

### A STEM ROT OF CACTI

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A common disease of cacti is stem rot caused by the fungus *Drechslera cactivora* (Petraek) M. B. Ellis (formerly referred to as *Helminthosporium cactivorum* Petraek) (4,5). This disease is very destructive and may result in a 50 percent loss of plants of some species (2). In Florida, this disease has been associated more commonly with *Cereus* spp. and is more frequently reported than stem diseases caused by *Phytophthora cactorum* (Leb. & Cohn) Schroet., *Pythium debaryanum* Hesse, *Fusarium oxysporum* (Schlecht.) Snyder & Hans., *F. episphaeria* (Tode) Snyder & Hans., and *Rhizoctonia solani* Kuhn (1).

**SYMPTOMS.** The fungus readily infects young cactus seedlings and causes a rapid rot of the cotyledons. On older plants the fungus infects through broken spines, spine puncture wounds, or stomata and results in a top rot beginning on the shoulder or growing point (fig.1). A basal rot near the soil surface may occasionally occur.

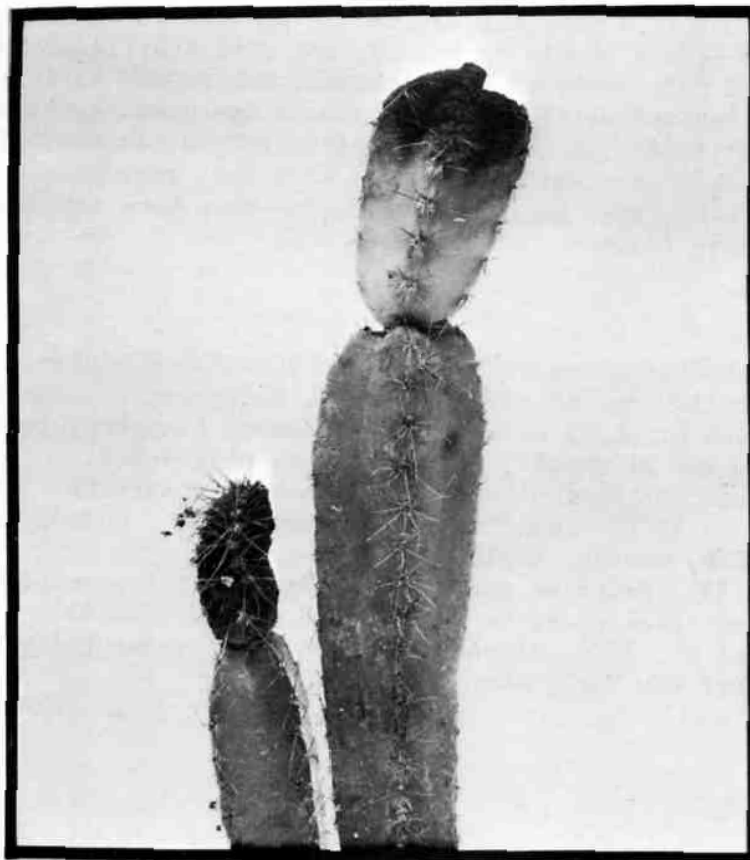


Fig. 1. *Drechslera* rot of *Cereus peruvianus* showing infection at top of stem.

Initially, lesions from infection points appear yellow but enlarge rapidly and become dark green, water soaked, and eventually dark brown. Under continually moist conditions, a rapid rot occurs within 2-4 days and results in the collapse of the entire plant. Under dry conditions, the infected tissue collapses and appears as a sunken dark brown area. However, the lesion becomes active again with the return of moist conditions. During lesion development, the fungus produces numerous spores which can be carried by wind to other plants.

The disease caused by *D. cactivora* can be distinguished from stem diseases caused by other fungi. *Phytophthora cactorum* and *Pythium debaryanum* always develop a wet rot from the base of the stem upwards (2). *F. oxysporum* and *F. episphaeria* cause tip and basal dry rots with yellow margins. The rot is slow spreading and results in masses of pink spores. *Rhizoctonia solani* produces a collar rot with the tissue appearing brown, shriveled, and dry (2).

HOST RANGE. *Drechslera cactivora* is a reported pathogen on varieties or species of cacti of the following genera: *Astrophytum*, *Cephalocereus*, *Cereus*, *Echinocactus*, *Echinocereus*, *Espostoa*, *Ferocactus*, *Lemaiveocereus*, *Lophocereus*, *Mammillaria*, *Parodia*, *Pilocereus*, and *Selenicereus* (2,3).

CONTROL. In the nursery, a complete sanitation program is necessary for effective control. Diseased plants should be rogued, and soil sterilization should then be employed to reduce carry-over of the pathogen. Captan 50W (2 lb/100 gal) plus a spreader-sticker applied at 10-14 day intervals has given protection (2,6). Dac-onil, although not tried for control of this pathogen, is very effective against species of *Drechslera* on other hosts. In addition, care should be taken in the purchase of seed since seed sources from Mexico have been implicated in carrying the disease organism (2).

#### Literature Cited

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