in 3S. We designate this gene golden-5 (g_5).

The stock from which a_3 and g_5 were derived was Coop. 54-1342, labeled a_3 g_1. Three backcrosses to normal failed to eliminate the golden when a_3 plants were extracted. Golden plants are usually weaker than normal; in some backgrounds they are semi-lethal. The leaves vary from yellow-green to pale or whitish golden; leaf sheaths are pale or nearly white. In contrast, g_1 plants derived from other Coop stocks are relatively vigorous, with much greener leaves and leaf sheaths when crossed to the same lines. Sandbench tests of $+/g_1$ X $+/g_5$ confirm that the two genes are not allelic. In our experience, g_5 is easier to classify in the sandbench than g_1.

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8. New mutants located by A-B translocation method.

Following procedures described in previous years (MNL 45:144, 46: 131), 156 mutants were tested with a set of A-B translocations that had been improved by the addition of $TB4L,9S_{6222}$ and $4L,9S_{6504}$ (from Robertson). The collection included mostly seedling traits but some endosperm and mature plant mutants from various sources. Most were the result of chemical treatment.

60 of the 156 tested were located to chromosome. They are listed below by chromosome arm and can be added to those in Figure 1, MNL 46:131.

1S	1L	2S	2L	3S	3L	4S
1 wl	1 wl	1 v	2 v	1 v	1 gl	1 pg
1 v	2 v	1 pg		2 d		1 ad
1 ad	3 pg	1 nl				
2 et	1 d	4 d				
1 colorless defective kernel	4 ad	1 gl				
1 rough kernel	1 nl	1 et				
	1 colorless kernel	1 pitted kernel				
		1 collapsed kernel				

4L	5L	6L	7L	8L	9S	9L	10S
1 c_2-like	1 wl	2 w	1 ad	1 wl	1 w	1 pg	1 l
	1 v	1 v	1 gl		1 wl		1 str
	1 d		1 wrinkled kernel		1 pg		
	1 gl				1 gl		
					1 rough kernel		

10L
1 l

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9. Yg_4 allelic to oy, designated Oy^{yg}.

Yellow-green plants heterozygous for Yg_4 (MNL 46:136) were crossed on normal green plants heterogygous for oy to determine whether or not the two genes were allelic, since both were located on the short arm of chromosome 10. 280 kernels from this cross were planted. 277 grew and produced 130 normal green, 72 yellow-green, and 75 deep yellow seedlings. The latter seedlings resembled homozygous oy except that they were lethal and died at endosperm depletion. This is a close fit to the expected results assuming Yg_4 and oy are alleles and that the deep yellow seedlings are the heterozygotes carrying both mutants. More sophisticated tests for allelism are presently blocked by lethality of the double mutant heterozygote. Based on the assumption of allelism and our observations, the following relationships are evident:

Genotype	seedling color	viability
Yg Yg	yellowish white	lethal
Yg/-hypoploid	yellowish white	lethal
Yg +	yellow green	viable
+ +	normal green	viable
+ oy	normal green	viable
oy oy	deep yellow (greenish)	viable
oy/-hypoploid	deep yellow (greenish)	lethal?
Yg oy	deep yellow	lethal