including the differential segments in the bigger rings.

Cytological analysis of backcross progeny from the ring of 8 and the ring of 10 showed that 64% and 76% of the progeny, respectively, were the parental type, either the big ring or 10 pairs. The remainder had smaller rings and were presumably the products of crossing over in differential segments. "The fact that there is no drastic reduction in recombination in the bigger rings must be taken into account in any application of multiple interchanges as a tool in gametic selection."

Helmy Ghobrial (Ph.D. Thesis)
C. R. Burnham

4. New combinations for genetic marker stocks.

chromosome 1

br segregating ts_2

chromosome 3

Stock segregating ra_2 and d_1

chromosome 4

Stocks homozygous for su, expected to segregate for la gl_4

Linkage tests with a_3

Tests of a_3 with R vs r, sr_2, and g_1 give no satisfactory evidence of linkage.

C. R. Burnham
Richard V. Kowles

5. Albino seedling W7748.

Stocks segregating albino W7748 (originally from Coop stock 60-529-1) failed to show linkage with ba_1 (originally from Coop stock 62F-1116-4), as reported in M.N.L. 41:133, 1967. Ears of this material that were segregating for one to three aleurone color factors were used by a senior undergraduate student, Mr. Robert Kennedy, as a special problem. He made the seedling tests for linkage between aleurone color and albino seedlings. Cultures from ears segregating for three aleurone color factors, and certain of those segregating for two, showed linkage between aleurone color and albino.

The past summer, plants from the colored aleurone classes from ears showing linkage were selfed. An ear segregating 3:1 for aleurone

color and for albino shows linkage in coupling with about 12% recombination based on very small numbers. Crosses will be made this summer to identify the aleurone color factor with which it is linked.

C. R. Burnham

6. White-tipped seedlings.

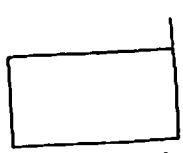
In 1966, self progeny from one ear from one of Kenneth Michel's cultures of Minnesota A188 inbred segregated for white-striped seedlings. The plants were short, with thin stalks and narrow leaves. All leaves were striped, but the stripes varied in width. Two striped plants produced pollen which was used in crosses with interchange stocks in the "all arms tester series" and with sib plants in the same culture. Remnant seed from the original ear and from sibs of the original ear failed to segregate for striped plants. Also the crosses of green x striped sibs failed to segregate striped plants. The latter did segregate for seedlings with a patch of white radiating back from the leaf tips. Self progeny from the crosses of the A188 interchange stocks x striped also segregated 3 green:1 white tipped.

The character is easily classified in the seedling stage and the plants appear normal in vigor. No linkage has been found in the tests made thus far.

C. R. Burnham

7. Keeping numbered tags in order for field use.

In collecting tassel samples for preservation in 70% alcohol for later pollen abortion determinations, it is advantageous to make out the tags, such as the 37B Dennison string tag, in advance in the laboratory. The first workable item was one seen in sporting goods stores used for display cards of the short leaders used in fishing. These come in different widths, 1" or 1 1/2" across the side, and are bent in this form:



The tags can be strung on this holder in order. We held the strings in one direction as they were added, and experienced no difficulty removing them in order. Mr. John Mead who was helping found that a paper clip bent in the same manner worked fully as well.