

Forage Grass Tolerance to Pasture Herbicides¹

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Pasture productivity is a key component of cow-calf production systems in Florida. Weeds often invade and sometimes out-compete desirable forage species. Florida is unique in that many forage grasses are grown to compliment existing grazing systems. For example, *Hemarthria* (limpoglass) is often grown in areas where drainage is poor, while bahiagrass is grown in most other areas. Some ranchers also grow cultivars of stargrass and/or bermudagrass. Although weed competition varies depending on forage type, an herbicide application is often needed to keep the pasture at maximum productivity. This publication describes the tolerance of forage cultivars grown in Florida to herbicides currently registered for use in pastures.

Not all cultivars of a particular forage species respond similarly to a given herbicide (Table 1). Argentine bahiagrass tolerates most pasture herbicides except Journey and Roundup, while Pensacola may be severely injured by Cimarron, Cimarron Plus, and Cimarron X-tra. All herbicides may be used on stargrass and bermudagrass, with some level of injury from Velpar. Note that Journey

is only labeled on Coastal bermudagrass. *Hemarthria*, also known as limpoglass, is the most sensitive to herbicide applications of all forage grasses grown in Florida.

It is important to realize that the response observed from an herbicide application can be variable. For example, the chance for forage injury can increase or decrease as the rate of herbicide applied either increases or decreases. Additionally, environmental conditions such as high temperature and high relative humidity may increase the potential for herbicide injury. For example, we have observed little or no injury to limpoglass from 8 pt/acre 2,4-D amine when applied under cooler conditions, while 4 pt/acre in warmer weather caused moderate to severe injury.

The response of forages in Table 1 is for established forage cultivars. However, 2,4-D + dicamba (2 pt/acre) can be applied to sprigged forage cultivars, except for limpoglass, 7 days after planting/sprigging. A forage can be considered established when at least 3 tillers are present on

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bahiagrass or at least 6 inches of new stolon growth is present on sprigged forages.

| Forage Species | Cultivar | 2,4-D | Atrn | Banel | Chaparal | Cimaron Plus | Cimaron Xtra | Cleanwave | GranonMek | Imposel/organic | Journey | Milestone (MSM 60 others) | Outrider | Kennedy Ultra others | Roundup/other | Pasturegard | Telar | Visa | Banel + 2,4-D (WeedMaster, etc) | |
|----------------|------------|-------|------|-------|----------|--------------|--------------|-----------|-----------|-----------------|---------|---------------------------|----------|----------------------|---------------|-------------|-------|------|---------------------------------|---|
| Bahiagrass | Argentine | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | Pensacola | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| Bermudagrass | Coastal | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | Florakirk | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | Jiggs | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | Tifton-85 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| Brachiaria | Mulato | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| Stargrass | Florico | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | Florona | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | Okeechobee | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | Ona | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| Hemarthria | Floralita | I-S | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |

T=tolerant; very little injury if any
 I=Intermediate; slight injury, will regrow in approximately 1 month
 S=Severe injury; more than 2 months to recover or complete death
 N=No current information available
 NL=Not labelled

Table 1. Tolerance of established (for at least 6 months) forage cultivars to commonly used herbicides.