

## ADDING A DECK TO YOUR HOME

One of the many ways that homeowners add enjoyment to their life and value to their property is by adding a deck. Decks are not only aesthetically pleasing, they are also practical by providing more living space.

Barbequing, relaxing, and entertaining outdoors are some of the reasons why people add a deck. You may want to design and build a deck yourself, or have a contractor do it for you. In either case, there are several things to consider:

- How large a deck do you need?
- On average, how many people will be on the deck at one time?
- Do you want your deck at ground level, elevated or split-level?
- Are you restricted on the placement and/or height of the deck?
- Do you want your deck in the shade, sunlight, or both?
- Are you going to install a hot tub or gazebo on your deck?
- Will your deck have railings?
- Will it have stairs or a ramp to accommodate a wheelchair?
- Do you want lights on the deck?
- Do you want built-in benches and/or planter boxes?
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If you want the challenge and experience of designing and building a deck yourself, start by getting some books on the subject. Your local library or bookstore may have copies. There is a lot of information about decks on the Internet. Visit a lumber/home improvement store and speak with the deck expert about your project. Deck design software is also available.

You don't have to be an architect to do a basic drawing of the type of deck you want. You can use graph paper to create a scaled version, and smaller pieces to determine the amount of deck space required for outdoor furniture, the barbeque, etc. The cost of a pad of graph paper will save you the expense of enlarging your deck later!

You should find out if there are any deck building codes by contacting the engineering department of your city or town hall. You may need to change your deck design to meet code, and have your deck examined by an inspector. With your edited and final plan, determine the tools and materials required to build your deck. Tools usually needed include:

- Stakes and twine (for layout)
- Carpenter's square and level
- Electric drill and bits
- Shovel
- Hammer
- Line level
- Hand tamper
- Chalk line
- Hand or circular saw

Building materials include lumber, hot-dipped galvanized or stainless steel fasteners, ready-mix cement, and gravel. Since the 1970's, the wood used in decks has been "pressure-treated" (also known as CCA-treated wood). CCA is a preservative containing chromium, copper, and arsenic. Repeated exposure to arsenic, which can be inhaled, eaten or absorbed through the skin, increases the risk of cancer, liver and neurological damage, heart conditions, and paralysis. Children are the most vulnerable due to their smaller body mass.

Health Canada has been working with the U.S. Environmental Protection Agency (EPA) to re-assess CCA-treated wood. While the EPA has banned U.S. retailers from selling the wood, to date, no such ban exists in Canada. Health Canada recommends that if you are going to use CCA-treated wood for your deck, wear protective equipment (e.g., gloves, a long-sleeved shirt, a dust mask, and eye protection) when sawing, sanding, and handling it, and wash your skin after coming into contact with the wood. Sawdust and chips should not be burned or used in landscaping. More information is available on the website, <http://www.ccasafetyinfo.ca>.

Alternatives to CCA-treated wood include alkaline copper quaternary (ACQ)-treated wood, naturally decay-resistant woods such as cedar and redwood, and composite, wood-like alternatives, which are made from recycled grocery bags, milk jugs, etc. Non-pressure-treated wood can also be used for your deck, but should be covered with a sealer annually or bi-annually, depending on the weather and amount of wear.

If you would prefer to have a contractor design and/or build a deck for you, the best place to start is your local Yellow Pages under "Sundecks". Have a representative of two or more contractors come to your home to discuss your deck idea, and to prepare a quote for you. If you do not want CCA-treated wood used, be sure to tell the rep. By the way, one of the material choices offered by contractors is vinyl-covered decking, which has warranties up to 15 years.

Ask each contractor for references, and contact some of them to make an appointment to inspect their decks. Doing so will give you a good idea of the quality of the contractors' work and materials used. Check with the Better Business Bureau and the business affairs offices of your municipal and provincial government to determine if there have been any complaints filed against the contractors. Once you are confident of their reputation and work, review their quotes and select one to build your deck.

Adding a deck to your home should be an enjoyable experience and an investment that enhances the value of your property as well as the quality of your family life. With proper planning, research, and effort, your deck will give you and your family many years of pleasure.

## **THE "HOME HUNTERS"**

**Grant & Steve Hunter**

## CHOOSING THE RIGHT FINISH FOR YOUR DECK

A deck can be like a room onto the great outdoors. It won't be long before you'll be enjoying a summer of barbecuing, sunbathing and gazing at the stars as the perfume from your garden floats in on a breeze...

In preparation for these activities, now is the time to examine your deck for damage and weathering. Trouble spots will most likely be at ground level, board ends, joints and any areas where water is likely to be trapped. Exposure to the elements day after day also means most decks require new finishing at least once a year. How often you need to refinish will depend on your climate and the type of wood used to construct your deck. A quick test to see if it's necessary is the water test. Sprinkle a few drops of water on the wood. If the water beads, the finish is fine. If the deck soaks it up readily, it's time to refinish.

Rot, mildew, fungus, greying wood, cracks and warps all await unprotected wood decks. Prevention is essential. Don't heed the advice of hardware salespeople who tell you to let a new deck age and dry for a season before finishing. New decks require only 2-4 weeks, depending on rainfall, in order to reach the proper moisture level. At that point, applying the correct finish will greatly extend the life of your deck and save you money in the long run.

If your deck was constructed with pressure-treated wood it has weather resistant properties but it still requires finishing. Just as with any other type of wood deck, it should be coated with water-repellent and regularly stained or painted. Unfinished, pressure-treated wood tends to turn grey quite quickly.

When deciding which finish to use consider the following benefits and limitations of various components:

- **Water repellent:** Wax, usually paraffin, is suspended in a binder to prevent water from soaking into the wood. Water repellent products require annual or biannual applications.
- **Preservatives:** These typically include a mildew inhibitor or insecticide to prevent fungi and mildew growth as well as to repel insects such as termites.
- **Ultraviolet stabilisers:** UV rays can penetrate 1/64 of an inch (or 1/21cm) into the wood. This turns wood grey and weakens it so that

other cracking or warping problems develop. UV stabilisers are generally not as effective as pigment in preventing UV damage.

- **Pigment:** It provides the colour found in paint, solid-colour stain and semitransparent stain. Pigment protects well against UV and water damage but ages quickly on decks.

It is important to note that while the "wet look" of varnish is attractive it does not weather well. Sun and rain can penetrate resulting in discoloration. Paint with preservative is the best overall protection. There are always new products coming on the market which perform multiple functions and are available in a growing number of colours.

A sanding pole is a great way to prepare your deck for finishing without doing a lot of bending. Sanding is an essential first step in achieving even application of stain or paint.

Deck finishes can be applied with a brush, pad, roller, or sprayer. Paint stores sell inexpensive pump sprayers similar to those used by gardeners. Rollers and sprayers are quick, but wood will absorb more finish, thus protecting it better, if the finish is worked in with a brush. It is recommended that you use a brush for the first coat of finish on a new deck.

Be sure to use the right brush for the type of finish you are applying. Natural bristle brushes are usually recommended for solvent-based (oil-based) finishes; synthetic brushes are better for water-based finishes.

Whichever finish or method of application you choose be sure to let each coat dry for at least three days. Also remember that the best protection is prevention. Refinishing your deck once or twice a year is a small price to pay for your ringside seat on the great outdoors!

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## DO-IT-YOURSELF WALKWAY

Are you tired of tracking mud from your backyard into your house? Would you like to create a more unified and sophisticated garden? One solution is to build a brick or cut stone path. Even if you have never so much as picked up a brick in your life, you can do this project. It only requires an initial investment in the bricks, a means of transporting them home, a shovel, rake, sand or crushed stone, landscape fabric and depending on your lawn you may also need a drainage pipe.

You will find a wide selection of colours and designs in paving stones at most building material stores. Choose patterns and materials that complement your yard. You may also want to consider using more than one type to create an interesting pattern or a border. Be careful not to go overboard, however, by mixing in too many disparate elements.

A yard which slopes away from the house will cause the least drainage problems. Sand and finely crushed gravel under the brick or stone will be sufficient to maintain proper drainage. However, if your yard is more or less flat and you've noticed particularly muddy patches in the past you should build up any depressions with extra soil before you begin work on your walkway. It will also be necessary to install an underground drainage pipe to carry water off your lawn and into a gutter or drainage system.

**Step 1.** Decide on the layout of your walkway. Place on your lawn anything which would normally be there such as furniture or a barbecue. There are a number of ways to mark the pathway. You can use stakes with string tied between them to mark the path. Lime sprinkled around the perimeter works well to create a quick visual guide. You can also try a rope or garden hose but these are too easily knocked out of place.

**Step 2.** Once you have decided on the layout you can dig the foundation. Using a shovel remove all the grass and rocks to a depth of 8 cm (3  $\frac{1}{2}$  inches). Rake the bottom flat.

**Step 3.** If you have persistent weeds or grass in your lawn you should cover the entire walkway foundation with landscape fabric to inhibit their growth. This fabric blocks out sunlight while allowing water to pass through. It's an inexpensive and effective way to prevent grass and weeds from sprouting up in spaces between the brick.

**Step4.** If you have a flat lawn you will need to put down narrow drainage pipes at this point. Drainage pipe is designed with numerous small holes along its upper length so that water seeps into the pipe then is moved off your lawn. The pipes do not need to be joined but you should use one at least every half metre (18 inches). Use a small amount of sand or crushed stone to create a bit of a rise or pillow at the end opposite the drainage point.

**Step5.** Spread sand or finely crushed stone over the fabric (and pipe if you used it) to a depth of about 6cm (2  $\frac{1}{2}$  inches). Rake it flat.

**Step 6.** Decide on the pattern you will use. Depending on the pattern you've chosen, you may need to cut the bricks to create a straight edge along the walkway. Cutters are available from building material stores or you can mark the brick and have it cut for a fee by the store. (Note: The diagonal herringbone pattern requires you to cut a large number of bricks at a 45-degree angle.)

**Step 7.** Set the bricks according to the pattern you've chosen. Using a rubber mallet or a hammer cushioned with a scrap piece of wood, tap the bricks into place. When you are finished all the bricks should be approximately the same height though inevitably after a few weeks you'll find you need to tap some in further.

**Step 8.** Enjoy your new walkway!

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## EVERGREENS

In the winter, a garden can become rather desolate-the flowers have faded, their leaves have turned brown, and you almost wish for snow just to cover the soil and the bare branches of perennials. Between the long winter sleep that begins in October and lingers until the first tulip pokes its head up into the spring air, evergreens are a great solution. They are permanent elements that can provide structure for your garden-each and every season. Evergreens come in a range of sizes, shapes and colours and choosing the right plant for your situation is simple if you know a few basics.

When you visit a nursery, perhaps the most important consideration when buying a plant is its size at maturity. There are plenty of trees and bushes available that grow to 10 metres or taller. You may not be happy with a towering tree in the middle of your rose garden several years in the future so it is best to find out what the mature size of the plant will be before you buy.

### **Dwarf**

Sometimes the word 'dwarf' is used to describe plants that grow slowly and other times it is used to describe plants that are much smaller than their wild cousins. For example, the Piceaabies "Nidiformis' reaches only one metre when fully grown which is appreciably less than another member of its genus-the Norway Spruce.

### **Needles vs. Leaves**

It may surprise you to learn that not all evergreens have needles. In fact, "evergreen" simply refers to a type of plant that does not experience significant die-off of foliage in the winter. Needled evergreens produce their seeds in cones and thus don't have to produce flowers or berries. Their narrow needles make them well adapted to survive in dry soil and windy winter climates. Broadleaf evergreens often have wide leaves and attractive flowers. They lose more moisture through their leaves than do needled evergreens and, for that reason, usually require moist soil and protection from harsh winter weather.

If you prefer needled evergreens the following are some favourites:

1. Balsam fir *Abies balsamea* - the needle-bearing tree can grow to 23 metres but the dwarf version, 'Nana', grows slowly to approximately one metre.
2. Savin juniper *J. Sabina* - the boughs of this evergreen arch out attractively to create low ground cover.
3. Russian cypress *Microbiota decussata* - creates bright green ground cover to a height of only half a metre.

Some tried and true broadleaf evergreens include:

1. Bearberry *Arctostaphylos uva-ursi* - grows to only 30 cm high and produces dense foliage that turns red in winter.
2. Oregon grape holly *Mahonia aquifolium* - the dwarf version of this evergreen called 'Compacta' grows to 1 metre high and tolerates shade and acidic soil.

## Lawn Topiary

If you enjoy the look of shrubs that have been pruned into various shapes, and hope to try topiary in your garden, start with a plant that has dense foliage and is able to tolerate regular clipping. There are three main species recommended for topiary: *Buxus sempervirens* (box), *Taxus baccata* (yew) and *Laurus nobilis* (bay).

## Diseases

Evergreen does not mean everlasting. Bushes tend to have a shorter life span than trees-usually three to 30 years. Evergreens are also susceptible to drought, over-watering, insect infestations and soil problems.

Brown needles or leaves may indicate that the plant has been scorched and dehydrated. This often happens when the weather changes quickly from cold temperatures to bright sunshine. The sunshine and dry winds cause the foliage to lose moisture but the roots, which are still dormant, cannot deliver moisture from the soil. Spray the plant with water every few days and provide protection from the wind by planting bushes in clusters or near buildings. You may also wish to cove

Yellow leaves often indicate soil problems. Some evergreens such as Azalea and Camellia, can develop yellow leaves if the soil is too alkaline (too much lime or chalk has been added or is naturally present in the

soil). Try adding peat moss or iron chelate to increase acidity. Yellow leaves can also develop if the plant has poor drainage. r your shrubs to protect them from wind and frost.

### **Creating the Best Results**

Start with healthy plants. Look for plants that have most of their leaves or needles. Check the main branches for signs of heavy pruning, which may indicate disease. Try to pull off a needle or leaf-unhealthy plants tend to drop their foliage easily.

Space your plants. You can plant evergreens in clusters for artistic effect or to provide some protection from the wind but be careful not to plant them too close together. If air is not able to circulate freely in among the foliage, mold can flourish.

Prepare the ground. Dig a hole approximately one and a half times as wide and as deep as the root ball. If your soil contains a lot of clay, mix peat moss and compost into the soil. These additions will increase the organic material in the soil thus improving moisture retention and drainage. Replace some soil in the hole then water. Place the plant into position then fill in the gaps. Press the soil firmly. Water thoroughly.

Don't plant or transplant in the middle of the afternoon. Sunshine, especially in warm weather, causes a plant to release water through its foliage as part of photosynthesis. That moisture must be replaced by water that comes up through the roots from the soil. A newly transplanted shrub will have suffered some root shock and may not be able to deliver adequate moisture to the leaves or needles. The best time for transplanting is shortly before sunset.

With some care and the occasional watering, evergreens can be lasting and integral additions to your garden.

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## GET THE DIRT ON COMPOSTING

When grass clippings, apple peels and other organic materials get tossed in with the rest of the household garbage, the potential for harvesting the goodness of these natural materials is lost forever. Instead of being used to create free fertilizer, these items become part of a toxic brew of chemicals and heavy metals at landfills. Home composting is a simple way to reduce the burden on landfills while greatly benefiting garden plants.

Science plays a role in creating good compost (a rich humus). Adequate moisture, air, carbon-rich and nitrogen-rich materials are essential. When these elements are available in the right proportions, they aid in decomposition, encourage the growth of aerobic bacteria and attract worms and other small organisms. Without these elements, the compost pile may sit for months without decomposing and may begin to smell rather unpleasant.

The materials inside a compost bin should be moist but not soaking wet. Vegetation typically contains enough liquid to maintain proper moisture inside a bin. However, in hot, dry weather you may need to pour a few litres of water on the pile every week or so. Adequate airflow is usually achieved with openings up the side of the bin. Plastic containers specially designed for composting are available from many municipal governments and from gardening supply stores. It is also possible to build a functional bin with a wood frame and chicken wire although manufactured bins usually offer the advantage of a sliding door at the bottom to retrieve finished compost.

Carbon-rich (brown) materials include dry leaves, straw, sawdust, and dried grass clippings. Nitrogen-rich (green) materials include fruit and vegetable scraps, plant trimmings, fresh grass clippings, coffee grounds and tea leaves. Bacteria, worms and other beneficial organisms need a balance of carbon and nitrogen along with various other nutrients such as natural sugars.

### **What to compost**

1. Fruit and vegetable trimmings
2. Coffee grounds
3. Cornstalks and cobs
4. Eggshells - It helps to crush them first.
5. Horse and cow manure

6. Garden trimmings - You can run a mower over larger leaves to speed decomposition.
7. Sawdust
8. Wood ashes - Small amounts add carbon to the compost bin but large amounts can slow the composting process.

### **What not to compost**

1. Barbeque ashes/coal - These contain sulphur oxides and other chemicals.
2. Fish skin - It attracts animals.
3. Cooked food - This attracts animals and can slow the composting process.
4. Kitty litter - It may contain disease organisms.
5. Dandelion seed heads - Do not try to compost mature seed heads as this resilient plant will soon begin to sprout out of the sides of the bin.

### **Adding to the Compost Bin**

The way you add materials to your bin will affect how well and how thoroughly they become compost. Choose a bin that has a volume of approximately one cubic metre. This size is large enough to retain heat and moisture in the centre of the bin. At the bottom, add a layer of coarse material such as branch cuttings, leaves, or straw to aid in air circulation. Next, add some nitrogen-rich grass clipping or fresh leaves. Add kitchen scraps to the centre of bin and cover with a thin layer of soil (approximately 3cm). This will deter flying insects that are attracted to fruit. Whenever possible try to alternate layers of fresh green materials with brown materials remembering to keep kitchen scraps in the centre.

Once you have your bin about halfway full, things should begin to heat up! As micro-organisms such as bacteria and fungi consume (decompose) the materials inside the bin, they create heat. This heat helps to kill some harmful bacteria and weed seeds. Proper composting involves temperatures between 43 °C and 65 °C (110 °F and 150 °F). The process of decomposition is complete when the temperature of the pile declines and remains below approximately 40 °C (105 °F). Allow the compost to mature for another two to six months to ensure that it will not produce any unpleasant odours. If you have a large amount of material, you may wish to have two bins-one for new material and another for maturing compost.

Compost bins are wonderful ways to make lawn trimmings disappear! As materials decompose inside the bin, they typically shrink in volume as bacteria and fungi consume the nutrients and some of the water content. To help speed up the process, you may wish to chop up large scraps. Smaller pieces offer more exposed surface for micro-organisms to invade.

You can harvest your compost at the bottom of the bin. The large, plastic models available at gardening stores typically have a sliding door at the bottom to allow you to remove finished compost. If your bin does not have a door, you may need to tip over the unit and collect the completed compost. This is a good opportunity to mix materials that are still in the process of decomposing.

After months of 'feeding' and aging, your compost will be ready to use on your garden. There are several ways to make use of this nutrient-rich humus. You can shovel some around the base of trees and shrubs. You can mix it into the topsoil around flowers and vegetables. You can even make tea out of it. Put a litre of compost into a piece of cloth and tie it up. Then soak the bag overnight in a garbage can full of water. Serve the 'tea' to plants only-they will appreciate the potent, healthy brew.

Whichever method you choose, your plants and our landfills are sure to appreciate your efforts!

## **THE "HOME HUNTERS"**

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## TYPES OF WOOD FOR BACKYARD PROJECTS

If you are planning a backyard project such as a screen, deck or gazebo, the type of wood you choose will impact how well and how long it stands up to the elements. In some ways, nature can be your worst enemy: from the moment your project is completed and takes its place in the garden, it becomes prey to wood-boring insects, mold, fungus, moisture and sunlight. Selecting wood suitable to your requirements will ensure many years of enjoyment.

### **Hardwoods**

In general, hardwoods are fine-grained, dense and heavy. They are less likely to splinter than other types of wood. This characteristic makes them ideal for handrails and garden furniture - both situations in which splintering is particularly undesirable. Hardwoods are also fairly decay resistant due to their natural resin and oil content. The natural oils of most hardwoods impart rich colour which can be enhanced with an application of wax, oils or lacquer.

Some commonly used hardwoods include oak, chestnut, teak, mahogany, maple and cherry. Although redwood and cedar are technically softwoods, they are often classified as hardwoods for construction purposes because of their notable decay resistance. Redwood and cedar can withstand the elements for decades, however they are relatively soft and more easily damaged. It is best to use these two species for decorative projects.

Two notes of caution regarding hardwoods: (1) use fine-toothed saws to prevent splits and chips and (2) because hardwood tends to be more expensive than softwood, the cost may impact the scope of a project.

### **Softwoods**

Softwoods are typically from coniferous trees such as pine or fir. They tend to splinter more easily than hardwoods due to their open grain. As the name implies, softwoods are relatively soft but they are strong and suitable for many types of construction. In their natural state, softwoods tend to decay fairly quickly in the soil and need treatment if they are to last an adequate length of time.

Pressure treatment is one way to slow the rate of decay. Persistent chemical preservatives are applied to the timber in a pressure chamber. The chemicals are able to saturate the wood to a high degree resulting in timber that can withstand the elements for 20 years or more. An alternative method is to spray the timber

with a preservative, however, it may not last as long as pressure treated products. The preservatives used in both methods often cause a slight bluish-green discolouration.

One of the most serious concerns about pressure treated timber is arsenic poisoning. Playgrounds and decks have traditionally been built with pressure treated timber putting children at particular risk. They play and crawl on these surfaces and often put their hands in their mouths. CBC news reported in November 1998 that arsenic continued to leach out of timber for several years and one study indicated a disturbing positive correlation between timber age and the rate of leaching.

At your local home renovation store, you are likely to find CCA pressure treated timber. CCA stands for the chemicals used in the preservative: copper, chromium and arsenic. According to Dr. Paul Cooper, a scientist at the University of New Brunswick, copper acts as a fungicide, arsenic protects against insects and chromium helps keep the other two chemicals contained in the wood.

Recently, Canadians have been able to purchase a product that has been available to Americans for years: ACQ (which stands for alkaline, copper and a complex chemical called quat). ACQ is considered a less toxic option and is slightly more expensive than CCA.

### **Rustic Timber**

Nothing can replace the unique charm of rustic wood; the bends and twists of branches can create a rose arbour, a chair and other structures that seem to meld perfectly with the garden. Rustic timber refers to wood that has not been planed (sawn into planks). The shape is typically round and the poles can range in size from small branches to tree trunks. The bark may or may not be left intact.

Common products created with rustic timber are benches and chairs. The bark is often removed and the wood is pressure treated to increase longevity. If you are buying rustic timber from a home renovation store, it will most likely be pressure treated softwood.

Pressure treatment can only be applied to poles that have been stripped of bark. If you prefer the look of bark, sweet chestnut (*Castanea sativa*) is a good option. This species is very resistant to decay and does not require pressure treating. Oak is another good choice although the branches are not particularly straight.

If you have deciduous trees in your yard, careful pruning may allow you to gather enough branches to build the structure you have in mind. A major benefit of doing this is that the wood is free. Even if you do not have sweet chestnut or oak trees in your yard, other types of deciduous trees (e.g. maple, dogwood, beech etc) will provide rustic wood that can last for years with some preparation.

The most vulnerable part of any structure is the section that makes contact with the soil. Because soil retains moisture, it speeds up the deterioration process of the timber. Wood-boring insects will also find the supports and legs of furniture to be a tasty and easily accessible treat. To help preserve poles with their bark left on, you can treat the ends that will be in contact with the soil. Strip the bark from the section that will be buried and soak it in a penetrating preservative (available from home renovation stores) for 48 hours. Another option is to char the end in a fire. The best way to char timber is to place the end in red hot coals. Check the progress frequently and avoid flames.

As the name implies, rustic wood is meant to look natural and even a bit weathered. If you wish to add some sheen and boost the longevity of the above ground sections, you can apply wood penetrating oils or a few coats of lacquer. The latter will help to seal any cracks in the bark and reduce moisture and insect infestations.

The type of wood you choose will depend on the look you wish to achieve and the desired longevity of your project. Now the only limit to your woodworking is your imagination!

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