marker and de^t factor on the same chromosome, while the linkage relation-
ships for the others were not evident. Out of 112 ears segregating de^t
factors linked to su, 9 showed Su-su chimeras. In 37 ears segregating
de^t not linked to su the Su-su chimeras were 3.

3. Ga factors in maize-teosinte derivatives.

The maize kernel, and especially its highly evolved endosperm, is
a structure where mutant factors are susceptible to prompt detection.
But when appropriate genetic tests are performed the maize gametophyte
turns out to be, as expected, the first place in which mutant factors
may show, in some way, their presence. The majority of the many mutants
which have been detected in maize-teosinte derivatives (Mangelsdorf 1955,
Maize News Letter 29:23) were recognized as defective endosperm factors.
However, such derivatives crossed to multiple testers showed that several
Ga factors should be postulated to account for aberrant segregation data.
A male gametophyte factor has been found on the short arm of chromosome
9, strongly linked to Wx. Self-pollination of plants whose genotype is
probably Ga Wx/ ga wx yielded the following segregations:

Plant No.	Wx	wx	%wx
55-356-5	273	2	.73
-10	356	5	1.38
-1	155	2	1.27
-13	225	3	1.31
Total and average	1009	12	1.17

5 sib ears segregated wx with percentages ranging from 21.4 to 24.9.

55 selfed plants from Wx kernels of low wx ears, in 1956 yielded:

  2 ears segregating waxy close to 25%,
  18 ears segregating low waxy (80 wx out of a total of 4269
     kernels),
  35 ears non-segregating.

As the last two classes are expected to be almost equally repre-
sented (exactly 27:26; Emerson, Genetics 19: 149) it is quite possible
that in the non-segregating class some ears occurred whose constitution
actually was Ga Wx/ ga wx; the chance for the ga wx gametes to ferti-
lize was probably so low that no wx wx recombinations occurred in some
ears.

Twelve low waxy ears were studied, classifying separately the ker-
nels on the upper, middle and lower part of the cob. The three ratios
are not very different: 2.43-1.25 and 1.93 respectively (chi square
3.75; P = .15). A slight negative correlation however exists between