

7. Seeding and plant type mutants produced in F₂ by chronic gamma radiation of maize pollen.

About 500 progenies of endosperm mutations produced in 1950 and 1951 were tested for seeding mutations in 1953. From these three viable mutants for plant type and two lethals were obtained.

The viables were one dwarf which closely resembles dwarf₁, a dwarf 2 1/2 feet tall which had a close phenotypic resemblance to normal corn having neither anther ear nor tillers, and a brevis type 3 1/2 to 4 feet tall with zig zag stalk. The brevis type and dwarf type could be identified in the seedling stage. The seedings are much reduced in height having a compact appearance with very broad leaves.

The lethals obtained were a white seedling and a glossy type in which the plumule and leaves were tightly rolled. Those were unrolled and appeared to be normal. The new growth was also tightly rolled. It was noted that this seedling had an extremely large primary root system.