

4. Nucleolar-like droplets at pachytene.

In microsporocytes of maize plants heterozygous for 1, 2, 8, and 12 knobs, nucleolar-like droplets appeared at various locations in the cells. These included the ends of chromosomes, interstitially on the chromosomes, and free in the nucleoplasm.

One hundred pachytene cells were analyzed in each family; from this the average number of droplets per cell was calculated (Table 1).

Additional studies were made on plants which arose from a backcross of the 12 knob plant by Tama Knobless Flint. Observations of the offspring, which had 1 to 8 knobs (heterozygous), gave similar results (Table 2).

It appears evident that there is an inverse relationship between the number of nucleolar-like droplets and the number of knobs present.

Table 1.

No. of knobs	Ave. no. of droplets per cell
1	3.19
2	3.10
8	2.38
12	1.83

Table 2.

No. of knobs	Ave. no. of droplets
1	2.66
2	2.44
3	2.38
4	2.00
5	1.46
6	1.55
7	1.92
8	1.01

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