

Name: *castrato (cst)*

Accessions: Flo3

Gene ID:

Map position:

Gene function: *CST* is probably a class B (*PISTILLATA* or *APETALA3*) regulatory gene that controls flower whorls differentiation.

Gene effect: plants with the mutated allele have sepals replacing petals and pistils replacing stamens

Phenotypes: MT-*cst* presents altered fruits with two whorls of calyx and five pseudo pistils (replacing stamens). It resembles the fruits of *Solanum mammosum*.

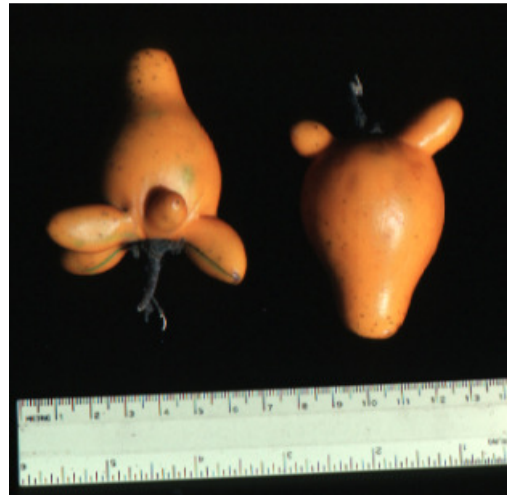
Comments: Since the mutant *castrato* is male sterile, it was named after the famous character of Italian Opera. MT-*cst* is maintained through pollination with pollen of MT. The resulted F1 plants are then used as pollen donor for homozygous *cst* pollination, which will results in seeds segregation 1:1 for heterozygous and homozygous *cst*.

Description of accessions available: MT-*cst* is a spontaneous mutation that appeared in MT in 2004.

Figures:



MT-*cst* showing altered fruits with pseudo pistils generated through the homeotic transformation of stamens into pistils.



Close-up of MT-cst fruit and its similarity with fruits of *Solanum mammosum* showed in the right panel. Source:

<http://botany.csd.tamu.edu/FLORA/hdwimages1/hdw018616.jpg>

Bibliography