

Fluroxypyr is sold in Europe under the trade name Starane which is the name used in Tables 3 to 5. Turflon D is an ester formulation which is currently available from Dow; the amine formulation is not yet commercially available.

#### PLANT GROWTH REGULATORS

Several studies were put out with the plant growth regulators Limit, (amidochlor), Embark (mefluidide) and EL-500 (flurprimidol). Each of these materials has its own niche in cool season turfgrass species. Embark is a good PGR that gives both vegetative and seedhead suppression. It has good potential in both the roadside and commercial applications. Data in Table 6 shows specialized use of Embark for controlling annual bluegrass seedhead production. For the second year in a row, applications of Embark after the accumulation of 50 growing degree days provided the best control of annual bluegrass seedheads. Table 6 shows the calendar days that the various degree day treatments were applied. The top three treatments all had a surfactant applied with the treatments. The surfactant aids in getting more of the Embark into the plant and while the seedhead control was good, the injury from the Embark was severe. At the present time we don't recommend adding a surfactant to Embark applications.

Limit has qualities which make it best suited for commercial applications such as parks, cemeteries, and other medium to low maintenance turfed areas. Limit provides excellent seedhead control and very good vegetative control. One problem encountered this past summer was the occurrence of Septoria leaf blight in plots of "Baron" Kentucky bluegrass treated with Limit. However, a companion study on Kenblue common Kentucky bluegrass failed to show significant levels of the Septoria infection.

EL-500 is a growth regulator which is aimed at the golf course market. EL-500 seems to be able to retard annual bluegrass more severely than creeping bentgrass, and may be used as a tool to convert fairways to predominately creeping bentgrass. We have examined EL-500 for the past two summers but have not been able to quantify its effect on the competition between annual bluegrass and creeping bentgrass. We will continue to experiment with this material and will have some concrete data on its effect to a mixed annual bluegrass creeping bentgrass stand after the summer of 1985.

TABLE 6 TIMING OF EMBARK TO CONTROL

## ANNUAL BLUEGRASS SEEDHEADS

Evaluated 5-31-84

<u>Treatment</u>	<u>Trmt. date</u>	<u>Seedheads/400CM<sup>2</sup></u>
1/8 lb + Surf 40DD	4/29	27 A
1/16 lb + Surf 40DD	4/29	40 AB
1/32 lb + Surf 40DD	4/29	45 AB
1/8 lb 50DD	5/3	54 ABC
1/16 lb 50DD	5/3	96 ABCD
1/8 lb 25DD	4/26	135 BCD
Check		150 CD
1/16 lb 40DD	4/29	153 CD
1/8 lb 40DD	4/29	155 CD
1/32 lb 50DD	5/3	158 D
1/32 lb 40DD	4/29	168 D
1/8 lb 75DD	5/14	172 D