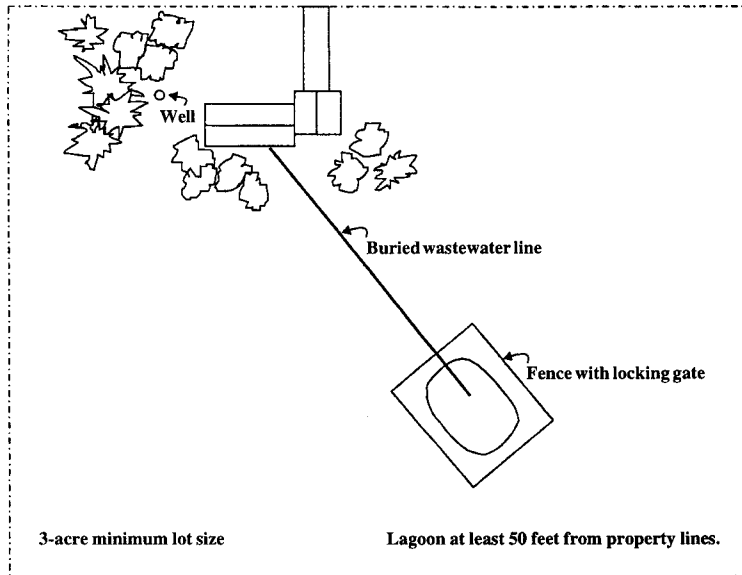


# Lagoon Waste Systems

The lagoon system is an effective method of home sewage treatment and is well-suited for larger lot areas having very slow soil percolation rates. This system generally discharges home sewage directly into the lagoon. Properly designed and sized lagoons use evaporation for dewatering. Both aerobic and anaerobic decomposition occur in lagoon treatment of home sewage. Anaerobic treatment generally occurs at and near the bottom of lagoons where settled solids and sludges accumulate. This treatment is similar to the anaerobic treatment that occurs in septic tanks. Aerobic treatment occurs in the presence of oxygen and usually occurs near the lagoon surface. Aerobic treatment aids in reducing the odors released during anaerobic treatment and also provides additional treatment of home sewage. Wind movement aids in mixing oxygen into the lagoon surface and helps to increase evaporation.

Proper lagoon sizing and construction is essential for

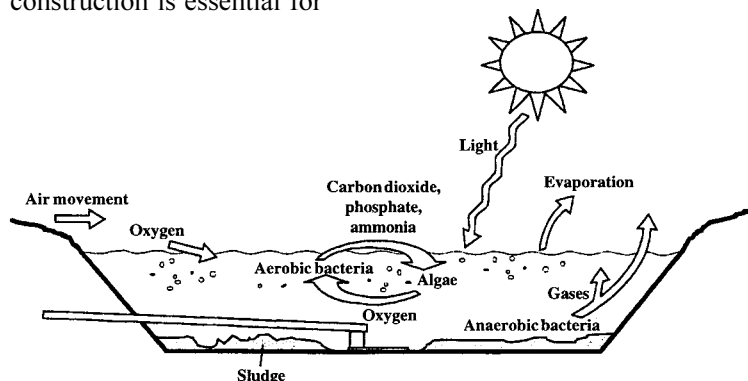


holding and treating home sewage. The surface area of a lagoon must be at least 900 square feet. When more than five people live in a house, an additional 175 square feet of lagoon surface area is required for each person. Lagoon length should not exceed three times its width and the liquid depth is about three feet. For ease of mowing, the lagoon should have side slopes of three units horizontal to one unit vertical. It may also be necessary to place a

diversion terrace around part of the lagoon to keep surface water from entering into it.

Lagoons must be at least 50 feet from any property line and 200 feet from neighboring residences. Therefore, the minimum size lot area for lagoon construction is three acres. Lagoons must be enclosed with a four foot high fence having a locking gate, and signs stating: NO TRESPASSING—WASTE LAGOON.

In areas where the soil is not conducive to compaction, additional materials such as soda ash, bentonite or plastic liners may be required to completely retain seepage of effluent. Open water during the summer months provides a nesting ground for mosquitos, which requires mowing of the lagoon banks to reduce possible mosquito breeding area. (DJ)



## Using Wood Chips for Mulch Has Multiple Benefits

Wood chip mulch is made from the chipping of tree and landscape prunings. Rather than taking up landfill space, these once discarded products (including Christmas trees) are now providing a better growing environment for new plants in landscapes and gardens.

### Benefits of Mulch

Mulch is material placed on the soil surface for the purpose of protecting the soil and plant roots. Not only do organic mulches add a decorative natural appearance to the landscape, they also provide many landscape benefits.

- **Helps retain soil moisture.** Mulch helps soil retain moisture and reduces water evaporation caused by wind and hot sun. Under its insulating blanket, soil remains moist long after bare areas become dry and require irrigation.

- **Reduces soil temperature extremes.** An application of mulch helps avoid extreme temperature fluctuations. It acts as an insulating blanket and keeps soil cooler during hot periods and warmer in winter

months.

- **Reduces weed growth.** When the site has been properly prepared, mulching reduces weed growth (the headache of many gardeners). Occasional persistent weeds will need to be removed.

- **Saves time in landscape maintenance.** Place mulch under and between plants in tree and shrub beds, border plantings, hedges, rose beds and fruit orchards. By replacing grass with mulch, mowing and watering time is cut dramatically.

- **Gives a natural look.** A few fallen leaves in a planting bed with a wood chip mulch gives your landscape the natural beauty of a forest floor. When you choose to remove the leaves, they too can be recycled by composting and then used as a soil amendment.

- **Prevents direct contact with soil.** Mulch prevents vegetables (including squash, pumpkins, melons, cucumbers, and unstaked tomatoes) from making soil contact, thus helps to reduce rot caused by soil microorganisms.

- **Creates paths.** A thick

layer of mulch can be used to create walkways throughout the yard. Mulch paths permit easy access to any part of the landscape, even after heavy rains. No longer is a wet plot off limits until soil has dried sufficiently. During dry periods, mulch also reduces dust.

- **Prevents heavy rain damage.** Mulching prevents soil erosion. It permits water to seep slowly beneath the protective covering.

- **Increases survival of new trees.** Not only do mulches keep the soil cool and moist, they also keep the lawn mower and weed trimmer from damaging young bark and killing trees.

### Site Preparation/ Application

For best results, remove existing weeds and turfgrass prior to applying the mulch directly on the soil.

Keep the mulch two to three inches from the base of plants. Due to decomposition, you may need to topdress with a thin

see MULCH on page 11

## Urban Agriculture



## Planting Trees Properly

Tree planting is an ancient art, but the methods have changed over time to reflect the latest and best arboricultural and forestry research. It is vitally important to remember where trees live in nature. In the natural forest there are no sidewalks, automatic sprinklers, streets, parking lots, tall buildings or other man made objects.

These guidelines are the most current practices that are recommended for proper tree planting. It is tough being a tree in Nebraska, but following these procedures will provide a planted tree the best means of surviving and growing to maturity.

1. Selection is important — Select the right tree for the right place...many serious problems can be avoided by proper selection decisions.

2. Pre-planting care — Keep planting stock in shaded location and well watered. Don't get rough with the planting ball or container. If you have to hold a plant over, make sure it is moist and shaded. When shipping trees, it is important to have them covered to avoid heavy loss of water through transpiration. Keep in mind that when trees are transplanted from the nursery, 90 to 95 percent of the root system is left behind.

3. On site and prior to planting, remove all wires, labels, cords and anything else that may be attached to the plant.

4. Hole size and shape have become a very important factor. Don't skip on the width of the planting hole. Plant slightly above nursery level. Place the plant on SOLID ground...not fill

dirt. Be careful of drainage. One sure way to check is to fill the hole with water and come back in 24 hours. If the water has not drained out then make alternate plans.

5. Remove ALL containers from the root ball prior to planting...even peat pots should not be left intact. Wire baskets and burlap should be rolled back into the hole at least 12 inches below planting depth after the tree has been set into the hole. It is best if wire baskets can be removed completely.

6. Backfill with loosened soil. Research shows that amendments are not necessary. When dealing with difficult sites, some judgments may have to be made.

7. No need to fertilize at planting time. Remove only damaged or rubbing branches. Food production by the leaves is vitally important. Cutting back restricts leaf area and food production.

8. Water the plant thoroughly, then two to three times per week for the first season.

9. MULCH around the tree...THIS IS IMPORTANT!!! Natural composted mulch is best. Don't use plastic sheeting. Two to four inches of mulch is ideal. Critters will infest mulch levels any deeper. Mulch should cover the ground to the drip line if possible and should not be placed against the trunk.

10. Stake only when necessary. If the tree is staked, allow for some movement but take care not to injure the bark. Staking is useful more for protection against people. (DJ)

## Composting Workshops

Learn how to turn yard waste (usually leaves) into a reusable organic matter which can be used to improve soil structure. Attend any of the composting workshops sponsored by the Lincoln Recycling Office and Lancaster County Extension and receive a FREE COMPOST BIN. For more information call 441-7180.



### Workshops (7-8 p.m.)

April	Sept.	Location
16	17	Air Park Recreation Ctr, 3720 NW 46
23	19	Belmont Recreation Ctr, 1234 Judson
25	24	Calvert Recreation Ctr, 4500 Stockwell
30	18	Easterday Recreation Ctr, 6130 Adams
24	26	Irving Recreation Ctr, 2010 Van Dorn

### Workshops with Hands-On Demonstrations (begin at 8:30 a.m.)

Third Saturday of each month from April through October at the Backyard Composting Demonstration site at University Place Park, 50th & Colby.