

Hand Tools Safety

Basic Hand Tools

Spades, Shovels and Scoops

Rakes

Striking Tools



Learning Goals

By the end of this lesson you should be able to:

- Identify the hand tools commonly used in the landscaping industry
- Explain the differences between various tools and when each should be used
- Explain the possible hazards of working with hand tools
- Demonstrate an ability to select and use the appropriate tool for a given landscaping task
- Explain the proper posture for using a variety of hand tools



Safety First

Hand tools do not have engines or electrical parts but this does not mean that they can not pose a hazard to your personal safety. Knowing how to identify, select and properly use hand tools is essential to maintaining a safe work environment for everyone.

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Basic Hand Tools



There are many common hand tools used in the landscape industry and you may already be familiar with many of them. Learning the proper names for these tools is very important as you will often be given instructions to use a particular tool for a particular job and if you do not know the

proper name you may end up using the wrong tool for the job. In the following section you will learn about the different kinds of spades, shovels, rakes and striking tools which are among the most common landscaping tools. As you read through the following sections pay particularly close attention to the safety information presented as it will help you avoid injury.

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Spades and Shovels - What's the Difference?

Many people incorrectly use the term spade or shovel to refer to any tool used for digging. There are many types of shovels and scoops as well as several kinds of spades and these different tools are used for a wide variety of jobs. Using the wrong spade or shovel could result in breaking the tool, working harder than is necessary or even injury. As a general rule shovels have sides and spades do not. Shovels are used for digging and scooping loose material while spades are generally used for breaking out soil, root pruning, ball and burlap work and scraping. Scoops are almost always used for light bulky materials such as snow, grain or mulch.



Spades and Shovels



D-Handled Spade



D-Handled Irrigation Spade



Long Handled Spade



D-Handled Round Nose Shovel



D-Handled Scoop Shovel



Round Nose Shovel



Scoop Shovel



Grain Scoop

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Safety Tips For Shoveling and Digging

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Safety Tips For Shoveling and Digging



Safety First

Choosing the right tool for the job is important but knowing how to use that tool is even more important in terms of preventing injuries. Whenever you dig keep in mind that buried utilities such as water gas and electrical lines may be present. Always have a locate done whenever digging deeper than about 12 inches (30 cm) or before starting any major landscaping project.

Tips For Safe Shoveling:

- keep your feet shoulder width apart, knees slightly bent and your back straight
- don't throw material with a shovel further than about 3 feet (this is the optimal throw distance)
- if transferring material into a wheelbarrow keep the wheelbarrow close so you do not need to overextend yourself
- don't try to lift materials higher than 4 feet while shoveling
- never use a shovel or spade as a pry bar
- when using a spade for scraping get down on one knee keep your back straight and use your body weight to put power into your push
- keep the spade out in front of your body and your wrist straight
- always make sure there is enough space between yourself and other workers
- never scrape towards any other person
- use your foot and legs to drive the blade of a spade into the ground - do not chop at the ground this can put excessive strain on your wrists and elbows

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Striking Tools



Rakes are very common landscape tools and are used for a variety of jobs from clean up to grading. As with any hand tools there are different rakes for different jobs.

In landscaping we use several different kinds of rakes which

are pictured below. Fan rakes are used for leaf and debris clean up, bow head and level head rakes are used for levelling and grading soil and preparing garden beds, while landscape rakes are used for levelling and grading base materials for patios walls and driveways.



Safety First

Whatever the rake or the job being done it is always important to make sure that rakes, especially hard rakes (level head, bow head and landscape rakes), are never left lying around on the ground. Many a joke has been made about gardeners who have accidentally stepped on a rake head and whacked themselves in the face, but make no mistake this is a very painful and dangerous thing to have happen. When not in use rakes should be stored tines down underneath a wheelbarrow, in a wheelbarrow or leaning or hung up against a vertical surface where no one can step on the head. In addition to stepping on the head rakes left lying around, like any other tools, pose a trip hazard. Always store your tools in a safe manner.

Fan rakes are also an important safety precaution for handling debris in the landscape. When raking debris it is quite common to rake up more than merely leaves. Objects such as broken glass, sharp metal and even needles or other biologically hazardous materials may be hidden in piles of leaves and debris. Handling these piles using the two rake method (as described in the following section) eliminates the risk of coming into contact with these items and will also reduce strain on your back.

Note: If you do happen to see objects such as needles glass or biologically hazardous materials (condoms, bandages, medical wastes) do not attempt to pick them up. Report this immediately to your supervisor so these items can be disposed of safely.



Rakes Used In Landscape Work



Level Head Rake



Bow Head Rake



Poly Fan Rake



Landscape Rake

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Handling Debris Safely With Rakes

As mentioned in the previous section, fan rakes can be used to handle debris and material without touching it with your hands. Mastering this skill will not only allow you to work more safely but will also reduce strain on your back, keeps your clothes cleaner and makes you look more professional. Many hazardous materials may be hidden in a pile of leaves or debris such as discarded needles, broken glass, and animal remains or droppings, obviously we do not want to handle these things even with gloves on. To use fan rakes for debris pick up place the handle of each rake under your arm pit, grip the handle with your index and middle finger straight and pointing at the rake head. Use your body as the hinge point and bring the rakes together in a clamping motion to pick up the debris. Use your feet if necessary to tighten up the pile by giving the back of the fan a light kick. Do not try to lift too much at once and lift the pile up and deposit it in your wheelbarrow, or onto a tarp for disposal.

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Safety With Striking Tools



Striking tools are used in many landscape jobs and include items such as hammers, sledge hammers, picks and mattocks, pry bars and post pounders. All of these tools, by virtue of the fact that they are used for hitting things, pose a risk of producing flying chips and debris and struck by injuries. For this reason PPE such as steel toed footwear, and eye wear are required for all of these tools. Additional safety equipment is required for some of these tools and is outlined in the Safety First section below.

 Image Gallery



Sledge Hammer



Dead Blow Hammers



Picks and Mattocks



Pry Bars



Post Pounder



Small Sledge Hammer



Brick Chisel



Axe

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Safety With Striking Tools



Safety First

As mentioned in the preceding section striking tools require the use of safety glasses and steel toed footwear. Some of these tools however, present hazards you might not have thought about. This section will outline many of the common dangers presented by these tools and how to avoid them.

When working with striking tools:

- As with any tool thoroughly inspect the tool for signs of wear or damage, this is especially important when it comes to handles. Handles should be checked for cracks, loose heads and should have sufficient grip so that the tool will remain firmly in your hand. Do not use a defective tool.
- Post pounders and pry bars both have the potential to contact and puncture buried utilities such as gas lines, water lines and electrical conduit. Make sure you have a locate done prior to driving posts or digging deeper than a foot (30 cm).
- When using hammers keep in mind where your hands are and make sure that hand guards on brick chisels are in good repair.
- Post pounders require the use of hearing protection as well as a hard hat as they generate very loud noise and may need to be raised above your head to drive stakes.
- Use the right tool for the job. Dead blow hammers are used for setting bricks in bedding material, never to hit chisels, or drive nails.
- Never use excessive force or swing wildly this will almost certainly result in an injury.
- Learn the balance and feel of the tool in your hand and start off by striking gently until you are familiar with the tool and accurate enough to land blows precisely.

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