Disregarding the heterosis aspect, cotton hybrids warrant further investigation because of their potential in tailor-making a cotton for an area--such as disease resistance, insect resistance, earliness, height, etc., which can be engineered in the F1 generation.

**BREEDING COTTON ADAPTED FOR HIGH POPULATION PRODUCTION SYSTEM**

**H. Muramoto**

The objective of the high population cotton culture is to cut production cost by shortening the growing season through various new concepts of maximum utilization of space and interception of sunlight. With this in mind, the selection for the ideal plant type has been pursued for several years.

The super okra leaf gene, which reduces the normal leaf shape to a long, narrow leaf, was selected as offering some promise to making plants more adaptable for narrow row, high population culture. In cotton fields with long, narrow unifoliate leaves, sunlight can penetrate the leaf canopy and reach the lower leaves of the cotton plants. This type of leaf also reduces boll rots by allowing better air movement. The super okra leaf gene has been successfully incorporated into all breeding populations of short staple Upland cotton as well as long staple pima cottons. There are in various stages of back-crossing with many in the far advanced stages of selections.

The experimental super okra leaf cotton adapted for a narrow row, high population cotton production system is being considered for possible release pending further demonstrations this year.

**HEXAPLOID COTTON**

**H. Muramoto**

Approximately two acres of hexaploid cotton plants were grown in 1971. The hexaploid population in the breeding program now includes germ plasm from the following: Acala 44-10-1, Hopicala, Super Okra, Del Cerro, F4 materials