AN INVENTORY OF FORAGE SPECIES AND THEIR IMPROVEMENT FOR PASTURE IN THE NORTHEASTERN STATES

HOWARD B. SPRAGUE

In making an inventory of forage species and their improvement for pastures, it is assumed that the latter portion of the topic is the more important. Merely to list the forage species would require but a moment. There are hardly more than 15 or 20 important legumes and grasses in permanent pastures of the 12 northeastern states, whereas within each species the number of forms which are of potential value because of one or more distinct characters is probably very large. At least, this has proved to be the case in other crop species whenever a careful study has been made. The tremendous importance of pastures as the cheapest and most satisfactory feed for cattle, sheep, and horses warrants a careful survey of the plant resources present in pasture species, the propagation of those strains showing superiority in those characteristics of value, and the combination in single strains of as many superior traits as may be possible.

The value of individual strains will depend on how well they serve the general objectives of pasture improvement. Among these objectives may be listed the following: (a) the production of more feed per acre at a low unit cost; (b) the comparatively uniform distribution of growth throughout the entire growing season; (c) the production of high quality feed, rich in protein and minerals; and (d) high palatability.

SOIL VERSUS PLANT IMPROVEMENT

In seeking new plants or in improving well-known species to meet these aims, it is necessary to decide whether to concentrate on a search for plant forms which are adapted to poor or depleted soils or to seek those which are superior on soils which have been well managed with adequate lime and mineral treatments. In other words, shall we attempt to improve forage species for soils as they now stand in the

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