

now verified and can be designated TB-10c; the breakpoint is on the short arm proximal to nl and oy.

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2. Location of new mutants by the A-B translocation method.

Following the procedure outlined earlier (MNL 45:144), 161 mutants were tested this year with a slightly modified and improved set of A-B translocations. The collection included 113 selected new mutants from EMS and NG treatments as well as 48 old cases that had received an inadequate test last year. The translocations used were the same as last year except that TB-1a was substituted for TB-1c, and TB-2L, 3L₇₂₈₅ and TB-6a were omitted. Translocation 10S has also been verified and designated TB-10c (see Beckett, above).

Fifty-nine of the 161 mutants tested have been tentatively located to chromosome. They have been added to those found last year and placed on a revised chromosome map (figure 1). Temporary symbols are used on the map as follows: w (white), wl (yellowish white), l (yellow), v (virescent), pg (pale green), pgs (pale green spotted), yg (yellow green), cb (crossbanded), pb (piebald), str (striped), gs (green stripe), ys (yellow stripe), wlb (white leaf blade), alb (albescent), spk (speckled), nl (narrow leaf), ad (adherent), d (dwarf), nec (necrotic), gl (glossy), bf (blue fluorescent), et (etched endosperm), sh (shrunken endosperm).

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3. New mutants induced by ethylmethanesulfonate and nitrosoguanidine.

Following procedures outlined in MNL 45:146, ears of vigorous genetic stocks were crossed by similar pollen treated with ethylmethanesulfonate (EMS) or nitrosoguanidine (NG). The resulting kernels were planted, the seedlings were noted for mutants, and the mature plants noted and selfed. The selfed ears were observed for segregation of endosperm texture and morphology mutants (not for aleurone color, as r and c were segregating in the initial parents), and a sample was planted in sand benches to test for seedling mutants. Excluding mature plant