

Kodaikanal, 10.10.1978 by J. Muthumary, Herb. MUBL. No. 2915.

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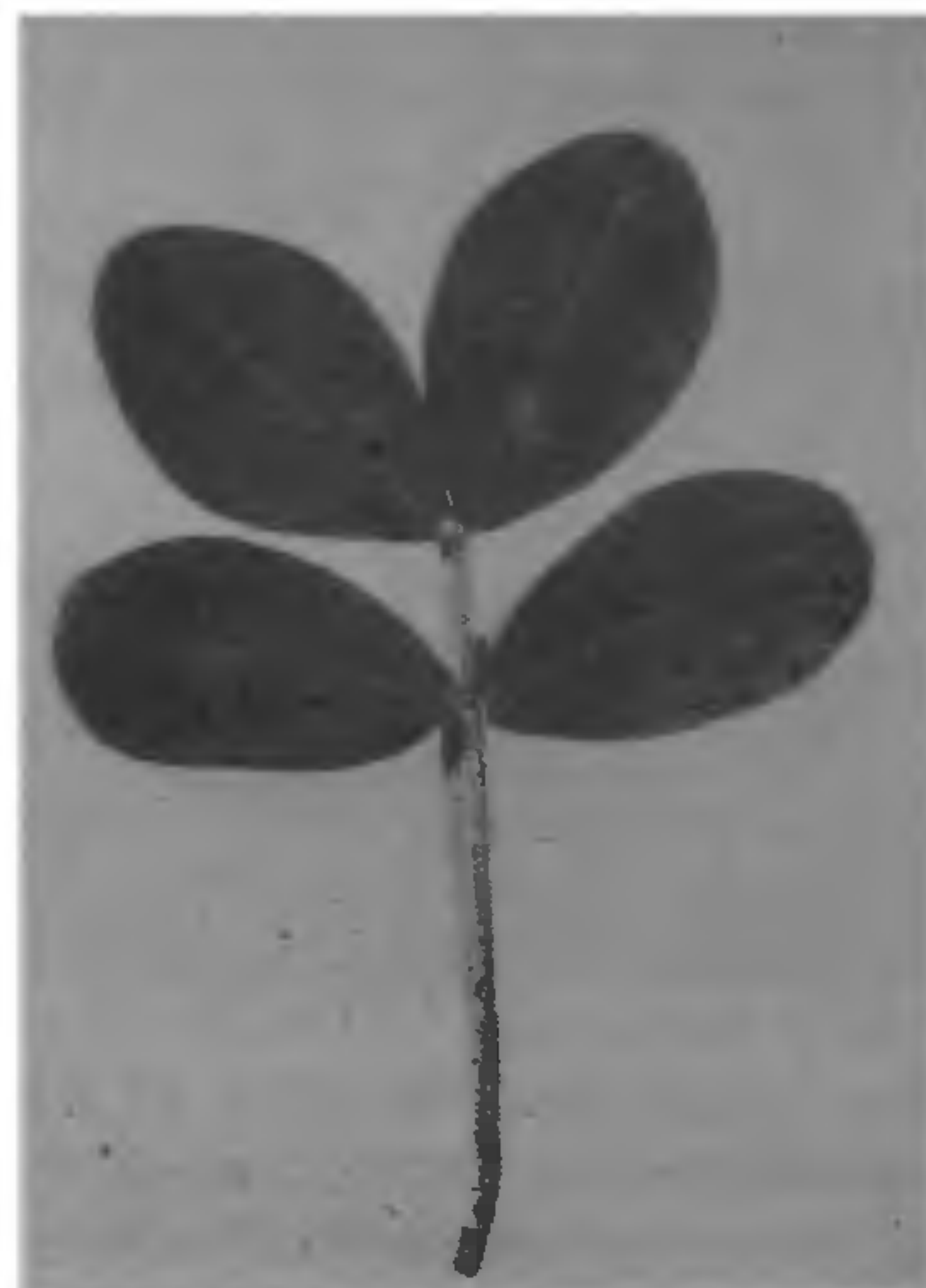


Figure 1. Groundnut leaves infected with *Oidium arachidis*.

POWDERY MILDEW—A NEW DISEASE OF GROUNDNUT IN INDIA

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POWDERY mildew (*Oidium arachidis* Chorin) has been reported on groundnut in Mauritius, Portugal, Tanganyika and Israel. But so far this disease was not reported from India. During the 1986 kharif season, this disease was noticed on Spanish varieties and Valencia accessions of germplasm at this research centre. The first incidence was noticed in August when the crop was about 38-day-old. At that time the average minimum and maximum temperatures and relative humidities were 27.2–29.2°C and 79.3%–94.7%, respectively.

The incidence of the disease was moderate. The development of the disease was observed as white floury patches on the upper leaflet surface (figure 1). These patches were found to originate as dull minute discoloured specks from which a powdery mass radiated on all sides.

Microscopic examinations revealed that the oidia are deciduous, elliptical, barrel-shaped, hyaline, unicellular, vary in size, measuring 34.2–50.96 × 17.1–24.51 μm. The conidiophores arise vertically from the superficial hyphae on the upper leaflet surface. Conidiophores had one or two oidia, but chains of three to four were also observed. Sub-spherical pyriform haustoria were developed in epidermal cells. The symptoms and the morphological characters were similar to those of the powdery mildew caused by *Oidium arachidis* Chorin as described by Smith¹. Further investigations are in progress.

29 September 1986

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