

SERVICE DE LA RECHERCHE AGRONOMIQUE ET DE L'ENSEIGNEMENT
Rabat, Morocco

1. Location of fl₂.

The test results with TB-9b (see News Letter 35:134) have not been confirmed by the study of the progeny, in which the allele Fl₂ reappeared.

On the other hand, a close linkage was found between fl₂ and the gene lazy (la) of chromosome IV. Investigations are being carried on so as to confirm this location.

A. Cornu

2. Inhibiting effects of the gene h₂ on germination and seedling growth.

Investigations on the gene h₂ (see News Letter 32:7) were carried on, particularly on germination and seedling growth.

It was found that the influence of temperature was important on the germinating ability of the seed. The germinating power (% germination after 4 days) as well as the germinating ability (after 7 days' test) of normal and mealy seeds (h) taken from the same ears were measured in four ovens set at 10° C, 15° C, 20° C and 25° C respectively. The following results were obtained:

	Germinating power		Germinating ability	
	+	h	+	h
10° C	0	0	0	0
15° C	60	6	100	44
20° C	94	28	100	52
25° C	100	66	100	72

This test shows that germination of the h-seed is much slower than that of the normal seed. Their total germinating ability varies according to temperature, whereas that of the normal seed remains the same at temperatures ranging from 15° C to 25° C.

Moreover, the germinating ability of the h-seed decreases rapidly. After one year's time, it drops from 44 to 16% at 15° C while it stays at 100% for the control lot of the normal seed.

The growth of seedlings in water also shows great differences between normal and (h h) individuals. After a period where development is parallel in both groups of individuals (a six days' period corresponding to seed soaking and germination), the two curves move apart and, on the twelfth day, the green weight of the normal seedlings is about twice that of the (h h) ones.

These inhibiting effects vary, besides, with the more or less homozygous character of the strains used. The effects are less important, or even nil, when heterozygosis is more pronounced.

A. Cornu