

Efficacy and Pertinence of Heat Treatments against Monilia Decay in Commercial Conditions

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Post-harvest decay can lead to very important damages on stone fruits, especially in the Rhone valley.

Hot water treatments are known to be efficient against many fruit pathogens including monilia, but industrial application remains difficult, since it can present some risks according to fruit maturity, thermostat accuracy of the engine

We went on trying this alternative on peach decay, by testing a prototype lend by Xeda, in a professional station.

Several parameters were to be evaluated : temperature and length of treatment, relation between both, container emptying, application of treatment period

At the same time, we intended to assess eugenol (essential oil of clove) efficacy when added in hot water, for different concentrations, up to phytotoxicity.

Main conclusions are:

temperatures higher than 52C are not recommended since they can create epidermic wounds favourable to pathogens,

the adding of eugenol in hot water do not increase fruit protection and can lead to penicillium infestation.

More experimentation is needed before recommending the technique.

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