

obtained: 13 were segregating for the rt phenotype while 9 did not segregate. Among the segregating progenies 802 seedlings were normal while 255 (24.1% possessed the mutant phenotype. On the basis of these results the rt phenotype seems to be inherited as a monomendelian character.

C. Lorenzoni  
F. Salamini

3. Induced E.M.S. mutations for kernel characters: absence of specificity for selected loci.

From ethyl methane sulphonate (E.M.S.) treatment (1.5%, 14 h, 22°C) of maize kernels, one hundred self fertilized ears were collected. A subsequent self-fertilization permitted isolation of 95 kernel mutants classified as:

1. defective endosperm (normal plant)
2. defective endosperm (lethal plant)
3. germless

Within each class of mutation, allelism tests were performed. The results are as follows:

| Mutant class | Number of isolated mutants | Number of mutants considered | Number of crosses performed | Cases of allelism | Number of independent loci |
|--------------|----------------------------|------------------------------|-----------------------------|-------------------|----------------------------|
| 1            | 17                         | 12                           | 22                          | 3                 | large                      |
| 2            | 59                         | 35                           | 507                         | 3 (+ 1?)          | large                      |
| 3            | 18                         | 8                            | 85                          | 6                 | 3                          |

The 8 germless mutations can be recognized as allelic to three independent loci. As to the endosperm defective mutations, it has not been possible to recognize them as alleles of a reduced number of loci. The conclusion follows that E.M.S. mutagenic action is not specific for selected loci.

C. Lorenzoni  
M. Pozzi