

The results of the testing of seeds obtained from the two plants of Comstock Spanish are given in the following table.

TABLE IV.

Number of parent plants	Date of harvesting	Germinator test		Artificial soil
		6 days	14 days	21 days
I	August 20.....	66	74	65
	" 24.....	83	90	83
	" 28.....	82	92	89
	September 1.....	67	76	71
	" 5.....	36	53	73
	" 9.....	7	16	45
II.....	" 1.....	60	75	69
	" 5.....	15	26	25
	" 9.....	7	20	24

The seeds obtained from plant No. 2, during the period extending from the 20th to the 28th of August were destroyed by mice which overran the apartment where the capsules had been spread. As to the period from the 1st to the 9th of September, we see that the seeds from both plants behaved in exactly the same manner.

It was not the earliest seed that gave the greatest yield but the seed harvested on the 24th or 28th of August. The increase is well marked and manifests itself regularly in every one of the various trials: 6 days and 14 days in the germinator, 21 days in an artificial soil. A remarkable decrease appears for the seeds harvested on the 1st of September, and a still greater decrease for those harvested on the 5th. The seeds picked on the 9th are evidently poor seeds, which should not be used.

The following observations may be deduced from the preceding table:—

1st. Judged on the percentage of germination, the best seeds are those that were harvested between August 24 and September 1. They were fertilized during the heat of summer under the most favourable circumstances, and their ripening was effected during a warm spell in the best condition.

2nd. The capsules picked on the 20th of August, including as they did, a large proportion of axillary capsules, gave a slightly inferior yield. This was expected, as most of these capsules were ill developed. They may ripen early, but they do not appear to be in the way of the great circulatory current which takes place in the panicles between flowering and fertilization.

3rd. All seeds harvested after the 1st of September show a decrease in the percentage of germination, and hence of vitality. Fertilization took place rather late, in some cases only during the latter half of the month of August, and it seems that the lowering of temperature, especially at night, had already been sufficient to check the formation of the capsules. This is shown by the fact that the latter capsules, like the very first, are comparatively little developed.

The following practical indications are obvious:—

(a) All axillary capsules, which are not of absolutely normal development, should be removed on every occasion when the seed plants are examined.