

North and Central Florida Herbicide Application

Jason A. Ferrell^a and Brent A. Sellers^b

^aAssistant Professor, Agronomy Department, UF/IFAS, Gainesville, FL

^bAssistant Professor, Range Cattle Research & Education Center, UF/IFAS, Ona, FL

For many years, 2,4-D (several trade names), Banvel (dicamba) and WeedMaster (2,4-D + dicamba) were the primary herbicides used for broadleaf weed control in pastures and hay fields. While these products are still valuable components of broadleaf weed management, several new herbicides have been registered in recent years for weed control in pastures and hayfields. The following is a discussion of a few of the herbicides available in this market.

1. Crossbow - DowAgroSciences

- a. Contains 2.0 pounds of 2,4-D and 1.0 pounds of triclopyr per gallon of formulated product. This is an ester formulation and care must be used during the warm months of the year when conditions are favorable for volatilization.
 - b. Labeled for use on established forage grasses. Do not use on newly seeded or sprigged grasses until the grass has either tillered or has achieved complete soil coverage.
 - c. Highly injurious to interseeded legumes.
 - d. Effective on a wide range of woody and herbaceous broadleaf weeds.
 - e. Use rates range from 1.0 to 4.0 quarts/acre.
 - f. Spot treatments of a 1.5% solution (2.0 ounces of Crossbow per gallon of water) are very effective.
 - g. **Grazing and haying restrictions:**
Beef cattle - Withdraw animals from treated pasture three days prior to slaughter.
Horses - No grazing restriction.
Lactating dairy animals - Do not graze treated areas until the next growing season.
Hay - Do not harvest grass for hay for 14 days following application.
- c. Highly injurious to legumes.
 - d. Triclopyr is effective on a wide range of herbaceous plants.
 - e. Applied as a post-emergence foliage application. Dormant stem applications are effective on a wide range of tree and brush species. Also, a mixture of 25% v/v Remedy plus 75% v/v basal oil may be applied for the control of most woody species with stem diameters less than 4 to 6 inches in basal diameter and pricklypear cactus. Apply this mixture to the lower 12 to 18 inches of the stem (all sides of the trunk). This may be applied anytime during the year, but is most effective when applied during the April to October time frame.
 - f. Use rates: Remedy - 1 to 2 pints/acre.
 - g. Remedy may be tank-mixed with 2,4-D to make a "Crossbow-type" herbicide mixture.
 - h. A non-ionic surfactant at 0.25% v/v should be used with triclopyr.
 - i. **Grazing and haying restrictions:**
Beef cattle
 - Withdraw animals from treated pasture three days prior to slaughter.
 - Hay - Do not harvest grass for hay for 14 days following application.Horses
 - No grazing restriction.Lactating dairy animals
 - Do not graze treated areas for 14 days.
 - Hay - Do not harvest grass for hay until the next growing season.

2. Remedy - DowAgroSciences

- a. Remedy - 4 pounds/gallon of triclopyr ester.
- b. Triclopyr is labeled for use on established forage grasses. Do not use on newly seeded or sprigged grasses until the grass has

3. Cimarron - DuPont

- a. Contains 0.6 pounds of metsulfuron per pound of formulated product. A 60 DF formulation. **Formerly marketed as Ally.**
- b. Extremely effective for 'Pensacola' bahiagrass

control. Cimarron has also shown good to excellent control of wild garlic/onions, curly dock, horseweed, Carolina geranium, henbit, wooly croton, pigweeds, and thistles.

- c. Rates - 0.1 to 1.0 ounces/acre with 0.125 to 0.25% v/v non-ionic surfactant.
- d. Cimarron will not control crabgrass, goosegrass, sandbur, smutgrass, 'Common' bahiagrass, and 'Argentine' bahiagrass.
- e. **There is no grazing or haying restriction for Cimarron.**
- f. Some rotation restrictions exist. See label for specifics.
- g. Cimarron tank-mixes with liquid fertilizer are not recommended for 'Pensacola' bahiagrass control.

4. Cimarron Max - DuPont

- a. A co-pack product consisting of metsulfuron and 2,4-D + dicamba.
- b. Adding metsulfuron to 2,4-D + dicamba increases number of broadleaf weed species controlled.
- c. Rates - 0.25 to 1.0 ounces metsulfuron product plus 2.0 to 4.0 pints 2,4-D + dicamba product per acre.
- d. Apply with 0.125 to 0.25% v/v non-ionic surfactant.
- e. **Grazing and haying restrictions:**
 - No grazing restrictions for non-lactating animals.
 - 7 day grazing restriction for lactating dairy animals.
 - Remove meat animals from treated pastures 30 days before slaughter.
 - Do not harvest hay for all types of livestock for 37 days after treatment.
- f. Rotation intervals. See label for specifics.

5. Velpar 75DF and Velpar 2L - Dupont

- a. Contains hexazinone.
- b. Primarily is used for the control of established smutgrass. Hexazinone is root absorbed and requires about one-half inch of rainfall within two weeks of application. Applications for smutgrass control should be made in the June to August time frame. Fall applications are not

highly effective.

- c. Bermudagrass and bahiagrass should be established for one year before treatment. Do not apply to newly seeded or newly sprigged pasture grasses.
- d. Use rates:
 - Velpar 90SP - 0.75 to 1.15 pounds product/acre.
 - Velpar 2L - 2.75 to 4.5 pints product/acre.
 - Use low rates on sandy soils.
- e. **Do not graze or feed treated forage or hay within 60 days of application.**
- f. Hexazinone can injure trees (especially oaks). Caution should be used near desirable deciduous trees.

6. Direx (several)

- a. Contains diuron at 4 pounds active ingredient per gallon.
- b. Direx, as sold by Griffin, Agrilience, and Drexel is labeled for preemergence weed control in newly sprigged bermudagrass. Karmex and Direx sold by manufactures not listed above are NOT labeled for use in bermudagrass.
- c. Direx should be applied immediately after sprigging before weeds emerge.
- d. Bermudagrass sprigs should be planted 2 inches deep to lessen chance of injury. Emerged bermudagrass at the time of treatment may be temporarily injured.
- e. Do not graze or feed treated foliage for 70 days after Direx application. Direx is not labeled in established forage bermudagrass.
- f. Use rates are 0.8 to 2.4 pounds active ingredient/acre. For Direx 4L products, use rates would be 0.8 to 2.4 quarts/acre.
- g. Preemergence applications of diuron provide fair to good control of crabgrass, crowfootgrass, and goosegrass. Additionally, diuron should provide residual control of certain annual broadleaf weeds.

7. PastureGard - DowAgroSciences

- a. PastureGard - 1.5 pounds/gallon of triclopyr ester and 0.5 pounds/gallon fluroxypyr.
- b. PastureGard is labeled on established forage grasses. Do not use on newly seeded or

- sprigged grasses until the grass has established a good root system.
- c. Applied as a postemergence foliage application. Dormant stem applications are effective on a wide range of tree and brush species. Also, a mixture of 50% v/v PastureGard plus 50% v/v diesel fuel or kerosene may be applied for the control of most woody species with stem diameters less than 3 inches in basal diameter and pricklypear cactus. Apply this mixture to the lower 12 to 24 inches on one side of the stem. For best results, treat a thin-bark section of the stem. This may be applied anytime during the year, but is most effective when applied during the April to October time frame.
 - d. Use rates: 1.5 to 3 pints/acre for broadleaf weeds. Do not apply more than 4 quarts/acre/year.
 - e. A non-ionic surfactant at 0.25% v/v should be used with PastureGard.
 - f. **Grazing and haying restrictions:**
Grazing
- Lactating dairy animals - do not graze or harvest forage in the same growing season following application.
- Other Livestock - no restrictions.
Haying
- Do not cut hay for 14 days after application.
Slaughter
- Remove animals from treated pasture, or from hay consumption, for three days prior to slaughter.
- ### 8. Journey
- a. Journey is a prepack mixture of imazapic (0.75 pounds) and glyphosate (1.5 pounds).
 - b. Journey is labeled for use on established 'Coastal' bermudagrass. Journey should not be applied to other hybrid bermudagrass cultivars.
 - c. Journey will effectively control crabgrass, nutsedge, sandspur, vaseygrass, and johnsongrass.
 - d. Do not apply during bermudagrass greenup or severe injury will result.
 - e. Applications will likely result in 3 to 5 weeks of reduced bermudagrass growth and one hay cutting may be eliminated. If this level of injury can not be tolerated, do not use Journey.
 - f. A non-ionic surfactant at 0.25% v/v should be used.
 - g. Use Rate: 11 fluid ounces/acre
 - h. **Grazing and haying restrictions:**
Grazing
- There are no grazing restrictions with Journey.
Haying
- Do not cut hay for seven days after application.
- ### 9. Milestone
- a. Milestone is liquid formulation of aminopyralid at 2 lb ai/gal.
 - b. Milestone is highly effective on tropical soda apple and thistles. Expect at least 6 months of soil residual control of TSA seedlings.
 - c. Milestone is highly injurious to legumes.
 - d. Milestone can be applied safely under trees.
 - e. Do not mulch sensitive crops with manure from animals fed Milestone treated forage.
 - f. Use rate: 3 to 7 fl oz/acre + non-ionic surfactant.
 - g. **Grazing and haying restrictions:**
- There are no grazing or haying restrictions for any animals.
- ### 10. Forefront
- a. Forefront is liquid formulation of aminopyralid at 0.33 pounds/gallon and 2,4-D at 2.66 pounds/gallon.
 - b. See precautions with Milestone.
 - c. Use rate is 1.5 to 2.6 pints/acre. Do not apply more than 2.6 pints/season.
 - d. **Grazing and haying restrictions:**
- Do not cut hay for seven days after treatment.

Notes: