A Burning Issue:

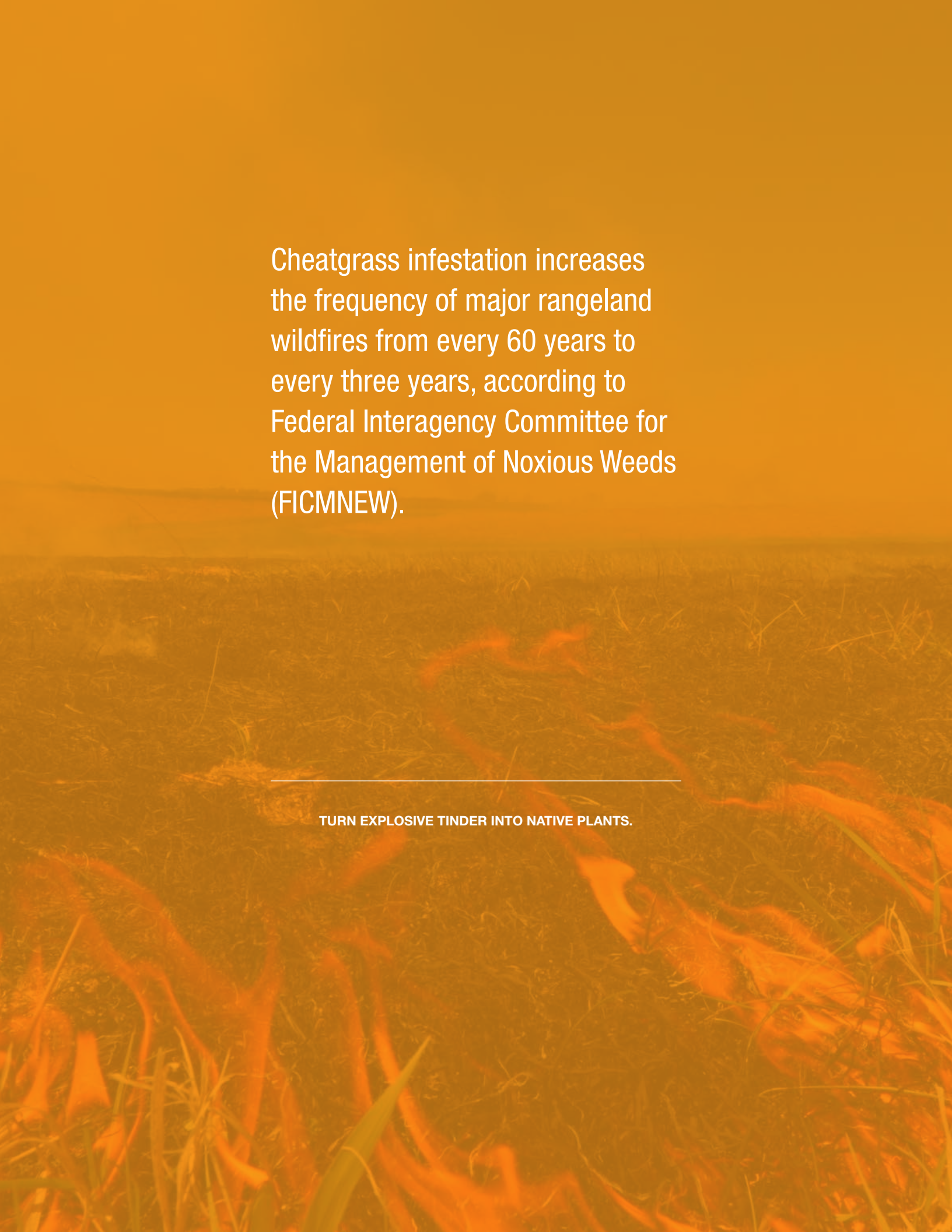
Cheatgrass fuels rangeland fires.

Control the weeds that fuel wildfires with **Plateau® herbicide**

PLATEAU® herbicide

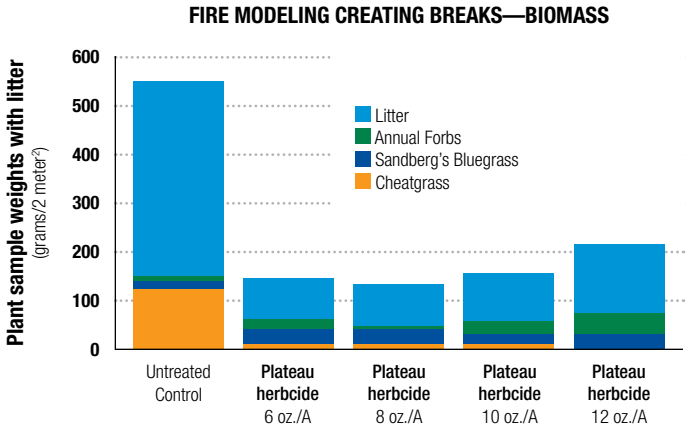
www.bettervm.basf.us.com

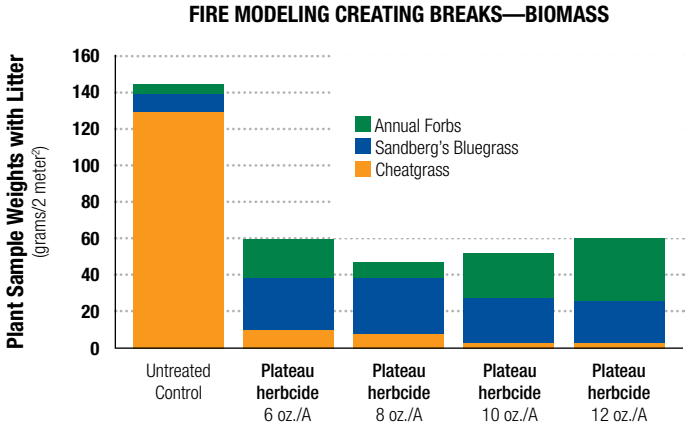
BASF
The Chemical Company



Cheatgrass infestation increases the frequency of major rangeland wildfires from every 60 years to every three years, according to Federal Interagency Committee for the Management of Noxious Weeds (FICMNEW).

TURN EXPLOSIVE TINDER INTO NATIVE PLANTS.





Three years after treatment, the data shows that **Plateau herbicide** effectively reduces litter and accumulation by controlling cheatgrass and releasing desirable annual forbs and perennial grasses.

Invasive weeds such as cheatgrass have already cost the United States $138 billion in economic damages, as reported by the Western Governors' Association.

Wildfires are devastating. They destroy lives, homes, wildlife species, and habitat, and they ravage the environment. Wildfires undermine livelihoods and damage economies. Everyone and everything in the path of a raging blaze is at risk. When a fast-burning, nonnative, invasive plant such as cheatgrass infests and alters the environment, wildfires increase in intensity, severity, and frequency. That's why it is critical to eliminate this fire-starting fuel before it becomes a problem. Now you have a solution—**Plateau® herbicide**, the only product that provides long-term cheatgrass control.

CONTROLLING WEEDS, CONTROLLING FIRES.

Their formal names are annual Bromus species (tectorum, rubens, secalinus, rigidus, japonicus, and brizaeformis), but you probably know them as cheatgrass.

By any name, it's one of the most dominant, stubborn, and fast-spreading invasive vegetation species, infesting more than 100 million acres of land in the western U.S. alone. It alters the occurrence, frequency, and intensity of major wildfires and causes billions of dollars in damage.[1]

Cheatgrass also inhibits the growth of native plants and threatens the overall health of grasslands, rangeland, and livestock. And while mechanical removal and prescribed burns have been used to control cheatgrass in the past, these methods were often costly and only partially effective.

Now, test studies confirm **Plateau herbicide** is effective in eliminating cheatgrass and creating buffer zones that help control wildfires.[2]

PLATEAU HERBICIDE IS YOUR BEST MEANS OF PREVENTION.

Plateau herbicide effectively controls invasive weeds such as cheatgrass, medusahead rye, and other annual weeds — all hazardous fuels that cause wildfires to burn faster, hotter, and more intensely. And because cheatgrass seeds survive wildfires and can germinate in the fall, it's the first plant to revegetate a burned area. This enables it to crowd out desirable native vegetation, such as bunchgrass and sagebrush, and convert more rangeland into highly flammable carpets. A decrease in sagebrush also means decreased numbers of native wildlife species because they depend on this shrub for food, cover, and nesting. By eliminating this hazardous fuel that cheatgrass becomes, **Plateau herbicide** can disrupt the frequent, repetitive cycles of wildfires and help put an end to community devastation as well as the decline in wildlife populations. **Plateau herbicide** gives native plants a fighting chance to establish themselves.

Studies show a significant impact in fire intensity in areas where **Plateau herbicide** is applied. Findings indicate flame height is reduced by as much as 88 percent, and fire spread is minimized by a whopping 95 percent, allowing for control with hand tools.[3]

THE BENEFITS OF CHEATGRASS CONTROL WITH PLATEAU HERBICIDE.

SOIL RESIDUAL ONE TO THREE YEARS

- Length is dependent on rate and environmental conditions.

SELECTIVE HERBICIDE

Plateau herbicide

- Used underneath or over the top of many tree and brush species.
- Does not target the legumes and forbs that livestock and wildlife use for forage.
- Numerous tolerant forage and native grasses.

Plateau herbicide in combination with glyphosate

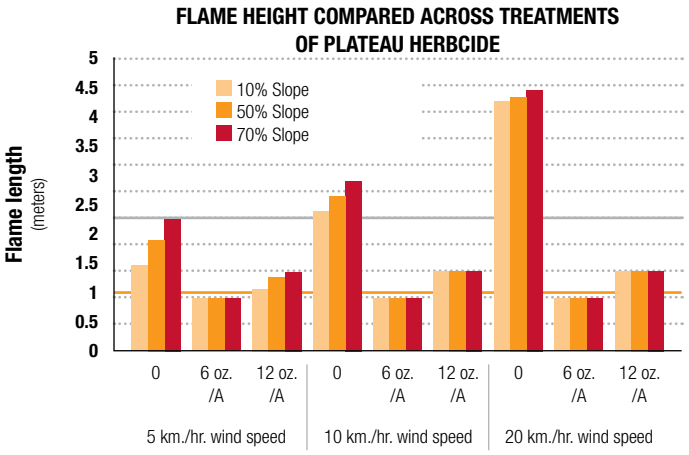
- Used underneath many tree and brush species.
- Allows immediate seeding of the grass and forbs that livestock and wildlife use for forage.
- Numerous tolerant forage and native grasses.

Additional Weed Control

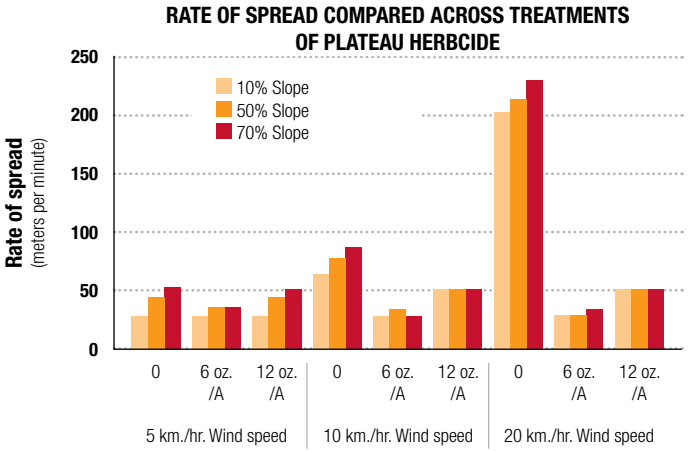
- Broad-spectrum control of many noxious/invasive species.
- Broad-spectrum control of annual grass and broadleaf weeds.

No Grazing Restrictions

- No grazing restrictions and only a seven-day haying restriction.
- **Plateau herbicide** is a nonrestricted-use product.



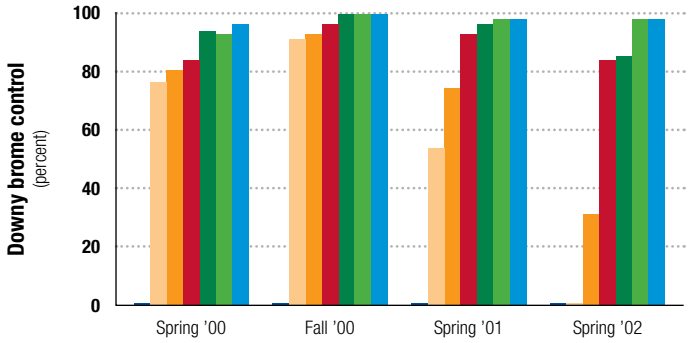
Flame heights at three slopes and three wind speeds and five percent fine fuel moisture comparing **Plateau herbicide** treatment levels of 6 oz./A and 12 oz./A. The orange line represents flame length of 1.2 m (above which hand control ceases to be effective). The gray line represents flame length of 2.4 m. (the fire cannot be contained from the head fire). *Synergy Resource Solutions, Inc. and BASF Corporation.*



Rate of spread (m./min.) at three slopes and three wind speeds and five percent fine fuel moisture comparing **Plateau herbicide** application rates of 6 oz./A and 12 oz./A. Rate of spread increased as wind and slope increased. *Synergy Resource Solutions, Inc. and BASF Corporation.*

Fall-applied Plateau herbicide controls cheatgrass and other invasive and noxious species right down to the root, without costly re-treats. Plateau herbicide—the smart solution for better rangeland.

DOWNY BROME CONTROL RELEASE OF DESIRABLE PLANTS



Plateau herbcide

- Untreated Control
- 2 oz./A
- 4 oz./A
- 6 oz./A
- 8 oz./A
- 10 oz./A
- 12 oz./A

All treatments + 1 qt. MSO

Application:
- November 3, 1999
- Preemergence to downy brome germination

Source: BASF research trials

"Herbicides such as **Plateau herbicide** that target annual plants have proven to be highly effective in controlling cheatgrass. We hope the lessons from the Boise study can be applied to private and public lands in an effort to restore rangelands dominated by invasive grasses throughout the western United States." —Steve Jirik, Fuels Management Specialist, Bureau of Land Management

PLATEAU HERBICIDE — THE SIMPLE SOLUTION

Cheatgrass chokes out native grasses, interferes with grazing and harvesting, and helps fuel wildfires. And it has always been nearly impossible to control. Until now.

Plateau herbicide can provide 100 percent long-term control with just one application — stopping cheatgrass in its tracks — and allowing desirable bunchgrass, forbs, and sagebrush to regenerate and flourish. **Plateau herbicide** provides effective residual control of annual bromes to reduce reinfestation and costly re-treats.

The solution is simple. The answer is clear. Incorporating **Plateau herbicide** into your land management plan helps decrease fuel loads — and reduce risk to life, property, and wildlife.

PLATEAU HERBICIDE PROVIDES THE RESULTS THAT MAKE A DIFFERENCE

Eliminating the detrimental effects of hazardous weeds is a matter of putting the solution to use today. **Plateau herbicide** is the only herbicide to provide both preemergent and postemergent control of annual invasive weeds, as well as residual control of annual bromes. Because **Plateau herbicide** controls emerged seedlings and prevent new seedlings from germinating, re-infestation and re-treats are effectively reduced.

A key benefit of **Plateau herbicide** is that it selectively allows desirable native grasses and forbs to re-establish and flourish without weed competition, which helps prevent the inadvertent spread of invasive weeds. **Plateau herbicide** plus glyphosate provides the added benefit of improved control of emerged cheatgrass with residual activity. Even after an area has burned, **Plateau herbicide**

plus glyphosate can be applied to prevent cheatgrass and other invasive weeds from reinvading. In field research, **Plateau herbicide** has shown up to 100 percent control of cheatgrass when applied in the fall. Plus, **Plateau herbicide** helps revegetation, so you can replant native species the same fall season that you treat. They also work well with integrated pest management programs. In addition, **Plateau herbicide** affects an enzyme found only in plants—not humans, animals, birds, or fish. So you can feel confident that **Plateau herbicide** will provide the all-around results you desire.

Invasive plants infest well over 100 million acres, **increasing up to 20 percent annually**, according to the FICMNEW.

Annual Bromes

Photo by John M. Randall, The Nature Conservancy, Bugwood.org

Cheatgrass

Medusahead

Photo by Steve Dewey, Utah State University, Bugwood.org

EXTINGUISH THE HAZARDOUS EFFECTS OF INVASIVE WEEDS

Invasive weeds are detrimental well beyond their roles in the frequency and severity of wildfires. In forage production, invasive plants steal rooting space, nutrients, and water from valuable native grasses, reducing their quality and interfering with grazing and harvesting. Once native plant species and desirable forage are crowded out, invasive plants also interfere with recreational activities. Ultimately, invasive weed infestation reduces land value, impacts the livelihood of landowners, and causes significant economic losses.

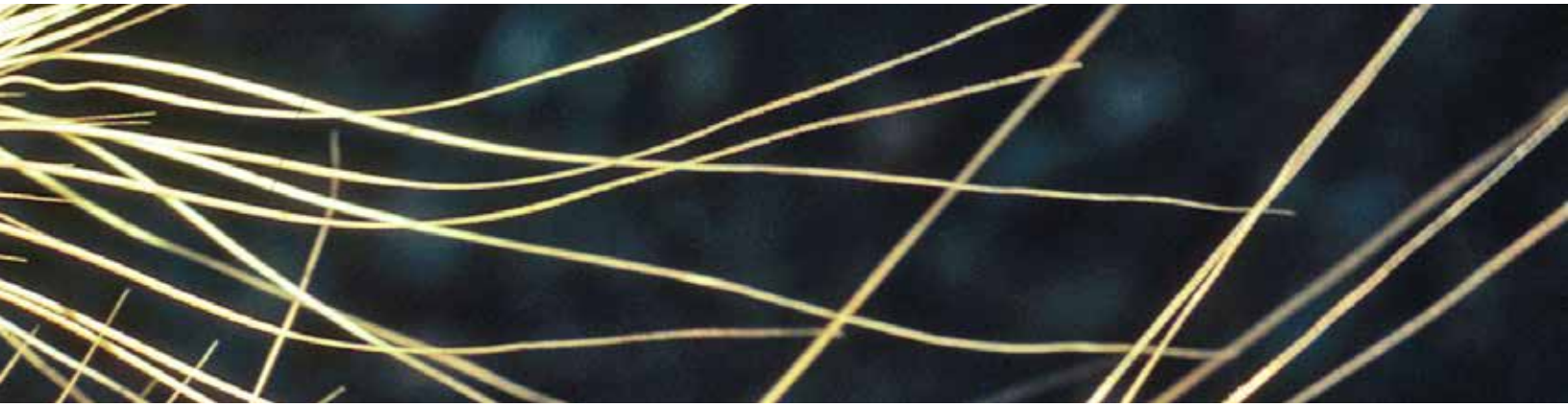
WILDLIFE AND LIVESTOCK GET BURNED BY INVASIVE WEEDS

With all this vegetation around, you'd think wildlife and livestock would be thriving. However, just the opposite is true. Cheatgrass seeds have sharp points that lodge painfully in the mouths and skin of wildlife and livestock that try to eat the grass or walk through it. To make matters worse, cheatgrass displaces the native bunchgrass species that are better for the ecosystem. Bunchgrasses are a desirable species of grasses that provide longer-lasting forage, cover, and nesting for insects, birds, and other small animals. Bunchgrasses also offer reliable, higher-quality food sources. So, as invasive weeds dominate forage, wildlife populations such as elk, bighorn sheep, mule deer, and the sage grouse are also threatened and eventually decline.

IT'S ALL IN THE TIMING

For the most effective control of cheatgrass and other bromes, applications of **Plateau herbicide**, preemergent to germination, are highly recommended. **Plateau herbicide** plus glyphosate may be applied preemergent or early postemergent for annual brome control. Rates will vary, depending upon the purpose for which **Plateau herbicide** is being used.

In areas for revegetation or planting of greenstrips, a rate of 2 to 6 oz./A of **Plateau herbicide** alone, or adding 4 to 14 oz./A glyphosate, is recommended for bare soil, with light annual brome infestation.

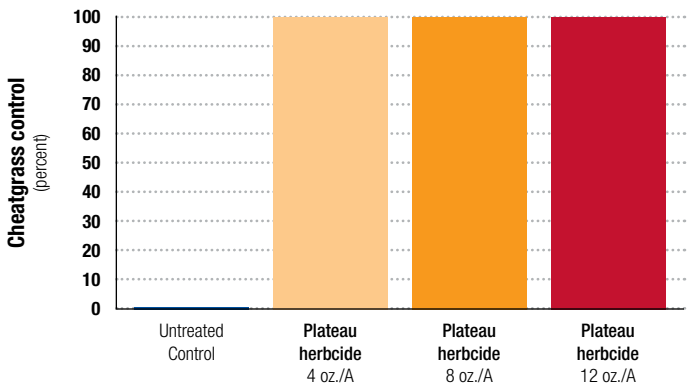


In areas of thick vegetation and leaf litter, where release is required or for use in fire breaks, higher rates of 6 to 12 oz./A **Plateau herbicide**, may be needed to effectively reach the soil surface. Removal of thick vegetation or leaf litter is recommended using haying, intense grazing, prescribed burn, or other method to ensure acceptable cheatgrass control.

Spring applications of **Plateau herbicide** are recommended only with the addition of glyphosate due to the addition of a second mode of action to increase consistency in cheatgrass control. Spring applications of **Plateau herbicide** plus glyphosate should be limited to areas without a large number of desirable plants.

Plateau herbicide is nonvolatile and a nonrestricted-use herbicide. There are no grazing restrictions following an application of **Plateau herbicide**. There is a seven-day haying restriction.

CHEATGRASS CONTROL / FALL APPLICATION
(Methow Wildlife Area, WA)



All treatments +1 qt. MSO
Source: BASF research trials

Prevention with Plateau herbicide

In addition to eliminating hazardous fuels altogether, typical methods of fire prevention include greenstripping and building fire buffer zones. With help from **Plateau herbicide**, these effective practices become a much easier and cost-effective option for long-term weed control.

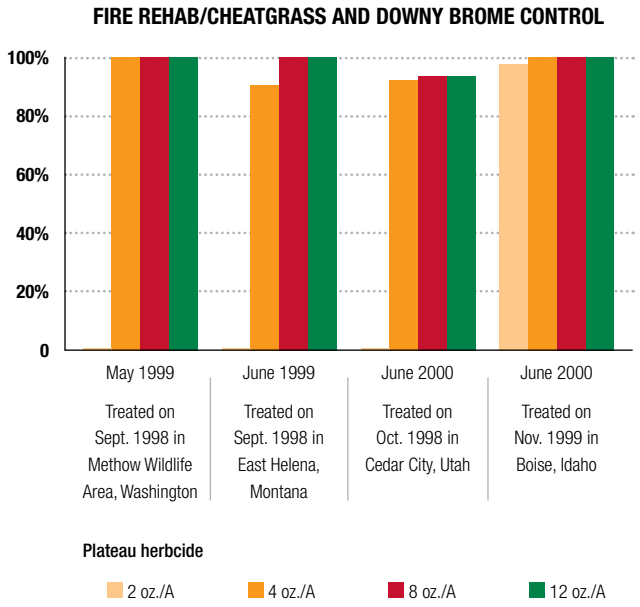
Greenstrips are long, narrow bands of fire-resistant vegetation. They reduce the chance of fire ignition and the speed at which a fire spreads. Plants growing in a greenstrip are low-growing and widely spaced and have a high moisture content. Greenstrips typically contain grasses, with some forb and shrub species to improve the visual appearance and value to wildlife. On rangelands, the recommended width of a greenstrip is 300 feet, which means about 36 acres per mile of planned greenstrip is required.

Also, creating a fire buffer zone is one effective way that landowners can protect their property. A buffer zone, like a greenstrip, consists of shrubs and plants that are moist, low-lying and drought tolerant. Buffer zones are utilized within 100 to 150 feet of structures. An application of **Plateau herbicide** can help establish and maintain a greenstrip or fire buffer zone by releasing the desired species and keeping invasive and hazardous weeds out of these vital areas.

Plateau herbicide is nonvolatile and a nonrestricted-use herbicide. There are no grazing restrictions following an application of **Plateau herbicide**. There is a seven-day haying restriction.

REDUCE THE RISK OF WILDFIRES WITH PLATEAU HERBICIDE

Wildfires are devastating to the economy, agriculture, wildlife, and human life — and you hold the power to prevent them. Do something today. A simple, cost-effective solution is all it takes: **Plateau herbicide** or **Plateau herbicide** plus glyphosate eliminates invasive weeds before they become a burning issue.



For more information, Contact your BetterVM sales specialist or visit bettervm.basf.us

CITATIONS

1. Data provided by the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW).
2. Data collection and fire modeling part of a joint study conducted by BASF Corporation and Synergy Resource Solutions, Inc., in conjunction with the Idaho Bureau of Land Management and the Snake River Birds of Prey Conservation Area, 1995-1999.
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Always read and follow label directions.