

HOW TO STORE APPLE & PEAR TREES

Apple trees, and especially pear trees, are susceptible to dehydration: all the compulsory storage stages are designed to limit this natural phenomenon. In order to preserve the quality potential of the tree and to optimise its growth in the spring, it is necessary to irrigate the trees abundantly (roots and aerial part), in the pallet, as soon as you received them. Once the trees have been rehydrated, they must be stored until planting.

Two techniques are then possible, the trees being or not in bundles:

Storage in trench

This traditional method consists in putting roots in contact with fine sand or slight lime soil without small stones to prevent the formation of air pockets after irrigation. It allows storing the plants and protect their roots from below zero temperatures in winter. In order to make a good trench, fine sand must be used (or in its defect, fine lime soil without small stones) in order to put all roots in contact with sand and/or fine earth.



There must be no pockets of air in the roots, and therefore, the trench must be irrigated. It is better to select a shadow area, north from a wall or under shrubbery, protected from strong wind currents. This prevents dehydration and delays root system budding and growth until spring. If it does not rain, it shall have to be irrigated regularly.

Likewise, one has to take care with rabbit attacks and from other rodents. This problem can be avoided by surrounding the trench with a fence.

A trench that follows these recommendations will help to store the trees until the buds start to fill.

Refridgerated storage

Very practical in logistics and handling terms. The use of refrigerated storage requires, in any case, taking major precautions.

Attention to ethylene risks

The presence of ethylene shall not be tolerated, as it can seriously compromise growth of the trees. It is essential to correctly ventilate the storage chambers, without fruit or vegetable inside, before installing the fruit plants. Attention must also be given to the environment of certain fruit stations with a high percentage of ethylene (apple smell) and where not hermetic chambers could be contaminated by the ethylene released by a nearby chamber. It is also important not to store trees in a place where anti-germinative products have been used (as in the case of storing potatoes).

The refrigerated chamber as source of dehydration

In the event of not meeting certain rules, the main risk of refrigerated storage is dehydration of maiden trees. Therefore it is mandatory :

- ☞ abundantly irrigate maiden trees in pallets before putting them in refrigerated storage.
- ☞ Cover the top of the pallets with plastic sheeting to contain moisture and prevent dehydration by the fans.
- ☞ Water the floor of the cold room regularly to maintain a humidity level close to 90%.
- ☞ Water the plants on the pallet three times a week (e.g. Monday, Wednesday and Friday) and then put the plastic sheeting back on top of the pallet.
- ☞ Set the temperature of the cold room to the recommended 1° to 3° C and change the air regularly (for 1 to 2 hours when watering).
- ☞ avoid placing pallets or trees in the air ventilation corridor.

The cold and humidity conditions block the growth of the tree artificially extending winter without dehydration. If all these recommendations are scrupulously followed, the refrigerated storage is the best storage method and allows planting until April or even early May.