

## INTEGRATION OF AUREOBASIDIUM PULLULANS IN GREY MOULD CONTROL IN SOFT FRUIT

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Fruit decay is one of the most serious diseases in plants and causes especially in commercial soft fruit production enormous economic losses. *Botrytis cinerea* causing grey mould is the main pathogen in strawberries and starts infections already at the beginning of the blooming period. The occurrence of infections on ripe fruit depends very much on weather conditions during harvest. Because the pathogen can only be combated protectively, up to five fungicide treatments have to be done during bloom to protect all open blossoms. Distinctive for the chemical active ingredients nowadays used in Botrytis control is the specific mode of action (single site inhibitors). The repeated use of these substances led to a selection of resistant strains in the pathogen population. One opportunity to reduce the risk for resistance is the reduced use of specific fungicides and the application of products with a different mode of action like antagonistic yeasts. Boni Protect forte based on the yeast like fungus *Aureobasidium pullulans*, has antagonistic potential against several pathogens in fruit-growing. In numerous trials *A. pullulans* showed its high efficacy. Therefore the strategic use of Boni Protect forte could be a helpful manner to prevent resistances in *B. cinerea* against chemical fungicides. Field trials were done in strawberries at two locations in Germany in 2011 and 2012, and in a raspberry field 2011 in Poland. In 2011 Botrytis incidence was low in Buchholz at BBCH 85 evaluation. All treatments showed significant disease reduction with efficiencies of more than 59%. At a higher infection pressure resulting in an incidence of 180 infection sites per 28 plants in 2012, again all three treatments reduced the disease incidence significantly. The stand-alone treatment with Boni Protect forte as well as the spray strategy using chemical fungicides in alternation with Boni Protect forte was comparable to the chemical standard in both years. In Oberkirch Botrytis incidences in the control were comparable in both years. In 2011 the chemical standard as well as Boni Protect forte reduced Botrytis incidence by 73%. In 2012 efficiency of 57% and 63% was reached with the chemical standard and Boni Protect forte, respectively. Botrytis incidence in the raspberry trial was 29% in untreated control. All three treatments showed significant reduction of *B. cinerea* incidence. The spray strategy (eff. 86%) and the chemical standard (eff. 89%) were significantly better than the stand alone treatment with Boni Protect forte (eff. 69%). In all five trials Boni Protect forte reduced the *B. cinerea* incidence significantly compared to untreated control. Spray strategies of Boni Protect forte and chemical fungicides showed also significant effects and tended to be better than the stand-alone treatment with Boni Protect forte.