TREE SEEDLING TRANSPLANTERS

KEITH WINDELL

Keith Windell is a Project Engineer, USDA Forest Service, Missoula Technology and Development Center, 5785 US Highway 10 West, Missoula, MT 59808; telephone: 406.329.3956; email: kwindell@fs.fed.us

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Abstract

Short summary tables of tree seedling transplanter manufacturers and some of the models they sell are presented. These tables include manufacturer contact information.

Key Words

Bareroot seedling transplanters, containerized seedling transplanters

Introduction

The Missoula Technology and Development Center was requested to conduct a market search for bareroot and containerized tree seedling transplanters. The intent was to distribute this information to the attendees of the Joint Annual Meeting of the Forest Nursery Association of British Columbia and the Western Forest and Conservation Nursery Association held in Olympia, Washington. The primary manufacturers of nursery type transplanters found were Mechanical Transplanter Company, Holland Transplanter, Egedal, and Lännen. Although Bartschi-FOBRO makes some units for sale in Europe, they are not readily available in the US or Canada. Therefore their transplanters have not been included in the summary table.

In the process of conducting the search for nursery transplanters, other machines were identified that would be more appropriate in a reforestation setting (field and forest) rather than a nursery setting.

Rather than just toss the information, it was included. Mechanical Transplanter Company, Holland Transplanter, Egedal, Whitfield Forestry Equipment, Tree Equipment Design Inc, and Phil Brown Welding Corporation make these type of transplanters. One company, Silver Mountain Equipment Inc, is also listed in the Vendor Information section because they offer a retrofit for other companys' transplanters to make them place the seedlings with greater precision and consistency. You will have to contact them for details.

CONTACTS

Brian Vachowski MTDC Program Leader 406.329.3935 byachowski@fs.fed.us

Keith Windell MTDC Project Leader 406.329.3956 kwindell@fs.fed.us

DISCLAIMER

The information in the following tables has been assembled in a short amount of time with no chance for review by vendors. There is a very good chance that errors may be present, so just use it as a quick reference. It is suggested that you contact the manufacturer (or distributor) listed in the Vendor Information Section directly to get the latest information on their products.

PRODUCT TABLES (SEE DISCLAIMER)

Gripper Style (Conventional) Transplanters for Nursery Beds

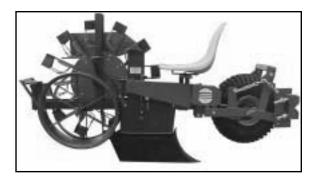
Make	Model	Comments	Base Price US\$
Mechanical Transplanter	Model 500U unit (Close- spacing bed planter unit)	A single unit that can be ganged on a tool bar. 6 inch shoe. Rear drive system.	\$893 (see note 1)
Mechanical Transplanter	Model 525U unit (Close- spacing bed planter unit)	A single unit that can be ganged on a tool bar. Plant spacing as close as 2.5 inches in the row. 8 inch shoe. Direct drive system. (Plant 6 rows as close as 9 inches apart when put in 525 Bed Transplanter.)	\$1305 (see note 1)
Mechanical Transplanter	Model 550LU unit (Large bed planter unit	A single unit that can be ganged on a tool bar. Plant spacing as close as 3.5 inches in the row. Holds seedlings with up to 18 inch top. Ten inch suction point shoe. Direct drive system. Row spacing on a single tool bar as close as 22 inches. (Plant 5 rows as close as 11 inches apart when put in 55 Bed Transplanter.)	\$1907 (see note 1)
Mechanical Transplanter	Model 580 unit (Large bed planter unit) (fig. 1)	A single unit that can be ganged on a tool bar. Similar to 550LU with larger pocket and wider 3 inch shoe. As close as 22 inch row spacing when ganged on tool bar. As close as 11 inches between rows when mounted on bed planter frame. Handles up to 18 inch tops and 7 inch deep roots. Plant spacing 5.5 inches and up. Direct drive float wheel drive system.	About \$1907 (see note 1)
Mechanical Transplanter	Model CT 5 (Christmas trees)	Mount on a 3-point hitch. Ten inch deep shoe. Comes with 1 seat.	\$1326 (see note 2)
Mechanical Transplanter	Model CT-8 (Mid-sized Christmas trees) (fig. 2)	Mount on a 3-point hitch. Twelve inch deep shoe. Comes with drive system that allows faster forward planting speeds. Comes with 1 seat; 2 optional.	\$2550 (see note 2)
Mechanical Transplanter	Model CT-12 (Heavy duty Christmas trees)	Mount on a 3-point hitch. Fourteen inch deep shoe. Large offset pockets for handling plants up to 30 inches long. Direct drive gauge wheels provide accurate spacing and proper depth control. Cat I or II, 3-point hitch and choice of rubber or steel packing wheels at no extra charge.	\$4437 (see note 2)
Mechanical Transplanter	Model 1980 (mid-sized nursery transplanter) (fig. 3)	Single unit that can be ganged on a tool bar for row spacing as close as 21 inches. Shoe is 4 inches wide and 12 inches deep.	\$4437 (see note 1)
Mechanical Transplanter	Model 2000 unit (Large nursery transplanter)	A single unit that can be ganged on a tool bar. Shoe is 6 inches wide and 12 inches deep. Can handle up to 5-foot tall whips.	\$5995 (see note 1)

Make	Model	Comments	Base Price US\$
Holland Transplanter	Model 1050 unit	A single unit that can be ganged on a tool bar. Plant material may be 9 inches above ground. Accepts plant plugs and bareroots up to 1 inch diameter and 4.5 long. Plant spacing 2.5 inches and greater. Row spacing side-by-side 14 inches and greater. Offset, double gang machine allows row spacing as close as 7 inches. Optional Cat 1, 3-point hitch, or tool bar mounting brackets available.	\$795 to \$895
Holland Transplanter	Model 1500 unit (fig. 4)	A single unit that can be ganged on a tool bar. Plant holder with chain arrangement provides spacing from 12 to 96 inches. Disc holder arrangement provides plant holder arrangement from 3 to 48 inches. Five (5) interchangeable plant holder styles available. Optional Cat 1, 3-point hitch, or tool bar mounting brackets available. Many other options available including multi-row frames and toolbars.	\$720 to \$765 + 2% to 5%.
Holland Transplanter	Model FWD 1500 unit (fig. 5)	Same as Model 1500 but also has a large front wheel drive tire that eliminates sliding in dry, sandy and loose soil conditions by using the front wheel to power the planter.	\$825 to \$870 + 2% to 5%.
Holland Transplanter	Model 1600 unit	A single unit that can be ganged on a tool bar. Same plant holders mentioned in Model 1500. Model 1600 can be mounted on any type tool bar for 3-point mounted multi row planting arrangements where fertilizer attachments are not being used.	\$695 to \$740 + 2% to 5%.
Egedal	Transplanter Type M	Number of rows possible: 4 to 7 Row spacing: 4 and 5 rows from 20 to 25 cm; 6 and 7 rows from 22 cm. Planting distance of 5 to 25 cm possible. Standard 3-point hitch.	\$16,491 to \$19,826
Egedal	Transplanter Type MS	Number of rows possible: 4 to 7 Row spacing: 4 and 5 rows from 25 cm; 6 and 7 rows from 22 cm. Planting distance of 5 to 25 cm possible. Self-propelled. Self-steering.	\$63,153 to \$71,564 Options available.

Note 1 – There are many combinations available from the manufacturer using these basic units. See the price list from Mechanical Transplanter

for these package deals.

Note 2 – This Christmas tree transplanter could be used in the nursery for larger stock on larger spacing. For smaller Christmas trees on closer spacing, it would be more appropriate to use a transplanter like Mechanical Transplanter's Model 525.



 $Figure\ 1.\ Mechanical\ Transplanter\ Model\ 580.$



Figure 3. Mechanical Transplanter Model 1980.

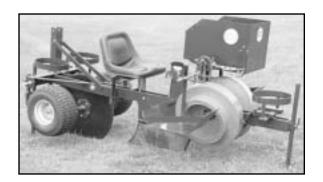


Figure 2. Mechanical Transplanter Model CT-8.

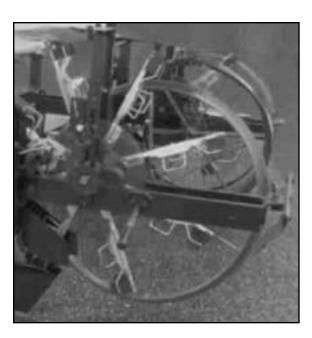


Figure 4. Disc holder arrangement for Holland Transplanter.

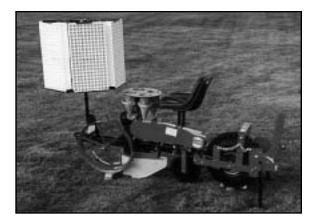


Figure 5. Holland Transplanter Model FWD 1500.

Carousel Style (Plug) Transplanters for Nursery Beds

Make	Model	Comments	Base Price US\$
Mechanical Transplanter	Model 4000 Unit (mid-sized metering)	A single unit that can be ganged on a tool bar. Designed to handle all cell type plants. Standard float Wheel Direct Drive System firms the soil, controls the depth and provides accurate, positive spacing. Standard spacing begins at 7.5 inches and a special gear can go from 5 inches and up. Their RD version comes with a packing wheel drive system. They also list a computer-controlled variant called the Model EM4000. It uses a UHMW lined skid plate to do the packing.	\$2387 (see note 3)
Mechanical Transplanter	Model 6000 Unit (large-sized metering) (fig. 6)	A single unit that can be ganged on a tool bar. Same basic design as the Model 4000 but with larger cups. This is their largest carousel transplanter. Their RD version comes with a packing wheel drive system.	\$2423 (see note 3)
Mechanical Transplanter	Model 5000 Unit (Compact metering transplanter) (fig. 7)	A single unit that can be ganged on a tool bar with row spacing as close as 12 inches. Unit comes with a skid plate packing system. The model 5000W has packing wheels instead (extra money). This model requires either a single (\$1398) or dual (\$2310) gauge wheel drive system.	\$2509 (drive system extra) (see note 3)
Holland Transplanter	The Rotary One	Not recommended for forestry applications in nursery if ganging is needed. They are too heavy and long according to Hugh Gerhardt from Holland Transplanter. (However, some info is in the brochure section.)	
Lännen	RT-2 (fig. 8)	Minimum row spacing of 20 inches with one tool bar, 10 inches with tandem frame with 2 tool bars. Plant spacing between 2 and 32 inches possible with the right sprocket combination.	\$2295 base. \$2425 set up for tight spacing.

Note 3 – There are many combinations available from the manufacturer using these basic units.



 $Figure\ 6.\ Mechanical\ Transplanter\ Model\ 6000.$



Figure~7.~Mechanical~Transplanter~Model~5000.



Figure 8. Lännen Model RT-2.

Automated Transplanters for Nursery Beds

Make	Model	Comments	Base Price US\$
Lännen	Plantek Automatic	Minimum row spacing with one tool bar 60 cm (24 inches). Plant spacing indefinitely adjustable. Row units from 1 to 8 possible. Output up to 2 plants per second per row. Must use Plantek seedling trays.	\$10,500
Lännen	PlantekSelective	Minimum row distance: 55 cm (22 inches), with a tandem frame 27.5 cm (11 inches). Plant spacing: 10 to 90 cm (4 to 35.5 inches). Electronic control of planting depth. Hydraulically powered. Photocells detect gaps and replace them with new plants. Optional radar control for plant spacing. Must use seedlings grown in Plantek DL 300 trays.	\$11,500

Gripper Style and Hand Transplanters for Outplanting

Make	Model	Comments	Base Price US\$
Mechanical Transplanter	Model CT 5	For Christmas trees. Mount on a 3-point hitch. It is possible to gang 2 together.	\$1326
Mechanical Transplanter	Model CT-8	For mid-sized Christmas trees. Mount on a 3-point hitch. It is possible to gang 2 together.	\$2550
Mechanical Transplanter	Model CT-12	For heavy-duty Christmas trees. Mount on a 3-point hitch. It is possible to gang 2 together.	\$4437
Holland Transplanter	Model 1525 Unit	Price is for a single row planter. Furrow opening shoe is 7 inches deep and 2 inches wide. Choice of Cat 1, 3-point hitch, or tool bar mounting brackets. Optional Cat II, 3-point hitch available. Many other options available. Available in 2, 3, and 4 row models.	\$1450

Make	Model	Comments	Base Price US\$
Egedal	Transplanter Type JT	Number of rows: 1 to 4. Row width: Adjustable from 60 cm. Mounting: 3-point hitch.	\$4986 to \$11,041. Options available.
Egedal	Transplanter Type Hydromatic	Number of rows: 1. Planting distance: 50 to 400 cm. Mounting: 3-point hitch.	\$23,771 to \$28,578. Options available.
Egedal	Transplanter Type B	Number of rows: 2. Row width: 50 to 120 cm. Planting distance: 10 to 30 cm. Mounting: 3-point hitch.	\$5076 to \$5219. Options available.
Egedal	Transplanter Type K	Number of rows: 2. Row width: Adjustable from 24 to 71 inches (60 to 71 cm). Mounting: 3-point hitch.	\$17,556 Options available.
Whitfield (see note 4)	F-85-S (semi-automatic) (fig. 9)	A single unit that will do one row and is mounted on single crank axle. Has a full cab. Heavy-duty use. (3-point hitch and single or double crank axle configurations available)	\$14,800
Whitfield (see note 4)	F-85-HC (semi-automatic)	A single unit that will do one row and is mounted on 3-point hitch adapter. Has half cab. Heavy-duty use. (3-point hitch and single or double crank axle configurations available)	\$10,180
Whitfield (see note 4)	FL-86 (semi-automatic)	A single unit that will do one row and is mounted on 3-point hitch adapter. Has a vinyl canopy top. Heavy-duty use. (3-point hitch and single or double crank axle configurations available).	\$10,440
Whitfield (see note 4)	F 500-S (semi-automatic)	A single unit that will do one row and is mounted on single crank axle. Has a super cab. Heavy-duty use. (3-point hitch and single or double crank axle configurations available).	\$15,300
Whitfield (see note 4)	F-9700-HC (semi-automatic)	A single unit that will do one row. 3-point hitch. Forestland planter for hardwoods.	\$11,200
Whitfield (see note 4)	3204-RF (manual)	A single unit that will do one row. 3-point hitch. Comes with two rear facing seats. Heavy-duty planter.	\$5725
Whitfield (see note 4)	ST-630 (manual)	A single unit that will do one row. 3-point hitch. Side delivery. Comes with one seat. Heavy-duty planter. Frame for canopy has window to see tractor operator for open field use.	\$4500
Whitfield (see note 4)	"L" (manual)	A single unit that will do one row. 3-point hitch. Economy model. One seat forward facing. Light to Medium duty use.	\$3000

Make	Model	Comments	Base Price US\$
Whitfield (see note 4)	SP-3202 (manual)	A single unit that will do one row. 3-point hitch. Two seats. For Pine and hardwood seedlings. Heavy-duty planter.	\$5680
Whitfield (see note 4)	5200 (manual)	A single unit that will do one row and is a tow-type transportable transplanter. Plants hardwoods and evergreens up to 4 feet tall.	\$6680
Whitfield (see note 4)	601 (manual)	A single unit that will do one row. 3-point hitch. Semi-contour model. Medium to heavy-duty use.	\$4638
Whitfield (see note 4)	88-2N (manual)	A single unit that will do one row. 3-point hitch. Two seat model. Medium to heavy-duty use.	\$4500
Tree Equipment Design	One-Seat Model (manual)	A single unit that will do one row and is mounted by 3-point hitch. Used mostly for Christmas trees or small nursery stock.	\$2225
Tree Equipment Design	Two-Seat Model (manual)	A single unit that will do one row and is mounted by 3-point hitch. Hydraulic hillside control, scrapers, and high-backed seats available as add ons.	\$2920
Tree Equipment Design	Shade Tree Model(manual)	A single unit that will do one row and is mounted by 3-point hitch. Makes up to 24 inch trench 14 to 16 inches deep. Optional telescopic row markers with lifting cylinders available.	\$4150
Phil Brown Welding	Tree Planter (fig. 10)	A single unit that will do one row and is mounted by 3-point hitch. They also make a double tool bar for mounting 2 at once.	\$3500

 $Note \ 4-This \ is \ not \ an \ entire \ listing \ of \ the \ offerings \ from \ Whitfield. \ Their \ catalog \ had \ not \ arrived \ by \ the \ time \ of \ this \ report.$



Figure~9.~Whit field~Model~F-85-S.



 $Figure\ 10.\ Phil\ Brown\ Welding\ Tree\ Planter.$

VENDOR INFORMATION

Bartschi-Fobro 1715 Airport Drive PO Box 651 Grand Haven, MI 49417 616.847.0300 fax: 616.842.1768 http://www.fobro.com

Holland Transplanter 510 E 16th Street PO Box 1527 Holland, MI 49422-1527 616.392.3579 800.275.4482 Fax: 616.392.7996

http://www.transplanter.com

<u>Lännen</u> (www.lannenplantsystems.com)

Distributors:

Williamson Greenhouses (RT-2 Sales) 820 Elizabeth Street Clinton, NC 28328, USA 910.592.6121

Fax: 910.592.2420

e-mail: greenhse@intrstar.net

http://www.autotransplanting.com

Automated Transplant Systems / Santa Fe Nursery (Automatic transplanters, Plantek trays) PO Box 820 Guadalupe, CA 93434 805.929.3260 Fax: 805.929.4091

Hakmet LTD 881 Harwood Blvd. Dorion, Quebec, Canada 450.455.6101 Fax: 450.455.1890

email:hakmet@total.net

BAP Forestry Equipment Ltd (Planting tubes) 150 Riverside Drive Federicton, New Brunswick E3A 6P8, Canada 506.405.1309 fax: 506.458.2200

fax: 506.458.2200 Mr Blain Phillips

e-mail:bphillip@nbnet.nb.ca

Mechanical Transplanter Company 1150 South Central Avenue Holland, MI 49423-5230 616.396.8738 800.757.5268 Fax: 616.396.3619

http://www.mechanicaltransplanter.com

Phil Brown Welding Corporation 4689 – 8 Mile Road NW Conklin, MI 49403 616.784.3046 fax: 616.784.5852

Silver Mountain Equipment, Incorporated (Retrofits other brands of transplanters for more precise planting)
4672 Drift Creek Road SE
Sublimity, OR 97385
503.769.7127
fax: 503.769.3549

Timm Enterprises Limited (Egedal) PO Box 157 Oakville, Ontario L6J 4Z5 Canada Phone: 905.878.4244 Sales: 1.888.769.8466 Fax: 905.878.7888

http://www.timmenterprises.com sales@timmenterprises.com

Tree Equipment Design, Incorporated RD #1, Box 104
New Ringgold, PA 17960
1.877.383.8383
570.386.3515
fax: 570.386.5998
http://www.treeequip.com

Whitfield Forestry Equipment 6431 Marbleton Parkway, SW PO Box 188 Marbleton, Georgia 30126-0188 770.948.1212 fax: 770.948.0155 http://www.whitfieldforestry.com