

variable expression is not known. The genetic nature of multistyly is under study.

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2. Similar mutants in corn and Coix

Some of the segregants located in experimental populations of Coix lacryma-jobi and C. aquatica have a close resemblance to some of the well described mutants in corn, although the nature of their inheritance in Coix is yet to be studied. They are listed in the table below.

Mutants in <u>Coix</u>	Similar to mutants in corn
<u>Coix lacryma-jobi</u>	
1. ' <u>Virescent</u> ' - seedling yellow, turns green slowly.	Virescent $\frac{v_2, v_4}{\text{and } v_{16}}$
2. ' <u>Luteus</u> ' - lethal yellow seedling, seedling dies at 2 or 3 leaf stage.	Luteus $\frac{1}{2}$
3. ' <u>Knotted leaf</u> ' - seedling leaves show a knotted appearance, plant leaves normal.	Knotted <u>Kn</u>
4. ' <u>Crinkled leaf</u> ' - plant more or less short, leaves wrinkled.	Crinkled leaf <u>cr</u>₁
5. ' <u>Adherent</u> ' - first seedling leaves stick together, plant leaves normal.	Adherent <u>ad</u>₁
6. ' <u>Gold stripe</u> ' - yellowish longitudinal stripes, often broad, on margins and blades of leaf throughout the life of the plant.	Old gold stripe <u>Og</u>
7. ' <u>Pygmy</u> ' - leaves short, broad and pointed, plant more or less short.	Pygmy <u>py</u>
8. ' <u>Styleless</u> ' - styles not produced, ovules abort, young spathes wrinkled.	Silkless <u>sk</u>
<u>C. aquatica</u>	
9. ' <u>Luteus</u> ' seedling and plant yellowish green.	Luteus $\frac{1}{7}$
10. ' <u>Yellow stripe</u> ' - leaves with yellow tissue between leaf veins.	Yellow stripe <u>ys</u>₁

Mutants in <u>Coix</u>	Similar to mutants in corn
11. ' <u>Striate</u> ' - very narrow white longitudinal striations on margins of leaves in older plants.	Striate <u>sr</u> ₁
12. ' <u>Narrow leaf</u> ' - leaf blades narrow.	Narrow leaf <u>nl</u>
13. ' <u>Brachytic</u> ' - shortening of internodes, leaves semi-erect.	Brachytic <u>br</u> ₁
14. ' <u>Male sterile</u> ' - anthers fail to exert.	Male sterile <u>ms</u> ₂ and <u>ms</u> ₈
15. ' <u>Tassel seed</u> ' - in <u>C. aquatica</u> and <u>C. lacryma-jobi</u> -anthers and styles produced by male spikelets.	Tassel seed <u>Ts</u> ₃

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3. Somatic mutation affecting style colour in Coix.

In an otherwise white styled plant, a single pistillate spikelet in Coix aquatica and an entire tiller in Coix lacryma-jobi showed purple style. This might be the result of the occurrence of somatic mutations in the primordia from which the particular pistillate spikelet and tiller arose in C. aquatica and C. lacryma-jobi, respectively. As earlier studies showed that purple style is dominant over white style, the tiller with purple style in C. lacryma-jobi should be heterozygous and this was selfed to check for segregation of style colour.

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4. Androgenic haploid from an autotetraploid Coix lacryma-jobi.

Autotetraploid ($4n = 40$) and diploid ($2n = 20$) plants of Coix lacryma-jobi were grown in alternate rows in June, 1967. The diploids were characterized by green colour of seedling base, white style and presence of long hairs on the upper surface of leaves and the tetraploids by purple colour of seedling base, purple style and glabrous leaves. Purple style and purple colour of seedling are dominant over white style and green seedling, respectively and the