

## 2. A new lutescent trait in maize.

Among recently-collected, chlorophyll-deficient traits, an expression similar to the tomato lutescent (Rick and Butler, *Advances in Genetics* 8:267-382, 1956) has been observed. This maize lutescent appears as a pale green leaf color in the seedling stage followed by a yellowing but persistence of the older leaves, hence the tentative designation lutescent. It is apparently not equivalent to Bianchi's lutescent term in MNL 37.

Expression of the new maize lutescent suggests nitrogen-deficiency symptoms. Preliminary experiments conducted by Mr. David Shortess of this laboratory indicate that changes in nitrogen nutrition strongly influence expression.

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## 3. Mutant nomenclature.

The growing assemblage of cataloged mutants in maize, tomato, barley, soybean, tobacco, potato, Arabidopsis and other vascular plants points out the need of a standard taxonomy of genetic traits. I have found little correlation in comparing the names given to traits from one genus to another. Moreover, inconsistencies exist within naming systems.

Investigations of gene action are obviously complicated by the differentiated cells and tissues of higher organisms. However, few of the names given to mutants in higher plants give any indication of gene action although differences in metabolism have been elucidated in a number of cases. I hesitate to suggest a renaming program for cataloged mutants, but a standardization of nomenclature seems to be an inevitability in the near future.

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## 1. Introgression in Corn Belt maize.

It has previously been shown (News Letters 35, 37) that introgression in maize, from its relatives teosinte and "Tripsacum", can be recognized on the basis of the morphological effects produced by the introgressed germ plasm on the component parts of the pistillate spikelet and its associated rachis internode. Since Corn Belt maize possesses numerous tripsacoid characters, a morphological study of a sample of the Corn Belt material was undertaken so as to recognize the introgressed components responsible for the tripsacoid characteristics. About 30 inbreds and a few typical flints and dents were employed in the present studies. The northern flints, it seems, are comparable to teosinte introgressed