GREEN PASTURES FOR THE PLANT BREEDER

H. K. Hayes

WHILE I have a broad general interest in many phases of agronomy, my own personal research has dealt chiefly with crop improvement including genetics of crop plants and the production of improved varieties with particular emphasis on disease resistance. I have decided, therefore, to discuss some of the accomplishments in plant breeding during the last 35 years, 26 of which I have spent in this field, and take a brief glimpse into the future.

In recent years some have maintained that one of the causes of over-production has been the development of high yielding varieties. This criticism of the work of plant breeders needs little discussion. The use of efficient varieties is one means of lowering the cost of production and efficiency of production certainly is an economic necessity if agriculture is to advance at the same rate as industry. Several writers have brought out the fact that industry supports a greater body of research in proportion to capital invested than does agriculture. Research that aims at more efficient production in agriculture must continue in the future as in the past.

If you have noted my title, “Green Pastures for the Plant Breeder”, you may have concluded that this is only another instance of an agronomist gone wrong. You may have decided that the main theme of this talk would deal with some phase of that elusive game of golf that to some agronomists is an avocation. My own experience, however, leads to the conclusion that few agronomists are physically or temperamentally fitted to make that sort of green pastures more than a mild diversion. I have thought of “Green Pastures” in a symbolic sense. The successful plant breeder or other research worker must enjoy his occupation and to him it must be of outstanding importance. Green pastures for the plant breeder then refer to verdant fields for research and experimentation. In developing this thesis, I shall mention outstanding accomplishments in the field of plant breeding.

1 Contribution from the Division of Agronomy and Plant Genetics, University of Minnesota, St. Paul, Minn. Paper No. 1391 of the Journal Series, Minnesota Agricultural Experiment Station. Presidential address delivered before the 28th annual meeting of the Society held in Chicago, Ill., December 5, 1935.
2 Chief of the Division of Agronomy and Plant Genetics.