

4. The vestigial rachilla expression of the Vg gene

Reduction of the floral bracts in Vg corn allows for the expansion of the base of the kernel while reduction of the rachilla makes possible greater expansion in length. Although the floral bracts, of which the glume is the most prominent and lowermost, may present a "stick in the teeth" problem to connoisseurs of corn on the cob, they may be easily washed away from the cut-corn during the commercial canning process. The most valuable expression of the Vg gene now appears to be the feature of deeper kernels via the reduced rachilla. Up to two-thirds of the diameter of the normal cob may be occupied by the rachillas. The crowding of the base of the kernels on a smaller Vg cob necessitates expansion in length. Tests on 44 ears of the normal and Vg forms of one experimental hybrid showed that the Vg ears yielded 14.1% more out off than did their normal counterparts. This increase in percentage cut off was not effected by change in the outside diameter, but by a reduction in rachilla length.