Vegetation management

Effectively managing undesirable vegetation contributes to public safety, benefiting many industries and the economy. Non-native species such as invasive weeds impact bio-diversity and are costly to local, state and federal government agencies tasked to manage them.

At the same time, brush and unmanaged vegetation on roadsides and rights-of-ways can impact wildlife, public safety and the delivery of much needed services. Responsible vegetation management is critical in establishing safe work areas, complying with regulations, maintaining infrastructure and preserving agricultural and natural lands in Australia. In particular, vegetation management under powerlines is a critical element in mitigating the risks of fire.

Vegetation management programmes should be proactive and integrated, using several approaches to reach a final goal. Of the many options such as cutting, mowing, and biological control, herbicides play a role in helping to manage invasive plants, weeds, shrubs and trees in utility, roadside, rail, forestry and bareground programmes. Each site requires a unique vegetation management programme, and solutions to address those challenges.

Electricity transmission and distribution

KEEP THE POWER RUNNING

Residents, schools, hospitals, small businesses and corporations trust their respective utility companies to prevent power outages. That's why utility vegetation managers are critical in preventing service interruptions and being ready to restore power quickly if outages occur.

Trees and brush growing into power lines can cause electrical power outages and make utility line maintenance much more difficult and dangerous. In addition, areas around utility substations require a vegetation-free zone to prevent fire hazards and ensure the transfer of electricity. By keeping utility lines clear of overgrown vegetation, line maintenance can be easily conducted while providing reliable power to customers.

Roadside

AVOID EROSION, FLOODING AND LINE-OF-SIGHT PROBLEMS ON ROADSIDES

Weeds and other vegetation like to make their home along roadsides. There are a number of reasons to control this roadside vegetation: motorist safety and line of sight, proper drainage of rainfall, road surface erosion, minimising cover and feed for stray livestock and native animals and preventing the spread of invasive species onto adjacent properties.

It is essential that vegetation does not block traffic signs or roadside markers. Because vegetation can
obstruct driver vision at intersections or block the line of sight around curves, it must be treated and controlled. It is especially important that roadside delineators and traffic signs can be seen in poor conditions to ensure motorist safety. Excessive vegetation also can damage roadbeds by creating erosion, potholes, flooding due to improper road drainage off the surface and other hazards.

**Rail**

**MANAGING WEEDS AND BRUSH TO ENHANCE RAILWAY SAFETY**

Safety and usability are essential for railways. Heavy equipment moves at high speeds along the rails, and unchecked weeds and brush can reduce train traction during starts and stops. Weeds in the track ballast also hold water around timber sleepers, which causes them to rot, increasing chances for derailment accidents. Sparks from the rails also can ignite weeds and brush growing too close to the tracks, which can create a fire hazard and rail corridors need to be managed to prevent the spread of invasive species along corridors and onto adjacent properties.

Trees and regrowth must also be managed to minimise the risk of branches falling across tracks and directly impacting locomotives, rolling stock and, especially, passenger cars. Trees and regrowth can also impact conductors in electrically-powered rail systems.

Brush that obstructs motorists’ views at level crossings is especially dangerous. Controlling it can help avert car/train accidents.

**IVM - Integrated Vegetation Management**

The Best Management Practice guide to Integrated Vegetation Management produced by the Utility Arborists Association defines IVM as a system of managing plant communities in which managers:

- Assess compatible and incompatible vegetation
- Consider action thresholds
- Evaluate control methods, and
- Implement selected control methods to achieve specific objectives where the choice of control methods is based on effectiveness, environmental impact, site characteristics, safety, security and economics.

**Dow AgroSciences and IVM**

Dow AgroSciences is committed to providing the vegetation management industry with solutions to integrated vegetation management issues through a stewardship approach.

Dow AgroSciences IVM Specialists can provide detailed information to answer all your questions about products, most suitable application techniques and safety. Our IVM Specialists also have access to information on the environmental fate of the entire Dow AgroSciences herbicide portfolio.

Our IVM Specialists are available to provide technical training on herbicide selection, correct application, safety and product stewardship.
Product profiles

ACCESS™ HERBICIDE

Profile
Access Herbicide contains the active ingredients picloram and triclopyr, which have activity on a range of broadleaf weeds. Access is classified as a Group I herbicide, with a mode of action where the weed cannot grow due to disruption of plant cell growth.

Applications
Access is registered for selective control of a wide range of woody and noxious weeds in commercial and industrial areas, public lands, fence lines and pastures, by basal bark and cut stump applications.

A new technique to apply Access + diesel has recently been approved for use called ThinLine™ application. The same equipment is used for both techniques – the difference is the height of the stem that needs to be treated and the dilution rate. In Dow AgroSciences field trials, ThinLine application reduces labour costs by almost 50 percent and diesel carrier volume by almost 80 percent.

GRAZON™ EXTRA HERBICIDE

Profile
Grazon Extra Herbicide contains the active ingredients aminopyralid, picloram and triclopyr, which have activity on a range of broadleaf weeds. Grazon Extra Herbicide is classified as a Group I herbicide, with a mode of action where the weed cannot grow due to disruption of plant cell growth.

Applications
Grazon Extra is registered for control of a range of environmental and noxious woody and herbaceous weeds via foliar and broadcast application in agricultural non-crop areas, commercial and industrial areas, forests, pastures and rights-of-way. Once applied, Grazon Extra moves quickly to the tips of growing shoots and roots where the active ingredient disrupts plant growth. The rapid “brown-out” shows where you’ve been helping to ensure full coverage - without losing a season to control weeds. Further details of use can be found in the Direction of Use section on the product label.

Grazon Extra unites the proven combination of picloram and triclopyr from the original Grazon®DS with the highly active new aminopyralid molecule from Dow AgroSciences. On hard-to-kill blackberry (stressed and treated with a herbicide) chosen to test the toughest herbicides, Grazon Extra easily outperformed metsulfuron + glyphosate and outperformed picloram plus triclopyr formulations.
**GARLON™ 600 HERBICIDE**

**Profile**
Garlon 600 Herbicide contains the active ingredient triclopyr, which has activity on a range of broadleaf weeds. Garlon 600 is classified as a Group I herbicide, with a mode of action where the weed cannot grow due to disruption of plant cell growth.

**Applications**
Garlon 600 is registered for selective control of a wide range of woody and noxious weeds in commercial and industrial areas, public lands, fence lines and pastures, by foliar application as well as broadcast, basal bark and cut stump applications.

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**HOTSHOT™ HERBICIDE**

**Profile**
Hotshot Herbicide contains the active ingredients aminopyralid and fluroxypyr, which are members of the pyridine group of herbicides. The product has the disrupters of plant cell growth mode of action. For weed resistance management Hotshot Herbicide is a Group I herbicide.

**Applications**
Hotshot is registered for the control of lantana and certain other pasture weeds in agricultural non-crop areas, commercial and industrial areas, forests, pastures and rights-of-way.

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**STARANE™ ADVANCED HERBICIDE**

**Profile**
Starane Advanced Herbicide contains the active ingredient fluroxypyr, a chemical that has activity on a wide range of broadleaf weeds. Starane Advanced is classified as a Group I herbicide, with a mode of action where the weed cannot grow due to disruption of plant cell growth. Fluroxypyr belongs to the pyridine group of chemicals.

**Applications**
Starane Advanced is registered for foliar, broadcast and basal bark application for woody and herbaceous weeds in agricultural non-crop areas, commercial and industrial areas, forests, pastures and rights-of-way.

Starane Advanced is a non-scheduled poison that's selective to pasture grasses, rainfast within one hour and has minimal impact on desirable species.
TORDON™ REGROWTHMASTER HERBICIDE

Profile
Tordon RegrowthMaster contains aminopyralid, picloram and triclopyr in a formulation specifically developed for stem injection.

Applications
Tordon RegrowthMaster is a new vegetation management tool to assist in thinning regrowth and removing larger trees via stem injection or cut stump/brushcutter application in agricultural non-crop areas, commercial and industrial Areas, forests, pastures and rights-of-way.

Tordon RegrowthMaster delivers much better control of wattle regrowth than the old Tordon Double Strength Herbicide with significantly less root suckering in species where that is common.

The Tordon RegrowthMaster label also references application via EcoBlade® equipment.

STINGER™ HERBICIDE

Profile
Stinger Herbicide is a new vegetation management tool containing aminopyralid and metsulfuron as a granule formulation. The two active ingredients belong to the pyridine group (Group I herbicides) and sulfonyleurea group (Group B herbicides). The product has the disrupters of plant cell growth mode of action (auxin inhibitors) combined with the ALS inhibition mode of action.

Defoliation of regrowth may take several weeks depending on growth conditions at time of application and final results can take 18 months.

Applications
Apart from blackberry and gorse, the label covers 41 other weeds via application techniques including high volume, boom spray, aerial (helicopter only), low volume high concentrate (gas gun) and use in tolerant grass pastures/pasture renovation. Additionally there are rights-of-way applications registered.

Apart from the better control provided by the aminopyralid (the same powerful active ingredient found in Grazon™ Extra and Hotshot™), Stinger gives much faster browning than metsulfuron making it easier to see where bushes have been previously treated. Stinger has also shown good activity on secondary weeds like thistles and broom, which often invade after the primary weed has been displaced.

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