

homozygous 6-9 translocation with the constitution of $\underline{Y} - T - \underline{wx} / \underline{y} - T - \underline{Wx}$ can be irradiated and kernels with the phenotype $\underline{Y} \underline{Wx}$ can be isolated. The duplication can then be introduced into a normal background by crossing over.

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1. Mutations from seed irradiation of B14 maize inbred.

The seed irradiation study, proposed in 1965, has proved to be rather effective in mutation induction. In 1967, seed of B14 was treated with thermal neutrons at the Brookhaven National Laboratory through the courtesy of Robert W. Briggs, whose cooperation is much appreciated. After treatment the seed was planted in an isolated field and allowed to interpollinate. In this way every mutant gamete, even in a small sector of the ear or tassel had the opportunity to participate in fertilization. No self pollinations were made in this field. At harvest time the ears were shelled together. In 1968 a small field was grown and more than 1000 hand pollinations made. After harvest a small sample of seeds was taken from each ear and planted in a seedling bench in the greenhouse.

The results are now complete. Of 1074 seedling rows in the greenhouse, 49 or 4.6% were segregating for some seedling character. These included albinos, luteus, yellow green, virescent and one dwarf. Most, by far, showed segregation for albinos. Of the 49 progenies, 39 were segregating albinos, 6 luteus, 2 virescent, 1 variegated, and the one dwarf previously mentioned. Also many mutations for defective and germless seed were observed. These need further testing to determine how many are true mutations. Also a number of ears presumably heterozygous for translocations were found. Further testing of these is necessary. Limited quantities of seed of stocks heterozygous for the various mutants are available.

2. Old varieties of corn wanted.

The Colonial Farm is interested in antique varieties of corn. Last year Hastings Prolific was obtained from the originator, the Hastings Seed Co., in Atlanta, Georgia. This old variety was obtained from the Indians in the 19th century and has been maintained since by the Hastings Co. Does anyone know of similar old varieties?

3. National Colonial Farm now open.

The National Colonial Farm will be open to the public in the summer of 1969. Besides crop exhibits there will be livestock, characteristic of the colonial period around 1750. There will be Devon Cattle, Quarter Horses, Dartmoor Sheep, as well as hogs and poultry.

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1. Choice of characters for racial classification.

Analyses of variance for 111 characters from 55 races and sub-races of maize from eastern South America grown at Piracicaba, S.P., Brazil, between 1960 and 1965, indicated that those characters which were least affected by environmental factors and interactions were reproductive characters. In particular, the component of variance due to differences among races for certain ear and kernel characters was much greater than the sum of corresponding components due to differences among years and race by year interactions. The converse was true for all vegetative characters. Tassel characters tended to be intermediate between ear and plant characters.

While some indices had larger components of variance attributable to racial differences than to the effects of environment and/or environmental interaction, some commonly used ones, such as cob/rachis and