

## LIVING WITH JOHNSONGRASS

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While traveling around Georgia during the last several weeks, I've noticed a lot of weeds in our pastures and hayfields. Of course, there are all sorts of broadleaf and grassy weeds popping up in fields that have been drought-stressed and overgrazed for going-on three years. One of the most common weeds that I've seen has been Johnsongrass. In fact, in many pastures it is not only common, it is dominant. So that begs the question: "what should be done about Johnsongrass?"

Of course, Johnsongrass is very, very competitive. It robs valuable light, water, and nutrients from the more desirable forage species. It also has the potential to be poisonous (i.e., prussic acid and nitrate toxicity) during drought and after early frosts. Thus, it is important to use practices that reduce or eliminate Johnsongrass from your pastures. Yet, with the current environment of extremely high input prices, the old adage about "making lemonade when life gives you lemons" seems most appropriate.

### Lemonade, Anyone?

Johnsongrass is a relatively high-quality summer forage species (Table 1). It is also fairly drought tolerant and commonly is one of the last forages to stop growing in drought-stressed pastures. This can be beneficial during dry spells. But, during severe droughts, cattlemen need to avoid allowing animals to graze fields that are predominantly Johnsongrass. (For more on the prussic acid and nitrate toxicity potential of Johnsongrass, visit the Drought Information Page on [www.georgiaforages.com](http://www.georgiaforages.com).)

**Table 1.** Approximate hay yield, crude protein (CP), and total digestible nutrients (TDN) of selected forage crops.

Type of Hay Crop	Yield Range (tons/acre)	CP (%)	TDN (%)
Bahiagrass	3-5	9-11	50-56
Bermudagrass, Common	2-6	9-11	50-56
Bermudagrass, Hybrid	5-8	10-14	55-60
Johnsongrass	2-5	10-14	55-60
Pearl millet	2-6	8-12	50-58
Tall fescue	2-5	10-15	55-60

Source: Ball et al., 2007. Southern Forages, 4<sup>th</sup> Edition.

When it is relatively immature, cattle will actively seek out Johnsongrass in the pasture. In fact, cattle will often kill Johnsongrass in a pasture because they tend to overgraze it. Unlike bermudagrass or bahiagrass, the growing point of Johnsongrass is 4-8 inches above the ground. If cattle continue to clip off the growing point, the plant will eventually die.

However, Johnsongrass can mature relatively fast, especially when stressed by overgrazing or drought. Growing points that escape from grazing can quickly develop a thick stem and seedhead.

Once this happens, cattle will go out of their way to avoid stemmy Johnsongrass. In fact, Johnsongrass's ability to quickly throw-up a seedhead and set seed is why it has become so common in our pastures over the last couple years.

### **Managed Grazing of Johnsongrass**

There is a trick to utilizing the forage that Johnsongrass produces and keeping it in the pasture (at least until one can afford to renovate the pasture). Managing Johnsongrass so that it is not killed by overgrazing and is kept from going to head requires the cattleman to manage the grazing behavior of the herd. Ideally, Johnsongrass should be allowed to get 12-18 inches tall before it is grazed and animals should be pulled off when it is grazed down to 6-8 inches.

Of course, this is easier said than done in most situations. Logistically, the cattleman would need to confine the animals (usually with temporary electric fencing) on specific areas of the field where Johnsongrass is thickest and be able to move animals on and off those areas. Though this is not easy, it can be done. You'd be surprised what can be done with a little common sense, temporary electric fence, and a working-knowledge of forage management.

If the grazing is managed correctly, the Johnsongrass may be kept from going mature. However, a trip across the field with the rotary mower may ultimately be needed to clip out seedheads before additional seeds are added to the seedbank.

### **Reclaiming Your Pasture**

When the drought finally ends (hopefully soon), many pastures and hayfields in Georgia will need to be "reclaimed." Below are a few general thoughts on making that reclamation process as painless and cost-effective as possible.

- Recognize that the pastures and hayfields did not get weedy overnight and they will not be reclaimed overnight.
- Use proper grazing management and an occasional clipping to remove seedheads to prevent weed spread. The combination of both may be necessary to prevent the spread of weeds like Johnsongrass that spread both by seeds and by rhizomes.
- Provide adequate soil fertility based on soil test recommendations. Pay particular attention to potassium (K) and soil pH values, as both are critical to forming a dense sod that gives no quarter to weeds.
- Let the pasture rest. Continuous grazing will weaken even the most-hardy pasture species. Severe overgrazing combined with severe drought is a surefire recipe for weedy pastures.
- Use herbicides when needed and according to label instructions. Sometimes the best option is to spot-spray with a non-selective herbicide (e.g., Roundup, Gramoxone, etc.). Some herbicides will selectively control some weed problems. For example, we now have a couple options for selective control of Johnsongrass in bermudagrass (e.g., Maverick, Impose, and Panoramic).

For more information about how to use the forage provided by Johnsongrass and how to begin to reclaim your pastures from weedy invaders, check out our website at [www.georgiaforages.com](http://www.georgiaforages.com) or contact your local University of Georgia Cooperative Extension office at 1-800-ASK-UGA1.