



B.J. Johnson and herbicide test plots at the University of Georgia Agricultural Experiment Station. Johnson is professor of agronomy and research project leader of herbicides.

HERBICIDE MAY CONTROL POA IN OVERSEEDING

If applied at the right time, Prograss may control *Poa annua* without harming overseeded ryegrass or bermudagrass.

Preliminary research from the University of Georgia indicates a new herbicide may control annual bluegrass (*Poa annua*) in bermudagrass without damaging overseeded ryegrass. These early results tie in well with similar studies conducted at Auburn University over a 12-year period, according to B.J. Johnson, professor of agronomy at the University of Georgia Agricultural Experiment Station.

The new herbicide is Prograss, manufactured by BFC Chemicals, Inc. It will be available this fall to control annual bluegrass in greens where ryegrass is overseeded in bermudagrass.

Controlling annual bluegrass in overseeded greens is one of the major weed problems facing golf

courses in the sunbelt states.

At present only two options are available for annual bluegrass control.

1. A preemergence herbicide sprayed 60 to 90 days before overseeding with ryegrass. Hopefully, overseeding is delayed until the herbicide loses its residual action. If not, the ryegrass can be severely damaged.

2. Use pronamide either pre- or postemergence one to two weeks before overseeding. Then, treat a week later with an activated charcoal application to neutralize the herbicide.

"I'm not sure, but the activated charcoal may neutralize some pesticides that may be used later in the year," said Johnson.

What Johnson has been doing is

looking at the effects of Prograss in three areas: its control of annual bluegrass; its ryegrass tolerance; and its effect as a growth retardant on bermudagrass.

Over the past year, Johnson conducted three separate studies. To test for annual bluegrass control, he applied Prograss on fairways. These areas were not overseeded, but used to test strictly for herbicidal effectiveness. Next he applied the herbicide to bermudagrass greens that were overseeded with ryegrass, to test the selectivity of the ryegrass. Finally, because he was concerned about the winter survival rate of bermudagrass treated with Prograss, he applied it to four bermudagrass cultivars that were not overseeded.

His first series of treatments for all three programs began in October and November. The October treatment was primarily for pre-emergence control at the time of overseeding. The November treatment, applied at a low rate, was to extend the preemergence control period and for postemergence control of any escaped annual bluegrass.

He treated annual bluegrass in February and March, when the annual bluegrass is fully mature, to see if the herbicide would control it as a late postemergence treatment.

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His results indicated excellent early annual bluegrass control. "The best treatments were in October and November. When we delayed treatments until February we had poor results. In addition, the February treatments delayed green-up of the bermudagrass. These preliminary results of excellent annual bluegrass control are very similar to (Prof.) Ray Dickens' research at Auburn, where they've been looking at Prograss for several years."

Although Johnson cautions that his results are still preliminary, and need to be duplicated before he makes a recommendation, he found that the herbicide's effects on overseeded ryegrass were minimal. Bermudagrass growth in the following spring was normal when treated in October and November, but severely delayed when treated in February and March. Of the four bermudagrass cultivars tested, Tifway showed the least effect and Ormond was affected the most. Tifgreen and Tifdwarf were affected slightly.

Johnson noted that the herbicide does delay or retard bermudagrass growth once it has been applied. This would indicate that the best time for application would be several weeks after overseeding when ryegrass has become well established. Earlier applications could result in some thinning of the greens until the ryegrass becomes established.

Johnson presented his preliminary data to the Georgia Golf Course Association meeting at the Cherokee Town and Country Club in Dunwoody, Ga.

During the coming year, he plans to duplicate his earlier tests as well as expand testing in the area of Prograss' effect on other overseeded varieties.

Ken Chisholm, BFC Chemicals' project manager for the herbicide recommends that for preemergence or postemergence control of annual bluegrass and common chickweed in dormant bermudagrass overseeded with perennial ryegrass, apply in the fall at the time of or up to 30 days after overseeding. The rate should be two to four pints per acre in 20 to 60 gallons of water.

One or two supplemental applications may be necessary, Chisholm adds. These applications should be made at a rate of two pints per acre at 30 to 60-day intervals to maintain control through the winter months.

Chisholm says applications of Prograss after February 1st **are not recommended**. Late applications may temporarily delay transition into active growth of bermudagrass in the spring.

In established perennial ryegrass turf, he says applications are recommended from two to four weeks prior to the main period of annual bluegrass germination and up to 30 days after emergence. Recommended rates are two to four pints per acre in 20 to 60 gallons of water. Applications may be repeated one to two times if needed at 30 to 60-day intervals to maintain control.

Overseeding with perennial ryegrass may be accomplished at any time during the treatment period, he adds. Prograss is recommended for use in new seedings of perennial ryegrass at a rate of four pints per acre for broad-spectrum preemergence weed control.

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