

Needs oriented treatment against *Alternaria solani* in ware potato

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SUMMARY

Despite a very low incidence of early blight in the middle part of Sweden during seven years of monitoring (2010-2016) ware potato crops are often treated with fungicides on a regular basis. Strobilurins, often in combination with boscalid, are commonly used. In starch potato grown in the southern part of Sweden there are, however, often severe epidemics of early blight and fungicide treatments are necessary to avoid yield losses. The epidemic usually starts in end of August. The use of difenoconazol has increased during the past years in those areas. However, the haulm of ware potato is usually killed in the end of August/beginning of September, which is at the same time as when the epidemics normally start, while starch potato is grown until October in the southern part of Sweden. Therefore, we think there are reasons to dispute the need for fungicide treatments on a habitually basis in ware potato, especially in the middle part of Sweden. Two years of field trials showed that the yields were not higher in plots treated with either strobilurins alone or in combination with an SDHI fungicide (boscalid) compared to the untreated control plots. Fungicide treatments may as well be excluded in the southern Sweden in ware potato cultivars with partial host resistance, such as cvs Folva, Asterix and Ovatio, as indicated by results from three field trials in 2013 and 2015. In 2017, we performed further field trials both in the middle part and in the south of Sweden and preliminary analysis indicate similar results as earlier years, *i.e.* fungicide treatment does not increase yield in ware potato.

The substitution F129L (strobilurin resistance) is dominating in the southern population of *A. solani* and occurs in about half of the population in the middle part of Sweden. The efficacy of boscalid may have decreased in the southern part of Sweden since the efficacy of Signum was not as high in 2016 as previous years. Analyses are ongoing to unveil this issue. We suggest increased efforts to apply IPM including host resistance and plant strengtheners in combination with minimized use of fungicides.

KEYWORDS

Alternaria solani, early blight, fungicide sensitivity, plant strengthener

