

3. Cytological studies of the c blotching system.

To determine whether blotching is associated with any kind of irregular chromosome behavior or with differences in heterochromatin, a comparison was made of the plants grown from blotched and nonblotched seeds from fourteen different ears, each segregating in a 3:1 ratio. Pachytene smears of some ninety different plants were studied. Special attention was given to the size, shape, location, and number of knobs, the characteristics of prominent chromomeres, and any irregularities of the chromosomes. No consistent differences were found between the plants grown from blotched and unblotched kernels in any of the fourteen progenies. The c blotching system apparently involves genes rather than heterochromatin or chromosome irregularities of any kind.

Yu-Chen Ting