

New Planting Tools

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A power-driven auger and a hammer-action hand planter make reforestation tasks more efficient and economical.
Tree Planters' Notes 42(4):7-8; 1991.

Planting Auger

The cone-shaped power-driven auger is designed to produce a planting hole configured more closely to the shape of a seedling's root system and it is designed to penetrate rocky soils. It has proved to be more effective in planting seedlings than currently used straight-shank augers. The auger is 76 cm (30 inches) long, has a bit length of 58 cm (23 inches), and weighs 3.4 kg (7½ pounds), which is comparable to commercial augers. The cone-shaped auger costs about \$200. Design drawings are available from MTDC.



Figure 1—Power-driven auger that produces a cone-shaped hole.

Hammer-Action Hand Planter

The hammer-action hand planter is designed to plant seedlings in rocky soil. Although commercial hand planting tools perform well in ideal soil conditions, they are extremely tiring to operate because the operator continuously absorbs the shock generated when the tools strike rocks. The hammer-action hand planter absorbs the shock, while producing a suitable planting hole.

MTDC engineers converted two types of commonly used commercial planting tools, the wedge and the dibble, to a hammer-action shaft. T-handle and double-D handle options were fitted to the shaft to make gripping the tool easier.



Figure 2—Hammer-action hand planter with a double-D handle.

Hammer-action wedge: Creates holes for bareroot stock that are 30 cm (12 inches) or deeper. The blade is 7.6 cm (3 inches) wide by 27.3 cm (10³/₄ inches) long. Blade thickness at the top tapers to a thin wedge.

DD-handle

Length: 1.2 m (48⁵/₈ inches)

Weight: 9.4 kg (20 pounds, 10 ounces)

T-handle

Length: 1.1 m (44⁵/₈ inches)

Weight: 8.1 kg (17 pounds, 15 ounces)

Hammer-action dibble: Designed for planting containerized stock in super tubes. The dibble is 22.8 cm long (9 inches) with a 4.5-cm (1³/₄-inch) diameter, tapering to 3.2 cm (1¹/₄ inches) at the tip.

DD-handle

Length: 1.2 m (46³/₄ inches)

Weight: 9.7 kg (21 pounds, 8 ounces)

T-handle

Length: 1.1 m (42³/₄ inches)

Weight: 8.5 kg (18 pounds, 10 ounces)

The improved hammer-action planter costs about \$150. Design drawings are available from MTDC.

A project report, "New Resource Tools and Equipment," describes the development effort in detail (Pub. No. 8824-3806-MTDC). For more information, contact:

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