

**Product:**  
Penergetic-p

**User:**  
Lucerna

**Date:**  
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## User application Report

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### Apple Trees in Finland

During last two growing seasons I have used Penergetic-P product to grow saplings of apple- and pear trees.

In the year 2006 I grew saplings in pots. So it was better to give Penergetic-P within watering to test group and to the control group organic watering according with normal practice.

In the year 2007 it was time for grow saplings on the frame and draw a comparison between these two growing methods.

I have used on base stem for apple B 396 and for pear Pyrowarff and Dessertnaja rowan, so to the dwarf base stems, so that I will get the fruits as soon as possible. Why like this? Because I have the test garden with over 400 variety, though now the production garden have already built up, which is made up of so called immune apples.

All growing is organic.

The variety is acquired from different refineries from everywhere in Europa and USA. The selection has done according to which should grow excellent fruits here in Finland.

In those saplings which was growed in pots there was no differences on the length of the stem but the bark and the wood structure was considerable firm.

In test group saplings the point of breeding was clearly better growed into.

But when I started to study roots, the difference was considerable.

Roots of the test group, which have got Penergetic-p, was considerably thick and pots were totally full of the root mass. The roots were well wind itself and followed the side of the pot.

Now when these saplings have been one summer in fields, I can see the difference clearly.

The saplings have grown clearly more strongly. Thickness of the shoot is considerably stronger.

I noticed that the distance of the buds was clearly shorter and the buds was considerably more viable.

These saplings started to overwinter earlier and sheded all its leaves.

The growth, viable of the buds and strong healthy bark structure make easier the possibility that any winter damages should not come.

When growing saplings in the frame the differences already during first growing season were considerable compared to the control group. The root system, which now have grown freely, has really thick hair roots. Also so-called head roots has grown to very strong. The joint (the apple tree branch to the base stem) have grown perfectly into the base stem. The saplings are 20 cm longer and clearly stronger than in control group. The leaves were bigger and clearly more green and healthy. The distance between two buds is considerably shorter.

Penergetic-P product has excellent influence to the roots. If the plant will produce to itself all that what it will get from the soil, and there are also necessary trace elements, so I don't suspect a moment that the product should not work with fruit trees. Now when the growth of the branch (apple tree branch from the base stem) is stronger, the bark structure is healthy, the distance of the buds are shorter, so I wate already as impatient when the trees comes to age of crop, how they then yield.

The fruits evidently will be prime quality when the saplings are healthy. The crop will surely be 10 - 20 % bigger, that is much.

Railo Niemi  
 Apple Farmer, gardener  
 Hollola, Finland



1414

The line where are green leaves has got Penergetic-P with the first watering, after the saplings has taken from cellar. (The saplings was last summer growing and over one winter in cellar.)



1415

This photo has taken in spring 2007. The saplings behind in the frames has got Penergetic-P with the first watering. The sapling is base stem for apple B396 and apple tree branch with 1-2 buds. Now in January 2008 the saplings are 1,5 meter high. These are 1 year old and they are higher and stronger than 2-years old saplings which have grown in the pots without Penergetic-P. In spring 2008 the gardener can cut out from the heigh 10-12 buds for new base stems. (He will get buds for many base stems.)



1424



1426



1428



1427

These photos has taken 18.5.2007

These apple trees are 3 years old and they have got Penergetic-P first time with first watering in spring after taken from the cellar. The saplings are flowering very well.



1418



1419



1420

These saplings are 3 years old and have grown exactly in the same place and same way (as no. 1424,1426,1427,1428) but without Penergetic-P.



1430



1431



1432

These photos has taken in January 2008.

These are same saplings which was flowering in photos 1424,1426,1427 and 1428.

Photo 1430

The lower part is grey and year 2006 growth, when the sapling has not got Penergetic-P.

The flower buds are small and weak.

The upper part which is reddish-brown, is year 2007 growth.

The growth was about 10 cm in the year 2006.

The growth was about 25 cm in the year 2007 with Penergetic-P.

Photo 1431

The flower buds in the growth of year 2007 are very good.

Photo 1432

The flower buds in the growth of year 2006 are more worse.

The gardener, Mr Railo Niemi, says that it is considerably better when the sapling get Penergetic-P already in the first year.

(So can avoid things like in photo 1432.)