

Abstract

'Comice' pears (*Pyrus communis*) were immersed in dump tank solutions for pear flotation containing calcium lignosulfonate, sodium carbonate, potassium carbonate, potassium phosphate + potassium pyrophosphate, calcium chloride or sodium sulfate as flotation agents, alone or with 0.15 or 0.30% sodium *o*-phenyl phenate (SOPP). Phytotoxicity associated with SOPP was dependent on the flotation agent, the concentration of SOPP, duration of exposure and the solution temperature. Combinations of flotation agents in varying proportions, with SOPP, generally increased the incidence of phytotoxicity, although specific combinations of flotation agents did not result in fruit injury. Most flotation agents provided some control of decay in 'Bosc' pears inoculated with *Penicillium expansum* or *Botrytis cinerea*. Decay control generally improved with increasing concentrations of SOPP, but superior flotation agent/SOPP combinations were not identified.