Milo disease, a malady that kills the roots of plants of susceptible varieties of sorghum, has been present in the sorghum-growing area of the United States for about 20 years. Recently (8), (3) *Periconia circinata* (Mang.) Sacc. has been named as the causal organism, but previously (4, 6) the disease was attributed to *Pythium arrhenomanes* Drechs. or to other organisms (10, 13). During the drought years of the 1930's the disease suddenly became widespread, especially in Texas and in certain areas of California. As soon as damage from the disease became obvious, resistant plants were found in a number of susceptible milo strains and in Darso and were selected and increased. In addition, resistant plants that were apparently the progeny of natural hybrids were selected from the susceptible Wheatland variety. An early maturing strain of Sumac, a forage sorghum, that was grown extensively in the northern Panhandle region of Texas proved to be susceptible and other strains of Sumac were substituted for it. When the disease first appeared and in the year or two before resistant strains were substituted for susceptible ones, losses to farmers in the infested area were little short of disastrous. Resistant strains were accepted immediately, however, and widespread losses were soon eliminated.

Resistant and susceptible strains of sorghum varieties have been compared in Texas at Chillicothe since 1938 and at Lubbock since 1939. It now seems worthwhile to report the yields obtained in these tests, to point out the importance of continuing to use resistant strains, and to report certain other things of interest in regard to the disease that have been observed.

Symptoms of the Disease

Symptoms of milo disease have been reported by Elliott, et al. (3), Wagner (15), Bowman, et al. (1), Kendrick and Briggs (6), and by Leukel, et al. (7). In view of the possible confusion of milo disease with the stalk rots caused by *Macroplzornia phaseoli* (Maub.) Ashby (*Sclerotium batiticola*, Taub.) (7) and by *Fusarium moniliforme* Sheldon (2, 14), it seems worth while to describe here the symptoms of milo disease as they appear in the field in Texas.

If seedlings die, they look as if they had been scalded. If diseased plants live to maturity they bloom several days before the disease appears. If diseased plants live to maturity they bloom several days before the disease starts. If diseased plants live to maturity they bloom several days before the disease becomes virulent, the progressive death of roots makes it appear that the crop is suffering from drought.


Spread of the Disease

An infested area was observed by W. R. Kendrick at Garden City, Kan., to spread from an area of a few square feet in 1926 to one of 3/10 acre in 1927. Kendrick and Briggs (6) report an increase in damage from early head differentiation or to a difference in later growth, but it is thought to be the latter since diseased plants have a normal number of heads.

An infested area was observed by W. R. Kendrick at Garden City, Kan., to spread from an area of a few square feet in 1926 to one of 3/10 acre in 1927. Kendrick and Briggs (6) report an increase in damage from later growth, but it is thought to be the latter since diseased plants have a normal number of heads.