DALLISGRASS, *Paspalum dilatatum* Poir., has long been listed among the perennial warm-season grasses recommended for improved pastures in the South. It was first introduced from South America, its native habitat, about 1875 and is now grown from the 35-inch rainfall belt in Texas to the Atlantic Ocean (6, 7). It is generally grown in association with other pasture grasses and legumes on lowland and heavy upland soils of medium to high fertility.

Perhaps the greatest weaknesses of common dallisgrass are its low fertility (less than 20% of the florets set seed) and its susceptibility to ergot, *Claviceps paspali* F. L. Stevens & J. G. Hall. The latter may be related to poor seed set and may poison livestock. It is also attacked by anthracnose, *Colletotrichum graminicola* (Ces.) G. W. Wils., and *Helminthosporium micropus* Drechs., foliage diseases that weaken and often kill plants allowed to produce seed during the summer. On light soils, common dallisgrass lacks persistence and frequently disappears two to three years after seeding. Obviously, objectives of the plant breeder charged with the responsibility of improving common dallisgrass would include increased fertility and seed productivity, resistance to disease, and greater persistence. It is the purpose of this paper to summarize the findings of 25 years devoted to the attempted improvement of this species through conventional plant breeding methods.

**Selection Between Ecotypes**

A detailed 3-year study (5) of 22 dallisgrass seed sources (ecotypes) from South Africa, Uruguay, Australia, and the principal seed-producing areas in the United States led to the following conclusions: Nineteen lots that resembled common dallisgrass were so similar in type that they could not be separated from one another.” Small but significant differences in ergot resistance, anthracnose resistance, seed set, persistence, and forage yield were observed between space-planted populations of these common dallisgrasses. Differences in forage yield, persistence, and anthracnose resistance were less pronounced when eight of these were compared in clipped plots. The other three entries, introductions P.I. 142257–142259 from Uruguay, were more erect, less leafy, less resistant to anthracnose, less productive, and less persistent than common dallisgrass particularly under clipping. They were more fertile, however, and were much more resistant to ergot. The plants in this group had yellow anthers and larger, hairier florets than the common types. All 19 common types had purple anthers.

Owen (8) reported similar differences between ecotypes of common dallisgrass collected in the southern United States. Two selections from these, B230 and 430, carrying the best fertility, have been released as improved varieties.

Since 1936, more than 100 seed lots and introductions of dallisgrass have been studied at Tifton, Georgia. Most of these have been so much like common dallisgrass that they could not be separated on the basis of gross morphology. Several of these, however, have been unquestionably less productive than common dallisgrass. Other lots have resembled the erect, yellow-anthered Uruguay introduction, or have been like prostrate dallisgrass.