

## 5. Dosage effect of multiple Dt Loci

The gene,  $Dt_1$  produces an exponential like increase in mutational events (dots) at a when its dosage is increased from 1 to 3 in the endosperm. Since the discovery of  $Dt_2$  and  $Dt_3$ , both of which closely resemble  $Dt_1$ , it has been possible to produce seeds with doses of Dt ranging from 1 to 9. Dot counts of seeds produced by the combination of  $Dt_1$  and  $Dt_2$  and, therefore, with doses ranging to six have been made. The data show that any increase above 3 still causes a sharp rise in the frequency of dots but it is not clear that this is an exponential increase. Counts of seeds with 7 or more doses are not technically practical with the present stock. However, it is clear from observation that the higher-dose seeds do have more dots than lower-dose seeds.