

## GROWTH AND YIELDING OF SOME PEAR CULTIVARS GRAFTED ON THREE ROOTSTOCKS

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The experiment was carried out in the Experimental Orchard in Dąbrowice, near Skierniewice (Central Poland) in the years 2001-2007. The influence of three rootstocks on tree growth, yield and fruit quality of ten pear cultivars was studied. One-year-old maiden trees grafted on seedlings of *Pyrus caucasica* were planted at the spacing of 4.0 x 2.50 m, and those on quince clones S1 and MA at the spacing of 4.0 x 1.85 m.

After seven years of investigation, *Pyrus caucasica* seedling induced the highest growth in for all the pear cultivars studied. The tree vigour of 'Carola', 'Clapp's Favorite' and 'Packham's Triumph' was the strongest. Among the weakest growing trees were those of the cultivars 'Williams' and 'Nojabrska'. On both clones of quince, the growth of all trees was clearly weaker than of those on seedlings of *Pyrus caucasica*.

The highest total fruit yields were obtained from the trees grafted on *Pyrus caucasica* seedlings. Among the trees grafted on the clones of quince, much better yields were produced by the trees grafted on the Polish clone S1. The best yielding trees on *Pyrus caucasica* seedling were those of the cultivars 'Nojabrska' and 'Bojniczanka'. In the case of both clones of quince, the highest yields were obtained from the trees of the cultivars 'Conference', 'Williams', and 'Nojabrska'.

In 2007, as in the previous year, after serious spring frosts the best yielding trees were those grafted on *Pyrus caucasica* seedlings. The highest yields, of more than 20kg per tree, were obtained from the trees of the cultivar 'Bojniczanka'. Pear trees of the Moldavian cultivar 'Nojabrska' also produced good yields. All the trees grafted on quince MA yielded on a level similar to that of the trees grafted on quince S1.