

Sanitation of the apple cultivar ('Rubinstep') and pear cultivars ('Astra', 'Bohemica', 'David', 'Elektra', 'Erika', 'Lada', 'Lucasova') was carried out by in vitro thermo- and chemotherapy. In the course of sanitation, the plant material was periodically tested to verify the suitability of selected methods. The presence of pathogens in selected initial trees was detected by PCR, RT-PCR and DAS-ELISA before the beginning of sanitation in 2005. Nineteen clones of the apple cultivar 'Rubinstep', 20 clones of pear cv. 'Elektra', 11 clones of pear cv. 'Erika', 17 clones of pear cv. 'Astra', 16 clones of pear cv. 'Bohemica', 12 clones of pear cv. 'David' after chemotherapy and 10 clones of apple cv. 'Rubinstep', 18 clones of pear cv. 'Elektra', 7 clones of pear cv. 'Lada' and 4 clones of pear cv. 'Lucasova' after thermotherapy were tested in years 2006-2008. The occurrence of the viruses Apple chlorotic leafspot virus (ACLSV), Apple stem grooving virus (ASGV), Apple stem pitting virus (ASPV), Apple mosaic virus (ApMV) and phytoplasmas *Candidatus 'Phytoplasma pyri'* and *Candidatus 'Phytoplasma mali'* was monitored. The clones, which remained infected with viruses or phytoplasmas after therapy, were later discarded. Those in vitro clones that proved to be pathogen-free after repeated testing were further multiplied and in vitro rooted. Achieved results are preliminary. Other sanitation and testing of apple cultivars used in the project will be carried out in the following years.

Apple, Pear, Sanitation, ASPV, ASGV, ACLSV, ApMV, AP, PD, PCR, RT-PCR, DAS-ELISA

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Eutypa dieback as an important disease in red currant (*Ribes rubrum*) and gooseberry (*Ribes uva-crispa*) in the Netherlands

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Over decades, growers in the Netherlands have problems with a disease that causes dying branches and stem cankers in red currant. For many years it was assumed that this disease was related to fungi such as *Nectria cinnabarin*, *Phomopsis* spp. and the insect *Synanthedon tipuliformis*. However, recently it was found by Applied Plant Research and the Plant Protection Service that the causal organism is the fungus *Eutypa lata*. The disease is considered of major economic importance, especially as red currant growing is rapidly expanding in the Netherlands. *E. lata* was identified with three detection methods (visual, plating and DNA). Symptoms of Eutypa do not usually appear until currant plants are at least three to four years old. These cankers are always associated with old pruning wounds. Eventually, the entire branch is killed. High disease incidences and annual losses of 10% - 30% of the productive branches are reported. In some cases entire fields have to be replanted. Eutypa is well known as one of the most destructive diseases of grapes. The importance of this disease in currant growing was not known. Research is focusing on the evaluation of control measures; e.g. chemical and biological control treatment of pruning wounds, and

disease management such as sanitation practices. Also, the epidemiology of *Eutypa* is studied. Recently, high densities of ascospores of *Eutypa* were found in a spore trap placed in a red currant field in the Netherlands. In the subsequent field survey, fruiting structures (stromata) and ascospores were found on dead infected red currant wood.

Eutypa lata, Canker, Control strategies, Currants