Abstract:

Twenty five yeasts, including yeast like fungi, were selectivity isolated from fruits and vegetables. In several assays performed on strawberries, the yeasts Candida fructus (isolate 18) and Candida glabrata (Isolates 9 and 3) were the most effective antagonists to Botrytis cinerea.

Candida fructus, Candida glabrata in addition to Candida oleophila were utilised in trails on strawberries (cv. Sweet Charlie) field grown under plastic tunnels. They were applied at flowering stage (full bloom and late petal) and on fruit 24 hr before harvest.

The yeast Candida oleophila followed by Candida fructus provided significant decay control associated with greatest effect to C. fructus in restricting visual rating of mould development (VRMD) on fruit. Meanwhile, the fruit maintained constant quality parameters i.e. firmness, soluble solid content, anthocyanins content, titratable acidity (TA), pH and colour.

A reduction in fruit weight loss and a restriction of decay development as affected by the delay in cold storage from 1 to 3 hr after harvest was obtained due to applying the antagonists, in particular for the yeasts C. oleophila and C. fructus.

The antagonist population was consistently high on developing fruit originating from treatment at full bloom or at late petal fall and at 24 hr after harvest with greater effect to C. oleophila and C. fructus.