

7. Restoring tendencies in inbred M14.

Information from second winter generation 1954-55, summer 1955, and first winter generation 1955-56, based on observation of 1597 plants of 92 testcross progenies support an assumption that the seemingly complex inheritance of restoration in this inbred could trace to a single factor or closely linked complex which is expressed in 70 percent of homozygous individuals as either partial or complete fertility, and in 35 percent of heterozygous individuals as either partial or complete fertility.

A project for removing this factor(s) by outcrossing to non-restoring, non-recurrent parents, and backcrossing six times to M14, while holding heterozygosity by means of testcrosses, is now nearly complete. The above observations are based on testcross observations during backcross generations 2, 3, and 4.