

INTRODUCTION.

An investigation into the genetics of certain species of *Stizolobium* was started at the Imperial College of Tropical Agriculture, Trinidad, in 1924. Crosses in that year were made by McKinstry (1) and successive generations were investigated by various workers. The objects of the work were, first, to determine the method of inheritance of various characters involved, and second, to select homozygous strains superior to existing forms of *Stizolobium* used as cover crops. Six crosses were made originally, but of these only three were carried on into the F₂ and F₃, while in the F₄, progeny from the Chinese Velvet X Tracy Velvet cross only was raised.

The present work is a continuation of that on the Chinese Velvet X Tracy Velvet cross and forms an account of the characters appearing in the F₅ generation. In order to connect up previous work, the inheritance of the various factors will be traced through all previous generations.

The parents of the Chinese Velvet X Tracy Velvet cross are:-

Chinese Velvet	S. niveum.
Tracy "	S. hasjoo x S. capitatum.

A description of these has been given in detail by Haigh (1) and will not be reproduced here. Reference should be made to that work or to that of Taylor (1).

The various characters investigated are:-

1. Presence or absence of cotyledonary pattern.
2. Colour of hairs on the growing point.
3. Flower colour.
4. Colour of the pod hairs.

5. The type of hair on the pod.
6. Occurrence of stinging hairs on the pods.
7. The inheritance of white stinging pod hairs.

All progeny of the Chinese Velvet cross was known as Chinese Tracy. The plants in each family were numbered in order along the rows, families of one generation taking the number of the plant in the previous generation from which they were recorded.

Work has been concentrated on families derived from CT 1.6.72 i.e. the 72nd plant of family CT 1.6 in the F₂. All of these were homozygous for absence of cuticular pattern but in certain families from another plant of the same cross gave distinctly aberrant ratios for this character material was kept on for observation.

The seed was sown at two foot intervals in ridges four feet apart. The plants were trained up barbed supports and cut back periodically to avoid branches intermingling.