

Management of sunflower powdery mildew caused by *Erysiphe cichoracearum* DC. with botanicals and natural products

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ABSTRACT

Sunflower is reported to suffer heavy losses because of fungal, viral and bacterial diseases and one of the prominent diseases among them is powdery mildew caused by *E. cichoracearum*. Recently Powdery mildew is most important limiting factors for production of sunflower in Karnataka. Management of powdery mildew in sunflower was studied in both *in vitro* and *in vivo* conditions. Azadirachtin, NSKE, Turmeric (leaf extract), *Lantana camara* (leaf extract) and *Ipomoea carnea* (leaf extract) were effective in inhibiting spore germination of pathogen both under *in vitro* condition at 5 per cent concentration. Similar trend was observed in field condition also with Azadirachtin and NSKE at 5 per cent concentration with least disease incidence of 25.78 and 27.56 per cent disease index, respectively in contrast to 83.33 per cent disease index in control.

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