### **Basic weed control for horse farms**

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Pasture weed control is often perceived as a difficult task with a relatively steep learning curve. The purpose of this material is to demystify weed control and discuss the basic principles for successful weed management.

#### 1. Why do we have weeds?

a. Poor fertility. The two dominant pasture grasses in Florida are bahiagrass and bermudagrass. Both of these species are vigorous and highly persistent. But like all plants, they require proper soil conditions for optimum growth. A regular soil sampling program will inform the producer if soil amendments (lime, fertilize, micronutrients) are required for optimum forage growth. If your soil conditions become out of line, the forage grass production will decline. As the grass declines, weeds will surely arise to fill the void.

**b.** Over-grazing. Although fertility is important for maximum grass growth, no amount of fertilize can compensate for improper management. A horse or a cow will weigh several hundred pounds depending on age, breed, etc. An animal this size will require hundreds of pounds of forage to sustain its growth. Therefore, too many animals on a plot of land can cause over-grazing. Over-grazing constantly removes leaf tissue and the plant is not able to grow or sustain itself. With time, the forage grasses begin to die and are replaced by weeds. For proper grazing, 1 horse to 2 acres will allow the grass to grow properly while also providing adequate nutrition to the animal.

**c. Just because.** Proper fertility and grazing strategies will greatly reduce the severity of weeds,

but it will not eliminate it entirely. Weeds are a fact of life and periodic management will be required. But, 100% weed control is not required or warranted. The goal is to keep weed densities at a level that they do not interfere with animal health and productivity.

## 2. What are these weeds? When you can't identify a given weed, follow these general steps.

a. Call your local county agent or email a picture. Your local agent knows many of the most commonly occurring weeds in the county. Make sure to note if the plant is growing is a wet area, has a distinctive smell, or anything that may be unique to that plant. A brief verbal description may be enough, but pictures always confirm the verbal description.

**b. Taking pictures.** First, we need close-ups of distinguishing features (flowers, leaf, stem, etc). When taking the picture, try to find a plant that has not been recently grazed for mowed – this can dramatically change the appearance of the plant. Lastly, please attempt to capture the image in focus. A blurry image is very difficult to analyze.

#### 3. Management options.

**a. Not all weeds need to be managed.** Certain grass weeds, crabgrass in particular, is a relatively productive and high-quality forage. So just because it is not your forage grass of choice doesn't mean it has no value.

**b. Mowing.** Mowing is a great way to assist in the management of some weeds. Annual weeds (those that emerge each year from seeds) that have an

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erect growth habit respond well to mowing. However, perennial weeds (those that emerge off an existing rootstock) like blackberry will not respond to mowing. Sure, mowing will set them back, but vigorous resprouting will occur rather quickly.

**c. Herbicides.** Herbicides, when used properly, can be an inexpensive and effective way to manage undesirable weeds. But for them to work properly, the proper herbicide must be chosen, mixed properly, and applied in the correct fashion.

#### 4. Herbicide application.

a. Buying herbicides. Herbicides can generally be purchased at home improvement stores or at farm supply stores. Though home supply stores are convenient and the containers are small, their selection is limited and the price per unit of herbicide can be very high. On the other hand, farm supply stores have excellent selection and lower per unit pricing, but the herbicide containers are often large. Although farm supply stores can be intimidating, the advantages of purchasing from these vendors out-weigh the negatives.

**b. Mixing.** When spot spraying, the recommendations from county agents will often be in the form of % solution. For example, spray the herbicide as a 1% solution. This calculation is quite simple. One gallon of water contains 128 ounces – 1% of that is 1.28 ounces. So, making a 1% herbicide solution requires that you add 1.28 ounces of herbicide to 1 gallon of water.

**c.** Spraying. When we spray herbicides, we often think that more is better. However, the opposite is true. To maximize herbicide uptake, it is best mix the herbicide at the proper strength then spray until you see droplets on the leaf, but without any herbicide runoff.

Weeds are a constant concern for agriculturists of all size. Though weeds will never go away, following these principles can make them easier to manage. ■