

No germination was observed in the germination depressions in agar when solutions of various calcium salts, filter paper soaked in calcium chloride solutions, blocks of agar containing calcium, pieces of style or pieces of endosperm were added to test depressions. Some germination occurred when crystals of $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$ were added to the test depression and allowed to diffuse for 17 hours, but the direction of growth of the tubes appeared to be random.

Germination was obtained around the filter paper discs soaked in calcium chloride or mashed styles and endosperm. The best results were obtained after a 40 min. diffusion period from discs soaked in 1500 ppm $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$. The analysis of the numerical data, however, indicated a random orientation of the tubes. Further details, photographs and illustrations may be found in the Canadian Journal of Botany, 45: (in press).

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6. A plant with opposite leaves.

A single plant, hemizygous for the short arm of chromosome 9 distal to but not including bz₁ was found in 1965 from a culture of 12 siblings to possess opposite leaves at every node and in addition twin ear shoots at each of three nodes. Prior to extensive internode elongation the plant resembled a rosette.

The morphology of the mature plant differed from a normal sib in at least two ways: a pair of leaves appeared to be inserted at each node and those leaf pairs were spirally arranged along the stem. Modifications of the tassel branch insertions were observed also. While the insertion of a pair of leaves at a node could be interpreted in terms of a long and short internodal system (as reported by Weber and Weatherwax, MGCNL 40:49, 1966) we found no evidence in our specimen to support this interpretation. The leaves do overlap one another at the node but they appear to be inserted at the same level. No evidence of two nodes was found from 100 μ thick sections through a node and its two leaves. We suggest, in the absence of critical data, that two leaves were initiated simultaneously from the apex. Direct observation of the developing apex would be necessary to confirm this.

No rosettes or plants with opposite leaves have been found among 70 seeds planted in the winter crop. Several hundred kernels remain from the self pollinations.

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