GENOTYPIC and phenotypic correlations usually have been positive among the soybean attributes plant maturity, plant height, plant lodging, and seed yield when the plant materials were grown within their area of adaptation. Heritabilities of maturity, height, and lodging resistance are greater than the heritability of seed yield, and breeding programs usually follow a sequence of selection based upon this information. Lodging resistance is of interest because of its possible association with seed yield, combine-harvesting losses, and aesthetic value to farmers.

The implications of genotypic correlations in soybean selection programs were discussed by Johnson et al. (4). These authors investigated genotypic correlations within two single-cross populations of $F_3$ lines advanced to the $F_4$ generation and found a genotypic correlation of yield with lodging resistance of 0.5 in one population and an absence of such correlation in the other population. Kalton (5) concluded that the degree of positive association between lodging susceptibility and seed yield within $F_3$ or $F_4$ lines was too small to be significant. Johnson (3) suggested that the negative correlation between height and lodging resistance is more serious in southern latitudes of the United States than in northern, and that such an association limits the genetic yield potential of soybeans to a greater extent than is generally recognized.

Determination of soybean yield losses due to mechanical and physiological effects of plant lodging were measured by Weber. Combine harvest losses during a 3-year period, attributable to lodging, were consistent and averaged 0.53 bushels per acre or 1.8% for a lodging score of 3.2. In another 3-year experiment utilizing 7 soybean varieties on