FIELD PERFORMANCE OF BROMEGRASS STRAINS FROM DIFFERENT REGIONAL SEED SOURCES

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For many years commercial grass seed has been purchased with the belief that "grass is grass" and similar performance has been expected from all seed. The demands for grass plantings in the adjustment of crop acreages, in soil conservation programs, and in the rejuvenation of drought-depleted pastures in general has led to the wide distribution of seed. The importance of seed quality has been stressed, but differences in the adaptation of strains have not been fully realized. Accordingly, farmers in certain areas have frequently met with distinct success or outright failure, depending on the choice of seed for planting. Such results are more likely to occur toward the periphery of the region of adaptation of a particular grass. This is the case with bromegrass, *Bromus inermis* Leyss., a cool-season grass, when its region is extended southward.

Many acres of bromegrass have been planted in Nebraska since the drought years of 1934 and 1936. Old fields previously pastured have been allowed to produce seed and much seed has been shipped into the state to supply this new demand. Enthusiastic claims concerning successful plantings have been made by many farmers. On the other hand, some have reported failure in securing suitable stands, while others who have reported good stands have been dissatisfied with the production obtained. This situation led to the planting in 1939 of a field test to determine the behavior of strains of bromegrass obtained from different seed sources.

HISTORICAL

Distinct differences in plant type had been noted in bromegrass nurseries at Lincoln, Neb., between plants originating from northern sources and plants from old fields in Nebraska and northern Kansas. The results later obtained from plot tests indicate that wide differences exist between strains in their adaptation to this region. To account in part for these variations, it is of interest to examine the history of bromegrass in reaching commercial importance in this country.

Bromegrass was introduced into the United States from continental Europe. Although some seed may have been brought in by immigrants, the earliest re-