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1. Defective endosperm factors from maize-teosinte derivatives.*

Additional allelism tests have been obtained on the defective endosperm types (de^t factors) in the derivatives of the controlled teosinte introgression in the inbred A158.

While no other case of allelism has been found, it is now well established that de^{t12} , de^{t13} and de^{t25} are three different and independent factors. Moreover de^{t5} is not allelic to de^{t28} . When de^{t22} (an allele of de^{t13}) is introduced in the background of the stock of the balanced lethal system de^{t1}/de^{t2} , although segregating regularly in its own original background, it "disappears" completely. In other words the genotype De^{t22}/de^{t22} behaves as though it were De^{t22}/De^{t22} in the new background. The same behaviour had been shown to hold for de^{t5} in the genetic background of a multiple tester developed by Dr. P. C. Mangelsdorf (W. M. T. r. G). It should be noted that, while in the case of de^{t5} we are dealing with a factor affecting the endosperm mainly from a quantitative point of view, in the case of de^{t22} its effects are obviously also qualitative.

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2. Mendelian characters in Italian maize.*

Self pollination has been carried out in plants of over 200 samples of Italian maize provided by "Stazione di Maiscoltura di Bergamo".

The following mutants have been obtained in a total of 1500 selfed ears:

Character	No. of cases exhibiting a ratio of:		Character	No. of cases exhibiting a ratio of:	
	3:1	15:1		3:1	15:1

A. Seed Traits:

Defective	45	Floury	1
Opaque	4	Brittle	2
Lemon	2	Pink-yellow	2
White	2	Small	3
Waxy	3	Germless	2
Shrunken	4	Pregermination	1
Defective floury	1		

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