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A new soil-borne virus from California.

A new soil-borne virus of sugarbeet has recently been found in the Imperial Valley of California. The infectious agent is mechanically transmissible. In limited host range studies, it mechanically affects five plant families. Most of these hosts show necrotic local lesions. The virus has been purified from *Chenopodium quinoa*. The virions are isometric, and are approximately 25 nm in diameter. They contain a single species of single-stranded RNA of approximately 3.70 kilobases and a single capsid protein of approximately 31.0 kilodaltons. Purified virus was infective and had an A₂₆₀/A₂₈₀ ratio of 1.66. An antiserum to the virus with a titer of 1/512 in immunodiffusion tests was prepared from purified preparations. The particle morphology, the protein coat subunits and nucleic acid size are similar to those of tobacco necrosis virus (TNV). However, no serological relationship to TNV has been demonstrated. The vector of this virus has not been found. The distribution of the virus in the field, the economic importance of the virus, and the relationship of this infectious agent to other soil-borne diseases of sugarbeet are not yet known.