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## Guidelines for tree planting

The planting, protection and aftercare of young trees needs careful attention if they are to establish successfully. This information aims to provide general guidance on the standard of work required for projects grant aided by the Peak District National Park Authority.

### Planting

#### (i) Pre-planting care

All trees should be 40-60cm transplants of British provenance (preferably local provenance) and should comply to British Standard 3936. Ideally trees should be planted as soon as possible after delivery and should be 'heeled in' if they are not to be planted immediately. This involves placing the roots in a pit or trench and covering with firmed soil to prevent them drying out, being frosted or being exposed to sunlight.

#### (ii) Timing, weather conditions and establishment

Planting should be carried out between October and March. Dry areas are best planted in early autumn and wet areas in February and March. No planting should be done in very wet, frosty or snowy conditions.

Consideration should be given to the site, and a number of points taken into account:

- Will the tree be too big for its situation when it is mature?
- Is the site close to buildings?
- Is the site of existing ecological or archaeological interest?
- Will overhead or underground wires and cables be affected?
- Will the trees blend into the local landscape?
- It is necessary to ensure that the trees do not dry out during the first couple of years, especially if a hot summer is experienced, so in some cases some form of irrigation may be required.

### Ground preparation

Aggressive weeds (particularly grasses) should be controlled before planting as they will compete with the new trees which have an incomplete root system in the first growing season. Ideally the vegetation should be cleared for 1m diameter (0.5m radius) around each planting position either by stripping away the turf or using a suitable approved herbicide. **Note: All herbicides must be applied in accordance with the label recommendations.**

Mowing is not an effective method of clearing vegetation as it causes renewed (and usually more vigorous) growth of the vegetation, thereby increasing competition for moisture.

## Planting methods

When planting it is important to keep the plants in a plastic bag to prevent drying out and exposure to light. It is essential that the roots are kept moist and dark as even a short period of exposure could damage the plants.

There are two main planting techniques - notch planting and pit planting:

### (i) Notch planting

This method is suitable for small transplants.

A slit or 'L'-shaped notch should be cut in the soil and held open with a spade whilst the roots of the tree are inserted carefully so that they spread downwards. The notch must be well firmed around the tree, while pulling the plant gently upwards so the original soil mark on the stem is at ground level.

### (ii) Pit planting

This is generally used when planting larger stock or container trees.

The trees should be planted by digging out a pit which must be deep and wide enough to take the roots. The base of the pit should be forked over to improve drainage and the roots should be evenly spread around the pit. The pit can then be back-filled with the soil being firmed in every 10cm to prevent air pockets.

Fresh farmyard manure or fertiliser should not be used. Trees should be planted no deeper than the soil mark on the stem.

## Protection

Nearly all newly planted trees will require protection from grazing animals. Tubes are usually adequate if rabbits and hares are the only problem. If deer or stock are present, higher 1.2m shelters will be needed, although if the site is exposed, these specimens may grow too weak to withstand the winds once the shelter is removed.

If you have a very large site, it may be more economic to fence it off entirely rather than using individual tree guards.

### (i) Tree shelters

The tree shelter stake should be driven in before planting the tree. The stake should be 8-12cm from the transplant stem position. Then slide the tube carefully over the tree after bending any branches upward. If there is a curved rim on the shelter, make sure it is at the top and that the base of the tube is pushed 3-5cm into the soil. Attach the tube firmly to the stake with the ties provided.

Shelters will protect individual trees from damage by animals depending on their size:

- 0.6m for voles and rabbits
- 0.75m for hares
- 1.2m for roe deer
- 1.5m for sheep (if double staked)

## (ii) Protective fencing

Post and wire fencing is essential to protect the trees from livestock, refer to 'Guidelines for stock proof fencing'.

Where large areas of trees are to be planted it may be more cost effective to rabbit fence rather than use individual tree shelters, refer to 'Guidelines for rabbit proof fencing'.

## (iii) Individual tree enclosures

Trees planted in isolation in stock grazed areas may require individual tree enclosures.

## (iv) Cattle / horse proof enclosure

### Construction:

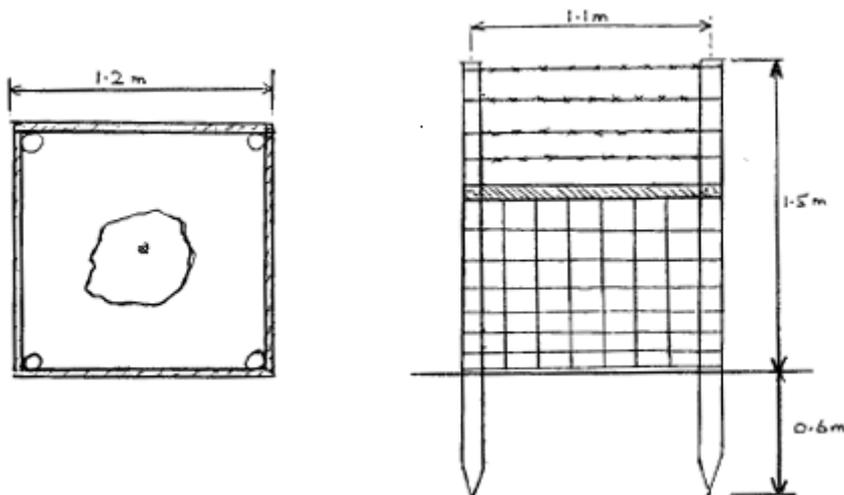
Four posts (2.1m x 75mm/100mm top diameter pointed) to be driven into the ground at 1.1m centres at the corners of a square with the tree planted at its centre.

A 5m length of netting (C8/80/15 galvanised sheep netting or HT 12/122/8 horse proof netting. To conform to BS 4072) to be stapled to the post with the bottom wire 25mm from the ground. The netting should be stretched as tightly as possible.

A rail (3.6m half round with minimum 75mm across the face – to be cut into three equal lengths – note 1 1/3rd rails required per enclosure) is to be nailed (100mm galvanised wire nails) to the posts at the top of the netting, with the netting then secured to the rail.

Four lines of barbed wire (12½ swg 2-strand galvanised mild steel – 4 x 5m lengths required) to be stapled (40mm x 4mm galvanised wire staples) to the posts at 125mm gaps above the rail.

### Tree enclosure



## **(v) Sheep proof enclosure**

### **Construction:**

Three posts (1.8m x 75mm/100mm diameter pointed) to be driven 600mm into the ground at 1.1m centres at the corners of an equilateral triangle with the tree planted at its centre.

A 4m length of netting (C8/80/15 galvanised sheep netting (to conform to BS 4102) to be stapled to the post with the bottom wire 25mm from the ground. The netting should be stretched as tight as possible.

A rail (3.6m half round with minimum 75mm across the face to be cut into three equal lengths) is to be nailed (100mm galvanised wire nails) to the posts at the top of the netting, with the netting then secured to the rail.

Two lines of 2-4m length barbed wire (12½ swg 2-strand galvanised mild steel) to be stapled to the posts at 125mm gaps above the rail.

## **Aftercare**

### **i) Weeding**

The young trees must be kept clear of vegetation for at least a 0.5m radius around the tree for the first few years after planting to lessen the competition for light and moisture. Effective weeding removes all vegetation around the tree roots before each season's growth.

Late April onwards is the best time to control vegetation but it may need to be repeated two or more times each season. Tree shelters are not a substitute for weeding and tall weeds inside shelters should be removed.

Herbicides may be the most cost-effective and practical way to control weeds by careful spot spraying or using granular forestry herbicide in winter. **Note: All herbicides must be applied in accordance with the label recommendations.** In particular herbicides should not be applied in very hot weather as evaporation can kill the trees.

Correct weeding is the most effective way to ensure that trees receive enough water. Water retention and weed control can be greatly improved by using sheet mulches, such as plastic, or thick organic mulches, such as wood chips or wet straw.

The importance of weeding cannot be over-emphasised.

### **ii) Further planting**

Failed trees should be replaced in the following planting season.

### **iii) Removal of shelters**

Fencing and shelters should be inspected regularly.

Only remove shelters when they have disintegrated or when the stem has almost filled it. Once the shelter has been removed it may be necessary to protect young trees with spiral rabbit guards where rabbits or hares are a particular problem.

This guidance is given for general advice only and may not be appropriate to all situations. For more details and site specific advice please contact the Conservation Service on 01629 816270 or email [farming@peakdistrict.gov.uk](mailto:farming@peakdistrict.gov.uk).