               |

1  
Velocity®, Igran®, Precept® and Lexone® provided the most effective statice control in barley.

2  
The use of, or addition, of Group G herbicides failed to improve control.

3  
Group C herbicides had varied results. Products containing terbutryn and metribuzin achieved a high level of control, but products containing diuron and bromoxynil did not.

Table 1. Spraying conditions at time of application.

|                   |      |                   |                             |
|-------------------|------|-------------------|-----------------------------|
| Temperature (°C)  | 26   | Water rate (L/ha) | 100                         |
| Humidity (%)      | 32.5 | Nozzle type       | AIXR015                     |
| Wind speed (km/h) | 6    | Pressure          | 2 bar                       |
| Cloud cover (%)   | 30   | soil conditions   | dry topsoil, moisture below |

Table 2. Herbicide treatments used in the trial.

| TREATMENT  | Herbicide groups | Cost (\$/ha) |
|--|------------------|--------------|
| Untreated  |                  |              |
| Affinity Force® @ 85mL/ha + MCPA Amine 500 @ 500ml/ha                    | G, I             | 17.15        |
| Affinity Force @ 65mL/ha + MCPA Amine 500 @ 500ml/ha + Lexone® @ 100g/ha | G, I, C          | 16.83        |
| Conclude™ @ 700mL/ha + Uptake™ @ 0.5% v/v                                | B, I             | 14.00        |
| Diuron® 500 SC @ 500ml/ha + MCPA Amine 500 @ 500ml/ha                    | C, I             | 8.62         |
| Ecopar® @ 400mL/ha + MCPA Amine 500 @ 500ml/ha                           | G, I             | 16.80        |
| Flight® @ 570ml/ha   | F, C, I          | 18.40        |
| Igran @ 500ml/ha + Ally® @ 5g/ha   | C, B             | 11.33        |
| Igran @ 500ml/ha + MCPA Amine 500 @ 500ml/ha                             | C, I             | 13.78        |
| Igran @ 850ml/ha + MCPA Amine 500 @ 500ml/ha                             | C, I             | 21.48        |
| Jaguar® @ 750ml/ha + LVE MCPA 570 @ 400mL/ha                             | F, C, I          | 13.84        |
| Precept @ 500ml/ha + Liase® @ 2%v/v                                      | H, I             | 11.25        |
| Precept @ 750ml/ha + Liase @ 2%v/v                                       | H, I             | 15.13        |
| Precept @ 1000ml/ha + Liase @ 2%v/v                                      | H, I             | 19.00        |
| Precept @ 500ml/ha + Lexone @ 100g/ha + Liase @ 2%v/v                    | H, C, I          | 14.31        |
| Sharpen® @ 26g/ha + Bonza @ 1%v/v  | G                | 22.68        |
| Starane Advanced® @ 300mL/ha + Ally @ 5g/ha + Uptake @ 0.5% v/v          | I, B             | 6.63         |
| Velocity @ 500ml/ha + MCPA LVE 500 @ 500ml/ha + Uptake @ 0.5% v/v        | H, C, I          | 21.53        |
| Velocity @ 500ml/ha + Uptake @ 0.5% v/v                                  | H, C             | 18.75        |
| Velocity @ 670ml/ha + Uptake @ 0.5% v/v                                  | H, C             | 24.11        |

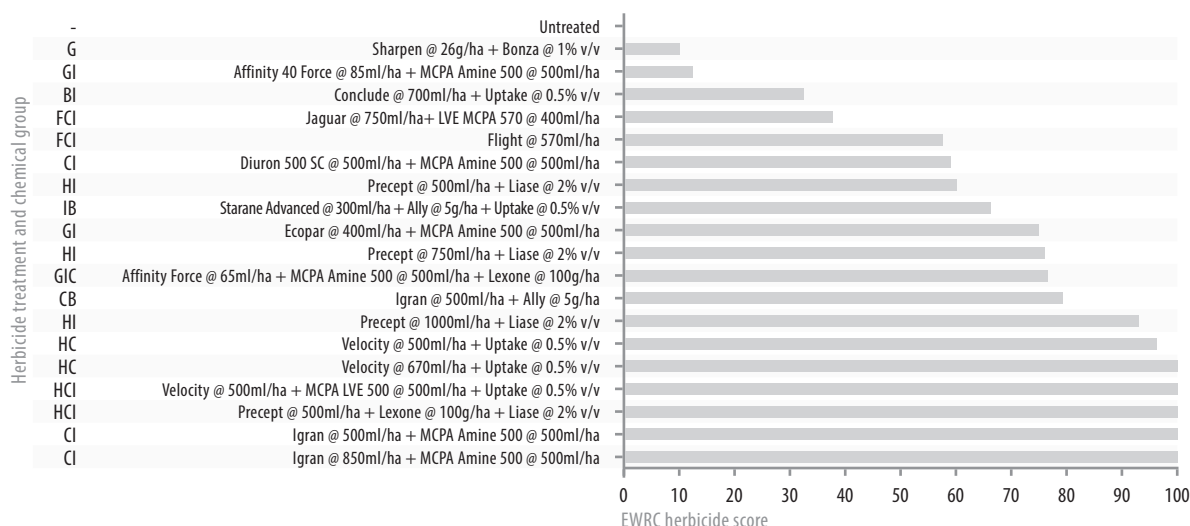
Note: Some of the herbicide treatments may be off label and were used for research purposes only. In 2010, BCG obtained a minor use permit to allow the use of MCPA LVE (a prescribed chemical) to be used for static control. Growers can obtain a copy of this permit for application of MCPA LVE for static control in cereals. **When using herbicides always adhere to label instructions.**

METHOD

The trial was set up in a dense population of static in the 2013 season. The treatments were sprayed with BCG’s trial hand boom using a water rate of 100L/ha to obtain good coverage. The final weed score was achieved using EWRC (European weed research council) scoring system in which 100 is full control and 0 is no control. This was carried out 49 days after application (DAA).

RESULTS AND INTERPRETATION

The herbicides that achieved the most effective static control in this trial were Velocity, Percept and Igran. Velocity was very effective in controlling the weed, achieving a EWRC score of 95 with the low rate (500ml/ha). Additionally, when MCPA was added to the low rate Velocity brew, 100 per cent of the weeds were controlled. Meanwhile, the high rate (670ml/ha) was sufficiently strong to control all of the plants on its own (Figure 1).



**Figure 1. Statice control (%) determined by a EWRC (European weed research council) score completed 49 days after application (DAA).**

Pyrasulfotole (Group H) also seems to be strong on this weed. Pyrasulfotole is the active ingredient in Velocity and Precept herbicides. Both of these herbicides were rate responsive and the addition of Group C (Lexone) greatly improved the efficacy of Precept.

Group C chemicals had variable results within the trial, predominately due to their different active ingredients. Brews that included Igran, with the active ingredient terbutryn, delivered excellent control but Diuron (Diuron), Flight and Jaguar (bromoxynil) were poor performers on the weed.

The performance of Precept and Affinity were greatly improved when Lexone (metribuzin) was added to herbicide brews.

The Group G products tested - Affinity Force and Sharpen (not registered in barley, only use in fallow situation) were ineffective in improving control. After the spray was applied, they delivered an effective knockdown, but it was soon evident that the leaves only had been burnt off and that the main stem continued to grow and produce flowers.

Flight was expected to do better than these results indicate, but the higher rate treatment (720ml/ha) was excluded from the data set due to a spray mishap.

## COMMERCIAL PRACTICE

The findings of this trial support previous studies undertaken by BCG showing that Igran, Velocity and Precept are the preferred choice for controlling statice. This trial showed that use of any of these products provides excellent control. The addition of MCPA Amine not only improved control in most cases, it would also increase the range of broadleaf weed control in the rest of the paddock.

## ACKNOWLEDGEMENTS

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## KEY WORDS

statice, herbicide, weeds

# NOTES

