

**Title** Postharvest use of non-chemical control strategies in Turkey  
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#### **Abstract**

Due to residue and resistance problems with fungicides, many attempts have been made in recent years to find alternatives to chemical control. In this regard, biological and physical methods have great potential. Based on recent research in this area, some studies on the biological control against postharvest diseases have been carried out in Turkey. These studies have focused on the use of antagonistic yeasts. *Metschnikowia pulcherrima* (on mandarin and grape), *Pichia guilliermondii* (on citrus), and *Kloeckera apiculata* (on peach) have been found to be effective against postharvest decays in these commodities. In our studies, antagonistic yeasts were applied either before or after harvest. Bioformulations of several effective antagonistic yeast isolates have been developed and pilot tests were carried out on citrus under packinghouses conditions. Additionally, select preharvest treatments such as plant growth regulators (GA<sub>3</sub> and 2,4-D), CaCl<sub>2</sub>, hot water, curing, UV-C, low doses of fungicides, and sodium bicarbonate were integrated with yeast isolates to enhance their efficacy.