

1. Pseudostarch.

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Sugary seeds from a cross $Wx Wx su_1 su_1 \times wx wx Su_1 su_1$ were planted and the F_1 plants selfed. The selfed ears show numerous pseudostarchy kernels, which are probably similar in phenotype to those described by Mangelsdorf (Genetics 1947), and by Cameron (Genetics 1947).

The phenotype of the pseudostarchy kernels varies from those which are chiefly sugary and thus translucent with opaque areas showing starch deposits at the top and near the surface of the endosperm to those which are chiefly smooth and opaque. The latter kernels approach normal starchy in appearance but are readily distinguishable.

Data from selfed ears of four F_1 plants are presented below:

| <u>Sugary</u> | | <u>Pseudostarchy</u> | |
|---------------|------|----------------------|------|
| Non-Waxy | Waxy | Non-Waxy | Waxy |
| 1491 | 81 | 131 | 163 |

From the limited data it appears that this pseudostarchy is controlled by a recessive factor which is linked with waxy on chromosome 9.

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