THE STIMULATION OF GERMINATION OF GREEN MANURE SEEDS.

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1. Introduction.

The primary function of a green manure crop is to supply organic matter to the soil, and for this reason leguminous plants are almost exclusively used for the purpose. In order that their cultivation should be economic, however, they must satisfy the demand for a crop which will not only yield a high percentage of green matter per acre, but also provide a good thick cover over the soil in the shortest possible time. In so doing they will suppress weed development, and counteract loss of soil moisture by evaporation, and at the same time prevent scouring and erosion in hilly land. Hence an even and a rapid "take" are essentials in a green manure crop.

The species of plants most widely employed are seldom grown on a very expensive scale, so that a regular seed supply is rarely available, resource being had to occasional collection of seed when opportunities offer. The seed supply is therefore very uneven, in varying stages of maturity, and unreliable. Such immature seed possesses frequently a very hard testa, and only germinates with great difficulty or not at all. This has lead to considerable trouble in planting up green manures, so that in the absence of an improved seed supply, measures of treating the seed so as to increase the germination capacity have had to be adopted. The trial of such measures, either previously employed or suggested by present circumstances, forms the subject of the following report.