Chaparral™ brings a new tool to fescue management

Fewer weeds means more forage for grazing. Fewer tall fescue seed heads means less fescue toxicosis. An application of Chaparral™ herbicide early this spring can help accomplish both.

Seedhead suppression can provide the starting point for more effectively managing fescue toxicosis. The seed head is where the alkaloids produced by the endophyte concentrate (at a rate five times higher than in leaves or stems). Reducing or eliminating those seed heads can help decrease the incidence and severity of fescue toxicosis.

"Research across the fescue belt shows that an early spring application of Chaparral controls a wide mix of broadleaf weeds and prevents most tall fescue plants from developing seed heads," explains Scott Flynn, Dow AgroSciences field scientist. "By suppressing seed heads to prevent their consumption, Chaparral helps mitigate fescue toxicosis in beef cattle grazing operations."

Toxins in tall fescue peak in the seed head when the seed head is most palatable (generally mid- to late May). The period of highest concentration does not coincide with the visible symptoms of fescue toxicosis because of the toxins' residual effects. Animals consume high concentrations in the spring and then suffer from heat stress when the effects are exacerbated by high summer temperatures.

Apply Chaparral as early as three weeks prior to seedhead emergence and as late as the early boot stage, with later applications preferred over earlier applications. This keeps the plants in a high-quality vegetative state, while taking infested seed heads out of the grazing picture.

When applications of Chaparral™ herbicide are timed for optimum seedhead suppression, they will control winter annual weeds and other early season broadleaves, such as buttercup; poison hemlock; biennial musk, bull and plumeless thistle; wild carrot; and buckbrush, says Pat Burch, field scientist with Dow AgroSciences. "The residual control Chaparral provides will control several species that emerge after application, including ragweed," he says.

APPROPRIATE EXPECTATIONS

Just as producers can expect to see a difference in the appearance and performance of their cattle when they effectively manage fescue toxicosis, they can expect to see a change in their pastures, too.

"The early application timing somewhat intensifies the effect Chaparral has on tall fescue," Flynn says.

"Producers will note grass yellowing, which can last at least a couple of weeks," Burch adds. "However, tall fescue that has been treated with Chaparral for seedhead suppression maintains forage quality longer through the season."

Because most seedhead production is suppressed, plants won't produce stems — resulting in a noticeable change in the appearance of tall fescue pastures and a reduction in pasture biomass.

"The good news is, the lost biomass is mostly unpalatable stems and toxin-laden seed heads," Burch explains. "While the higher-quality forage improves the appetites of grazing cattle. Producers likely will need to re-evaluate stocking rates, since cattle increase forage consumption when fescue toxicosis is mitigated."

Any reduction in the carrying capacity of fescue pastures will be short-lived, as fescue will begin growing at a normal rate three to four weeks after application. To minimize the effect this initial slow growth will have on pasture production, fertilize pastures shortly after greenup and apply Chaparral closer to the time of seedhead emergence.

"This will maximize the amount of leave herbage mass produced before plant growth slows," Burch adds.

Research trials show that improved per-head gains due to removal of endophyte-infected seed heads offset this short-term reduction in carrying capacity. Additionally

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Approximately 10 weeks after an application of Chaparral™ herbicide, the treated fescue (left) remains in its vegetative state, while the untreated fescue has produced stems and seed heads where the harmful endophyte is most prevalent.

Circle A Angus Ranch CEO Mark Akin says using Chaparral™ herbicide to suppress tall fescue seed heads has helped increase conception rates by 5 percent and pasture gains by more than 20 pounds per head.

Profitability, efficiency come home at Circle A Angus

Since its start in the early 1990s, Circle A Angus has worked to bring its customers breeding stock that delivers efficiency and profitability. Now, more than two decades later, ranch CEO Mark Akin says a new tool is helping the Missouri operation realize those same benefits in its pastures.

"The genetics we've worked on for the last 20 years have been for efficiency and profitability," Akin explains. "Our focus is cattle that fit our environment and that will impact profitability for other producers across the United States."

Founded in 1991 on 600 acres of pasture, Circle A Angus has grown to more than 25,000 acres across several locations. Headquartered near Iberia, Missouri, Circle A is home to more than 7,500 purebred Angus cows and twice-per-year bull sales. A heifer development program annually produces 600 to 800 artificially inseminated females that sell during spring and fall sales.

"Our genetic model from Day 1 has stressed cost-efficient weaning weights and animal performance all the way through to harvest, producing a carcass with a high-quality grade," Akin says. "We evaluate all aspects, from feed intake to daily gains, and then pass along those values to our customers via our breeding stock."

LOSS LEADER

Even as Circle A has worked to refine efficiency and profitability for its customers, tall fescue limits those efforts at home on the ranch and across the fescue belt.

"Fescue toxicosis probably is our greatest revenue loser," Akin says. "The temperature spike toxicosis causes reductions in our conception rates and that impacts the number of marketable animals we produce."

And that's just the start.

"We provide grass, and the cattle need to consume it," Akin says. "When toxic fescue elevates their temperature, they want to shade up or find water where they can stand. Ultimately, you're hit with fewer calves on the ground, less time spent grazing, reduced milk production, more heath issues and lower gains."

MITIGATING TROUBLE

Through genetics, Circle A has worked to incorporate traits from Angus cattle that exhibited the ability to withstand the challenges that come with fescue toxicosis. They found genetics from cattle that more easily shed their winter hair coat and handled heat better.

"We've been able to introduce those genetics without sacrificing the quality of our end product," Akin says. They also used mechanical means to clip fescue seed heads before cattle could consume them. That's expensive, and, he notes, "In some of this country, it's tough just to keep the equipment in one piece."

That proved especially true on the ranch's Cedar County, Missouri, unit. The challenge brought about opportunity.

"Because the ground, on what we call our West Ranch, is rougher and rockier, mechanically clipping seed heads was an expensive headache," Akin says. Akin and his manager at the West Ranch had heard about work Scott Flynn and Brant Mettler, a Dow AgroSciences field scientist and Range & Pasture Specialist, respectively, were doing

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Label precautions apply to forage treated with Chaparral and to manure from animals that have consumed treated forage within the last three days. Consult the label for full details.

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with Chaparral™ herbicide to suppress fescue seedhead production.

"By applying Chaparral in a fairly tight window — two to three weeks — before seedhead emergence, we can keep fescue in its vegetative state and prevent it from producing a seed head," Flynn says. "Since the harmful endophyte is most prevalent in the stems and seed heads, suppression greatly reduces the amount of toxic material cattle consume. We've almost completely mitigated toxicosis in some herds we've worked with."

FROM TRIAL TO TREATMENT

Akin and his managers decided to do some trial work with Flynn and Mettler in 2014. The results convinced them to treat more than 10,000 acres with Chaparral last year.

"Our experience has been very positive," Akin says. "We saw a 5 percentage point jump in conception rates and an additional 20-plus pounds of gain per head on pastures treated with Chaparral compared with the control pastures." But there were other benefits, too.

"The weed control has been phenomenal," he adds. "We have a big problem with buckbrush, which Chaparral controlled. That freed up a lot of valuable grazing space. And then our other tough weeds — you just don't see any where we sprayed." Because fescue seedhead suppression with Chaparral™ herbicide helps keep tall fescue in a high-quality vegetative state, it provides more flexibility in grazing programs.

"We were blessed with outstanding rainfall in 2015," Akin says. "But even in our trial year, which was more moisture-typical, without the seed heads, the fescue never reached its normal midsummer maturity." The extended grass-production season allowed them to cross-fence pastures and rotational graze into late August when the fall rains start.

In addition to pushing back the start of winter feeding, Akin says, they spent less on inputs, too.

"On treated pastures, cattle graze more leaves and take in fewer lower-value stems and seed heads; the nutritional plane of our pastures has improved. Plus, the cattle spend more time grazing, rather than trying to cool off," Akin says. "We've reduced our use of summer supplements quite a bit."

He says he expects Circle A Angus will continue using Chaparral as a fescue toxicosis management tool.

"Chaparral eliminated 95 percent of the weeds in our pastures," Akin says. "Seedhead suppression has helped mitigate our cows' body temperatures. They stay out grazing longer in the mornings and come back out to graze earlier in the evenings. The cattle just look more content." •