



A New Kind of Foxtail

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If you've paid any attention to hayfields and roadsides in the last several months, you've undoubtedly seen massive amounts of golden brown cat-tail-like seed heads. The plant you're seeing is known as foxtail. There are several varieties of foxtail, including yellow, giant, and green foxtails. These are annual grasses that live only one year and produce seed for the next generation. These species are also labeled on many different herbicides designed to kill grasses. However there is a new foxtail in town, and it is causing all kinds of problems.

Knotroot foxtail, *Setaria geniculata* or also known as perennial foxtail, is a species of this weed that is proving to be a formidable opponent for hay producers and pasture managers. What makes knotroot foxtail so unique and so formidable is its root system. As its' name implies, knotroot foxtail is distinguished by possessing short, knobby, rhizomes on its roots which resemble "knots". These knots serve as growth points for the plant to spread out during the growing season, or to sprout from when the plant is damaged or stressed. Knotroot foxtail is currently not labeled on any general use or restricted use herbicide. A few products have been tested to determine an effective strategy against this weed but there has been little success. Pendimethalin (Prowl H2O and others products) can be used as a preemergent herbicide in the early spring on dormant bermudagrass fields to control seed that has not germinated but this will not control any existing foxtail in the field. For existing knotroot foxtail, use of Pastora (metsulfuron and nicsulfuron) on foxtail in bermudagrass has provided only limited suppression depending on rainfall and weather. If the plant absorbs enough of the herbicide to dieback, its rhizome root system spring into action and sprouts new growth as if nothing ever happened. Preliminary studies have been conducted in Tennessee using a combination of Pastora and glyphosate (Roundup and others) to control the weed but this is still only providing 50-60% control.

So what do we do? From talking to chemical company representatives, research is being done on products that could provide better control of knotroot foxtail. However it is anyone's guess how quickly this would be available and at what cost. Some producers have taken to spot spraying with Pastora/glyphosate and have seen some control as previously mentioned, and this is still requiring follow-up sprays to catch plants that survive. Keeping seed head production is critical and this is my largest concern riding through the county and seeing such large amounts of seed heads just waiting to add to next year's misery. For spots that are just starting to occur in fields, I also highly recommend digging up the plants rather than trying to repeatedly spray and increase the chance of total chemical resistance. Noticing these plants when young helps increase the chances of killing the plant before it has established the rhizome root structure that helps it survive.