

Inheritance of the pod reticulation and number of kernels per pod in Peanut (*Arachis hypogaea* L.)¹

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Summary

The pod reticulation and number of kernels per pod are important agronomic characters of peanut. To study the inheritance of these characters in peanut, TN12 and EG PN-18 were used as materials. Results were summarized as follows:

- 1.The reciprocal crosses of TN12 with slight reticulation of pod and EG PN-18 with prominent reticulation were made. The F_1 of reciprocal crosses showed moderate reticulation. The segregated ratio of F_2 generation was 1 slight : 2 moderate : 1 prominent. As the results of progeny test and testcross, it was suggested that the inheritance of reticulation is controlled by a single and incomplete dominant gene.
- 2.The reciprocal crosses of TN12 with 2-kernel and EG PN-18 with 3- or 4-kernel were made. Most of the F_1 showed the character of 2-kernel. The segregated ratio of F_2 was 15 (2-kernel) : 1 (3-kernel). The segregated ratio of F_3 from F_2 of 2-kernel was 7 (nonsegregated) : 8 (segregated). However the F_3 from F_2 of 3-kernel showed no segregation. It was indicated that the character of number of kernels per pod was controlled by duplicate genes.

(Key words: Peanut, pod reticulation, number of kernels per pod, inheritance.)

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