



Restore. Improve. Protect.

As a vegetation manager, you face the daily challenge of controlling unwanted brush, trees, grass, weeds and insects in a sustainable manner. You must balance good stewardship of your lands while managing vegetation that can outcompete native plants, create safety hazards, and prevent healthy growth of productive forestland. That's a tall order.

BASF is committed to helping you fulfill your promise to protect the environment. In partnership with the land, we work with vegetation management professionals to create innovative, sustainable, and effective solutions that improve safety, timber production and return on investment while restoring, improving, and protecting natural habitats.

The full portfolio of BASF Professional Vegetation Management products work together to provide long-term control of unwanted plants and insects, which facilitates safer public and workplace environments in addition to increasing wildlife food sources, decreasing forest fire risks, and supporting native plant health.

Whether your charge is to safely keep railroads, roadsides and rights-of-way clear, or manage pasture/rangeland, industrial bareground, aquatic environments, solar farms or timberland, you can trust the BASF brand for effective, environmentally sustainable solutions for efficient, long-lasting vegetation control.

Arsenal® Applicators Concentrate

Herbicide

Herbicide Group:

2

Mode of Action:

Acetolactate synthase (ALS) inhibitor
Systemic activity

Active Ingredient:

Imazapyr

Signal Word:

Caution

Formulation:

Soluble liquid

Use Rates:

12-32 fl. oz. per acre

Application Timing:

Pre and post emergent with residual activity

PPF:

Long-sleeved shirt and long pants; shoes plus socks; chemical-resistant gloves

REI:

48 hours

Packaging:

2x2.5 gallon, bulk and custom package 30-gallon 260-gallon Custom packaging, and custom blends Arsenal® Herbicide Applicators Concentrate (Arsenal AC) delivers broad spectrum, long-term control of competing vegetation before and after planting, and boosts pine survival and healthy growth throughout the forest lifecycle. By freeing growing pines from the herbaceous weeds, grasses, vines and hardwood brush that compete for sunlight, moisture, nutrients and root space, Arsenal AC promotes healthier stands, faster growth, larger merchantable volumes, and higher returns on timberland investment.

With registration for all terrestrial vegetation management and aquatic use, **Arsenal AC** provides control of unwanted vegetation in aquatic sites, as well as forestry and industrial sites. **Arsenal AC** provides benefits throughout the pine life cycle, controlling key vegetation such as sweet gum, oak, maple, privet, cogongrass, bermudagrass, phragmites and saltcedar.



For site preparation and in the critical first and second growing seasons after planting, **Arsenal AC** boosts seedling survival and growth rates, more than doubling the early pine volume growth after a single treatment. In young pine stands, **Arsenal AC** can boost merchantable volumes by as much as 30% or more by controlling hardwood brush that keeps them from flourishing. As a mid-rotation application, **Arsenal AC** clears hardwood brush that can prevent pines from reaching maximum size and market value, yielding an estimated average potential rate of return of over 11% per year over 10 years.



Arsenal AC promotes sustainability. By clearing the forest floor of low quality hardwood brush, it helps the growth of plants favored by a variety of wildlife. The active ingredient in **Arsenal AC** works on an enzyme found only in plants—not humans, animals, birds or fish. Studies show that once applied, **Arsenal AC** moves just inches in the soil. Plus, when used as directed, it won't harm young pines or wildlife food sources.

Chopper® Gen2™ Herbicide



Chopper® Gen2™ herbicide provides quick, effective, long-term control of a broad spectrum of annual and perennial broadleaf weeds and grasses, as well as troublesome vine and brush species in forestry sites. **Chopper Gen2** herbicide is the leading forestry product for site preparation and hardwood control in mid-rotation stands with application below the pine canopy (mid-rotation release). It also offers the flexibility of a leaf-on to leaf-off application window.

Chopper Gen2 herbicide features exclusive Transport Technology from BASF, which increases control by allowing more of the active ingredient to get into the plant. This increased active ingredient uptake makes **Chopper Gen2** herbicide the product of choice under stress conditions like drought. Key vegetation controlled includes sweet gum, oak, maple, privet, cogongrass and bermudagrass.

Perfect for site prep, **Chopper Gen2** herbicide is also excellent for mid-rotation release on land that did not receive proper site preparation. An understory mid-rotation release treatment with **Chopper Gen2** herbicide helps eliminate hardwood brush and allows established pines access to more nutrients, root space and sunlight, improving long-term growth rates.

Studies show **Chopper Gen2** herbicide can help improve wildlife habitat and biodiversity. When sunlight is able to reach the forest floor, wildlife-preferred food sources like blackberries, forbs and legumes flourish. **Chopper Gen2** herbicide helps promote growth and re-colonization of desirable, native plants that enhance wildlife and pollinator habitat.

Herbicide Group:

2

Mode of Action:

Acetolactate synthase (ALS) inhibitor
Systemic activity

Active Ingredient:

Imazapyr

Signal Word:

Caution

Formulation:

Soluble liquid

Use Rates:

24-64 fl. oz. per acre

Application Timing:

Post emergent with residual activity

PPE:

Long-sleeved shirt and long pants; shoes plus socks; chemical resistant gloves

REI:

48 hours

Packaging:

2x2.5 gallon, bulk and custom package



Detail®

Powered by **Kixor**[®] Herbicide

Herbicide Group:

14

Mode of Action:

Protoporphyrinogen-oxidase (PPO) inhibitor

Active Ingredient:

Saflufenacil

Signal Word:

Caution

Formulation:

Suspension concentrate

Use Rates:

1-6 fl. oz. per acre or 0.25% v/v for spot treatments or backpack applications

Application Timing:

Post emergent for quick burndown

PPE:

Long-sleeved shirt and long pants; shoes plus socks; chemical resistant gloves; protective eyewear

REI:

12 hours

Packaging:

2x1 gallon



Detail® herbicide is a versatile management tool for wilding pine control, vegetation control and management in forestland. Count on **Detail** herbicide for quick burndown of broadleaf weeds and wildling pine. **Detail** herbicide can also be used for hardwood and conifer plantation site preparation.

The active ingredient in **Detail** herbicide is a mode of action that effectively controls existing weeds, including those that have developed a resistance to other commonly used herbicides, including glyphosate, ALS inhibitors and phenoxy herbicides. It also speeds the burndown of existing weeds without disrupting translocation to the roots. An excellent tank-mix partner with many commonly used herbicides, including **Arsenal® AC** herbicide, **Chopper® Gen2™** herbicide, **Frequency®** herbicide, glyphosate and phenoxy herbicides, **Detail** herbicide increases spectrum of control, including excellent broadleaf, volunteer pine and juvenile hardwood control, all at low use rates.

Detail herbicide provides selective weed control and forest roadside trimming, particularly when tank-mixed with commonly used herbicides that don't impact grass species. **Detail** herbicide effectively manages a variety of difficult weeds, including kochia, Russian thistle, common and giant ragweed, lambsquarter, marestail, pigweed and waterhemp.



Finale® XL F-VM

Herbicide

Finale® XL F-VM is a non-selective, contact herbicide from BASF with an enhanced active ingredient and superior adjuvant loaded formulation. It has pinpoint accuracy and delivers fast control of the toughest weeds at lower use rates than prior formulations. It is the perfect tool for emerged annual and perennial grasses, brush, hardwood, conifer and broadleaf weeds, including terrestrial and riparian invasive and noxious weeds.

Finale XL F-VM herbicide is a great alternative to glyphosate products. Contact activity allows for worry-free, precision edging and minimal off-target issues. Weed growth is stopped within hours-to-days of application with faster symptomology, particularly during warm weather.



Herbicide Group:

10

Mode of Action:

Inhibitor of glutamine synthetase Contact activity

Active Ingredient:

Glufosinate-ammonium

Signal Word:

Danger

Formulation:

Soluble concentrate

Use Rates:

27 to 82 fl. oz. per acre*

Application Timing:

Post emergent

PPE:

Long-sleeved shirt and long pants; shoes plus socks; chemical resistant gloves; protective eyewear

REI:

12 hours

Packaging:

2 x 2.5 gal and 1 x 30 gal

*Use-rate range is a function of the size of the weed; maximum rates are for large weeds and brush and perennial grasses. Add NIS and/or AMS for better control of perennial grasses, brush, and large weeds.



PTM[™] Insecticide

Insecticide Group: 2B

Mode of Action: GABA-gated chloride channel blocker

Active Ingredient: Fipronil

Signal Word: Caution

Formulation:
Suspension concentrate

Use Rates:

21 fl. oz. per acre

PPE:

Long-sleeved shirt and long pants; shoes plus socks; chemical-resistant gloves

REI: 24 hours

Packaging: 4 x 20 fl. oz.

PTM[™] insecticide tackles the most common insect pest in young pine plantations: the Nantucket pine tip moth. In addition to Nantucket pine tip moth control, **PTM** insecticide effectively manages leaf cutter and red imported fire ant along with pine bark aphid. All these pests can hinder tree production and cut in to profitability. In loblolly pine stands affected by tip moths, every tree is likely to be attacked at least once a year.

Although tip moths rarely kill a tree, the trees often develop forked stems, resulting in less valuable wood. Tip moth attacks can also slow the growth of trees, increasing the rotation length of infested pines.

Fortunately, **PTM** insecticide can help. Unlike other tip moth insecticides, which must be sprayed repeatedly on young pines, **PTM** insecticide is a one-time-use product that is injected into the soil, into the rootball, or into the roots of a container-grown pine seedling. For the same level of control as a single application of **PTM** insecticide, other products need to be sprayed as many as five times a year for multiple years.





Arsenal[®]

Herbicide

Arsenal® herbicide provides long-term control of a broad spectrum of troublesome weeds and woody vegetation, even when applied at low rates. Since **Arsenal** herbicide is an ALS inhibitor, it effects an enzyme only found in plants. This enzyme is not present in humans, animal, birds, or fish, which helps manage public concerns and wildlife habitats at the same time. The active ingredient in **Arsenal** herbicide is absorbed through the roots, stems and leaves of targeted plants and inhibits amino acids essential for growth. This eliminates the plant down to the root and prevents re-sprouting, eliminating re-treatments and saving money on treatment, labor and mowing costs. **Arsenal** herbicide is selective and promotes the growth of forbs favored by wildlife to help increase plant diversity and forage.



Herbicide Group:

2

Mode of Action:

Acetolactate synthase (ALS) inhibitor

Signal Word:

Caution

Formulation:

Soluble liquid

Use Rates:

16-64 fl. oz. per acre

Application Timing:

Pre and post emergent with residual activity

PPE:

Long-sleeved shirt and long pants; shoes plus socks; chemical-resistant gloves made of waterproof material

REI:

48 hours

Packaging:

2x2.5 gallon and custom package

Arsenal® Powerline

Herbicide

Arsenal® Powerline herbicide with Transport Technology is a unique formulation that provides superior, long-term control of undesirable vegetation in utility, roadside, rights-of-ways and railroad settings. It controls a broad-spectrum of troublesome vines, brush and tree species, grasses, and broadleaf weeds. The chemistry of **Arsenal Powerline** herbicide accelerates absorption and translocation of the active ingredient through the plant. That translates to improved performance and more consistent control.



Herbicide Group:

2

Mode of Action:

Acetolactate synthase (ALS) inhibitor

Signal Word:

Caution

Formulation:

Soluble liquid

Use Rates:

16-64 fl. oz. per acre

Application Timing:

Post emergent with residual activity

PPE:

Long-sleeved shirt and long pants; shoes plus socks; chemical resistant gloves

REI:

48 hours

Packaging:

2x2.5 gallon, bulk and custom

Detail®

Powered by Kixor® Herbicide

Detail® herbicide is a versatile management tool for quick burndown, confier control, selective weeding and resistant weed management on industrial bareground sites, utility substations, roadsides, railroads, and utility rights-of-way. When tank mixed with commonly used herbicides that do not control grasses, **Detail** herbicide manages a variety of difficult to control weeds, including common and giant ragweed, common sunflower, eastern red cedar, kochia, lambsquarter, marestail, pigweed, Russian thistle, waterhemp and leafy spurge. **Detail** herbicide will also control glyphosate resistant weed species.



Herbicide Group:

14

Mode of Action:

Protoporphyrinogen-oxidase (PPO) inhibitor

Active Ingredient:

Saflufenacil

Signal Word:

Caution

Formulation:

Suspension concentrate

Use Rates:

1-2 fl. oz. per acre or 0.25% v/v for spot treatments or backpack applications

Application Timing:

Post emergent for quick burndown

PPE:

Long-sleeved shirt and long pants; shoes plus socks; chemical resistant gloves; protective eyewear

REI:

12 hours

Packaging:

2x1 gallon

Finale® XL F-VM

Herbicide

Finale® XL F-VM herbicide is a fast acting, non-selective contact herbicide that has a unique mode of action for hard to control weeds, including glyphosate- and sulfonylurearesistant species such as marestail, fleabane, and pigweed. Rainfast in a quickly as 30 minutes, **Finale XL F-VM** herbicide adds confidence to broad-spectrum control, putting an end to your most difficult weed challenges.



Herbicide Group:

10

Mode of Action:

Inhibitor of glutamine synthetase

Active Ingredient:

Glufosinate-ammonium

Signal Word:

Danger

Formulation:

Soluble concentrate

Use Rates:

27 to 82 fl. oz. per acre*

Application Timing:

Post emergence

PPE

Long-sleeved shirt and long pants; shoes plus socks; chemical resistant gloves; protective eyewear

REI:

12 hours

Packaging:

2 x 2.5 gal and 1 x 30 gal

*Use-rate range is a function of the size of the weed; maximum rates are for large weeds and brush and perennial grasses. Add NIS and/or AMS for better control of perennial grasses, brush, and large weeds.

Frequency®

Herbicide

Frequency® herbicide features a mode of action that effectively controls PREand POST-emergent weeds. **Frequency** herbicide's differentiated mode of action enables a tool to combat herbicide resistance and control weeds that have already developed resistance to other commonly used herbicides. **Frequency** herbicide provides a management tool for non-crop sites including industrial bareground, utility substations, roadsides, and railroads. It provides excellent broadleaf and warmseason grass control at 4 to 16 oz per acre. **Frequency** herbicide effectively controls barnyard grass, crabgrass, fall panicum, foxtails, goosegrass, kochia, lambsquarter, marestail, pigweed, prickly lettuce, ragweed, Russian thistle, smartweed, sunflower and waterhemp.

Mix **Frequency** herbicide with other bareground products, including **Arsenal®** branded herbicides and **Plateau®** herbicide, to improve spectrum of control. **Frequency** herbicide does not antagonise tank mix partners, has limited soil mobility, is non-volatile, and works in early and late-season applications.



Herbicide Group:

27

Mode of Action:

Hydroxyphenylpyrovate dioxygenase (HPPD) inhibitor

Active Ingredient:

Topramezone

Signal Word:

Caution

Formulation:

Suspension concentrate

Use Rates:

4-16 fl. oz. per acre; post-emergent applications require a MSO at 1% v/v

Application Timing:

Pre and post emergent with residual activity

PPE:

Long-sleeved shirt and long pants; shoes plus socks; chemical resistant gloves; protective eyewear

REI:

12 hours

Packaging:

2x1 gallon



Overdrive®

Herbicide

Herbicide Group:

19 + 4

Mode of Action:

Indoleacetic acid (IAA) transport inhibitor

Active Ingredient:

Diflufenzopyr + Dicamba

Signal Word:

Caution

Formulation:

Wettable granule

Use Rates:

4-8 fl. oz. per acre

Application Timing:

Post emergence

PPE:

Long-sleeved shirt and long pants; shoes plus socks; chemical resistant gloves

REI:

24 hours

Packaging:

4x7.5 lb

Overdrive® herbicide is an effective post-emergent tool for controlling annual, perennial and biennial broadleaf weeds in key non-crop areas, including roadside, pasture/rangeland areas, industrial facilities and utility substations. It provides fast, long-term control of key weeds, including bull thistle, Canada thistle, kochia, marestail, musk thistle, pigweed, plumeless thistle, prickly lettuce, Russian thistle and scotch thistle.



Ideal for use where cost-effective control of tough weeds is critical, **Overdrive** herbicide delivers strong performance along guardrails, medians and rights-of-way, and provides an ideal complement or alternative to existing roadside vegetation management strategies.

A fast-acting product that provides broad-spectrum broadleaf weed control, **Overdrive** herbicide is highly effective in touch-up or burndown treatments of key bareground sites that must remain weed free. In general, a rate of 4 to 8 oz per acre is recommended to provide control across a broad spectrum of undesirable plant species, affecting weeds in various stages and sizes. Because it can be applied in low use rates, **Overdrive** herbicide helps reduce application costs and increase weed control effectiveness, while still providing long-term control of broadleaf weeds. **Overdrive** herbicide is a great mix tank partner for auxin-based products like Plateau herbicide. When used in combination, it provides synergistic control of critical weeds such as leafy spurge.



Plateau®

Herbicide

Plateau® herbicide provides long-term growth regulation through seedhead supression of common roadside grasses like bermudagrass, tall fescue, Bahiagrass and smooth bromegrass, as well as control of invasive and noxious species like leafy spurge and cheatgrass, **Plateau** herbicide also helps establish and release native grasses and wildflowers.



Plateau herbicide reduces mowing costs by regulating growth and providing seedhead suppression on solar farms, road shoulders, medians and underneath guardrails and guide rails. It also controls undesirable grasses and broadleaf vegetation. **Plateau** herbicide provides soft residual bareground control without concern for damaging desirable warm season grass root systems in treated areas. An efficient, versatile and reliable tool, it also enhances roadside aesthetics.

Plateau herbicide effectively controls invasive weeds such as cheatgrass, medusahead and other annual weeds that serve as hazardous fuels that cause wildfires to burn more intensely.

Plateau herbicide selectively controls leafy spurge while releasing several native warm-season grasses that offer beneficial forage quality, such as big bluestem, little bluestem and Indiangrass as well as other tree, brush, wildflower, and legume species. **Plateau** herbicide can begin to turn unproductive rangeland into quality forage for cattle.

Herbicide Group:

2

Mode of Action:

Acetolactate synthase (ALS) inhibitor

Active Ingredient:

Imazapic

Signal Word:

Caution

Formulation:

Aqueous solution

Use Rates:

2-12 fl. oz. per acre

Application Timing:

Post emergence

PPE:

Long-sleeved shirt and long pants; shoes plus socks; chemical resistant gloves

REI:

12 hours

Packaging:

2x1 gallon, bulk and custom package



Stalker®

Herbicide

Herbicide Group:

2

Mode of Action:

Acetolactate synthase (ALS) inhibitor

Active Ingredient:

Imazapyr (formulated to mix with oil)

Signal Word:

Caution

Formulation:

Aqueous solution readily mixable with basal carriers

Use Rates:

See product label for details

PPE:

Long-sleeved shirt and long pants; shoes plus socks; chemical resistant gloves

REI:

12 hours

Packaging:

250-gallon and custom blends

Stalker® herbicide contains the same active ingredient as **Arsenal®** herbicide, but is formulated to be readily mixable in water or oil carriers for injection, basal bark, cut stump, cut surface and cut stubble applications. **Stalker** herbicide provides broad-spectrum hardwood brush control while helping reduce retreatment all year.



Because **Stalker** herbicide is effective at low rates, less active ingredient is required for control. It can reduce the total active ingredient applied per acre by as much as 50% compared to other herbicides.

Rely on **Stalker** herbicide for long-lasting brush control in utility and roadside rights-of-way, fence rows, storage areas, non-irrigation ditch banks and other non-cropland areas.

Key weeds controlled include hickory, oak, privet, tallow-tree, red maple, sassafras, sumac, sweetgum, tree of heaven and yellow poplar.



Overdrive®

Herbicide

Overdrive® herbicide is an effective post-emergent tool for controlling annual, perennial, and biennial broadleaf weeds in rangeland and pasture areas. In most cases, Overdrive herbicide can be applied at a rate of 4 to 8 oz. per acre to provide control across a broad spectrum of undesirable plant species at various stages and sizes. It provides fast, long-term control of key weeds, including various thistles, dalmatian toadflax, common cocklebur, kochia, prickly lettuce, pigweed, common ragweed, wild carrot (Queen Anne's lace), musk thistle, dandelion, and milkweed. When tank-mixed with auxin-based products like Plateau™ herbicide, the combination produces synergistic control of leafy spurge. Since it can be applied at low use rates, Overdrive herbicide helps reduce application costs and increases weed control effectiveness, while still providing fast-acting and long-term control.



Herbicide Group:

19 + 4

Mode of Action:

Indoleacetic acid (IAA) transport inhibitor

Active Ingredient:

Diflufenzopyr + Dicamba

Signal Word:

Caution

Formulation:

Wettable granule

Use Rates:

4-8 oz. per acre

Application Timing:

Post emergence

PPE:

Long-sleeved shirt and long pants; shoes plus socks; chemical resistant gloves

REI:

24 hours

Packaging:

4x7.5 lb



Plateau®

Herbicide

Herbicide Group:

2

Mode of Action:

Acetolactate synthase (ALS) inhibitor

Active Ingredient:

Imazapic

Signal Word:

Caution

Formulation:

Aqueous solution

Use Rates:

2-12 fl. oz. per acre

Application Timing:

Post emergence

PPE:

Long-sleeved shirt and long pants; shoes plus socks; chemical resistant gloves

REI:

12 hours

Packaging:

2x1 gallon, bulk and custom package

Plateau® herbicide effectively controls invasive weeds like cheatgrass, medusahead, and other annual weeds that serve as hazardous fuels that cause wildfires to burn more intensely.

Plateau herbicide selectively controls leafy spurge wile releasing several native warm-season grasses that offer beneficial forage quality, such as big bluestem, little bluestem, and Indiangrass as well as other tree, brush, wildflower, and legume species. **Plateau** herbicide can turn unproductive rangeland into quality forage for cattle through control of common cocklebur, pigweed, wild carrot (Queen Anne's lace), dandelion, and musk thistle.





Colorfast

Spray Indicator

Highly concentrated **Colorfast** Purple water soluble spray indicator makes vegetation control applications easy to see with a small amount of product. **Colorfast** leaves a brilliant-colored mark on treated surfaces to clearly indicate where product was applied, preventing expensive overlapping that can waste pesticide and time. Under most conditions, the colored mark will last several weeks.

Use Rates:

2 to 6 fl. oz. per 100 gallons of water

Packaging:

4 x 1 gallon

Hi-Light[®]

Spray Indicator

Hi-Light® spray indicator ensures accurate and effective pesticide application in industrial areas, baregrounds, and rights-of-way. This temporary colorant is an economical marker for broadcast, backpack, or general spot treatment. Add it to spraying systems to help uniformly apply pesticides and liquid fertilizers. Compatible with most chemical compounds, Hi-Light spray indicator works in applications ranging from bareground to brush control treatments. Under most conditions, the color mark will last several days.

Use Rates:

6 to 32 fl. oz. per 100 gallons of water

Packaging:

12 x 0.25 gallon; 4 x 1 gallon; 2 x 2.5 gallon; 1 x 30 gallon



