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How to Select Quality Landscape and Garden Tools

Shopping for garden tools can be overwhelming. With the large selection of tools available at big-box stores, hardware stores, and garden centers, you may wonder how to distinguish a high-quality tool from an inferior one that may not meet your expectations. With basic knowledge of tool construction and materials, even an inexperienced gardener should be able to make a good decision.

To choose a well-made tool that is appropriate for the purpose, it helps to know a few principles of tool anatomy. Garden tools have two parts, a head and a handle. Heads vary in materials, shapes, and orientation. A handle can be short, long, or curved. It can be designed as a simple cylinder or feature both a shaft and a grip. Pruning tools have of a pair of handles joined at the fulcrum.

The way a tool fits is just as important as construction. A pruning tool should fit comfortably in your hand (Figures 1 and 2). A digging tool should fit your body and the intended use. You should handle a tool before purchasing to make sure it fits.

Tool Construction

Tools may look similar, but the materials, manufacturing methods, and construction make a an unquestionable difference in performance. Tools made with high-carbon steel are best for digging, planting, cutting, and weeding. High-carbon steel is an alloy made of iron and a small amount of carbon combined at extremely high temperature. These materials are reheated and tempered, mixing the iron with carbon grains to form a strong steel.

Some garden tools are made of stainless steel, which is carbon steel combined with chromium and nickel. Chromium rustproofs the steel but does not add strength. This may not justify the purchase of stainless steel tools, which can be expensive.

Digging tool heads can be forged or stamped. Forged heads are stronger than stamped heads and can be identified by the word tempered, heat-treated, forged, or drop-forged near where the head meets the handle. Forged steel is heated and shaped by rolling it over blocks to give the

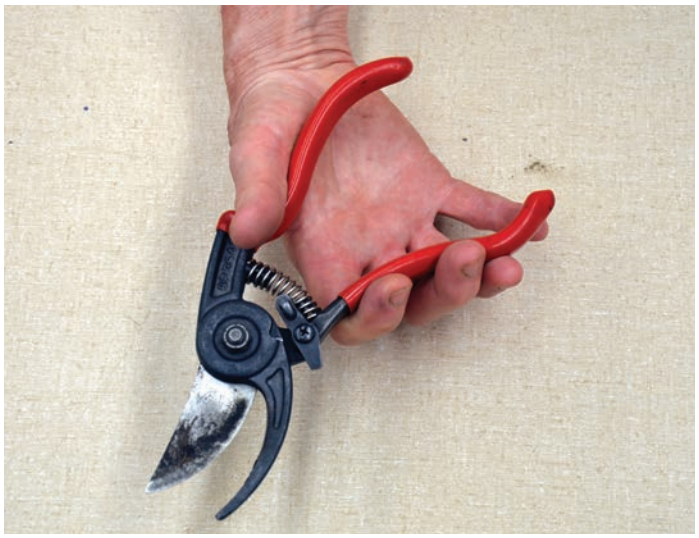

Figure 1: This tool fits comfortably in the open position. It does not overextend the hand.

Figure 2: This tool is too large. It causes the hand to extend too far to make a cut. This can lead to hand fatigue and injury.

head thickness at the point of maximum stress and thinness where a sharp edge is needed.

A stamped head is machine cut from a sheet of steel then bent to form the head of a shovel, spade, trowel, or hoe. This type of head is weaker because of the steel's uniform thickness. The socket that fits over the shaft is made by bending the steel to form an open-backed tube called the frog. This type of connection can collect dirt along the back edge of the shaft, which weakens or rots the wood. Avoid welded tools. Bad welds, a common flaw in rakes or forks, can fail under stress. Look for a tool that is forged from a single piece.

Handles

Long-handled tools are usually more efficient than tools with shorter handles. Most shovels have a straight shaft approximately 48 inches long without a handle. Spades and garden forks come in standard lengths of 28 to 32 inches (Figure 3). For many people, 32 inches is barely long enough for comfort or leverage, but proper length depends on how the tool will be used. Nothing works better for lifting and dividing perennials than a garden fork with a short shaft (Figure 4). It provides better leverage than a tool with a longer shaft and the YD handle is strong and comfortable.

A mark of a high-quality tool is a smooth handle with wood grain that flows straight and steady along the length. Ash is the best wood for a handle because it is strong and not brittle. Maple is a harder and heavier wood, but a maple handle can break unexpectedly, especially when a tool is used incorrectly. A hickory shaft is heavier but not as flexible or as strong as ash. Examine the handle for flaws or imperfections in the wood grain.

In shopping for tools, you may come across fiberglass, steel, or aluminum handles. Fiberglass handles are stronger than wood handles, but they transfer vibrations through

Figure 3. The shovel on the left is best for digging. The spade on the right is ideal for edging and features a D-shaped grip for leverage.

Figure 4: A high-quality stainless steel digging fork with a secure head-to-handle connection and a YD grip. This handle converges into a Y and is slightly different than the D-grip handle shown in Figure 3.

the shaft, which can fatigue the user (Figure 5). Wooden handles can be fixed if broken. Metal handles are found mostly in smaller hand tools.

The main stress point in a handled tool is where the handle meets the head. A quality tool head has a forged solid socket or long steel straps riveted through the shaft in two or three places (Figure 6). An open socket where the wooden handle meets the tool head allows soil and moisture to penetrate, causing the handle to shrink and loosen over time.

Less expensive tools may have a two-piece head referred to as tang and ferrule (Figure 7). The tang fits into the hole of the handle, which is sheathed in a metal casing or ferrule. This type of construction is common in small hand tools. High-quality tools have a closed socket or solid, shank-type construction that prevents dirt, debris, and moisture from entering the socket.

Figure 5. Shovels come in various lengths and materials. The shovel handle on the left is made of fiberglass.

Figure 6: Heads can be joined to the handle in different ways. The open-back tool on the left is weaker than the tool on the right, which has a closed back and forged head. The tool on the right is strong and well-made, but more expensive.

Figure 7: The tool on bottom has a tang and ferrule connection with a stamped head. The tool on top with a forged head and solid shank is stronger.

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