

Linkage Tests of *waxy1* Marked Reciprocal Translocations obtained from the collection of William Findley

Janet Day Jackson and Philip Stinard
Maize Genetics Cooperation • Stock Center
Urbana, IL

In the collection of A-A translocation stocks maintained at MGCSC is a series of *waxy1*-linked translocations that are used for mapping unplaced mutants. Over the last decade, new *wx1*-linked translocations have been introduced into this series from various Cooperators.

We report here the positive results of two-point linkage tests for three of these new accessions. The linkage tests were set up as modified backcrosses as indicated. These new *wx1* marked translocations have been propagated and are now available for distribution. Additional Findley translocation stocks will be tested as time allows.

Table 1. *wx1* T4-9e (4S.53; 9L.26)

A) The Findley source showed linkage of *wx1* with *su1*.

Two-point linkage data for *su1-wx1* T4-9e

Testcross: [*Su1 wx1* T4-9e x *su1 Wx1* N] x *su1 wx1* N

source:2004-1216-3^Findley

| Region | Phenotype | No. | Totals |
|--------|-----------|-----|------------|
| 0 | + wx | 542 | |
| | su Wx | 475 | 1017 |
| 1 | + Wx | 146 | |
| | su wx | 46 | 192 / 1209 |

% recombination *su1-wx1* = 15.9 ± 1.1

Table 2. *wx1* T4-9g (4S.27; 9L.27)

A) The Findley source showed linkage of *wx1* with *su1*.

Two-point linkage data for *su1-wx1* T4-9g

Testcross: [*Su1 wx1* T4-9g x *su1 Wx1* N] x *su1 wx1* N

source:2004-1217-3^Findley

| Region | Phenotype | No. | Totals |
|--------|-----------|-----|-----------|
| 0 | + wx | 393 | |
| | su Wx | 328 | 721 |
| 1 | + Wx | 128 | |
| | su wx | 90 | 218 / 939 |

% recombination *su1-wx1* = 23.2 + 1.4

Table 3. *wx1* T7-9(027-9) (7L.61; 9S.18)

The Findley Source showed linkage of *wx1* with *gll*.

Two-point linkage data for *gll-wx1* T7-9(027-9).

Testcross: [*Gll wx1* T7-9(027-9) x *gll Wx1* N] x *gll wx1* N

source:2004-1223-1^Findley

| Region | Phenotype | No. | Totals |
|--------|-----------|-----|----------|
| 0 | Wx gl | 633 | |
| | wx + | 710 | 1343 |
| 1 | Wx + | 144 | |
| | wx gl | 122 | 266/1609 |

% recombination *gll-wx1* = 16.5 ± 0.9