Dow AgroSciences...

PROVIDING SOLUTIONS TO MULTIPLE MARKETS

Electric Utility  Roadside  Noxious Weed & Invasive Plant  Railroad  Industrial Sites

Wildlife Management Areas  Natural Areas  Forestry  Gas & Pipeline  Aquatics
What is INTEGRATED VEGETATION MANAGEMENT

A system of managing plant communities to achieve specified objectives, including selecting and implementing various control methods, monitoring results, and continually improving processes.

Methods of control are likely to include a combination of vegetation management practices. This type of systematic approach has been proven through years of research and operational experience to be an economically, ecologically, and socially responsible strategy for managing vegetation and creating biodiversity in animal, plant and pollinator habitats. As the world’s population and demands on our infrastructure and natural resources continue to grow, Dow AgroSciences is committed to bringing sustainable, innovative solutions to market to meet these increased challenges.

Dow AgroSciences is the industry leader when it comes to providing integrated vegetation management solutions. We have played an active role in the vegetation management business for more than 50 years with a proven record of providing intelligent, sustainable solutions to vegetation managers within non-crop areas such as electric utility and gas pipelines, roadside transportation, municipalities, railroads, noxious weed and invasive plant management, forest and wildlife management, and industrial sites. In addition to bringing industry leading technology to market, Dow AgroSciences is committed to environmental stewardship, safety, and sustainable vegetation management practices.

Choosing the appropriate application technique(s) to fit a particular vegetation management project can be a challenge unto itself. As you develop and evaluate your unique vegetation management program, consult with your local Dow AgroSciences representative for assistance with selecting the appropriate application technique(s) and product(s) based on your vegetation management objectives.
Integrated Vegetation Management Solutions

- Basal Bark
- Chemical Mowing
- Chemical Side Trimming
- Cut Stubble
- Cut Surface
- Dormant Stem
- Foliar
- Total Vegetation Control

Contact your local sales representative to learn how these solutions can benefit your program.
**Solutions**

**Basal Bark** - Individual Plant Treatment (IPT) type of treatment used to control trees, shrubs, and vines up to 6 inches in diameter. This treatment uses an oil based herbicide and carrier which is highly selective resulting in minimal impact to adjacent desirable vegetation.

**Chemical Mowing** - Broadcast Treatment (BT) type of treatment applied to unimproved turf such as roadside rights-of-way or airports designed to reduce mowing frequency by regulating grass growth and controlling broadleaf weeds.

**Chemical Side Trimming** - (IPT) or (BT) treatment used to control limbs encroaching on a rights-of-way such as utility, gas & pipeline, or roadside. The portion of the shrub or tree not treated remains unaffected by the treatment. Much more efficient than mechanical methods and increases the time between cycles that limb removal is required. This method of application works as a safety measure to keep signs and roadsides clear and to reclaim grass areas that may have been shaded by low hanging limbs.

**Cut Stubble** - (BT) type of treatment applied to the remaining stubble left behind after a mowing operation. Persistent herbicides are an essential part of the mixture as the treatment relies on soil activity (through root uptake) to control the targeted woody plant species.

**Cut Surface**

**Cut Stump** - (IPT) used on any size woody stem to control re-sprouts after a hand-cutting operation. This treatment uses water soluble herbicides which should be applied to the cut surface immediately after hand-cutting. This treatment protects the initial cutting investment by reducing or eliminating future maintenance costs.

**Basal Cut Stump** - (IPT) used on any size woody stem to control re-sprouts after a hand-cutting operation. This treatment uses oil soluble herbicides which can be applied any time after hand-cutting and is applied to the cut surface and remaining bark. This treatment protects the initial cutting investment by reducing or eliminating future maintenance costs.

**Injection and Frill** - (IPT) commonly referred to as a hack and squirt treatment. Used to control any tree or shrub 2 inches or greater in diameter by applying the herbicide mixture directly into the vascular tissue of target plant.
Dormant Stem - (IPT) or (BT) used to extend the brush control season beyond the foliar season, minimize brown-out, and control brush around sensitive sites such as crops and certain urban/suburban environments.

Foliar - (IPT) or (BT) generally the most widely used among all treatment options and may be applied either as a broadcast or directed, spot treatment. This treatment is applied to the foliage of the target vegetation and can be used to control any combination of grasses, sedges, broadleaf weeds, and woody plants based on herbicide selection and/or application method.

Total Vegetation Control - (BT) used in areas where vegetation-free zones are desired for extended periods of time. Sites may include areas such as fence lines, railways, utility substations, pole yards, industrial sites, telecommunication pads, concrete crack and crevices such as concrete road barriers, bridge ends, curbs, and parking lots.

(IPT) Individual Plant Treatment
(BT) Broadcast Treatment
*Please refer to chart on next page for suggested treatment timing.
# Timing

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<th>Broadcast Treatment</th>
<th>Treatment Method</th>
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<sup>1</sup> Timing may vary slightly based on geography and climatic conditions

<sup>2</sup> Avoid treatment during periods of spring sap flow
As weed and brush species become more diverse, knowing which product to use at what time can be a challenge. Along with differing criteria such as stem height and density, target species, proximity to sensitive areas, growing season, and crew availability, it becomes essential to understand your options.

At Dow AgroSciences, we're committed to developing innovative methods and effective solutions that match your vegetation management needs. You can be confident you'll find the perfect herbicides to battle whatever vegetation management problems you face.
A convenient high-load glyphosate formulation featuring the industry's best surfactant package for quick, complete burndown. Offers non-selective control of annual, biennial, and perennial weeds, vines, and woody plants.

*Active Ingredient:* Glyphosate

Provides fast knockdown with effective, long lasting residual control of susceptible broadleaf weeds and small woody plants including many noxious, invasive plant species.

*Active Ingredients:* Aminopyralid + Triclopyr

Offers pre-emergence or early post-emergence control of broadleaf weeds and annual grasses as well as certain woody brush seedlings. Excellent tank mix partner for total vegetation control treatments and selective weeding within roadside applications. Demonstrated tolerance to a variety of conifer species.

*Active Ingredients:* Penoxsulam + Oxyfluorfen

Cost effective broadleaf weed control. Great tank mix partner to broaden spectrum of control. Full aquatic label.

*Active Ingredient:* 2, 4-D
The industry standard for basal cut-stump, basal bark and dormant stem treatments. Excellent choice for difficult to control coastal plain species such as yaupon, wax myrtle, and gallberry. Delivering excellent broad-spectrum control of woody plants. 

**Active Ingredient:** Triclopyr ester

Controls unwanted broadleaf weeds, brush and trees beneath electrical power lines, along railroad beds, roadsides, pipelines, in forestry and wildlife openings, including grazed areas on these sites. 

**Active Ingredient:** Triclopyr amine

The most flexible herbicide available for the forest manager in creating and maintaining wildlife habitat, managing encroaching roadside brush, site preparation, mid-rotation release, and pine straw management. With the greenest and most concentrated formulation in the industry, it’s the perfect solution for sustainable forestry initiatives.

**Active Ingredient:** Triclopyr ester
One of the broadest spectrum vegetation control products on the market. Controls more than 175 broadleaf weeds, vines, and woody plants. A perfect complement to pre-emergent grass control herbicides in total vegetation control programs, it can also be used for seed head suppression and selective weeding in many situations.

*Active Ingredients:* Aminopyralid + Metsulfuron
Convenient, ready-to-use herbicide solution for basal bark and cut-stump treatments.

**Active Ingredient:** Triclopyr

**Pathfinder**

Convenient, ready-to-use cut-surface herbicide offers long-term control of most woody plants. Not restricted use.

**Active Ingredients:** 2, 4-D + Picloram

**Pathway**

Non-selective control of annual, biennial, and perennial weeds, vines, and woody plants. Excellent tank mix partner. Frequently used in custom blends and approved for use in riparian and aquatic sites.

**Active Ingredient:** Glyphosate

**Rodeo**

Total vegetation control in a convenient dry-flowable formulation, offering season-long performance for bareground sites.

**Active Ingredient:** Tebuthiuron

**Spike**

**80DF**
A foundation herbicide for cut stubble applications. Tordon K provides broad spectrum woody plant control without harming native grasses.

*Active Ingredient:* Picloram

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Controls broadleaf weeds and certain woody plant species with excellent selectivity, allowing for use over the top of many conifers and hardwood species.

*Active Ingredient:* Clopyralid

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Provides a solid foundation for your brush control program and offers the flexibility to be utilized in a wide array of other applications. Exhibiting no residual soil activity, this essentially non-volatile product can be used in nearly any situation calling for grass-safe brush and broadleaf weed control.

*Active Ingredient:* Triclopyr choline

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Selective, high-load herbicide formulation. Providing excellent control of kochia, dogfennel, pricklypear cactus, and sericea lespedeza.

*Active Ingredient:* Fluroxypyr
# Product Use

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<th>Product</th>
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| Vastlan            | ●    | ●        | ●          | ●          | ●       | ●          | ●             |                   | ●       |*
| Vista XRT          | ●    |           | ●          | ●          | ●       | ●          | ●             |                   | ●       |

*Follow labeled aquatic use sites
State restrictions on the sale and use of Accord XRT II apply. When treating areas in and around roadside or utility rights-of-way that are or will be grazed, hayed or planted to forage, important label precautions apply regarding harvesting hay from treated sites, using manure from animals grazing on treated areas or rotating the treated area to sensitive crops. See the product label for details. State restrictions on the sale and use of Capstone apply. State restrictions on the sale and use of Garlon 4 Ultra apply. Graslan and Tordon are federally Restricted Use Pesticides. When treating areas in and around roadside or utility rights-of-way that are or will be grazed, hayed or planted to forage, important label precautions apply regarding harvesting hay from treated sites, using manure from animals grazing on treated areas or rotating the treated area to sensitive crops. See the product label for details. State restrictions on the sale and use of Milestone, Spike 80DF and Transline apply. Opensight is not registered for sale or use in all states. Spike 80DF is registered for range and pasture use only in AL, KS, LA, MO, MS, NM, OK and TX. Consult the label before purchase or use for full details. Vastlan and Cleantraxx are not registered for sale or use in all states. Contact your state pesticide regulatory agency to determine if a product is registered for sale or use in your state. The information presented here is to provide technical information only and is not an offer for sale of product. ©2016 Dow AgroSciences LLC