

Powdery mildew

Powdery mildew (*Oidium mangifera*) is a fungal disease that expresses itself as a white, powdery growth on leaves, flowers and young fruit. Once infected the flowers are shaded before forming fruits (Figure 34), young leaves curl while the old leaves and the stem remain longer with white powdery cover (Figure 35). The disease is spread rapidly by wind. The fungus remains on an infected tree for a long time and it is more prevalent in dry weather when humidity starts building up.



Figure 34: Powdery mildew on flower



Figure 35: Powdery mildew on stem and old leaves

Powdery mildew can be controlled through an integrated management system which consists of selection of tolerant varieties, cultural practices and fungicide sprays. The use of varieties that are tolerant to the disease is the best control method. However, the tolerance to the disease may also be modified from place to place by the prevailing weather conditions, thus each mango growing zone should come up with susceptibility index for various varieties. In the three major growing zones visited Ngowe was identified as the most susceptible to powdery mildew. Kent, Sensation and Tommy Atkins and Van Dyke were noted as tolerant in Mbeere.

Cultural practice is to grow mango in hot, dry areas for mango because high humidity and rainfall tend to promote infection. Mango trees are usually pruned to keep flowers within the range of spray equipment and to improve air circulation and sunlight within the crown. High sanitary condition should be maintained within the orchard by removing fallen leaves and panicles for burning. Pick up fallen mango foliage and destroy it, remove severely infected panicles. Trees should be fertilized to promote happy growth.

The most effective way to control mango powdery mildew on very susceptible varieties is to apply well timed fungicide sprays. Most of the fungicides registered for powdery mildew control on mango can be effective. The first spray is applied when flower buds are opening with follow up sprays every 7–14 days until fruit set (Figure 36). The fungicides reported for control of mango powdery mildew include Bayleton, Benlate, and Karathane.



Figure 36: Flower bud opening stage