UNIVERSITY OF MARYLAND
College Park, Maryland
Agricultural Experiment Station
Department of Botany

1. Dual nucleoli at diakinesis.

A highly asynaptic plant occurred in a culture segregating for lower frequencies of asynapsis and normal. Failure of association was evident in all of the 113 cells scored at diakinesis. The number of disassociated pairs ranged from ten to two with an average of six per cell.

In contrast to the single nucleolus regularly present in normal material, 14 microsporocytes had two nucleoli at diakinesis. Chromosome 6 could be detected adjacent to each nucleolus in most of the cells. Although some of the cells had nucleoli of approximately equal size, one nucleolus was usually considerably larger than the other. Dual nucleoli are evident in somatic cells due to widespread separation of organizers resulting in failure of fusion. The dual nucleoli in the asynaptic microsporocytes presumably reflected greater than normal spatial separation of the homologues of chromosome 6 and organizers during nucleolar formation in the premeiotic division.

D. T. Morgan, Jr.

UNIVERSITY OF MASSACHUSETTS
Amherst, Massachusetts
Department of Plant and Soil Sciences

1. The culture of sweet corn inbreds in the greenhouse.

A greenhouse is of inestimable value to most plant breeding programs and is no exception to a corn breeding project. For years Dr. D. F. Jones (2) in Connecticut, Dr. F. D. Richey (4) at the U.S.D.A. and others involved with corn breeding projects have made considerable use of greenhouses for growing "off season" crops.

While it is not feasible to conduct yield trials or practice selection for specific characters when selfing in the greenhouse, plants grown under these conditions can be used for making limited quantities of seed of experimental hybrids or more especially as a time saver when