



UNIVERSITÀ
POLITECNICA
DELLE MARCHE



cost
EUROPEAN COOPERATION
IN SCIENCE & TECHNOLOGY



P17

Screening and evaluation of antagonistic yeasts to control postharvest rots of strawberries

REMOLIF G.^{1,2}, GARELLO M.^{1,2}, SPADARO D.^{1,2}

¹Dipartimento di Scienze Agrarie, Forestali e Alimentari (DISAFA), Università di Torino, Largo Paolo Braccini 2, 10095 Grugliasco (TO), Italy; ²AGROINNOVA, Centro interdipartimentale per l'innovazione in campo agro-ambientale, Largo Paolo Braccini 2, 10095 Grugliasco (TO), Italy

Strawberries are highly perishable fruits and decay reduction is a major challenge during their storage. In this study, we selected some antagonistic yeasts by evaluating their efficacy in the control of postharvest rots of strawberries. The effect of the treatments on the fruit quality and microbiome was also assessed. In vivo screening trials were performed using yeasts taken from the collection of the University of Turin and using endophytes isolated from healthy strawberries. The most effective strains, belonging to the species *Metschnikowia pulcherrima* and *Aureobasidium pullulans*, were selected to be tested in efficacy trials. Both at the end of storage and after shelf-life, all treatments showed a significant reduction in rot incidence and severity compared to the untreated control. Moreover, results were comparable to those obtained for the control treated with the commercial product Noli (Koppert, *M. fructicola*). All treatments did not significantly affect the fruit quality. Microbiome sampling was performed after storage, and the results will provide information about the shift in the fungal community in response to the treatment application. Findings of this work provide new insights for the development of sustainable strategies for postharvest disease management and reduction of production losses.

Keywords: Antagonism, biocontrol agents, fruit, *Fragaria x ananassa*