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Mulching Woody Ornamentals with Organic Materials

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A wide variety of materials are sold as mulches and used in landscapes. This publication discusses mulching woody ornamentals (trees and shrubs) with organic materials. It covers the reasons for mulching, how to apply mulch, and how to maintain its beneficial effects over time. The information is presented in a question-and-answer format. The general principles described here also apply to a wide range of other organic materials. A table is included to help you compare the characteristics of materials used as mulches in western Oregon.

What is mulch?

Mulch is any material that (a) is spread over the soil surface and (b) influences soil characteristics and sometimes plant growth. Organic mulches accumulate naturally in forests, in gardens where leaves and organic debris are not removed, and in lawns that are "mulch mowed." The most common organic mulches used in the Pacific Northwest include bark products, yard waste compost, wood chips (arborist mulch), mint hay, and deciduous tree leaves.

Benefits of mulch

Mulches have many positive effects on soils. In general, organic mulches conserve water, reduce weeds, improve soil quality, and enhance plant growth.

Summer water conservation

Is mulching an effective way to cut back on summer irrigation?

Mulching reduces irrigation needs by reducing surface evaporation and runoff (Figure 1). Mulches also protect the soil from compaction by rain and foot traffic. By preventing the loss of soil structure

Figure 1.—Arborist mulch around these currant plants keeps moisture from evaporating from the soil surface.

caused by compaction, mulches promote water infiltration into the soil. Also, mulched plants can better use water stored in the soil because they have larger root systems than do unmulched plants.

Although mulching reduces water use, it does not completely eliminate the need for irrigation. Rhododendrons and other shallow-rooted, drought-sensitive plants still require irrigation. Only by using plants adapted to long, dry summers, such as many Northwest native plants and most Mediterranean-type plants, can you hope to completely eliminate summer watering.

When should I mulch woody ornamentals to maximize water conservation benefits?

March or April is a good time to mulch woody ornamentals for water conservation. Mulch applied in summer, after soil has dried out, is not as beneficial. Fall mulch applications can smother winter annual weeds, decrease runoff, and increase soil water retention for the following summer.

What irrigation practices promote efficient water use in mulched plantings?

To gain water conservation benefits from mulching, irrigate infrequently, but apply enough water to thoroughly moisten the soil below the mulch. Frequent, light summer irrigations may wet only the mulch and promote growth of a shallow root system.

Can a mulch layer actually reduce water infiltration into the soil?

Soil microorganisms release glues or waxes as they decompose organic mulches. This waxy material coats and seals the partially decomposed mulch and is highly water repellent. Mulches with a high proportion of fine particles tend to compact and have a greater problem with surface sealing than do coarser materials. Fungal mats on the soil surface can also repel water after the soil dries out.

My mulch packs down after a while and seems to shed water. What can I do to prevent this?

The simplest way to prevent this problem is to use coarser mulch. The more fine particles in the mulch, the more problems you will have with surface sealing. If using fine-texture bark, apply no more than 2 to 3 inches.

Always rough up the surface layer with a fork or other implement before adding more mulch. You also can improve water infiltration by installing drip irrigation tubing under the soil surface.

Figure 2.—The mulched area (right) contains fewer weeds than the unmulched area (left).

Figure 3.—Weeds growing in a sparsely planted, bark-mulched planting.

Controlling weeds

How does mulching control weeds?

Mulches can be used both to control existing weeds and to prevent weeds from sprouting (Figure 2). A mulch layer excludes light. Without sunlight, young weeds cannot produce sugars needed for growth and ultimately die. Some weed seeds require light in order to germinate, so mulch can also prevent germination. Finally, weeds with small seeds generally can't emerge through a 3-inch mulch layer.

Are some mulches better than others at controlling weeds?

"Woody" mulches, such as bark mulch or wood chips, are best at controlling weeds, because young weeds have a difficult time growing in them. Even when weed seeds germinate in these mulches, there typically isn't enough nitrogen for rapid seedling growth.

Composted mulches often promote weed growth (they create a good seedbed for weeds) because they contain more fine particles than fresh wood or bark and they usually contain more nutrients. Once bark or other wood products start to break down, conditions for weed growth improve (Figure 3, page 2). Regardless of how well a mulch controls weeds initially, no organic mulch controls all weeds indefinitely.

What weeds are typically controlled by bark or wood chip mulch?

Mulch layers are most effective on annual weeds. An application of mulch in spring will smother young seedlings and prevent emergence of germinating seeds.

Winter annuals, such as groundsel *(Senecio vulgaris)*, bittercress *(Cardamine hirsuta)*, and annual bluegrass *(Poa annua)*, can be difficult to control. These weeds, however, can be smothered by a layer of mulch in late fall, especially if the mulch is applied after most of the seeds have germinated.

Mulch needs to be at least 3 inches deep to smother existing weeds and prevent emergence of germinating seedlings.

Figure 4.—Landscape cloth partly covered with bark.

Will mulching control perennial weeds?

Many perennial weeds, especially aggressive species such as Himalaya blackberry *(Rubus armeniacus)*, field bindweed *(Convolvulus arvensis)*, horsetail *(Equisetum arvense)*, and quackgrass *(Agropyron repens)* are not controlled by mulch. Control these weeds before mulching. They may require further hand removal or chemical control after mulch is applied.

Do geotextile fabrics or plastic barriers under mulch effectively control weeds?

Geotextile fabrics and plastic generally are effective at controlling weeds that germinate below the fabric. They also are effective at preventing emergence of perennial weeds such as horsetail and bindweed. Rhizomes from grasses such as quackgrass often grow through fabrics.

Since fabrics and plastic are unattractive, cover them with some type of mulch (Figure 4). Once mulch is applied, weeds can grow in the mulch above the plastic or fabric, so these materials are not a permanent solution to weed problems.

Major problems encountered with geotextile fabrics include the following.

- Weeds grow in mulch on top of the fabric (Figure 5).
- Perennial weeds grow through the fabric or through gaps in the fabric.
- Fabric is exposed after mulch is lost to wind, water, or decomposition.
- Fabric becomes enmeshed with roots, and it bonds with the underlying soil.

Figure 5.—Weeds are growing in the bark on top of this landscape cloth.

Promoting soil fertility and health

How does mulching affect the supply of nitrogen in the soil for plant growth?

Decomposition of wood chips, bark dust, and sawdust can compete for nitrogen (N) with some plants. These mulches are high in carbon (C) and very low in nitrogen. In other words, they have a high C:N ratio. Mulches are decomposed primarily by microbes (bacteria and fungi) in the soil or at the soil surface. These microbes need N to survive. When decomposing a woody mulch with a high C:N ratio, microbes compete with plants for N available in the soil.

Because mulches are applied to the soil surface, most of the N removed is from the top 3 to 6 inches of soil. Small plants and recent transplants are unable to compete and often suffer from nitrogen deficiency. Larger or more established trees and shrubs generally are not affected because they have deeper roots and adequate nitrogen stored in their tissue to support growth.

How can I avoid nitrogen deficiency problems associated with woody mulches?

By increasing soil fertility before planting and mulching, you can avoid most problems with N deficiency. Mix 2 to 3 inches of low-salt compost into the shrub bed before planting.

If you suspect N deficiency in an existing planting, try fertilizing a few of the plants with an N fertilizer and see whether growth improves. Make sure the fertilizer gets through the mulch. Either apply it to the mulch surface and water thoroughly after application, or rake back the mulch, apply fertilizer at the soil surface, and then replace the mulch.

Coarser mulch, which breaks down more slowly, does not draw nitrogen from the soil as rapidly.

Can a mulch be used to feed plants the way fertilizers do?

Mulches can be a helpful source of plant nutrients. As the mulch decomposes, nutrients are liberated. Thus, a mulch's value as a fertilizer depends on what nutrients were initially present in the mulch.

All organic mulches contain some of the major plant nutrients, including phosphorus (P), potassium (K), calcium (Ca), and magnesium (Mg). Alder and hemlock mulch contain fairly large amounts of N. Well-rounded composts generally are good sources of a range of nutrients. Mulches may not replace fertilizers altogether, but they do play a role in building healthy soils, which reduces the need for fertilizer.

How do organic mulches affect soil microbial activity and root growth?

Adding organic mulch increases the soil's water content, which stimulates microbial activity. Also, reducing the need for tillage to control weeds preserves soil microbes. Perhaps most important, soil organisms use the mulch as food as they begin its decomposition and incorporation into the soil.

Organic mulches also generally increase surface rooting by improving oxygen and moisture conditions at the mulch–soil interface.

Do organic mulches affect earthworm activity?

Mulch attracts earthworms. Like humans, however, earthworms have food preferences. They tend to avoid very woody mulches, such as bark mulch or wood chips, until the mulch breaks down somewhat. They readily feed on leaf mulch.

Do mulches alter the pH of the soil?

Many organic mulches are acidic. Some, such as bark mulch, may have a pH as low as 4, or even lower. It often is assumed that these acidic mulches will lower soil pH. However, in all but the sandiest soils, soil pH is strongly buffered (resists change), so soil pH changes very little after applying most mulches. Some change in soil pH may occur in the top 2 inches of soil, especially if mulch is applied repeatedly. In general, though, mulches do not change pH enough to be a major concern for woody ornamentals.

Is it safe to use mulch made from plant materials that are reported to contain natural plant toxins?

Plants such as black walnut *(Juglans nigra)* produce substances that inhibit the growth of other plants. These substances are called allelopathic. In general, allelopathic substances inhibit seed germination but are not toxic to established woody plants. Allelopathic compounds in raw plant materials are broken down to harmless compounds by soil microorganisms. These compounds are also strongly adsorbed (inactivated) by clays in soil.

If you are concerned about using mulches made from plants with known allelopathic effects, you can eliminate any potential problems by aging or composting the mulch (see page 9).

I see mushrooms growing in my mulch. Are these a problem for my plants?

Mushrooms are the spore-producing (reproductive) part of Basidiomycete fungi. Fungi are common in organic mulches because they are partly responsible for decomposing the mulch. They are not harmful to plants. Other fungi, such as slime molds, birds-nest fungi, and artillery fungi, are also common in mulch. Mushrooms can be removed by raking if animals' or children's safety is a concern. Eliminating fungi from mulch or soil is neither practical nor desirable.

Plant growth

Do mulched plants grow better?

Mulched plants often grow better than unmulched plants. This difference may be due to higher soil moisture levels, enhanced soil fertility, and reduced weed competition.

Young trees planted in lawns establish and grow faster with a mulched space around the trunk. In this case, enhanced growth is due to reduced root competition from turf and to higher nitrogen levels.

Pest and disease management

Does mulching affect plant health?

In general, appropriate mulching increases plant health and resistance to diseases and insect pests. Repeated additions of organic matter slowly increase the organic matter content of the soil. The resulting increase in biological activity and biodiversity in the soil helps suppress plant disease organisms. Mulched plants are also insulated from environmental stresses such as drought or extreme cold or heat. Excessive mulch, however, can result in wet root zones and increased root rot diseases.

Why should I keep mulch away from the base of woody plants?

Mulch piled around trees or shrubs keeps the area around the trunk moist, increasing the risk of fungal or bacterial disease. Also, some pests, such as voles, are encouraged by mulching; thus, mulching too close to the trunk can provide them with an opportunity to feed on trunk bark.

Should sites that are abnormally wet (due to low spots in the landscape or poor drainage) be mulched heavily?

Thick mulch layers can worsen oxygen-deficient or "anaerobic" conditions in soil, making it difficult for plants to grow. Leave wet sites unmulched or mulch them lightly. Heavily mulching wet soils may weaken plants and make them more susceptible to root rot diseases. If you plan to plant on a very wet site, use plants adapted to such conditions or improve drainage before planting.

Does uncomposted organic mulch spread disease?

Mulches often contain mixtures of plant materials (bark, wood, leaves). It often is impossible to know the origin of the mulch and how it was processed.

Most plant disease organisms, even if in an infected tree, do not survive well once the tree is chipped. The reason is that they cannot compete well with wood-decay fungi. Uncomposted plant materials can, however, carry two important diseases of woody plants: Port-Orford-cedar root rot, caused by *Phytophthora lateralis*, and Sudden Oak Death *(Phytophthora ramorum)*.

Many diseased Port-Orford-cedar trees are disposed of by chipping, and mulch made from these chips can spread the disease to healthy plants. Do not use mulch from Port-Orford-cedar trees unless you are certain that the mulch is from a safe source.

Sudden Oak Death is currently in Oregon only in Curry County and is in parts of California. To avoid problems with Sudden Oak Death, avoid any uncomposted mulches that might have come from those locations.

Detailed information on these plant diseases is in the Online Guide to Plant Disease Control (http://plant-disease.ippc.orst.edu/index.cfm) and at the WSU Sudden Oak Death program website (http://www.puyallup.wsu.edu/ppo/sod.html). For tips on dealing with Sudden Oak Death, see OSU Extension publication EM 8877, *Sudden Oak Death and Phytophthora ramorum* (http://extension.oregonstate.edu/catalog/pdf/em/em8877.pdf)

If you are concerned about mulch-related diseases, use only composted mulches from known sources. Keep in mind that materials such as arborist mulch have been used for many years with little documentation of disease spread via mulch.

Choosing a mulch

A wide variety of organic mulch products are available. The most common types of mulches are described below, and the table on page 9 compares their characteristics.

Bark products

Mention "mulch" for a shrub bed, and most people think of bark (Figures 6 and 7). Bark often is referred to as "bark dust." The most common bark products are Douglas-fir and hemlock. The cost of hemlock usually is 25 percent more than comparable Douglas-fir.

These products are sold in bulk or in bags, sometimes with coloring added for decorative purposes. Regardless of the product's actual color, fresh bark in bulk often is sold as "red," while aged bark is sold as "dark." The price usually is comparable for both.

Several grades of bark are available, including fine, medium, nuggets, and rocks. The cost of fine and medium-grade bark dust usually is similar. Nuggets (generally chunks smaller than 2 inches) and bark rocks (chunks 1.5 to 3 inches in size) are more expensive, although they last longer and do not compact as much as finer grades of bark.

Bark products typically have a pH around 4 and a high C:N ratio. Bark also contains a high proportion of lignin, a plant constituent that is highly resistant to decomposition. Bark contains very low levels of plant nutrients and has little value as fertilizer.

Compared to other mulches, bark products tend to last for a long time and control weeds better. Bark becomes darker as it ages.

Wood chips

Wood chips (Figure 8) are made from the heartwood of a tree, as opposed to its bark. They may be manufactured from Douglas-fir, western redcedar, or hardwoods such as alder. Wood chips have a very

Figure 6. Bark mulch used in a landscape.

Figure 7.—Bark nuggets.

Figure 8.—Wood chip mulch.

Figure 9.—Yard waste compost used as a mulch.

light color but turn gray as they age. Wood chips often are used to line pathways or as a groundcover in play areas, but they also are used as mulch.

Wood chips generally break down faster than bark nuggets of similar size. Much like bark dust, wood chips have a low pH, a high C:N ratio, and very low levels of available plant nutrients. They perform as well as bark nuggets in controlling weeds.

Yard waste compost

Sometimes sold as "garden compost," yard waste (or yard debris) compost (Figure 9, page 6) is composed of processed grass clippings, leaves, brush, and tree and shrub prunings. After composting for 3 to 9 months in large piles, it is screened to remove large sticks. The coarseness of the final product depends on how you purchase it. Bagged mulch usually contains fewer coarse particles (those larger than ½ inch) than bulk mulch.

During composting, piles usually reach temperatures above 130°F, killing most weed seeds. Finished compost typically has a pH of 6 to 7 and a C:N ratio of about 20:1. Because of the variety of ingredients, and because it is composted, it is a fairly good source of nutrients. Yard waste compost has an attractive dark color and fine texture. Because of its fine texture and nutrient content, yard waste compost is best suited as a summer mulch in selected areas within vegetable or flower gardens. It is not effective at controlling weeds.

Arborist mulch

This product consists of chipped limbs and trunks of trees that have been pruned or removed (Figure 10). It is available from tree service companies. It contains wood, bark, and leaves from one or more tree or shrub species. Arborist mulch typically is very coarse and may contain some sticks and large pieces, so it is not as uniform in appearance as bark mulch.

Arborist mulch often is available at very low cost or for free. One of the easiest ways to obtain a supply is simply to chat with arborists who are working in your neighborhood.

Studies have shown that arborist mulch does a good job of suppressing weeds and conserving water. Its large particle size, combined with the fact that it is very "woody," means that it resists decomposition and does not readily pack down. However, the lack of uniformity can make it difficult to apply, and to some people it doesn't have the aesthetic appeal of bark mulch or yard waste compost.

The pH of arborist mulch is low, and it is low in most nutrients. There is no documented evidence that arborist mulch harms woody plants via allelopathic effects. As noted earlier, allelopathy rarely, if ever, affects woody landscape plants.

Talk to your supplier to make sure that no undesirable plants such as poison-oak or English ivy were growing on the trees that were chipped to make the mulch.

Deciduous tree leaves

Leaves are a readily available organic matter source. Some cities will deliver leaves at little or no charge.

Partially decomposed leaves are known as leaf mulch or leaf mold (Figure 11). This product has a near-neutral pH (6 to 7.5). The C:N ratio typically is about 50:1 in fresh leaves, decreasing to below 20:1 when leaves are fully composted. Most leaves are a good source of potassium.

Figure 10.—Arborist mulch.

Figure 11.—Chopped leaves used as a mulch.

Mint compost

Peppermint hay, consisting of leaves and stems that have been heated to remove peppermint oil, is one of the most commonly available residues from Willamette Valley farms. Mint compost may be available in bulk from growers or mint processors. It is less commonly sold by retailers.

Freshly cooked peppermint hay, offered for sale in August, is a relatively good source of nitrogen and potassium. However, composted peppermint hay is more suitable for landscape use and has greater long-term value as a soil amendment. It usually is uniformly black and fairly coarse. Mint compost often contains compacted chunks that can make application difficult. Mint compost is useful in informal settings, but it decomposes rapidly and does not provide effective long-term weed control.

Sawdust

Sawdust is a by-product of lumber processing and may also be available from cabinet makers and mills that make moldings. Like wood chips, sawdust is made from heartwood, not bark, but the particles are much smaller. Sawdust is occasionally available in bulk. Although rarely used in ornamental plantings, it is often used on some shrub crops such as blueberries (Figure 12).

The pH of sawdust is similar to that of wood chips, as is its nutrient availability, which is negligible. Fresh sawdust can injure bedding plants. Using aged, leached, or composted sawdust eliminates this risk.

The fine texture of sawdust can allow it to crust over and repel water, reducing water infiltration. Do not use sawdust on slopes or where water might flow over the soil surface.

Although the initial high C:N ratio of sawdust provides reasonable weed control, the small particle size results in fairly rapid decomposition. Reapplication usually is required much sooner with sawdust than with wood chip mulch.

Hazelnut shells

Oregon is the leading producer of hazelnuts in North America. After the kernels are extracted from hazelnuts, the cracked hulls remain as a by-product and are marketed as a groundcover or mulch (Figure 13). They usually are sold in 1.5- to 2.5-cubic foot bags rather than in bulk. Because of the small size of the bags, hazelnut shells are far more expensive than other mulch products. However, they do have the advantage of being extremely resistant to decay, and they tend to last almost indefinitely if not disturbed.

Because they are lightweight, hazelnut shells are not suitable for slopes or other areas where wind or water could disturb them. Because the shells are low in nutrients and resist decomposition, they effectively supply no nutrients to the soil and have no effect on soil pH.

Buying and using mulch

Is there any standard classification for bark particle size in the marketplace?

No. Bark is sold only in fine and medium grades and as nuggets or rocks. None of these terms has a standard definition. For general landscape use, medium bark often is the best choice.

How deeply should I mulch shrub and tree beds?

With wood chips or ground wood waste (arborist mulch), results usually are best by mulching 3 to

Figure 12.—Sawdust mulch on blueberries.

Figure 13.—Hazelnut shell mulch.

Characteristics of mulches

	Water conservation	Weed control	Nutrient release	Erosion control	Longevity	Cost	Ease of application
Bark dust (medium)	**	***	*	**	**	*	***
Bark nuggets	**	***	*	**	***	**	**
Wood chips	**	***	*	**	**	**	**
Yard waste compost	**	*	***	**	*	**	***
Arborist mulch	***	***	*	***	**	*	*
Tree leaves	**	**	**	**	*	*	*
Mint compost	***	*	**	***	*	*	*
Sawdust	**	**	*	**	**	*	***
Hazelnut shells	**	***	*	**	***	***	***

* = low; ** = medium; *** = high

4 inches deep. If using screened materials with smaller, more uniform particle size, apply 3 inches.

Before reapplying bark or wood chips, determine the depth of the existing mulch. Bark should not exceed 3 inches in depth; wood chips should not exceed 4 inches. Deep mulch and overwatering can lead to waterlogged soils and poor plant growth.

How should I mulch trees planted in the lawn?

For best water conservation and weed control around a young tree, apply a circle of mulch 4 feet in diameter. The mulch will cover the developing root system and prevent mower damage to the trunk. The mulch layer should be 3 to 4 inches deep. You can apply coarser materials more thickly, but avoid piling the mulch immediately next to the trunk.

What is the practical lifespan of bark and wood-chip mulches?

Bark mulch usually needs to be reapplied every 2 to 4 years and wood chip mulch every 1 or 2 years. Bark usually decomposes more slowly than wood chips because it is higher in lignin, which is highly resistant to decomposition. Wood-chip mulches are less dense (contain more air space), so they undergo greater settling.

How does planting density affect mulch needs?

As plant cover increases, mulch needs decrease. Shrub beds should include enough plants to provide 100 percent canopy cover of the soil 3 to 5 years after planting. This will largely eliminate the need for further mulching.

Aged or composted mulches?

What's the difference between aged and composted mulch?

Bark and wood chips (arborist mulch) are sold as fresh, aged, or composted. Composting is the controlled biological stabilization of organic material. The end product, compost, is similar to the stable organic matter found in soils.

Most mulch is piled or aged for some time but often is not fully composted. Unless piles are watered and turned several times, the end product is not compost; it is aged mulch. Fresh materials have not been aged or composted.

If leaves from deciduous trees are piled in the fall, they will decompose without much management, assuming they remain moist. Usually, turning the pile a couple of times in spring or early summer is sufficient to transform leaves into leaf mulch. Leaf mulch is a kind of aged material.

Yard-waste composting facilities perform hot composting, including controlled moisture levels, regular pile turning, and monitoring of pile temperatures. This process turns the material into genuine compost.

What are the advantages of aging or composting?

After application to the landscape, aged mulches decompose (lose volume) more slowly than fresh organic materials. Aging reduces problems associated with fresh organic materials, such as non-uniform particle size, competition for soil nitrogen, and spontaneous heating.

Composting is most often used to create soil amendments (organic materials that are worked into the soil) rather than mulch. Nonetheless, composted mulch has many benefits.

- Composting achieves high temperatures, effectively killing most weed seeds and plant disease organisms.
- Composting produces a more uniform product that is easier to apply and more aesthetically pleasing.
- Composted organic matter lasts longer after application (it decomposes slowly).
- Composts can be applied rapidly in large quantities via specialized equipment (e.g., blower trucks).

Why isn't most mulch composted?

Composting often is not necessary or desirable for the following reasons.

- Mulch volume typically is reduced by more than 50 percent during composting.
- Compost generally costs more than fresh organic materials, some of which are available at little or no cost.
- Large-scale composting requires equipment, land, labor, and energy.

On the other hand, composting reduces landfill input, recycles local materials, and produces a product that reduces the need for fertilizers and other inputs in the landscape.

How can I tell whether a product is aged or composted?

Ask the supplier whether the material is really compost or simply aged mulch. It is not always easy to tell the difference between aged mulch and truly composted material.

Restoration plantings

What about mulching low-maintenance "restoration" plantings?

If you are converting from grass or weeds to woody native shrubs or trees, with little or no summer irrigation, you may want to apply a lot of mulch at one time. Deep mulching often is effective in controlling weeds and conserving water. Coarse wood chips or arborist mulch is better suited for deep mulching than bark because of its greater particle size and greater porosity. Restoration plantings have been successfully established by mulching with 4 to 6 inches of arborist mulch.

If mulching deeply, it is important to plant larger plants and avoid piling mulch directly around tree trunks. Deep mulch may provide ideal habitat for voles and other rodents.

Another restoration planting approach, used successfully on highway shrub plantings, is to mulch with 3 inches of yard debris compost topped with 3 inches of bark.

Grow your own mulch

How can I grow my own mulch with little effort?

Growing a mix of deciduous and evergreen trees and shrubs generates the most organic matter for mulch replenishment. Small leaves (e.g., Japanese maples) can act as mulch where they fall.

Create small areas at the back of shrub beds (e.g., in the corner of a fenced lot) to store piles of large leaves, such as those of Norway or bigleaf maples. You also can pile shrub trimmings there. By creating small, dispersed piles in the shrub bed, you won't have to haul leaves out in fall, and leaf mulch will be nearby when you need it in spring or summer.

Leaf mulch from a home compost pile is excellent for summer mulching around rhododendrons, blueberries, and other shrubs that are sensitive to summer drought, or in vegetable and flower gardens. Apply 1 to 2 inches after the soil warms, usually in June.

Is it feasible to make my own compost?

Sure! It's easy and takes very little work. To make compost, you usually need to grind sticks and other coarse woody materials before composting. Leaves, small twigs, and flowers do not need to be ground.

Be selective in the materials you include in a home compost pile. Weed seeds, vegetable seeds, and plant disease organisms often survive home composting.

It usually takes about 12 months to make high-quality compost in a backyard pile with minimal maintenance. Backyard compost is not typically screened and usually is coarser than purchased yard waste compost, so it is best used for shrub beds.

For more information

The following publications are available from the OSU Extension Service, http://extension.oregonstate.edu/catalog/

Backyard Composting, WAEB 1784

Acidifying Soil for Blueberries and Ornamental Plants in the Yard and Garden: West of the Cascade Mountain Range in Oregon and Washington, EC 1560-E

Improving Garden Soils with Organic Matter, EC 1561

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