

Short Communication

Powdery mildew on some non cucurbites cultivated crops from Khandesh region of Maharashtra state

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Powdery mildews are a well defined group of fungi belonging to family Erysiphaceae of sub division Ascomycotina. These are biotrophic parasites growing principally on the foliage of angiosperms and cause damage to a variety of crop plants. Maximum reports of their occurrence are from the temperate regions of northern hemisphere, whereas in subtropics and tropics they are sparsely represented (Braun, 1987). The losses caused by powdery mildews in India are tremendous particularly in the yield of peas, grapes, cereals and cucurbits (Munjaj et al., 1963). Northern India bordering the mid Himalayan region experiences diverse set of climatic conditions with comparatively low temperature and high humidity and is adorned with turn over of vegetation almost all the year round. All this provides congenial conditions for growth and development of fungi in general and powdery mildews in particular. Powdery mildew fungi produce a conspicuous white to grayish growth of mycelium on the surface of diseased plant parts. Conidia or spores of the fungi are produced on the mycelium (Sharma, 1984). Among powdery mildew diseases on several crops and wild plants have been reported to be caused by species of *Erysiphe*, *Uncinula*, *Phyllactinia*, *Podosphaera*, *Microsphaera*, *Sphaerotheca*, *Leveillula*, *Oidium* and *Ovulariopsis*.

Survey of powdery mildew of wild plants was carried out since 2004 upto 2006 at Khandesh region of Maharashtra state. Powdery

mildew fungi were identified by using literature of Hirata (1942), Boesewinkel (1980), Zheng (1985), Braun (1987), Bappamal et al. (1995), Sharma and Khare (1995) and Hosagoudar et al. (1997). Powdery mildew disease was observed at different stages in various crop and wild plants during the study, studies period to know that severity of disease development and disease cycle of the pathogen. In the survey cultivated non cucurbit plant were also infected by the powdery mildew and listed in table 1.

Totally nineteen plants like *Arachis hypogaeae* JL-24 L., *Brassica campestris* L., *Cajanus-cajan* (L.) Millsp, *Capsicum annuum* Linn., *Capsicum frutescence* L., *Helianthus annuus* L., *Hibiscus esculentus* L., *Jatropha gossypifolia* Linn., *Mangifera indica* L., *Pisum sativum* L., *Sesamum orientale* L., *Tamarindus indica* L., *Trigonlla-foenumgraecum* Linn., *Vigna mungo* (Linn.) Hepper, *Vigna unguiculata* (Linn.) Walp, *Vigna aconitifolia* (Jacq.) Morechala, *Vigna radiate* (L.) Wilczek, *Vitis vinifera* L. and *Ziziphus mauritiana* Lamk. were cultivated along with non-cucurbit crop showed the occurrence of powdery mildew which was mainly affected by *Oidium* species six, *Erysiphe* species four, *Sphaerotheca* species four, *Leveillula taurica* three, *Oidiopsis macrospore* and *Uncinula necator* one.

Thus it can be concluded that along with cultivated cucurbit, nineteen non-cucurbits plant also shows occurrence of powdery mildew in the same season. On which *Sphaerotheca* sps, *Leveillula* sp., *Erysiphe* sp. and *Oidium* sp. are dominant.

Table 1 powdery mildew on some non cucurbites cultivated crops

Name of plant	Powdery mildew fungi
<i>Arachis hypogaeae</i> JL-24 L.	<i>Oidium arachidis</i>
<i>Brassica campestris</i> L.	<i>Erysiphe cruciferaearum</i>
<i>Cajanus-cajan</i> (L.) Millsp	<i>Oidiopsis macrospore</i>
<i>Capsicum annuum</i> Linn.	<i>Leveillula taurica</i>
<i>Capsicum frutescence</i> L.	<i>Leveillula taurica</i>
<i>Helianthus annuus</i> L.	<i>Sphaerotheca fuliginea</i>
<i>Hibiscus esculentus</i> L.	<i>Sphaerotheca fuliginea</i>
<i>Jatropha gossypifolia</i> Linn.	<i>Oidium jatrophae</i>
<i>Mangifera indica</i> L.	<i>Oidium mangiferae</i>
<i>Pisum sativum</i> L.	<i>Erysiphe polygoni</i>
<i>Sesamum orientale</i> L.	<i>Oidium jatrophae</i>
<i>Tamarindus indica</i> L.	<i>Oidium tamarindi</i>
<i>Trigonlla-foenumgraecum</i> Linn.	<i>Leveillula taurica</i>
<i>Vigna mungo</i> (Linn.) Hepper	<i>Erysiphe polygonia</i>
<i>Vigna unguiculata</i> (Linn.) Walp	<i>Sphaerotheca fuliginea</i>
<i>Vigna aconitifolia</i> (Jacq.) Morechala	<i>Sphaerotheca fuliginea</i>
<i>Vigna radiate</i> (L.) Wilczek	<i>Erysiphe polygonia</i>
<i>Vitis vinifera</i> L.	<i>Uncinula necator</i>
<i>Ziziphus mauritiana</i> Lamk.	<i>Oidium zizphi</i>

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