



Pythium basal rot: an increasing problem in Belgian lettuce greenhouses

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Abstract

Basal rot, i.e. rotting of the lower leaves of lettuce, is a common problem in lettuce greenhouses. Generally, *R. solani*, *Sclerotinia* spp. or *B. cinerea* are associated with these symptoms. The last years an increase of lettuce heads with basal rot symptoms was observed in Belgian lettuce greenhouses during autumn and winter. Diseased lettuce heads were frequently detected on wet spots. In many cases *Pythium* spp. were found to be the causal agent. Sequencing of the ITS region identified the isolates as *P. ultimum*, *P. sylvaticum* and *P. ir/regularis*. The symptoms on the lower leaves caused by *Pythium* spp. can be confused with basal rot symptoms of *R. solani*, *B. cinerea* or *S. sclerotiorum*. However the lesions tend to be slimier compared to lesions caused by the other pathogens. *Pythium* basal rot has been reported occasionally by other researchers in the Netherlands and the UK, but the disease epidemiology has not been investigated in detail. In Belgium no fungicides are registered to control *Pythium* spp. in lettuce, however some fungicides which are used against *Bremia lactucae* have an effect against *Pythium* spp. We hypothesise that the rise of *Pythium* basal rot can be a consequence of the decreased use of active substances against *B. lactucae*. This emphasizes the need for sustainable control measures against *Pythium* spp. in lettuce.