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
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Effects of Some Plant Materials on Phytophthora Blight (*Phytophthora capsici* Leon.) of Pepper

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**Abstract:** Effects of dried garlic, peppermint, cabbage, lentil, alfalfa, onion, radish, and garden cress plant materials on Phytophthora blight (*Phytophthora capsici* Leon.) of pepper were determined, in both in vitro and in vivo conditions. Extracts of the plant materials were used in vitro. The plant materials were extracted in ethanol and were added to corn meal agar (CMA) at 5 and 10 µg ml<sup>-1</sup>. The extracts of alfalfa, garlic, cabbage, and peppermint reduced colony diameter of *P. capsici* on corn meal agar between 3.46% and 13.73%, whereas mycelial growth of *P. capsici* was increased by onion, radish, garden cress, and lentil extracts. The plant materials inhibitory to mycelial growth of *P. capsici* were incorporated into soil inoculated with *P. capsici*, in pots and also in the field, in order to determine their effects on Phytophthora blight severity. The severity of Phytophthora blight of pepper was markedly reduced by cabbage, garlic, and alfalfa materials by 15.3%, 39.8% and 46.9%, respectively, in pot trials. No significant effect of peppermint on disease severity was found. In the field infested with *P. capsici*, disease severity decreased with cabbage, garlic, and alfalfa by 89.5%, 40%, and 10.7%, respectively. Peppermint slightly increased the disease severity (3.4%). In this study, dry cabbage, garlic, and alfalfa materials were effective in reducing the severity of disease caused by *P. capsici*, in both in vitro and in vivo conditions.

**Key Words:** *Phytophthora capsici*, Phytophthora blight, pepper, plant materials

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