

The BASF logo, consisting of a white square with a smaller white square inside, followed by the letters "BASF" in a bold, white, sans-serif font.

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Professional Vegetation Management

# SEEDHEAD SUPPRESSION:

An Economical and Effective  
Choice for Improving Roadside  
and Airport Safety.



# Seedhead Suppression *in Bahiagrass*

## BACKGROUND

*As a low maintenance, drought-resistant species, bahiagrass is easy to establish. Since bahiagrass readily produces a complete cover, it effectively stabilizes the soil, reducing soil loss. When planted on roadsides or along airport runways, it also reduces erosion. Lacking a tolerance to cold weather, bahiagrass grows primarily in Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas and Virginia.*



### The Problem with Bahiagrass

Although bahiagrass is a desirable turfgrass, it has a prolific, summerlong seedhead production. With a long growing season, the seedheads quickly grow to a height of 12 to 24 inches. Unrestricted, bahiagrass can cause safety problems on roadsides by reducing sight visibility and harboring wandering animals. At airports, bahiagrass can attract insects and give a haven to birds that can devastatingly impact aircraft.

### Mowing: Not the Answer to Bahiagrass Management

Due to the rapid growth of bahiagrass seedheads, mowing is both expensive and ineffective. With a long growing season in the Southeastern states where bahiagrass flourishes, it must be mowed four to eight times a year to control seedhead production — at a cost of up to \$85 or more per acre.

There are other considerations as well, such as the dangers mowing poses to equipment operators and the driving public. In high bahiagrass, an operator may hit unseen debris, which can tip over the equipment and result in injury or even death. In addition, mowers can throw debris onto the highway or onto passing cars. Mowing on roadsides is perilous due to the possibility of operators being fatally hit by cars. The equipment can also distract motorists, potentially leading to collisions.

### The Efficiency of Bahiagrass Seedhead Suppression

One timely application of 2 to 4 ounces of **Plateau® herbicide** can eliminate the need for repeated bahiagrass mowings. While the proper time of year for applying **Plateau** varies according to climate, the best rule of thumb for application is two to three weeks before bahiagrass seedhead emergence or within seven days following mowing.

In a study conducted by Dr. Fred Yelverton, associate professor and extension specialist at North Carolina State University, a solution of 4 ounces of **Plateau** per acre, plus a 0.25 percent nonionic surfactant (NIS), applied to a test stand of bahiagrass, completely suppressed seedheads up to 14 weeks after treatment. In contrast, an equivalent stand of bahiagrass that was mowed produced an average of 20 seedheads per square foot 14 weeks after being mowed. Another study was conducted in Nash County, North Carolina in 1995. The result of the **Plateau** 2 ounces per acre + NIS 0.25 percent v/v was 21 weeks of bahiagrass seedhead suppression. There were 101,640 seedheads per acre in the nontreated check, four weeks after treatment. These results (length of suppression) may vary as you go further south into the natural range of Pensacola bahiagrass.

Source: Texas A&M University, Louisiana State University and BASF field trials.



## And Airport Vegetation Managers?

To address many safety and aesthetic concerns, it is important to eliminate tall-growing seedheads, such as the ones found on bahiagrass, tall fescue and smooth brome grass. Mowing can be a costly and dangerous way to achieve this goal. In addition, it is time-consuming and needs to be repeated often. But by suppressing the growth of grass seedheads through the timely application of **Plateau® herbicide**, mowing can be curtailed or eliminated.

### The public benefits include:

- Improved visibility
- Fewer distractions for motorists
- Reduced possibility of mowers throwing debris on the road or onto cars
- Less likelihood of accidents with animals or birds along roadways and/or runways

### Mower operators, their employers and the agencies they work with also benefit through:

- Fewer risks for mower operators
- Decreased costs for vegetation management
- Decreased mowing labor costs
- Reduced equipment and maintenance costs
- Fewer applications due to longer-term control
- Increased opportunity for mower operators to perform other work



# Seedhead Suppression in Tall Fescue

## BACKGROUND

Tall fescue is a desirable turfgrass that stabilizes the soil on roadsides and at airports. A cool-season turfgrass, tall fescue thrives in virtually every state in the United States north of North Carolina, with the exception of the desert areas of the Western states. It also grows in the northern parts of Alabama, Arkansas and Georgia, as well as western North and South Carolina.

### The Problem with Tall Fescue

Although tall fescue is desirable for many reasons, it grows quickly and produces tall seedheads. These two factors can lead to serious safety problems for the public if tall fescue is allowed to grow unchecked along roadsides or on runways. Tall fescue, including its seedheads, can potentially grow to heights of four feet.

### Mowing: Ineffective Against Tall Fescue

Tall fescue seedheads grow rapidly, as does the foliage of the grass. Consequently, mowing must be done frequently to keep the tall fescue at an acceptable height. However, the labor and equipment costs for mowing can be tremendous.

In tall fescue, mower operators find it nearly impossible to see anything on the ground. If they hit something large, such as a discarded tire, the mower may tip over, injuring the operator or resulting in death. If the equipment hits something smaller, such as a rock, that object may be shot onto the road or at a passing car.

Besides the safety issue, another concern with mowing is that it can harm wildlife. Because it is impossible to see what is on the ground, mowers can easily run over nesting birds and small animals.

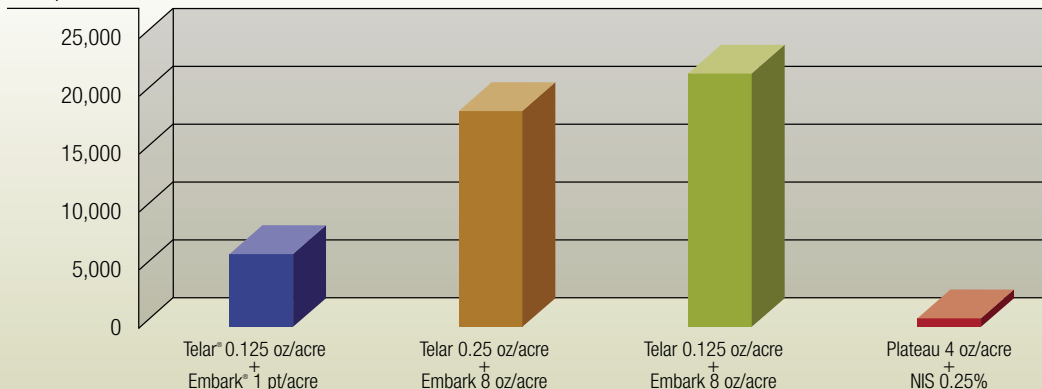
### Easily Suppressing Tall Fescue Seedheads

One application of 2 to 4 ounces of **Plateau**® herbicide can eliminate or drastically reduce the need for mowing tall fescue. Climate determines the precise time of year for applying **Plateau**, but the general rule for early spring application is two to three weeks before tall fescue seedheads emerge. Since the tall fescue foliage continues growing after seedhead emergence, additional herbicide use or mowing may be necessary to keep the tall fescue at an acceptable height. The equipment can also distract motorists, potentially leading to collisions.



Number of  
Seedheads  
per acre

TALL FESCUE SEEDHEAD SUPPRESSION



◀ The Problem with Tall Fescue In a test conducted by Dr. Fred Yelverton, associate professor and extension specialist at North Carolina State University, a solution of 4 ounces of Plateau, plus a 0.25 percent nonionic surfactant (NIS), suppressed tall fescue seedhead production 88 days after treatment.

Note: Application date 4/24/98, rating date 7/21/98, GPA 32.5

# Seedhead Suppression in Smooth Bromegrass

BACKGROUND

*Smooth bromegrass is a cool-season perennial grass that produces leafy vegetative growth early in the season. It is the most widely cultivated of several types of brome grasses and used by ranchers and farmers for hay or early spring pasture. But because it is sod-forming and develops a deep root structure that makes it tolerant to drought and heat, it is also widely used to help prevent erosion along roadways. It is most common in the North and Upper Midwest*



## The Problem with Smooth Bromegrass

Although smooth brome grass has several desirable qualities, because it grows to a height of 20 to 40 inches tall, if left unrestricted along road shoulders, medians and underneath guardrails and guide rails, it can impair driver visibility and compromise roadway safety.

## Mowing: Not Effective Management Solution

Mowing has been the most common method used to control smooth brome grass, but it is expensive and often ineffective. In areas with high moisture and rich soil, smooth brome grass grows rapidly, requiring repeated mowing within a single season. At a time when many state and local governments are seeking to control their road maintenance costs, the high labor and equipment costs of repeated mowing often means one of two choices: either leaving potentially dangerous stands of smooth brome grass unmowed or removing resources from other road work in order to mow.

## Suppressing Smooth Brome Grass Using Plateau

A single application of 4 to 8 ounces per acre of **Plateau**<sup>®</sup> herbicide, plus a 0.25 percent nonionic surfactant (NIS), can eliminate or reduce the need to mow smooth brome grass. It will also suppress undesired thistles, grasses and broadleaf weeds. **Plateau** should be applied in the spring, while the

smooth brome grass is actively growing, but before seedhead production begins. To enhance broadleaf control, **Plateau** may be combined with your preferred broadleaf herbicide. An option for broadleaf control is **Overdrive**<sup>®</sup> herbicide, which can be tankmixed with **Plateau**. A higher rate of **Plateau** should be used on reed canary grass and heavier soils; lower rates on sandy soils and drier sites.

In a test plot of smooth brome grass and reed canary grass in Minnesota, **Plateau** applied at a rate of 6 ounces per acre plus NIS at 0.25 percent reduced seedheads by 95 percent and plant height by 50 percent after 77 days. BASF research conducted in Nebraska indicated that **Plateau** applied at 8 ounces per acre plus NIS at 0.25 percent reduced smooth brome grass seedhead production by more than 95 percent for over four months after treatment. In a similar test in Nebraska of a smooth brome grass plot, **Plateau** cut seedhead production by more than 95 percent after 135 days.

An integrated vegetation management program is the most effective and efficient approach to making roadsides and airport runways safer and more aesthetically appealing. While vegetation provides a valuable protective barrier to prevent erosion along roadsides and runways, it must be managed to keep weeds from creeping onto shoulders, roots from cracking asphalt or pavement, and brush from obstructing sight lines. Vegetation management professionals need to achieve a variety of vegetation control objectives, including seedhead suppression.



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These findings were the result of research conducted by: Fred Yelverton, Ph.D., associate professor and extension specialist, Department of Crop Science, North Carolina State University, Raleigh, NC.

**Always read and follow label directions.**

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