

The yellow green seedlings continued to be yellow green even at maturity, similar to the parent yellow green plant in the  $M_2$ .

It is surprising how the selfed yellow green and also normal segregated to give 37 yellow and 18 albino in the  $M_3$  out of a total of 91 seedlings. It is possible that these mutants might be segregating in the  $M_3$ . Further tests are in progress.

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## 2. Thin layer chromatographic studies of DES induced chlorophyll mutants.

The chlorophyll of about one-two week old seedling leaves of normals and DES induced yellow and yellow green mutants was extracted with petroleum ether and acetone (8:3). The chlorophyll extracts were spotted on glass plates spread with silica gel G (E. Merck), and developed with petroleum ether-acetone solvent (5:2). Table 1 illustrates the qualitative and quantitative differences between normals, yellow green, and yellow mutants.

Table 1

Pheno- type	No. of spots	$R_f$ Values				
		Green	Yellow	Bluish green	Dark green	Yellow
Normal	5	0.361	0.399	0.476	0.861	0.987
Yellow green	5	0.361	0.399	0.476	0.861	0.987
Yellow	2	0.361	0.399	-	-	-

In general, the normal has all the five spots which were intense. In yellow greens, the yellow pigment ( $R_f$  0.399) was more intense and dark green ( $R_f = 0.861$ ) was quite weak compared to normal. In the yellow mutant, only two spots,  $R_f$  values 0.361 and 0.399, were present. The identification and the spectrophotometric studies of these substances are in progress.

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