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1. Enlarged kernel: General response of A_2 state of a_2^{m-1} to Spm.
2. Ears illustrating response of A_2 state to: No Spm, one Spm, transpositions of Spm. Linkage of A_2 state to Bt; no linkage with Spm. Associated responses with wx^{m-8} .
3. Linkage of Spm with wx locus: + Wx/active-Spm wx. Response of A_2 state of a_2^{m-1} to doses of active Spm.
 - (I) Backcross: 8731B-2 x 8726-2
8735E-1 tiller x " ; plus variegated pericarp.
 - (II) Self-pollinated ear. 8735E-5. Doses of Spm and phenotypes.
4. Doses of active Spm and response of A_2 state with wx/wx; active Spm:
 - (I) 8737-9 self-pollinated. Ear - 5 photos
 - (II) " -11 " " " - 4 " (R₂)
 - (III) 8736E-3 Self-pollinated. Shelled kernels. Var. Pericarp. _Λ
5. Backcross ratios. One active Spm in test.

Spm in ear parent:

8738-14 tiller x 8726-2. Ear
8738-8 x 8720-14 with wx^{m-8} . Shelled kernels.

Spm in pollen parent:

8585-3 (with wx^{m-8}) x 8583D-4. Shelled kernels.
" -10 " " " x " . Shelled kernels.
6. Inactive-Spm with some changes to active. Phenotypes produced.
 - (I) Two kernels. Inactive → active Spm pattern of pigmentation.
 - (II). 8738-15 self-pollinated. Section of ear.
 - (III) 8738-9. Main ear. Two photos.
 - " " Tiller-1.x 8720-14 (with wx^{m-8}) Full ear, 2 photos
 - " " " " Enlarged section of ear.
 - " " Tiller-2 x 8726-2. Full ear, 2 photos
 - " " " " " Enlarged section of ear, 3 photos
7. Inactive-Spm Wx/+wx female x Active-Spm wx/+ wx male and reciprocal. Activation of inactive Spm by an active Spm.
 - (I) 8583A-5 x 8583D-4 Shelled kernels. (For comparison, see crosses in section 5 with 8583D-4.)
 - (II) 8583D-9 x 8583A-11. Shelled kernels.

8. Inactive-Spm Wx/Active-Spm wx. Self-pollinated ear.

8731A-1. Full ear, 2 photos.

Sections of ear, enlarged, 4 photos.

9. Distinctive phenotypes given by the "A"₂ and the pale-spotted states of a₂^{m-1} in response to dose and to activity of Spm.

(I). 8731B-3 tiller-1 x 8726-3. Shelled kernels

(II). "8731B-3" -2 x 8720-14 " "

(III) 8735A-6, first ear, main stalk. Self pollinated.

(IV). " " second " , " " x 8731B-3 tiller. Shelled Kernel

(V). 8720-18 tiller-2 x 8731B-3 tiller. Shelled kernels.