

## Mulching

*continued from page 1*

quite resistant to decay. These materials need to be shredded or chipped for quicker decomposition and to reduce waste volume. Various shredders and chippers are available to home owners for purchase or rent.

Shredded branches may be used in the compost pile but they will require a longer time for decomposition. They are best use for mulch.

Using an organic mulch can help gardens in many ways. Mulches reduce weeds by making conditions unfavorable for weed germination and growth. Mulches also maintain uniform moisture conditions in gardens.

Water loss through evaporation is decreased and soil erosion is decreased by reducing the impact of heavy rainfall. Soil temperatures are modified by mulches. Last but not least organic mulches add nutrients and humus to the soil as they decompose.

A two-inch layer of grass clippings provides good weed control. Build up the layer gradually, using dry grass. A thick layer of green grass will give off excessive heat and foul odors.

A layer of leaves, 2- to 3-inches thick after compaction, provides annual weed control. Leaves will decompose fairly quickly, are attractive as a mulch and improves the soil. Leaves of black walnut trees should not be used because of juglone,

a chemical in the leaves which inhibits growth of many plants.

A two- to three-inch layer of shredded bark provides good weed control. Wood chips are slower to decay than shredded bark and can be used for pathway material in gardens.

The best way to deal with landscape waste is to limit its production in the first place. Or at least produce as little as possible. Select trees and shrubs with their mature height and spread, in mind. Plants requiring little or no pruning do not produce much landscape waste. There are many dwarf and semi-dwarf cultivars available of adapted plants to Nebraska's climate and soils.

# The Stately American Elm

By Paul Hay  
UNL Extension Educator

We recently planted 23 new trees around the horse arena on the south edge of Gage County's Fairgrounds. They were bare root trees from a Nebraska nursery and we appear to be off to a good start. The trees selected included: red oak, London plane tree (sycamore), American linden, flowering crab, Kentucky coffee tree and pioneer elm.

Is pioneer elm the return of the American elm? The American elm has never left. Nebraska deserted it as a state tree and replaced it with the cottonwood. There are still plenty of American elms around. The problem is Dutch elm disease is also still around. We see American elms in woodlands, right of ways and fence rows. They grow well for 10, 15 or even 20 years until Dutch elm disease wipes them out and a new crop has to begin again.

In the nursery trade there are offerings of American elms. Liberty, Valley Forge, Washington, and Jefferson are some of the cultivars. The verdict is still out on these, but so far, it appears they are more resistant to Dutch elm disease, but are not immune. Some day we will find immunity. It has to be out there somewhere if the gene for gene theory is correct. This theory says for any gene in an infectious agent there is a gene to block or

counteract that infection.

The two most promising American elm-like trees in the nursery trade today are pioneer elm and accolade elm. Accolade is a complex cross selection from Asian elm species. It will achieve a mature height of 70 feet with a 60 foot crown. It is suited to our planting zone. Accolade is a vase-shaped tree with arching limbs similar to the American elm. The leaves are glossy and dark green and the foliage is somewhat resistant to the feeding of the elm leaf beetle which riddles the leaves of Chinese/Siberian elms we have growing in the area.

Pioneer elm is a selected cross of two species of European elms. Pioneer elm has a rounded shape and will gain a height of 50 feet and a spread width about the same. The dark green foliage in a few years will shade the 4-H horse participant's families at fair time and change to yellow in the fall. The Pioneer elm combines the fast growth strength to withstand the challenging Nebraska



Pioneer Elm

conditions.

The City of Beatrice, like most Nebraska towns, removed over 16,000 American elms from the city in the 1960s and '70s. Let us hope these look-alike replacements today and a truly resistant American elm tomorrow can bring the glory of the American elm back to the people of Nebraska.

### Elms Approved for City of Lincoln Streets

The City of Lincoln has a list of approved trees for streets. Property owners must obtain a permit to plant any tree on CITY property BEFORE planting is done. As of Feb. 2008, approved elms are: Accolade, New Harmony, Valley Forge, Cathedral, Vanguard, Discovery, Triumph and Pioneer. Among elms that will not be permitted as street trees are Siberian elm and non-approved elms. For more information, go to <http://www.lincoln.ne.gov/city/parks/parks/forestry/forindex.htm> or call Forestry at 441-7035.

## Establishing a Commercial Vineyard

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*Note: This is part of a series of articles related to commercial vineyards in Nebraska.*

### Site Preparation and Vineyard Design



Because grapevines are potentially very long-lived, it is important site preparation and vineyard design be done very carefully and thoroughly. You will live a long time with your vineyard, including any mistakes. As noted in previous articles, pH adjustment and most fertilization should be done prior to planting. Correction of drainage problems and control of persistent perennial weeds must also be implemented before planting. Planning at least one year ahead of establishment of the planting should facilitate accomplishment of site preparation requirements. Plowing or rototilling the entire site, followed by fertilization, liming (if needed) and weed management practices can be done in the year before planting.

A cover crop can be seeded in late summer/early fall, then planting can take place the following spring. If planting in sod, such as an old pasture, it may be desirable to only plow the location of the rows to be planted. The sod left between the rows will reduce erosion and aid in use of equipment following a rain.

### Planting

It is a good idea to survey the vineyard prior to development of a planting plan. Make a scale drawing or map of your planting plan—it will prove to be a valuable record as your vineyard develops. Grapevine rows are normally planted in a north-south orientation, with straight rows preferred where possible. Occasionally it may be necessary to plant rows on a contour or across a slope. However, curved rows will usually lead to problems with stability of the trellis. Differences in light interception between North/South and East/West row orientation lead to different ripening times.

Spacing of plants varies with cultivars and equipment. A common spacing is ten feet between rows with plants eight feet apart in the row. Wider row spacing may be dictated by equipment available or trellis style. Greater spacing between plants in the row may be appropriate for cultivars of exceptional vigor (e.g. 'Edelweiss', 'St. Vincent', 'Frontenac') or on sites that stimulate strong vine growth. Wide row spacings intercept less sunlight with more hitting the ground and thus reduce yield per acre; narrow row spacings may impede equipment and reduce air flow through the vineyard, which will lead to greater disease problems. Close row and plant spacings will increase costs of establishment, since more plants and trellising will need to be purchased. For example, 8 x 10 foot spacing = 545 plants per acre, while 8 x 12 foot spacing = 454 plants per acre.

## Glossy Plant Ads

They're starting already! Purveyors of questionable plant deals are busy trying to take advantage of people's thirst for spring planting. Glossy ads compete for our attention with coupons for fifty cents off breakfast cereal or laundry detergent. But most of these plant ads are not a bargain.

Take dwarf banana trees. They're interesting as houseplants, but I've yet to see them produce fruit year-round in a sunny window, as promised in the ads. Maybe in a large greenhouse or conservatory, but not in an average home. Nor can you produce strawberries indoors, "even in winter."

Ditto, tree tomatoes which, according to the ads, are "not to be confused with an ordinary vine or a

tomato plant." "...simply stand back and watch your tree quickly zoom to the full height desired and supply you with yummy fresh garden tomatoes." Don't you believe it! If the plants ever do produce fruit for you—and that's unlikely—it will be instantly apparent that they aren't tomatoes at all.

There are many legitimate mail-order (and Internet) nurseries whose reputations are built on years of service. Put your trust in them—and in local nurseries and garden centers. They know what can be expected to grow well here... and what can't. The nursery or garden center down the road from you wants to keep your business. They're not about to make up wild claims for plants that are marginally hardy here, at best.

## Spraying For Weeds May Also Damage Other Plants

Chemical herbicides kill weeds, says UNL Extension Forester Dennis Adams, but they also can damage or kill other plants. Depending on the aim of the individual spraying or the way the wind blows, chemical herbicides could end up in areas that do not need them.

Despite their size, trees are vulnerable to herbicide. Even though trees can appear to be "OK" during the summer, their health and vigor may be weakened. Wind drift of herbicides can cause die back of trees' foliage and even death of a tree.

In a weakened condition, trees are an easy target for harmful insects and diseases that could kill them. To avoid dangers and drift, exercise caution and responsibility when spraying herbicides. When wind velocity is more than 8 mph, it may be best to avoid application. Wind may cause poor coverage and excessive drift. Use caution when spraying 2-4D ester, Dicamba or similar herbicides near vegetables, ornamentals, trees, shrubs or broadleaf crops. Be sure to follow label directions and calibrate application equipment.