Selecting Gardening Equipment

Garden catalogues and stores are full of gardening tools - some are very useful, others are nice but not necessary, and some are gimmicks. The gardening equipment you need depends on the size of your garden, your age and strength, and whether you want to get the job done in a hurry or prefer to take your time. The minimum equipment needed by most gardeners includes a shovel or spade, a hoe, a rake, and a trowel.

Hand tools for cultivating

A round-nosed **shovel** with a curved blade is lighter and smaller than most other shovels and is well suited for use in the garden. Shovels are earth movers with dish-shaped blades mounted to the handle at an angle. **Spades** have flat blades and are designed for cutting rather than lifting or moving soil. Spades are excellent for shaping straight-sided trenches and for edging beds. For general-purpose digging, lifting, and moving, a long-handled shovel is ideal. Both shovels and spades come with long or short handles in standard or D-shaped styles. Choice of handle style will depend on personal preference: long handles offer greater leverage and are less tiring to use in many cases, while short handles are often thicker and stronger.

This round-nosed shovel is ideal for moving soil. The long handle allows for good leverage. © Sherry Chaisson & Stuart Gibb, Dalhousie.

This D-handled spade has a sharp blade that is used to cut into soil. Notice the sturdy foot tread along the top of the blade. ©Sherry Chaisson & Stuart Gibb, Dalhousie.

A **spading fork**, or **garden fork**, is ideal for breaking and turning heavy soils and for loosening subsoil layers when double digging a bed. It is also useful for turning coarse compost, spreading mulches, and digging root crops. It is the weeding tool of choice for deep rooted weeds. The fork consists of four tines that may be flat (good) or square in cross-section (better), and it is the same width as a garden spade.

This D-handled garden fork makes digging perennial weeds an easier chore. © Sherry Chaisson & Stuart Gibb, Dalhousie.

A **hoe** is essential in any garden for preparing the seed bed, removing weeds, and breaking up encrusted soil. Several styles are available. The most commonly used is the square-bladed hoe or draw hoe. It is the best one for sculpting the soil into hills or furrows. A pointed hoe with a heart-shaped blade is useful for opening seed furrows and cultivating between plants.

Note the beveled edge of the draw hoe. The angle of the blade allows a chopping action before each draw of the hoe. © Sherry Chaisson & Stuart Gibb, Dalhousie.

The **hula hoe**, also called action or stirrup hoe, is a type of scuffle hoe. It is very maneuverable and comes in different sizes. The smaller heads allow weeding in tight spaces. Pushing and pulling it just under the soil surface eliminates newly emerging weeds and breaks up any crust on the soil surface. This type of hoe is most easily used on soil that is not compacted, since the blade is relatively thin and lacks the clod-breaking capabilities of a heavier hoe; it is also less effective in cases where weeds have gotten a good start.

The stirrup hoe is pushed and pulled just below the soil surface. This model has a small rake attachment on the back side. © Desiree Jans, Dalhousie.

A sturdy **rake** is useful in clearing the garden of rocks and debris. It is also helpful in spreading mulches and smoothing seedbeds. Determining which size of rake is right for you depends on your size and strength and the uses you intend to put it to. As the number of tines increases, the rake weight also increases, so avoid choosing a rake so heavy it will tire you after a short period of use. The length of the rake handle is important too; the tip of the handle should come up to your ear when standing upright. A handle that is too short will cause excess bending and back strain. A level head garden rake has a flat head and is superior for smoothing a seedbed. A bow rake holds the working head farther from the handle, making it easier to rake more deeply.

The level head garden rake is best for raking and smoothing the soil surface. © Sherry Chaisson & Stuart Gibb, Dalhousie.

The bow rake allows stones to pass through the opening. It is used for deep raking. © Sherry Chaisson & Stuart Gibb, Dalhousie.

A **trowel** will be in constant use for those many digging jobs that do not need full-sized tools. The trowel is perfect for transplanting seedlings and bulbs or digging shallow-rooted weeds. Small hand cultivators, often sold in sets with trowels, are good for weeding in small areas and between closely spaced plants. Another useful, small, digging tool is appropriately named a **digger** (a.k.a. weeder). It is useful for digging up weeds with long taproots, such as dandelions or Queen Anne's lace, or for prying out Johnson grass rhizomes. It consists of a long (25 to 35 cm (10 to 14")), solid-metal rod with a two-pronged blade at one end and a handle at the other. This tool is practically indestructible and well worth the small investment of its price for people with strong hands and arms or loose, friable soil.

Choose a sturdy trowel with a comfortable handle as you will be using it often. © Sherry Chaisson & Stuart Gibb, Dalhousie.

A sturdy digger for tough weeds. © R. Campbell, Dalhousie.

A **pickaxe** or **mattock** may be useful for certain sites. Pickaxes are used to break up extremely hard-packed or stony soil. Mattocks are used for the same purpose, but are equipped with a cutting blade for areas where larger roots need to be removed. A mattock may also be used to chop up debris for composting or to create a quick drainage trench.

The axe-mattock allows you to dig in root-filled soil. The broad blade moves and loosens soil while the axe cuts through roots. © Sherry Chaisson & Stuart Gibb, Dalhousie.

Power tools for cultivating

The power rotary tiller is probably the power tool most commonly purchased by gardeners. The tiller's engine powers rotating blades, or tines, which can make garden soil loose and fluffy, ready for planting. It can also chop up plant debris and mix it into the soil. Incorporating organic matter and manures into the garden is also easily accomplished with a tiller, reducing the tendency to procrastinate this necessary chore.

The ability of the tiller to do these jobs effectively is a function of its weight, strength, design, and type of tines, as well as the type of soil. A heavy, powerful rear-tine tiller is most effective on stony, clay soils, while in a small garden or one with light soil a front-tine tiller may be more appropriate. Very lightweight tillers, known as soil blenders, are designed mainly for raised-bed gardening.

Rotary tillers are available with front-mounted or rear-mounted tines. Rear-tined tillers are generally better able to self-propel on all but the rockiest soils. They travel straight and can produce a deeper seedbed. Rear-tined tillers often have attachments available for a variety of uses, such as hilling potatoes, making raised beds, even ploughing snow! The price of a rear-tined rototiller is usually considerably higher than that of the front-tined type, so consideration should be given to the payback time necessary for such a large investment.

If the garden is small, a front-tined tiller may be suitable. Front-tined tillers are usually lighter in weight, but may require considerable strength to guide them through the soil. Operating this type of tiller is comparable to handling a large floor polisher, such as those used in schools and hospitals. Mainly, leverage is required for control. New gardeners are sometimes scared away from these tillers because of the initial experience of having a tiller run away from them. The front-tined tiller may not make as straight a pass as the heavier, rear-tined type, but it is easier to turn. Due to this increased maneuverability, the front-tined tiller is easy to use in small gardens and in corner areas.

The purchase of a tiller is a major investment. Features to look for include heavy cast-iron, steel plate and tubing, heavy bearings, strong welds used in construction, and easily operable controls. Ask to look at the operator's manual and try to determine how simply a tune-up can be performed - you may save yourself a great deal of trouble and money if you can replace plugs and points yourself, particularly if you have no truck on which to load the tiller. Also consider the locations of service centers and parts dealers. Careful attention to your needs, abilities, and price range is important. Talk to people who have the types of tillers in which you are interested. If possible, borrow or rent various types of machines and send for information before buying.

Many sizes and types of tillers are available. Consult with a reliable dealer and purchase the best model for your needs, budget and abilities. ©Tracy Kittilsen, Dalhousie.

If you are considering the purchase of a used rotary tiller, plan to do so well ahead of time so you will not be rushed into a purchase. If you do not know much about such equipment, it might be helpful to have a mechanically minded friend look over the machines you are considering. Above all, test each tiller for ease of starting and operation. Tines should operate smoothly and freely. Check the welds in the handles to see that they are strong: re-welding may mean that the handles have broken at some time, a common problem in older tillers. Look at the dipstick, if there is one, since low oil or very sludgy oil may mean that the tiller has been maintained poorly. The oil and other fluids may also be checked by opening the drain

plugs. Look for excessive dirt around the engine or in the air filter. This may also mean bad maintenance habits. Ask the owner for an operator's manual, and ask where the machine has been serviced in the past.

Other power tools

There are a few other power tools that can be used in the vegetable garden. Cordless tools come with various cultivating attachments. Most are rechargeable and can make garden chores more pleasurable. These tools are especially useful to those with limited physical strength.

A garden shredder is nice to have for a large garden with a lot of plant wastes. There are hand-operated shredders that are slow but useful if wastes become available in small quantities and are not too coarse. Gasoline shredders are quite expensive and may be disappointing to the gardener who wants to chip branches and other large materials. They are best used for shredding leaves, small branches, and other plant wastes (although sunflower stalks would probably be too much for one.) A chipper, on the other hand, will chip large branches and other coarse material, but the cost of $1000 or more makes the chipper uneconomical for many gardeners.

Carts and wheelbarrows

A wheelbarrow or cart is very handy to have for garden work. It should be easy to handle when full, with good maneuverability. Durable construction is well worth paying for as it ensures a long, useful life. Be sure to choose the size appropriate for your physical abilities and garden needs. A wheelbarrow generally requires more strength and control than do most garden carts, but models with two rear wheels are an excellent compromise between a barrow and a cart. If you plan to haul only light straw, leaves, sawdust, and such materials, then one of the small carts may be suitable. For heavier jobs, you may need a wheelbarrow. Some of the newer garden carts, especially those with bicycle-size tires, make easy work of hauling. They are made of heavy plywood and metal, are well balanced and easy to maneuver. These carts do, however, involve a sizeable investment (up to several hundred dollars) and a large storage space. One alternative is to build your own from one of several plans available from gardening magazines or private companies.

This heavy duty wheelbarrow is still in good shape, even after twenty years of use. © R. Campbell, Dalhousie.

Soil testing equipment

Soil test kits can be purchased in various sizes and levels of sophistication. These are handy, but not always necessary, since soil testing does not have to be done more frequently than once a year for most gardening purposes. If inexpensive garden soil tests are offered through the Provincial Soils Lab or private labs, it is preferable to have them do the tests, as results are likely to be more accurate. It is also important to be consistent with a lab, as results between labs are not easily comparable. The lab results will include recommendations for managing the pH, fertility and organic matter content of your vegetable garden, which makes the effort all worthwhile. Some gardeners like to monitor the soil frequently, though, making a soil test kit a worthwhile purchase. An electronic pH tester is also on the market for those who like gadgets.

Purchase and maintenance

When purchasing tools and equipment, buy for quality rather than quantity. Your tools will be in frequent use throughout the garden season. Cheap tools tend to break or dull easily and may end up making a job unnecessarily difficult and frustrating. Tools should be lightweight for easy handling, but heavy enough to do the job properly. Metal parts

should be of steel, which will stay sharp, keep its shape, and outlast softer metals. Consumers' magazines and gardening publications frequently have articles explaining what to look for in tools. Local hardware stores and garden centers carry a wide range of tools. Shop around and handle the tool to get a feel for it – you may prefer one brand over another.

Keeping a tool clean and sharp increases its usefulness and lengthens its life. Learn the techniques of sharpening each tool, and practice them frequently. Professional gardeners often carry sharpening stones or files while working and sharpen after every hour or so of use. Clean your tools after each use. One effective method is to keep a 23 L (5 gallon) bucket filled with sand and used motor oil in the tool shed. At the end of the gardening day, remove clinging dirt from tools by plunging them into the oily sand several times. This will keep the tools cleaned and oiled and will help prevent rusting.

The last and perhaps most important step in tool care is to put tools away in their proper places. If each tool has its own place in a storage area, it is simple to determine if tools are missing before closing up for the day.

Before winter sets in, sharpen tools, then coat metal parts lightly with oil and rub wooden handles with linseed oil. Drain power tools of gasoline, and obtain filters, mufflers, and tune-up parts so a fall or late-winter tune-up can get the machine ready for early spring jobs. Have maintenance done, if needed, in the winter, when demand is lowest and you can afford to let the repairer take his or her time. Some dealers will take your gas powered equipment in the autumn, store it for the winter and return it in spring – serviced and ready to go!

Thoughtfully selected and cared for, your tools will give many years of service. The extra effort will pay for itself in time.

NOTE: Watering equipment is discussed in the factsheet on 'Irrigating the vegetable garden' on this website.

Activity

Prioritize equipment purchases

Have a look at available gardening equipment in catalogues, websites, and stores. Make a list of the gardening equipment that you might need. Look at two or three different sources for each piece of equipment and make a table showing the use, particular qualities of different brands, and cost. Use your findings to prioritize purchases. (Also consider used equipment if time permits.)

A FEW ON-LINE SOURCES TO START WITH:

Home Depot www.homedepot.ca

Home Hardware www.homehardware.ca

Sears www.sears.ca

Lee Valley Tools www.leevalley.com