

# What is a Fruit Nursery ?



*Local fruit nursery, Panchkatya, Jajarkot*

The **fruit nursery** is a place where local wild fruit seed is sown to grow seedlings. This means selecting from healthy, disease free species that grow wild or on farms, such as wild pear, peach, walnut, apple, etc. Branches (scion) or buds from good fruiting trees, which must also be healthy and disease resistant, can then be joined onto these seedlings while still in the fruit nursery. This will produce high quality fruit trees with strong, local roots. The work of joining 2 compatible plants together in the fruit nursery is called **grafting** or **budding**. Information about these methods is given in their own chapters.

# Why make a Fruit Nursery ?

- To grow improved fruit trees in your own village.
- To make use of the local wild fruit trees.
- To grow fruit trees suited to the local climate and soil.
- To be able to obtain fruit trees whenever you need.
- To save the cost of buying fruit trees.
- To grow fruit trees which produce quickly.
- To be able to generate income from local resources.



*Seven types of local plum*

# How to make a Fruit Nursery ?

## 1. Time to build the nursery

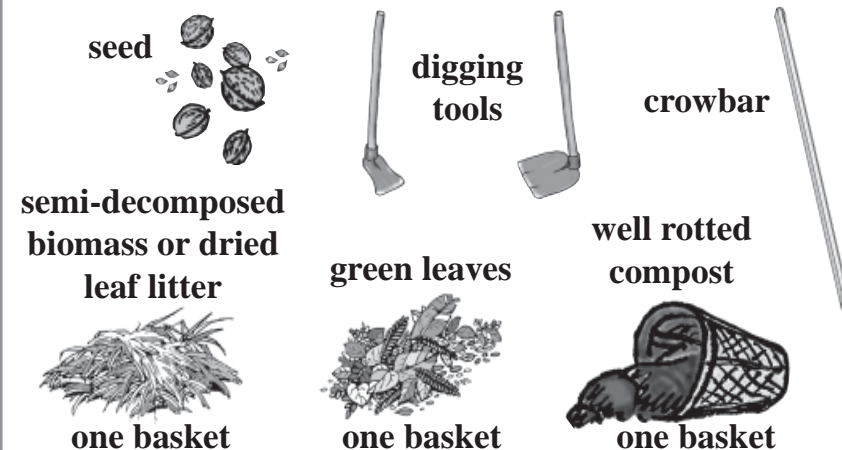
The best time to build the fruit nursery is in the Autumn (October in the Northern hemisphere)

## 2. Materials needed

These are the materials needed to build a fruit nursery:

- **seed** : collect good viable seed of local, wild fruit trees, such as peach, plum, apricot, cherry, walnut, pear, etc.
- **digging tools**;
- **biomass** : a basket each of well rotted compost, semi decomposed biomass, and fresh green leaves.

### Materials Needed to make a Fruit Nursery



### This Chapter's Author :

Chris Evans, advisor,

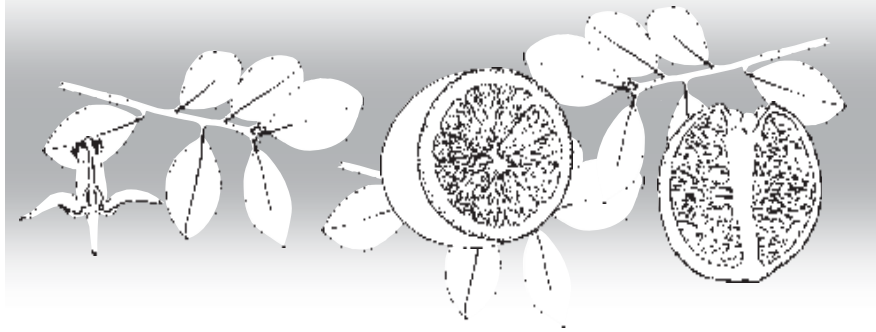
Himalayan Permaculture Centre, Nepal

[www.himalayanpermaculture.com](http://www.himalayanpermaculture.com)



## Site Selection

It's important to choose the right place for a nursery. A site is needed where watering, checking, protecting, mulching and composting and such daily maintenance will be easy.

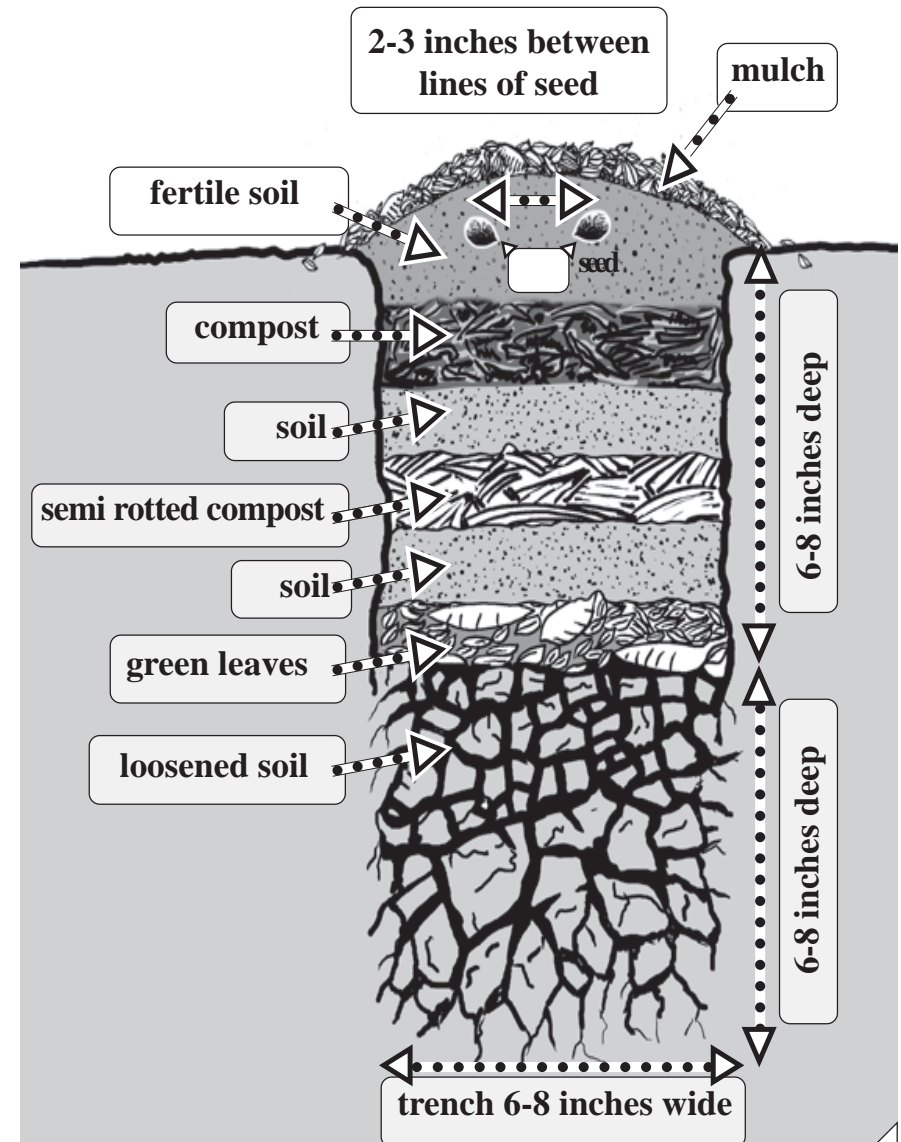


## Digging the bed

The bed for planting the seed can be as long as you need, depending on the number of seeds you have to sow. First, dig a trench about 6 inches wide and 6-8 inches deep, keeping the removed soil close by. Then with a crow bar or pick axe, loosen up another 6-8 inches of soil in the bottom of the trench, without removing it from the trench.

Now place a 2 inch layer of green leaves in the bottom of the trench. On top of this put a 2 inch layer of the soil dug out of the trench. Next, put a 2 inch layer of half decomposed or dried leaf litter. Cover this layer with another 2 inch layer of soil. Then put a 2 inch layer of the well rotted compost. Now put all the remaining soil that was dug out of the trench to make a mound above the trench. The trench has now been refilled with the soil, green leaves, leaf litter and compost.

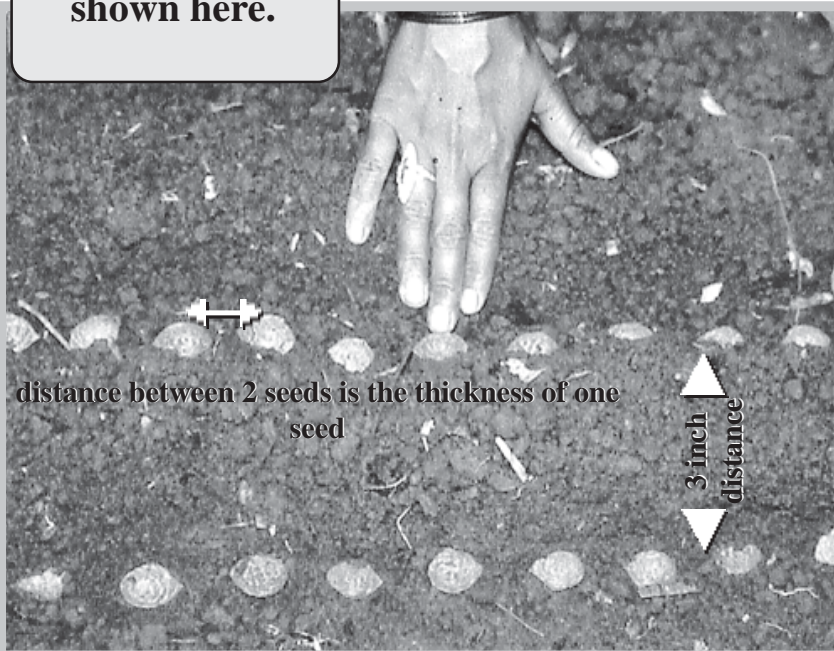
## Cross section to show the fruit nursery trench



## Sowing seed in the nursery

Now the local, wild fruit seed, such as wild pear, apple, peach, plum, apricot, walnut, etc. can be sown in the nursery. Along the heaped up bed make 2 shallow grooves 3-4 inches apart, and place the seed into these grooves. The distance between each seed in the line should be the same as the size of the seed itself. Cover the seed with soil to a depth which is the same thickness of the seed, and then cover with a 2-3 inch thick layer of mulch. For the mulch, use leaf litter, straw, pulled weeds, etc.

Sow the seeds as shown here.



## Let's See

## how to make a Fruit Nursery

**1** Materials needed to make a fruit nursery

- spade
- leaf litter
- green leaves
- pick
- hook
- compost

**2** Size of the trench

- 6-8 inches deep
- 2m long
- 6-8 inches wide

**3** Dig out the trench and leave the soil at the edge

soil removed from trench



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Dig down another 6-8 inches to loosen the soil without taking it out of the trench



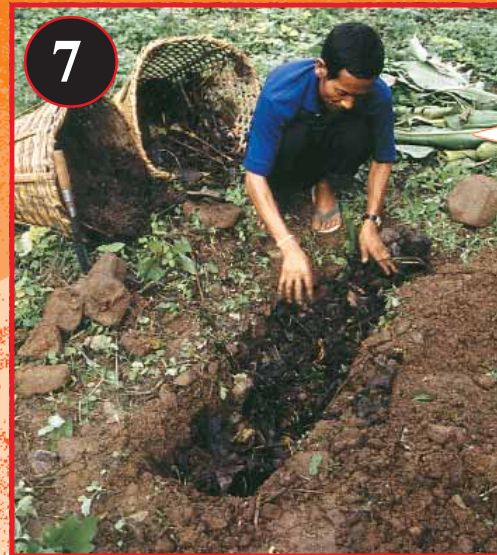
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Put a basket of green leaves in the trench



6

Cover with a layer of the soil removed from the trench



7

Then put a layer of leaf litter



Cover this with more soil



8

Now put in the compost



9

Put in the rest of the soil with compost to make a mound



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## How to maintain a Fruit Nursery

# Maintenance

After sowing the seed the nursery needs good maintenance. Seed sown in the Autumn will germinate the next Spring. In the months in between, the nursery should be watered deeply every 2-3 weeks if it doesn't rain. This will help the seed to germinate well. After the seeds have germinated, the mulch helps to conserve moisture in the soil, and keeps down weeds. Even so, irrigate and weed the nursery as needed. Add more mulch if needed. All this helps the seedlings to grow well.

Seedlings which germinate in the Spring may be big enough to graft or bud the next Winter. If the seeds germinate slowly, or if weeding and irrigation is not done, the seedlings will be a year slower to reach the size needed for grafting and budding.

Grafted seedlings completed in the nursery (arrows point to where the graft is)



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Peach seed



For sowing distance see earlier p.6



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Put on mulch

## Work needed while seedlings are growing in the nursery

**irrigation :** the seedlings need water regularly.

**weeding :** pull up any weeds that grow and use them as mulch.

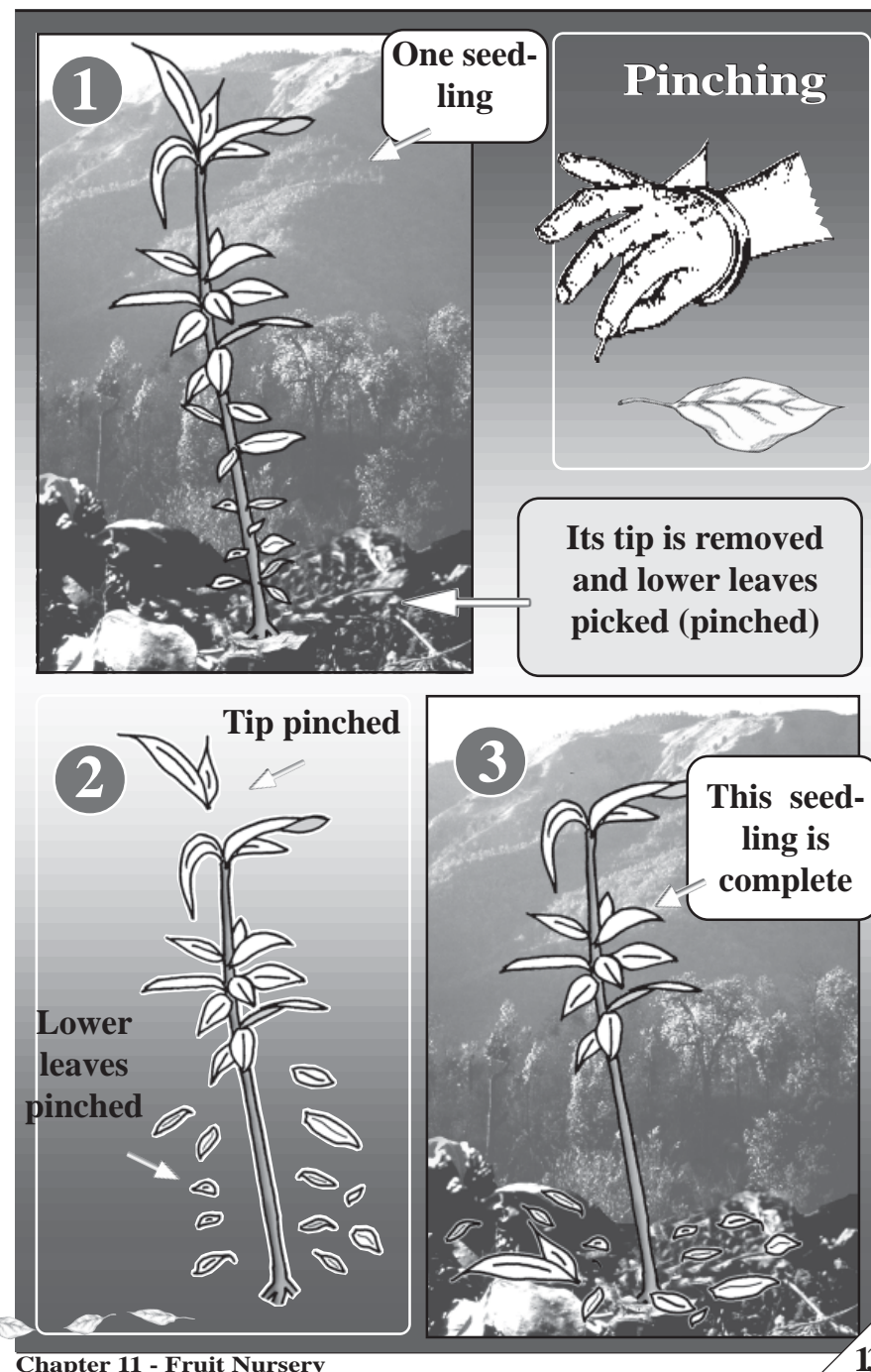
**mulch :** keep a thick mulch on the bed



### Pinching (removing the leaves)

In the late summer any lower leaves or small branches should be removed with secateurs or a sharp hook, and the growing tip also cut off. This makes a good shape of the seedling ready for grafting or budding. By taking out the tip the seedling will grow fatter rather than taller, and taking out the side leaves and branches lower down leaves a clean stem which is easier to graft or bud. This work of picking leaves and tips is called *pinching*.

Seedlings growing in the bed



## Farmers' Experience

### Mr Dhan Bahadur Midun

From Nepal, Surkhet district, Lekh Pharsa-2, Purano Gaun village, local teacher Mr Dhan Bahadur Midun has made his own fruit nursery. Now let's read about his experience.



*Dhan Bahadur Midun*

“ After the Homestead Programme started work in our village I learned about fruit nurseries, and made one on my own land. I started by growing 100-200 seedlings, and have gradually increased that number with experience. It was difficult at first without the knowledge but now I find it easy. Though we don't have any irrigation here, by using lots of compost and mulch the need for water was much reduced, and what we saved in the waste water pit has been enough. I've sold, exchanged and given away seedlings I raised here to friends in our village. I've also provided other villages up to 2 days' walk away with seedlings. Doing this I'm starting to understand that by applying work and investing in the right place at the right time, many benefits can be gained. ”



## Read On !



### Subjects Related to the Fruit Nursery

This book gives enough information to be able to make and manage your own Fruit Nursery. However, this information is also linked to other methods. For extra benefits let's read, learn and practice from other related chapters.

Integrated Fruit Orchard chapter



Fruit Nursery chapter



Fruit Tree Planting chapter



Grafting & Budding chapters

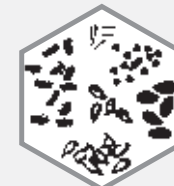


Seed Saving Chapter



### Seed Saving Chapter

To grow good fruit root stock you need to select good, healthy trees to produce seed. More information on seed saving is given in this chapter.







## **Fruit Tree Planting chapter**

After raising good seedlings in the fruit nursery, if they're not planted well all the work can go to waste. Information on more productive planting is given in this chapter.



## **Integrated Fruit Orchard chapter**

Plant fruit trees with various other multi-purpose trees to give more and quicker benefits for less work. This is the Integrated Orchard, and you can read about it in this chapter



## **Grafting & Budding chapters**

Local peach, pear, walnut, etc. sown in a fruit nursery can be grafted with cuttings or buds of compatible improved trees after 1 to 2 years. In these chapters, learn how to do this method at home.

