

## 5. Resistance to blasting of Vg tassels

Resistance to anther blasting is a major obstacle in the development of Vg pollen shedding inbreds. In the moist cool summer of 1951 at Madison most Vg plants with short tassel glumes were good pollen shedders. This was not the case this past summer (1952) which was comparatively hot and dry. The plus modified Vg Oh55 inbred blasted completely while other plus modified lines blasted to varying degrees.

It may be that cool damp areas will be best suited for increasing inbred seed. If the Vg inbred was used as the seed parent, glumeless hybrids could still be produced in dry areas such as Idaho.

The plus modifier genes for the Vg gene are dominant and so are expressed in the F<sub>1</sub> hybrid. Since heterosis tends to stimulate pollen shedding, we should be able to get good glumeless sweet corn hybrids if we can develop good Vg pollen shedding inbreds. The present Vg breeding program includes a series of outcrosses to the heat tolerant tropical corns on the theory that they are also resistant to tassel blasting. Outcrosses have also been made to red and purple anther lines since there is an indication that the dark anther colors and Vg pollen shedding. This was born out by data collected on a plus modified VgC13 stock which was segregating for anther color.

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