

4. Linkage tests on c_2 .

This new aleurone factor has not yet been located. A self of $c_2 \pm/bz_1$ gave 64 colored to 67 bronze-and-colorless, suggesting close linkage, but c_2 is independent of wx in a large test (1309 individuals). The following linkage tests have been carried out: wx 1-9c, 52% with wx in 657 individuals; bz_2 , 9:3:4 in 346; lg_1 , more than 50% in 285; A , 308 colored to 281 colorless, consistent with about 30% recombination; wx 3-9c, 53% with wx in 393; su , 48% in 363; Pr , 9:3:4 in 279; Y , more than 50% in 339; gl_1 , more than 50% in 731; wx , 50% in 1309; R , 9:7 ratio in 1061. Chromosome 3 is the most likely-looking at the moment; if so, probably far out on the long arm.

E. H. Coe, Jr.

5. Spontaneous mutation of CI .

An additional population of about 1.5 million gametes in the cross $CI CI \times CC$ has been examined for mutants. Only one possible case turned up. Judging from the previously-reported population, this case has a 50-50 chance of being valid. Obviously the mutation rate is low.

E. H. Coe, Jr.

6. Subject index to Newsletters.

An attempt to index the Newsletters by subject is in progress. Volumes remaining to be scanned before the index is ready to assemble are Nos. 1 through 3 (not on hand here--they will be checked elsewhere), 31, 32, this issue, and any subsequent ones which come out before the rest of the job is finished. In the meantime, any cooperator wishing a moderately thorough list of vol. 4-30 references (for example: linkage notes for a given chromosome; mutability factors or mutable loci; carotinoids; centromere linkage) will be sent it on request.

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7. Effect of external agents on the frequency of crossing over.

In the last Newsletter (MNL 32:100) it was reported that in a preliminary trial, treatment with a .001 M solution of the chelating compound (EDTA) gave a significant increase in the frequency of crossing over between the members of a complex a a sh_2 segment on chromosome 3. In order to check the validity of this result and also to try some other agents, a large scale experiment using the same cross (a a sh/a^m $Sh \times a^s$ sh) and the same technique (leaf feeding) but with two additional agents (ribonuclease and desoxyribonuclease) was conducted.