NOTES

CRIMSON CLOVER IN THE COASTAL PLAIN OF THE SOUTHEAST

FAILURE to obtain good stands and growth of crimson clover on Coastal Plain soils has been generally experienced. Recent experiments dealing with the factors of seed source, seedbed preparation, companion crop, fertilization, and inoculation have disclosed weaknesses of past procedures. More specific consideration of these factors is presented as suggestions for reducing the failures and increasing the use of crimson clover as a winter cover, grazing, and hay crop in this section. Many of these suggestions also have application to other winter annual clovers and legumes.

SEED SOURCE

One of the weaknesses of crimson clover as a volunteer crop for grazing or winter cover is the rapid germination of most of the seed soon after it has shattered in early summer. The seedling plants die as a result of short periods of drought under high temperatures, and in some cases scalding, and no volunteer stand is established in the fall. However, several hard-seeded strains that volunteer to a good stand in the fall have been identified and tested. These strains have developed apparently through natural survival over many years and generations under grazing and the balk system of utilizing cover crops.

Germination tests on one of these strains conducted at different temperatures and intervals over a period of 2 years have shown that this strain contains over twice the number of hard seed as common crimson clover. If crimson clover is harvested for hay, this hard-seeded characteristic is not a factor in stand re-establishment since seed is not produced if the crop is cut for maximum hay yield. Furthermore, it is not known how long the hard seed will remain in the soil before germination.

SEEDBED PREPARATION AND COMPANION CROP

A firm seedbed is a well-known prerequisite in obtaining good stands, but frequently this factor has not been given sufficient emphasis. As has been shown with several other winter clovers, a closely clipped or grazed Bermuda grass provides an excellent seedbed. The short sod permits sufficient light necessary for germination and growth but at the same time affords protection for the inoculation and the seedling plants. While good stands may be obtained by broadcasting the seed on the surface, shallow drilling places the seed under more favorable conditions and a more complete stand is obtained with less seed.

FERTILIZATION

Under most conditions fertilizer should be applied liberally in order

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1Contribution from the Division of Forage Crops and Diseases, Bureau of Plant Industry, U. S. Dept. of Agriculture and the Georgia Coastal Plains Experiment Station, Tifton, Ga., cooperating.