

HEIDEL, G. B., and C. M. RUSH, Texas Agricultural Experiment Station, Bushland, TX 79012. - Incidence of beet necrotic yellow vein virus, beet distortion mosaic virus, and an unnamed soilborne sugar beet virus in Texas.

The Texas sugar beet growing area was surveyed to determine the incidence of beet necrotic yellow vein virus (BNYVV), beet distortion mosaic virus (BDMV), and an unnamed soilborne sugar beet virus designated as Texas 7. In late 1990, Holly agronomists collected 302 soil samples from seven Texas counties and one New Mexico county from fields scheduled for 1991 production. Sugar beet seed was planted in the soil samples. Nine to ten weeks later, root tissue was harvested and tested by ELISA. Of 174 soil samples screened for BNYVV, 11% were positive. Of 128 samples tested for BNYVV and Texas 7, 8% were positive for Texas 7, 2% were positive for BNYVV and 17% were positive for BNYVV and Texas 7. One hundred fifty-nine soil samples were collected around symptomatic beets in 1991 and screened for BNYVV, Texas 7, and BDMV. Thirteen percent were positive for Texas 7, 16% were positive for BNYVV, and 23% were positive for Texas 7 and BNYVV. Seventeen percent of beets pulled at the time soil samples were collected were positive for BDMV. Soil samples collected from 9 of the 10 Texas sugar beet-growing counties were positive for BNYVV. Texas 7 was identified in the three major Texas sugar beet-growing counties. BDMV was identified in four Texas counties and one New Mexico county. This is the first report of BDMV in New Mexico. No soil samples, including those collected directly around beets positive for BDMV, were positive for BDMV. BDMV is probably not a soilborne virus.