A Technique Study in Grass Strain Testing

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One of the perennial problems facing the grass breeder is that of the proper method of evaluating an unproved strain. Since many of the improved grasses will eventually be grown with an adapted legume, it would appear logical that the strain should be tested with a legume. The evaluation of grass strains with one or more legumes presents a problem in itself. If the total yield is taken as the grass yield criterion, it may be found that the legume has masked the difference in the performances of the grass strains. To eliminate the possibility of such masking, the grass and legume components of the mixture are often separated. However, since such a separation is time consuming and costly, it limits severely the amount of strain testing the plant breeder can accomplish. One method of enabling rapid separation of the component parts is to grow the grass and legume in separate rows. When the harvest is made the rows can be harvested individually and the grass and legume weighed separately. The purpose of this paper is to report the performance of some grasses tested by the alternate row method and to suggest its implications in grass strain evaluation.

REVIEW OF LITERATURE

Weiss and Mukerji (6) tested eight orchardgrass strains, with and without legumes, in broadcast and 1-foot drill rows, and alone in 3-foot drill rows. They reported the broadcast plots of grass alone as the most accurate method of strain evaluation, and that the total yield...