HARD SEED IN KOREAN LESPEDEZA

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Korean lespedeza (Lespedeza stipulacea), a relatively new crop, is receiving considerable attention from agronomists who find that it has a wide range of adaptation and uses. A factor which has undoubtedly contributed to the popularity of the crop is the ease with which stands are secured, either from new or from volunteer seedings.

In spite of the fact that growers are seldom disappointed in the stands obtained, there is a hard seed problem in lespedeza which needs to be better understood. This hard seed condition causes poor germination and obscures the true value of the seed when tests are made soon after harvest. Fortunately, this condition breaks down largely during the winter following ripening.

Hardness and after-ripening in other leguminous crop seed have engaged the attention of several investigators. In the case of alfalfa and of red, alsike, and white clovers a decrease in the hard seed content during the winter following ripening has been noted by Hopkins, Rostrup, and Woll. As an example of the general trend, Woll found that hard seed in red, alsike, and white clovers decreased on the average from 16% in November to 9% in February, with no further decrease by May.

The work reported in this paper was planned to obtain information relative to the time of conducting tests with samples of Korean lespedeza in order to obtain the most favorable germination results. Also, to see to what extent the agricultural value of a sample of seed could be estimated on a basis of actual germination plus hard seed when tests were made early in the season.

MATERIALS AND METHODS

During the past 3 years the seed laboratory of the North Carolina Department of Agriculture has tested over 800 samples of Korean

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