

Wildlife Plan for Apple Trees

From the Dickinson Conservation District
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If you cannot plant the Trees at once: In cool weather, place the bagged trees in a sheltered place (unheated barn or garage) and the trees will keep for a few days. Inspect frequently for signs of drying out. Do not store trees with apples or other ripe fruit. Ethylene gas given off by the fruit will damage the trees.

If Trees have started to grow: If new buds are present, remove the trees from the bag and heel them in on the north side of a building, or some place where the sun will not hit them. (See figure 1) Shade them from the bright light, allowing them a little more light each day until the yellowish growth turns green. Plant permanently as soon as they have become acclimated to the light. In addition to shading, they should be covered with burlap for the first day or two to get them used to the day light. Be sure roots are covered with moist soil.



If planting is delayed longer than seven days: Heel the trees in a shaded area and keep them moist. To heel in trees: Dig a trench in the soil large enough to accommodate the entire root system of the tree. Place the trees in the trench and cover the roots with soil. The trees may be placed close together with roots touching. Roots must be packed tightly in soil and kept moist, and the heel-in trench must be shaded and protected from the wind.

Where to plant your trees: Recommended planting sites for apple trees are areas providing full sunlight on well drained upland soils. Some wildlife plantings may not have these characteristics. Plant in full sun or where sun is received for six or more hours a day. Create openings in wooded areas that will allow adequate sunlight. If good soil is not available, bring in some good topsoil and place in a raised bed. Areas lacking well-drained sites may have small upland areas, hills, or knolls. Plant on highest available ground. Apple trees will not survive in soils that are saturated with water for most of the year. Raised beds can be created for excessively wet areas; this will require hauling a considerable amount of top soil and containing it in treated lumber or cinder block beds.

Spacing requirements: Full size apple trees should be spaced 20 to 25 feet apart. Mix different varieties to improve cross pollination. It is recommended to plant three (3) different apple varieties within a 50 feet of each other. By planting apple trees within a 50 foot radius of a flowering crab, good pollination is also insured.

How to plant your trees: Dig a hole about two feet wider than the spread of the tree roots and deep enough to prevent crowding. (See figure 2) The tree should be planted at the same depth as it was in the nursery. Just prior to planting the tree, check for minor root damage. Use a sharp pruning shears to remove all broken roots and trim out any crossed roots, shorten long roots to 12 to 18 inches. Place the tree in the hole and spread out the roots. If they appear cramped, make the hole larger.



Fig. 2

Dig the hole a foot deeper than the height of the roots, and twice as wide as the root span, or the rootball. Loosen several inches of soil at the bottom of the hole to facilitate drainage.

Now begin to fill the hole with good rich topsoil. This is very important. To avoid air pockets, tamp the soil with your foot as the hole is filled. (See figure 3) When the hole has been filled to within several inches of the top, and the soil is firmly tamped, pour in one or two gallons of water. This will help settle the soil around the roots. Permit the soil to settle for several hours after adding the water. (See figure 4)

Mulching: Now mulch the tree with a 4 to 6 inch deep mulch in a six to eight foot diameter circle around the tree. Keep the mulch about a foot from the tree trunk. Contain the mulch with a rock border, aluminum lawn edging or mulch netting. The mulch should consist of shredded leaves or other organic materials, straw, hay, chopped corn cobs, sawdust or similar type material. The mulch will keep down weeds, prevent mechanical injury from mowers, and conserve moisture. Each fall add an additional one or two inches of mulch to replace that which has been decomposed.

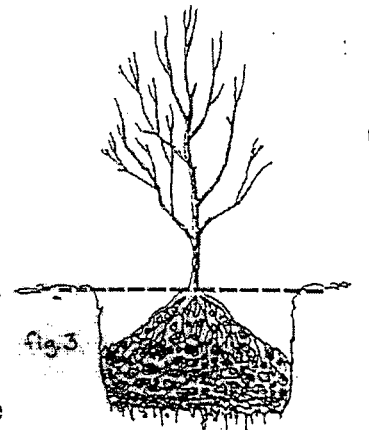


Fig. 3

Add soil to the hole and build it up in a mound beneath the plant, so that the plant sits at the same level as before it was moved.

Water is crucial: Trees should be watered as soon as they are planted. To water, make a basin around the tree that will hold 4-5 gallons of water. Fill this and let it soak in, and fill again. Mulch to conserve moisture. This watering should last a week or more under dry conditions. In normal years, two waterings are usually enough; but dry seasons will require more.

Fertilizing: A good general recommendation for fertilizing apple trees after the first year is to use one pound of 12-12-12 (or similar analysis) fertilizer per tree per year. Apply the fertilizer to the mulched area, or in a three foot band under the drip line, and at least one foot from the tree trunk. If high carbon mulches such as sawdust, straw, or corn cobs are used, an additional amount of nitrogen may be needed. Apply fertilizers in April, May and June; do not apply nitrogen fertilizer after July 15.



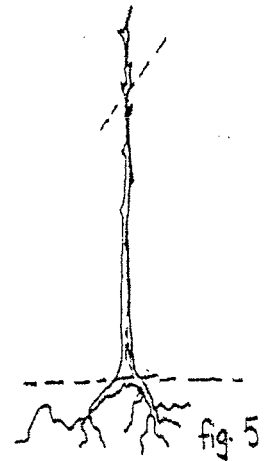
Fig. 4

Fill three-fourths of the hole with soil, then water.

Because of differences in soil, mulch, planting sites, sunlight, temperature, etc., no two tree planting will respond the same. Actually, the amount of fertilizer to use can best be gauged by the terminal

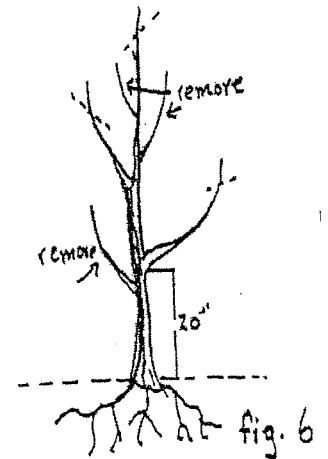
growth made the preceding year. Terminal growth is a brighter color and is found on the ends of the branches. It is the amount of last year's growth. Terminal growth on bearing apple trees should be around six inches. On young trees in Tubex shelters, it might exceed this amount 2 to 3 times. Growth much above or below this figure would indicate too much or too little fertilizer. Fertilizer applications should be adjusted accordingly.

Pruning and Trimming: As soon as trees are planted, they must be cut back or headed. This is the most important thing you can do to assure strong well-shaped trees. Always use a sharp pruning shears. Always place the cut at an angle just above an outside bud.



Non-branched trees, or whips, should be cut back just above a bud at 24-30 inches above the soil line. Remove all side branches, being careful not to injure the bark on the trunk, if the tree is going inside a Tubex tree shelter. (See figure 5)

If you wish to keep side branches, select one or two of the best wide angle branches at least 20 inches from the ground and separated from each other by 6 to 10 inches. Remove all other branches arising from the trunk except the central leader. Head back the central leader to 30 to 40 inches and shorten the one or two side angle branches selected to 15 to 18 inches. (See figure 6)

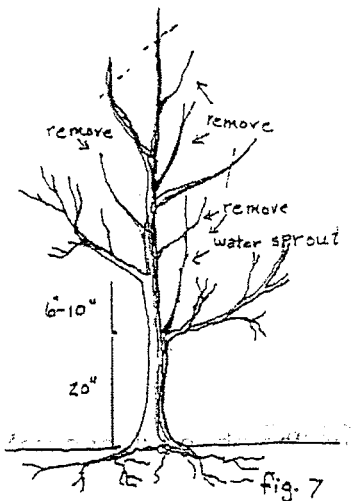


In the next two years, a total of 3 to 6 wide angle branches should be selected to form the frame work of the tree. Shorten these branches to 15 to 18 inches. Remove all other branches arising from the trunk, except the selected wide angle branches and central leader. In selecting wide angle branches, attempt to space them around the tree trunk. (See figure 7)

Pruning in the fourth and subsequent year's will be to:

1. Remove broken or crossing branches
2. Cut out water sprouts
3. Thin out crowded branches
4. Cut back branches that grow beyond a five foot spread or a 10 foot height beyond the main side branches

Pollination: The transfer of pollen from the male flower parts to the female flower parts by insects (mainly bees) is essential for fruit set. Most apple varieties must be pollinated by another variety. It is recommended that at least two varieties be planted. Planting any two or more of the varieties described on our tree order form will insure adequate pollination. Planting a flowering crab tree within a 50 foot radius of the apple trees will also greatly improve pollination.



Protect your Trees from animal and insect damage:

Tree Guards: A 15 to 18 inch piece of hardware cloth or a vinyl tree guard can be placed around the trunk to prevent rabbit, mouse, and other rodent damage. The bottom must be placed several inches into the soil. As the tree attains some age, do not permit the guards to girdle the trunks. Remove and reinstall annually to avoid girdling. This is a safety practice to insure expansion of the tree guard and promote hard bark formation. Hardware cloth is available at local hardware stores, the vinyl tree guards are available from the conservation district.

Fencing: Placing a 5 foot high cage of chicken wire fencing around each tree will provide protection from deer browsing. The cage should be 4 – 5 feet in diameter. If you wish to fence the entire orchard, 8 foot high or more fencing should be used.

Tree Protectors: To use tree protectors, trim tree to a single leader. Drive a stake into the ground approximately 1 ½" from the tree to a depth of 12". The flared end of the tree protector is the top. Use the locking ties to secure the stake to the tree protector. Before tightening the ties, seal the base of the shelter with soil.

Leave the Tree protector in place permanently; as the tree grows, wind action will create stresses on the trunk, causing it to strengthen. Over the course of 5 – 7 years, the Tree Protector will photo-degrade into small pieces that are inert and harmless, leaving a tall straight tree with branches starting 5' to 6' above the ground.

Pest Control: Apples have many persistent pests.
To control them:

1. Use effective chemicals, but those considered safe for the landowner to apply
2. Apply proper dosages
3. Time sprays properly
4. Obtain thorough coverage of all plant parts.

By the third fruiting year after planting obtain an adequate sprayer of some kind. A compressed air sprayer or knapsack sprayer is adequate for a limited number of trees. Contact the Extension Office at 774-0363 for further pesticide recommendations or specific problems.

