Early detection of fungal storage pathogens on pome fruits (EARLDETEC)

Euphresco

Funding

Non-competitive funding mechanism. Each funder only pays for the participation of their own national researchers. Total funding € 72 000

Research consortium

AGES (AT), INHORT (PL), VNIIKR (RU), WUR (NL), USAMV (RO)

Contact information

Project coordinators:

Ulrike Persen
Ulrike.persen@ages.at

Richard Gottsberger
Richard.Gottsberger@ages.at

Objectives

The overall goal is to provide qualitative and quantitative early detection systems for pathogenic storage fungi, which in the future would possibly allow preventive measures during fruit production, harvest and further processing to diminish losses caused by pathogens in long term storage of apple fruits.

Symptoms will be monitored on stored pome fruits and the main fungal pathogens causing storage decays in the participating countries will be determined. Techniques and methods for isolation, detection and identification will be tested, evaluated, harmonised and described. The main focus will be on molecular tools, supplemented by morphological studies.

Key outputs and results

The project will provide data on the fungal diversity on apple and pear fruits allowing a diversity ranking. The main causal agents of storage decays in the participating countries will be determined which may lead to more target oriented control measures.For the most important fungi detection and identification protocols will be established. With emphasis on early detection the best timing and location (in the field, in the packing house…) for sampling should be identified. A correlation of the incidence of selected diseases with duration of storage, cultivar susceptibility and storage conditions will be established.