

+nec x N/TB-5a gave a total of 208 necrotic: 9 normal seedlings in progeny tests. Therefore, since hypoploids transmit only the normal chromosome (in this case chromosome 5) the mutant must be located proximal to the breakpoint of TB-5a. Excluding unlikely contaminants and the coincidental union of crossover gametes, the 9 normal seedlings represent 9 crossover and 9 noncrossover gametes among 434 chances or 2% exchange between the mutant and the breakpoint. Allowing for crossover reduction around the breakpoint, this would place the mutant near and possibly on the opposite side of the centromere.

For reasons as yet unknown, the mutant seedlings from the selfed hypoploid were not lethal initially, but gave green seedlings with tan necrotic crossbands. This contrasts with earlier observations that this mutant failed to develop chlorophyll after emergence.

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12. Pale green mutable.

Two separate cases of pale green mutable seedling (frequent normal green sectors on pale green background) arose in a culture that also had Spm present. The mutants resemble Dr. Peterson's pg^m. Crosses by A-B translocations produced mutant hypoploids for both from crosses involving translocation 3b; therefore the mutants are tentatively located on the short arm of chromosome 3.

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