# A GUIDE TO PLANTING IN FERGUSON TOWNSHIP



Suggestions from the Experts

# SELECTION OF PLANT MATERIAL

- Determine whether or not the plants are suited to the pH/nutrient levels of the site. This can be done by having your soil tested. Test kits are available through the Penn State Agriculture Analytical Services Laboratory by calling 814-863-0841.
- Verify the plant identification.
- Determine where the top of the root collar is in the root ball of balled and burlapped plants. Many times the soil is piled over the top of the root ball/root system in the digging operation. The additional soil creates an artificial top to the root ball which when planted places the root system too deep in the soil. Loosen the root covering (burlap or wire basket) and probe the top of the root ball to determine the root collar at the base of the trunk. Note its depth in relation to the height from the base of the root ball.

## DIGGING AND PREPARATION OF THE PLANTING HOLE

- Dig the planting hole 2-21/2 times the diameter of the root ball or spread of the root system on bare rooted material. Note: If poor soil conditions exist because of heavy clay or clay subsoil at the site, it would be better to increase the diameter of the hole an additional 12 to 18 inches to allow for the use of more suitable backfill around the root system.
- Dig the planting hole equal to the depth of the root ball from its base to the top of the root collar or top of the ball. For container grown plants, dig a hole equal to the depth of the root ball inside the container. For bare rooted plants, dig a hole deep enough to accommodate the roots when measured from the root collar to the base of the exposed roots.
- Disturb, scratch or roughen the sides of the planting hole to eliminate the glazing and compaction of the soil which may have occurred during digging. This will allow for better moisture movement and root penetration of the soil.
- If the site is poorly drained, which is a common concern in the Centre Region, use a punch bar to open 8 to 10 holes in the bottom and sides of the planting hole. This will create drainage channels away from the backfill and root system.
- Do not place stone, gravel, sod or other material in the bottom of the planting hole. This will disrupt internal moisture drainage patterns in the soil.

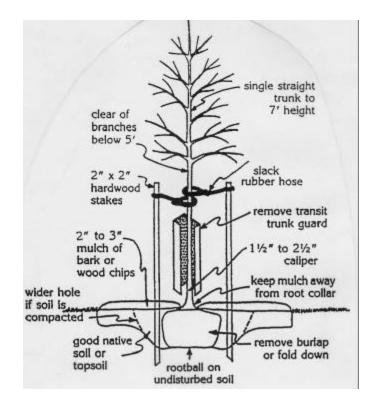
# **BACKFILL SOIL PREPARATION**

- If the material that is removed from the planting hole is quality top soil from an undisturbed (ungraded) site, it can be used to backfill the planting hole.
- Poor quality top soil or sub soil (common in the Centre Region) should be mixed with up to 10% of decomposed organic matter or peat moss to enhance the aeration and drainage properties of the backfill mix. Do not add more than 10% organic matter by volume. In heavy clay top soils, and especially the sub soils of the Centre Region, the extra organic matter can hold too much water around the root system and damage the roots.
- If the available soil on the site does not drain well and mixing is not practical, better top soil should be brought to the site for backfill material.

# SETTING AND PLANTING THE PLANT

- Set the plant in the hole with the base resting on firm, undisturbed soil. The top of the root ball or root collar should be at the final grade level.
- Remove all twine/cord from the base of the trunk on balled and burlapped plants. Discard excess packing material on bare rooted plants. Also, remove wrapping from tree trunks.
- Remove the top third of any natural burlap fabric root ball covering, or the entire root ball covering if synthetic covering is present. Note: Natural burlap covering will burn to ash in a flame, while a synthetic root ball covering will melt in a flame.
- Burlap fabric should not extend above the soil surface after planting. The exposed material will wick moisture away from the root ball and backfill soil.

- When larger specimens are in wire baskets, if possible, remove the basket after the plant is in the hole. At a minimum, either remove the top half of the basket or cut one strand of wire on each of the openings to eliminate total enclosure. Remove as much synthetic root ball covering as possible once the plant is in the hole.
- Remove all containers (metal, plastic, paper) from the root ball of container grown plants.
- Ensure the plant is set straight in the hole.
- Gradually add backfill to the planting hole while slicing into the soil with a shovel to eliminate air pockets. Make sure not to compact the soil. When the hole is half full with backfill soil, add water to settle the soil. Do not use a stream of water that is strong enough to puddle or destroy the structure of the backfill soil.
- Re-ensure that the plant is setting straight in the hole.
- After the water soaks into the soil, fill the remaining hole to the top with backfill material.
- If desired, create a ring of soil around the outer edge of the hole to help hold water. This ring should be removed within one year.



# PLANTING TREES OR SHRUBS

\* The root collar is observed as the flared area at the base of a plant trunk where it joins the root system or root ball.

Note: Drawing obtained from Sylvan Communities, 12/98

#### STAKING

- Trees over one inch caliper should be supported with a stake on each side of the root ball. Stakes should be driven into solid soil on each side of the planting hole.
- Fasten the plant to each stake with a wire or similar support material that is passed through rubber tubing or similar material which will contact the stem to prevent damage to the plant bark. Supports should be attached to the plant at least half way up the trunk.

### MULCHING

- Cover the surface soil of the planting hole with 2 to 3 inches (maximum) of mulch material, making sure that the mulch does not come in contact with the stem of the plant. Contact with the mulch material could result in bark decay, susceptibility to temperature changes later in the season, or to root development around the stem due to continuous moisture retention.
- Mulch should be retained for the life of the tree, and can be used to provide a buffer against damage from lawn maintenance equipment.

### WATERING

- After mulching, saturate the planting hole and root ball with water. Water frequently the first two weeks, but allow the soil to dry out under the mulch between waterings. After two weeks, monitor the plant and water only if the soil is dry several inches under the surface of the mulch.
- In dry periods resulting from lack of rainfall, water the surrounding site 4 to 5 feet past the planting hole.



# COMPLETED TREE PLANTING

• Within six to twelve months after planting, remove all support and staking material. If needed, stakes can remain longer as a safety feature to protect the trunk of the plant, but attachment to the plant itself should be removed.

This brochure has been created by Ferguson Township to help both the novice and expert with the finer points of planting. We all enjoy a green community and hope that these suggestions help with your planting plans.

If you have any question about or comments on this brochure, please contact the Planning and Zoning Department at 814-238-4651, Dept. 2.

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FERGUSON TOWNSHIP DEPARTMENT OF PLANNING AND ZONING 3147 RESEARCH DRIVE STATE COLLEGE, PA 16801