SPOTLIGHT PLUS® HERBICIDE

Tech Note

Maximising the Performance of Spotlight Plus

Spotlight Plus® is a purpose built horticultural herbicide. With its built-in adjuvant system, the formulation has been designed to maximise efficacy and reduce drift. Spotlight Plus has an excellent toxicological profile, so it is safe to both environment and personnel.

Spotlight Plus improves control of hard-to-kill broadleaf weeds such as marshmallow, when tank-mixed with knockdown herbicides.

Spotlight Plus is also registered for use as a stand-alone product to control suckers on a wide range of crops such as grapevines and olives.

How Does Spotlight Plus Work?

Spotlight Plus is a non-residual, contact herbicide that is readily absorbed by green leaves and stems of broadleaf plants with no translocation within the plant to roots or to other, unsprayed leaves. When used at the label rates, Spotlight Plus has no residual activity from herbicide that falls onto soil.

The active constituent in Spotlight Plus (Carfentrazone-ethyl) is a unique, herbicidal molecule that interacts with the plant's photosynthetic system to form highly active compounds. These compounds rupture the plant cell membranes, resulting in the cell contents leaking out which causes rapid cell death. Because this mode of action is connected with photosynthesis, sunlight is essential for expression of herbicidal activity.

Spotlight Plus is not translocated from where spray lands on susceptible green leaf and stem tissue. Broadleaf species are most sensitive, while grasses are usually unaffected.

Spotlight Plus is classified as a Group G herbicide.

Spotlight Plus Use With Knockdown Herbicides

Spotlight Plus shows robust and consistent control of hard-to-kill broadleaf weeds. Spotlight Plus has excellent compatibility with glyphosate and paraquat based herbicides for broad spectrum tree and vine line weed control.

Spotlight Plus for Desuckering

Spotlight Plus is the only herbicide registered for sucker control in grapevines, olives, plums and other tree crops. It has excellent safety to these crops because the active constituent is not translocated within the plant. However, off-target drift can injure desirable foliage, fruit and stems if standard drift reduction measures are not taken.

Spotlight Plus is faster than manual desuckering, significantly less expensive, requires less (often transient) labour and reduces the risk of disease borne by manual desuckering wounds.

Foreground: Suckers controlled with 300mL/100L Spotlight Plus.
Background: Untreated suckers on vines.

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Grapevine Shoots Treated With Spotlight Plus at 300mL/100L

Untreated

3 days after treatment

14 days after treatment

Optimise the Performance of Spotlight Plus

- Climatic conditions that favour good steady weed or plant growth and hence optimum enzyme activity within the plant cells also favour activity of Spotlight Plus. Conversely, application of Spotlight Plus to plants that are not actively growing due to cold or heat stress or too little or too much moisture can lead to a reduction in control.
- If plants have been moisture stressed, delay application until after rainfall or irrigation and ensure weeds or suckers have resumed steady growth. Weeds don't have to be obviously wilting to be under dry stress which can limit control by Spotlight Plus.
- Spotlight Plus has a rapid rainfast period of only one hour. However, when tank mixed with another herbicide, observe the rainfast period for this e other herbicide as well.
- Ensure that the recommended water volume is applied to give thorough coverage of leaves and stems for optimum control as Spotlight Plus is a contact herbicide.
- When desuckering, the sprayer should be fitted with nozzles that produce a coarse to very coarse spray quality (according to ASAE S572 specifications). Air induction nozzles are preferred and off-centre nozzles are a further means of reducing upwards movement of the spray solution.
- Utilise the excellent compatibility of Spotlight Plus with glyphosate and paraquat based herbicides to alternate modes of action of the knockdown herbicide as a means of preventing weed resistance.
- Use good quality water, preferably in the pH range of 5 – 7. Cold water will not affect the performance of Spotlight Plus.
- Target smaller, young weeds which are usually more susceptible than older, larger weeds. Older, hardened leaves are slower to respond to Spotlight Plus due to reduced enzyme activity.
- Sucker control should be conducted in the early growing season, prior to shoot lignification.

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