

Medicinal plants in late blight management of organic potato

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Abstract

Late blight, *Phytophthora infestans*, is one of the most damaging diseases affecting potato production worldwide. It can cause complete crop losses. Copper fungicides are the main means of control in organic potato production systems. However, copper is a heavy metal, it is ecotoxicologically critical and its use should be reduced in European agriculture. Viable organic potato production will be threatened because no alternatives are available. We tested the effect of different medicinal plants incorporated into the soil on the disease level of *P. infestans*. In addition, in our outdoor pot trial tuber yield was evaluated. The medicinal plants showed different effects. Sage (*Salvia officinalis*) and burdock (*Arctium lappa*) reduced late blight severity by 70%, other plant species did not protect potato plants from the disease. Mallow (*Malva silvestris*) showed a good potential to reduce late blight, increased potato yield and reduced weeds. The potential of these plants will be tested in the field.

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