Inheritance of Blush Corolla.

in Dolichos Lablab L.

Harland (1) in St.Vincent found on crossing two white flowered plants that the F_1 was purple coloured. This being analagous to the finding of Bateson and Punnett and Miss Saunders in Sweet peas (2), Miss Saunders (3) notes the same phenomenon in Matthiola Stocks.

In the Sweet pea each of white parents contains a factor which of itself is incapable of giving colour - each of these factors is independently inherited and thus in F_2 the ratio of coloured individuals to Whites is 9:7 .

Harland (1) crossed two whites and the F_1 plants were purple In F_2 the ratio of Purple to White was 9.3:6.7 .

F_3 gave three results:-

I. Certain families bred true to Purple.

II. Some families segregated into Purples and Whites in ratio of 9:7

III. Other families segregated into Purples and Whites in ratio of 3:1

The results are interpreted thus :-

(a) That there are two factors concerned in the production of purple flower colour- called C and R with allelomorphs c and r.

(b) In presence of both flower is purple; in absence of either flower is white.

In this work Purple and White were the only colours noted, but later in a population it was observed that among the Whites occurred certain plants with a faint pinkish coloration on the flower. The object of the present work was to investigate the inheritance of this pinkish coloured type - " Blush".

The material used was the seeds of an F_2 population taken over from a previous investigation.

Ten Families each of Purples, Whites, Blush and a class known as Intermediate, were sown but the seeds had been badly attacked by Bruchids during storage and germination was so low that the families were too small to give definite results.

The following is a description of the various types.