Protein hydrolysates as resistance inducers for controlling green mould of citrus fruit

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Abstract

The effectiveness of eight protein hydrolysates of natural origin (soybean, lupin, pea, yeast, casein, and malt hydrolysate) for controlling *Penicillium digitatum*, the main postharvest pathogen of citrus fruit, was evaluated by both in vitro and in vivo trials. The in vitro screening showed no significant effect of the different compounds on pathogen radial growth, whereas the application of the different protein hydrolysates (1.6 mg/ml) to wounded fruits proved their ability to induce resistance against *P. digitatum* by reducing significantly disease incidence and severity. The best activity was observed on fruits treated with soybean, lupin, and casein hydrolysates. Although further studies are needed, the results obtained are encouraging and potential application against green mould on citrus fruit is foreseen.