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## More Custom-Built Nursery Equipment

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This article describes nursery equipment and gives addresses for ordering construction drawings. *Tree Planters' Notes* 38(3): 3-6; 1987.

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In 1981 I wrote an article describing the wide variety of custom-built equipment nursery people have designed and built over the years to meet their specific needs ("Drawings for Custom-built Nursery Equipment," summer 1981).

The Missoula Equipment Development Center prepared construction drawings of the equipment nursery managers believed would be of most interest and use to their colleagues around the country. These drawings were reproduced and made available to any nursery requesting them. The result was an extensive exchange of equipment ideas that helped solve some nursery equipment problems.

In the 5½ years since that article appeared, much new equipment has been developed by these practical and resourceful nursery people. And again, the Center has prepared construction drawings of much of this new equipment. This article describes both these new drawings and the ones listed in the 1981 article.

The drawings contain enough detail to build the equipment

and are available in either reduced size for general use or full size for shop use. All drawings should be ordered directly from individual nurseries unless otherwise indicated.

### W.W. Ashe Nursery

**WWA-1 mulch spreader.** This is a manure spreader modified for applying dry organic mulch. Sheet metal deflectors and belt skirts direct the mulch down onto the nursery bed.

**WWA-2 tarp roller.** This portable machine, powered by a gasoline engine, rolls up the plastic that covers the seedbed during fumigation.

To order drawings, write:

W.W. Ashe Nursery  
Route 1, Box 181B  
Brooklyn, MS 39425  
Telephone: (601) 584-8488  
FTS : 497-4218

### Coeur d'Alene Nursery

#### CDN-1 nursery path cultivator.

The nursery path cultivator is a PTO-driven rotary tiller that mounts on a three-point hitch. The blades till the soil in the paths between the beds.

**CDN-2 box storage rack and conveyor.** The box storage rack and conveyor attaches to a Grayco lifter. Nursery workers take boxes from the rack, fill them with seedlings, roll them down the conveyor, and unload the full boxes onto the ground or into a truck.

**CDN-3 dewinger.** The dewinger has five rows of rubber fingers that revolve on a shaft within a drum. The revolving fingers remove the light wings from seed and an exhaust fan sucks the wings out of the drum. The seed go through the drum and drop through the bottom of the separator.

**CDN-4 sander.** The sander is a sifting screen mounted over a hopper that attaches to a fertilizer spreader for spreading a thin layer of sand over the seedbed.

**CDN-5 watering boom.** The watering boom hangs from an overhead rail in a greenhouse and can be moved along the rail to water seedlings.

**CDN-6 container washer.** This washer steam-cleans used containers. The containers pass through a washer box on a conveyor belt.

**CDN-7 vertical root pruner.** The root pruner consists of two gangs of coulter disks that mount underneath a tractor. Hydraulic cylinders raise and lower the disks.

**CDN-8 cone tumbler.** This equipment tumbles small amounts of tree cones to extract seeds, which are caught in a seed pan. A 7-horsepower motor powers the tumbler. The tumbler is 32 inches in diameter by 32 inches long.

**CDN-9 tarp roller.** This tractor-mounted implement rolls up plastic tarps that cover the seedbed during fumigation. It mounts on a tractor three-point

hitch and is powered from the tractor hydraulics.

To order drawings, write:  
Coeur d'Alene Nursery  
3600 Nursery Rd.  
Coeur d'Alene, ID 83814  
Telephone: (208) 765-7375  
FTS: 442-7587

#### **Hammermill Paper Co.**

##### **HPC-1 seedling top pruner.**

This three-point-hitch-mounted implement uses a spinning cable drum to top-prune tree seedlings.

To order drawing, write:

Hammermill Paper Co.  
Southern Forest Products  
Division  
417 Medical Parkway Center  
Selma, AL 36701  
Telephone: (205) 872-5452

#### **Humboldt Nursery**

**HN-1 tub washer.** This is a device for washing seedling tubs by passing them through a high-pressure water spray system.

**HN-2 bag washer.** This equipment facilitates the washing of standard 18-by 36-inch burlap bags.

**HN-3 plastic tarp roller.** This tractor-mounted implement is hydraulic powered and is used to pick up tarps used during fumigation. Mounting can be either on a three-point hitch or a front-end loader.

To obtain drawings, write:  
Humboldt Nursery  
4886 Cottage Grove Ave.  
McKinleyville, CA 95521  
Telephone: (707) 839-3256

#### **Lucky Peak Forest Tree Nursery**

**LPN-1 seedling packing carousel.** The seedling packing carousel is a round table that is rotated manually. It has special holders for bags, boxes, and paper.

**LPN-2 seedling storage and hauling trailer.** The box on this single-axle trailer is 10 feet long, 5 feet wide, and 6 feet tall. Snow is packed into the front part of the Styrofoam-insulated trailer to keep the seedlings cool.

**LPN-3 irrigation pipe hauling rack.** These racks bolt to the front of a tractor and mount on the three-point hitch in back. The racks carry long pipe sections.

**LPN-4 seedling hauling trailer.** The flatbed of this tandem-axle trailer measures 14 feet long by 7 feet wide. It is used to haul seedlings from the field to the packing shed.

**LPN-5 root cutoff saw.** The saw prunes seedling roots before packaging. It mounts on the packing belt at the discharge end.

**LPN-6 vertical root pruner.** This pruner cuts the lateral roots of seedlings in the nursery bed.

It is similar to the Coeur d'Alene vertical root pruner.

To order drawings, write:

Lucky Peak Forest Tree Nursery  
HC 33, Box 1085  
Boise, ID 83701  
Telephone: (208) 343-1977

#### **Missoula Equipment Development Center**

##### **MEDC-303 cone inspection table.**

This tilting and vibrating table has a screen and platform useful for inspecting cones at the collection site.

**MEDC-427 nursery cultivator.** A modified rotary tiller equipped with several chain-driven tiller blades is used to cultivate in between nursery bed rows.

**MEDC-517 horizontal root pruner.** This pruner is a PTO-driven reciprocating blade that slices underneath the nursery bed. A sturdy frame mounted on a three-point hitch supports the mechanism.

**MEDC-606 tree seed dewinger.** This dewinger uses rubber flaps that revolve on a shaft within a plastic drum. It features a vibrating feed tray, an adjustable tilt mechanism for the drum, a variable speed electric drive, and a dust control device.

**MEDC-684 synchronized thinner.** This is a belly-mounted hydraulic-powered tractor imple-

ment used in thinning tree seedlings in nursery beds. Some parts are from a John Deere model 200 synchronous thinner.

**MEDC-687 manual seedling thinner.** This is a two-person, hand-operated device used to thin overstocked tree nursery beds.

**MEDC-695 mycorrhizae applicator.** This implement mounts on the front of a standard Ojyord/Love eight-row seeder. The applicator places mycorrhizae in nurserybeds during the seeding operation.

**MEDC-748 MEDC tree seed dewinger M-1984.** This is an updated design of the MEDC-606 tree seed dewinger. This model features easily removable drums.

**MEDC-761 hand stake driver.** This is a slide-hammer apparatus for hand-driving 18-inch surveyor stakes.

**MEDC-795 hydraulic stake driver.** This system mounts on a three-point hitch and is powered by the prime mover's hydraulics. The system is used to drive 18-inch stakes in nursery paths to support bird protection netting.

To order drawings, write:

Missoula Equipment  
Development Center  
Bldg. 1, Fort Missoula  
Missoula, MT 59801  
Telephone: (406) 329-3958  
FTS:585-3958

### **Mount Sopris Nursery**

**MSN-1 container filler.** This is an inexpensive container filler that is relatively easy to build.

To order drawings, write the Missoula Equipment Development Center at the address above.

### **Rocky Mountain Forest and Range Experiment Station**

**RMF&R-1 rolling cart bench.** The bench rolls on tracks to move seedlings in a shadehouse.

Write the Missoula Equipment Development Center for this drawing.

### **Saratoga Tree Nursery**

**STN-1 Evans weeding cart.** This two-seat, lightweight, four-wheeled cart carries two weeders directly over the nursery bed for easy weeding. The weeders move the cart manually.

To order drawings, write:

Saratoga Tree Nursery  
R. D. 5, Rt. 50  
Saratoga Springs, NY 12866  
Telephone: (518) 885-5308

### **Southern Forest Experiment Station**

**SEES-1 herbicide applicator.** This is a wiper-type herbicide applicator for weed

control between rows of trees in nursery beds. The applicator attaches to the three-point hitch of a tractor.

**SFES-2 ultimate Stoneville applicator.** This wiper-type herbicide applicator mounts on the front of a tractor and is more than 11 feet wide.

To order drawings, write:

Southern Forest Experiment  
Station  
P.O. Box 227  
Stoneville, MS 38776  
Telephone: (601) 686-7218  
FTS : 497-2404

### **Southwestern Region (Forest Service)**

**SWR-1 hectoliter boxes.** The boxes are used to accurately measure amounts of cones collected in the field. They are plywood and hold either 1 or 3 hectoliters of cones.

To order drawings, write:

USDA Forest Service  
Southwestern Region  
517 Gold Ave. SW  
Albuquerque, NM 87102  
Telephone: (505) 766-2801  
FTS : 474-2802

### **Wind River Nursery**

**WRN-1 seed rack.** This movable rack holds two stacks of 10 trays each. The shallow trays have screen bottoms and hold the seed to be dried.

**WRN-2 shade screen.** Shadecloth wire stretched within a sturdy frame forms a screen that shelters shade-tolerant seedlings.

**WRN-3 pruning saw guard arm.** This steel guard covers the pruning saw used on the packing belt for trimming seedling roots.

To order drawings, write:

Wind River Nursery  
M.P. 1. 46 R Hemlock Rd.  
Carson, WA 98610  
Telephone:(509) 427-5679

For further information about nursery and greenhouse drawings, contact Ben Lowman at the Missoula Equipment Development Center.