

*Correlation of seedling and adult plant reaction to stem rust of wheat.* CAMPOS, T., A., J. W. GIBLER, AND N. E. BORLAUG. For many years it has been known that some varieties of wheat are susceptible in the seedling stage to a given race of stem rust but are resistant in the adult stage. Until recently, it was generally accepted that varieties resistant in the seedling stage are always resistant to the same race in the adult plant stage. More recent studies have shown that in crosses involving the variety Mentana many lines which are resistant in the seedling stage are susceptible in the adult stage, whereas other lines in the same cross remain resistant throughout their life. Recent experiments involving both seedling and adult reaction of 1500 varieties and lines of wheat to races 15B and 49 establish that the phenomena of seedling resistance and adult plant susceptibility are not unique to crosses involving Mentana. More than 200 crosses were studied during the winter of 1952-53 and 31 of these exhibited the phenomena, and many lines showing the change in reaction did not have Mentana in their pedigree. The phenomena were exhibited in tests with both races.