

Tree Transplantation

Citizens For Green Doon
www.citizensforgreendoon.com

1. When to transplant trees?

In an emergency, a tree can be transplanted any time but results are best if it is transplanted in winters or early summers, when the tree is in a dormant stage, before new leaves come out or just before the monsoons if there is no water stagnation at the transplant site.

2. Which trees can be transplanted?

Literally any tree can be transplanted, but the results of the transplant are best with trees with superficial, fibrous roots. Trees with deep tap roots have a much less rate of success but they can be transplanted.

3. Things required for transplanting:

- JCB Machine: 5 days before the day of transplant & during the transplant day.
- Heavy Duty Crane: on the day of transplant.
- Workers with shovels: 4 on the day of transplant
- Three 15 feet long thick rope with iron anchors to hold the tree if required.
- Manure and good mud, if the soil at the recipient site is not good.
- If the tree is to be transported to a distance then:
 1. Truck to transport it.
 2. Jute bags, which have been cut open and jute rope to cover the root ball of the tree.

4. Preparing for transplant:

- **Selecting a Site:**
 1. A recipient site as near the original site would be good because the soil and environmental conditions would be similar.
 2. Preferably you should be able to dig a recipient hole about twice the size of the root ball (see later) of the tree.
 3. It is best to orient the tree in its new site in the same direction, so that the sun comes on it the same way as it did on the original location.
- **Preparing the recipient site:**
 1. It is good to dig the recipient site a few days earlier so that sunlight disinfects it as much as possible.
 2. The width of the hole should be twice the root ball size and the depth a bit less than the depth of the root ball so that the tree is a bit above ground in the new location to avoid pooling of water, which prevents rotting of the tree. A wide hole gives the tree soft soil so that its roots can quickly grow in it. Doing exploratory digging around the tree will reveal an approximate size and location of the main roots.
 3. Roughen the sides of the pit so that the new roots will find it easier to penetrate.
 4. Put manure near the hole.

- **Preparing the tree for transplant:**

1. Water the tree well for a few days so that it has reserves for the shock it gets when it is transplanted. It also helps soften the soil and reduces damage to the roots.
2. Lopping should be done a day before so that (1) it is easier to transport & (2) with less leaves the water loss will be reduced so that the tree tides over better in the shock stage, till it develops new roots. Lop the tree as much as possible especially if it has tap roots. For eucalyptus trees even 4 feet of height is adequate.
3. If you have 6 months time, then root pruning improves the survival rate. Starting from the drip line (where the water drips from the tree) cut the major roots of the tree. This will prompt it to develop new roots, which will be shorter by the time transplantation is done.

5. The Transplant Process:

- Dig a trench about a foot away from the drip line, about 2 feet deep, exploring the area for major root branches.
- Separate the roots from stones as gently as possible. Cut as few major roots as possible, smaller roots are the important ones and must be preserved. If the roots are deep, go as deep as possible, keeping in mind the final weight of tree with its soil, since it needs to be lifted by the crane.
- Rocking the tree gently back and forth as digging progresses will help separating the roots. Keep as much soil in place as possible.
- The roots and the soil in between are called the “Root Ball”.
- Drag/ life the tree with the help of a crane to its new location if it is nearby; never roll it. If distance is involved, wrap moistened jute bag cloth, which has been cut open, over the root ball and tie it with a jute rope. The less the roots are exposed to air, the better it is for the tree. Never allow the roots to dry during transport.
- Orient the tree correctly with respect to the sun, erect it with the crane and gently lower it in the recipient hole. Put mud, manure and water mixed with root hormone into the hole as the tree goes in to close any air pockets which may develop.
- Water the tree well.
- If the tree appears unstable, hold it in position with help of ropes.
- To check for subsequent water requirements, dig down 3 to 4 inches next to the tree. Wet soil at that depth verifies watering is not needed at that time.
- DO NOT ADD ANY FERTILIZERS for at least one year after the transplant.