

1. Mutations affecting carotenoid synthesis in the endosperm and seedling.

In 1951, in a lot of approximately 1000 selfed ears of Inbred M14, a single ear was found that segregated in a 3:1 ratio for white seeds. There were no intermediate yellow seeds, such as would have been the case if the parent seed had been outcrossed with white pollen. When the white seeds were planted, they all produced albino seedlings that soon died. By selfing ears produced from the yellow seeds, we continue to get ears that segregate for white.

In 1954, in a lot of about 800 selfed ears of Ohio 7, one ear segregated for light yellow seeds. When the light yellow seeds were planted, they all produced albino seedlings.

Neither mutation seems to have any tendency to be viviparous. The seeds are normal in size and germinate readily.

Seeds of these strains are being sent to California for testing with similar mutants that are being compared there.