

In April, Kentucky bluegrass seed was again dusted with hormone treatments A, B, D, G, H, I and T. Duplicate lots of 200 seed were placed on blotters in petri dishes and germinated under conditions of alternating temperature and light which are generally accepted as the most favorable for the germination of Kentucky bluegrass seed. Germination counts were made on the ninth, thirteenth, eighteenth, and twenty-seventh days but no significant differences appeared between the percentage of germination of the untreated and any of the treated seed.

At the same time, bluegrass seed from the same sources was treated with the same hormones and planted in field plots. There was no apparent difference in the rates at which the bluegrass seedlings appeared following any of the treatments as compared with the plots planted with untreated seed. As the season progressed, crabgrass invasion was equally severe in all of the plots.

In mid-August of this year the experiment was repeated and at the time of writing (3 months after planting) all of the plots are practically equally covered with bluegrass seedlings. To date, therefore, the field experiments as well as the germination tests indicate that under our conditions and at the rates applied, alpha naphthalene-acetic acid, beta indole-butyric acid, Vitamin B₁, Rootone and Hormodin A have had no significant effects in increasing the speed of germination or the total germination when applied to Kentucky bluegrass seed.

VITAMIN B₁ ON TURF

Turf of redtop (*Agrostis alba*) was grown on soil from which the topsoil had been removed to a depth of 1½ inches. Duplicate 4- by 4-foot plots of this turf were watered three

times a week with $2\frac{1}{2}$ gallons of a solution containing 0.1 p.p.m. of Vitamin B₁. Comparable plots received the same amounts of water; this was enough to soak the ground thoroughly. The treatments, begun in June, were continued until early in September. No effect of the treatment could be observed, either during the period in which the solutions were applied or until the plots were abandoned the following May.

In another experiment, duplicate 4- by 8-foot plots of two different stolon-propagated strains of creeping bent have been watered with a solution of Vitamin B₁. On these plots $1\frac{1}{4}$ gallons of a solution containing 0.2 p.p.m of Vitamin B₁ were used three times a week during the critical month of August when root growth on bent normally is at the lowest point of the season. No effect of the treatment on the grass was discernible.

From the results of the preceding tests in which stolons, seed, and turf of various grasses were treated with numerous preparations of different types of growth substances, there appears to be little or no likelihood of helping grass in a practical way with any of the growth substances now available.

Mowrah meal used on turf as an earthworm expellant is made from the beans of the *Bassia latifolia* tree, which grows to a height of 40 to 50 feet in tropical India. The tree is strictly tropical and probably cannot be grown anywhere in the United States. The wood is tough and the beans yield an edible oil. Mowrah meal is made from the cake left after the oil is expressed. The meal is not suitable for feed but is used as a fertilizer, and when finely ground as an earthworm expellant. It is used also to stupefy fish.