THE INFLUENCE OF CLIPPING TREATMENT AND ROLLING ON THE YIELD OF CLOVER SEED

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At the present time there is considerable confusion among those interested in clover seed production concerning the handling of the growing crop when it is intended for seed. Should the crop be clipped, rolled, or pastured, or should it be left entirely alone? Is it possible to clip in order that less vegetative growth may be handled at harvest time and not reduce the seed yield? If clipping is neglected during the early stages of growth, will rolling prove advantageous? Do all clovers respond alike to these treatments? What is the influence of seasonal conditions upon clovers clipped at various stages of growth?

With these questions in mind, a series of experiments were laid out in 1937 at Michigan State College. These experiments have been continued by reseeding each year on a new area. Quite naturally no two seasons have been alike and the behavior of the clovers has varied with the particular season.

MAMMOTH RED CLOVER

On the more productive land during seasons of average or greater than average rainfall, it may be most advantageous to clip mammoth red clover to facilitate harvest. If it is not likely that plant growth will become so heavy that it will not hinder harvest, nothing will be gained by clipping (Table 1). Late clipping is very hazardous and results in greatly reduced seed yields. If it is thought that the mammoth clover is making such a rank growth that harvest will be hindered and the recommended stage for clipping has passed, much of the advantage of clipping to facilitate harvest may be gained by rolling. The average yield of seed for the unclipped plots for the years 1938 to 1941, inclusive, was 3.9 bushels per acre; for the rolled plots for the same period, 3.6 bushels; and for the early clipped plots, 3.6 bushels.

Rolling must be done at the right stage or a great loss of seed will result. The proper stage to roll is just previous to or at the early bloom stage. When rolled at this stage, the blossom buds turn upward as they develop and, when harvested, the seed-bearing parts and a portion of the stems are clipped off and bunched by the mowing machine, while the bulk of the clover plant is left in the field and not handled. When mammoth clover is rolled too late, the blossoms will not turn up and will not reach a height suitable for harvest, and much of the seed crop will be lost.

The length of the period over which mammoth clover can be clipped and a satisfactory seed yield obtained varies greatly, depending largely upon the distribution of rainfall during the regrowth period. During 1938, conditions were favorable for the production of the...