

but only a small number of them. The rest of the plants coming when the first have already fairly well developed, will be hindered in their growth by the lack of space, and the result will be a very uneven seed-bed, which will give only a small number of seedlings ready for setting out at the time of the first pulling out.

The same trouble, but in an aggravated form, will arise from the use of seed from lot C. Here, the rate of germination in six days is only 19.8 per cent. It is still very low on the fourteenth day and rises only from the fourteenth to the twenty-first day when it becomes about normal, 76 per cent.

Such a seed-bed would show here and there some plants fully developed, and with a tendency to harden, and in their midst a rather late plant which, hindered by the first occupants, will have a tendency to weak growth.

There is no doubt therefore that the seed from lot A will give the best results as regards the percentage of seeds germinating in a rather short time (6 days), which is about the necessary time for the germination of the seeds on hot beds.

This seed will give an even bed, yielding the greatest possible number of seedlings for setting out at the first pulling.

In a previous work we have mentioned the possible danger of repeated pulling. On a bed seeded down with such seed the number of pullings will be reduced to a minimum.

We were not surprised to observe that the seed plants in the lot from which all the leaves had been removed on the 8th of August gave seeds very much inferior to those of the lot from which the top leaves only had been removed. We cannot at present, however, give any satisfactory explanation of the low percentage obtained with the seed in the germinator tests from lot C, in which the percentage was very much lower than that of the seed from lot B.

These observations are, however, only preliminary. The seeds obtained from the plants under test were put in the germinator at a very early date, and probably the germination test which we intend to make in April will give somewhat different results. At any rate, it will enable us to throw more light on the subject. To complete this experiment, it will be necessary to ascertain the density of our seeds and to find out the quality of the plants they are able to give by making a growing test.

However, the conclusion can safely be drawn that the seed originating from lot A is greatly superior to that of the other lots, and we would advise growers to keep all the leaves on the seed plants, except those from the top, which will be removed when the time arrives for lopping and the floral clusters are uncovered.

III.—Influence of season and temperature at maturity.

Two plants of Comstock Spanish had been selected with a view to gather systematically the ripe capsules at intervals of four days. The time of ripening varies with the position of the capsules on the different branches of the floral cluster, and in many countries the capsules are gathered one by one in order to make sure that they are quite ripe and to avoid the loss of seed, which occurs when the capsules are left too long on the plant and so burst themselves open.

Some authorities also say that axillary capsules, which are the first to ripen, ought to give earlier plants.