It thus seems probable that two linked genes are involved in differences between these sublines as was suggested by Braun (N.L. 37, p. 50). Nevertheless, it is difficult to envisage a major change or chance outcross when very little or no heterosis between sublines is manifested.

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1. Cyclic hydroxamate content of maize seedlings.

Segregation for the presence or absence of a cyclic hydroxamate or its 2-glucoside in maize seedlings has been reported previously (MNL 36: 71-72). The inheritance pattern of this character is being investigated using the waxy translocation stocks of Dr. Anderson.

In an attempt to find other sources of segregating material, at least 12 seedlings each of 1813 corn plant introductions of the U.S.D.A. collection have been scored visually. The test employed crushing the mesocotyl of 6-day-old dark-grown seedlings in an aqueous 0.1 M $FeCl_3$ solution; presence of the cyclic hydroxamate was indicated by a blue color reaction. Qualitative ratings given to individual seedlings were: 0, no blue color observed; 1, slight blue color; 2, moderate blue color; 3, intense blue color reaction. The following data were obtained:

Visual Rating	Plant Introductions Scored
0 - 1	4
0 - 2	13
0 - 3	13
1	1
1 - 2	206
1 - 3	274
2	290
2 - 3	679
3	333

The low, high and possibly segregating lines have been selected for quantitative determinations and genetic analysis.

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