

GEORGIA'S "WRAPAROUND" SEEDLING CRATE

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In a large-scale reforestation program such as the one in Georgia where 904 million forest tree seedlings have been shipped during the past 5 years, efficient packaging methods are essential. The "Wraparound" seedling crate described herein was developed for use by the Georgia Forestry Commission, (fig. 1). Two sizes have been tested: Size 1 for 2000 trees, and size 2 for 500 seedlings. Sixty-eight thousand of these special wirebound boxes will be put into use during the 1960-61 planting season. Results from past tests, when one thousand of these crates were used, indicated that landowners in Georgia were well pleased with this new type package.

Wakeley has amply described the various techniques involved in preparing a standard type bale² (fig. 2). Packages prepared with the "Wraparound" crate are made up in a similar manner. The major difference between the two methods is that a wirebound box is used instead of reinforced waterproof paper.

To prepare a standard bale of trees it is necessary to purchase paper, baling strips, steel tape, seals, and strapping tools. Personnel must also be trained to operate strapping equipment. The main disadvantage is that baling can be a limiting factor to maximum daily packing output of the nursery. This can be serious during the peak of the shipping season. Nurserymen have been able to lift and grade stock faster than it could be strapped, especially when manually operated strapping tools are used. The conventional method commonly used by nurserymen today does not give the flexibility frequently needed when large amounts of stock must be shipped in short periods of time.

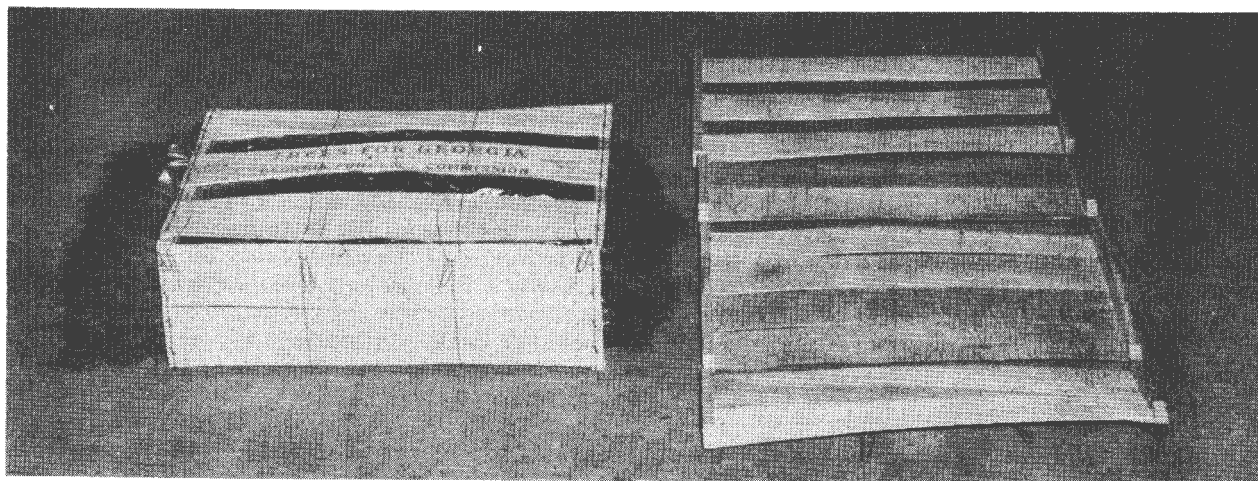


Figure 1.--"Wraparound" seedling crate before and after packaging forest tree seedlings.

¹ Especial thanks are given to the Southern Crate & Veneer Co. Macon, Ga., for their activities in developing this crate.

² Wakeley. P. C. Planting the Southern Pines. U.S. Dept. Agr., Agr. Monog. 18, 227 pp., illus. 1954.

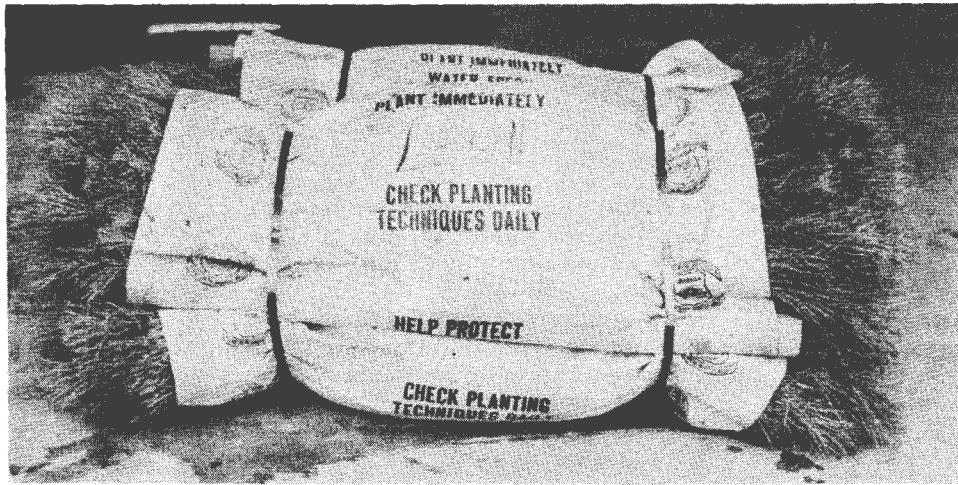


Figure 2.--Forest tree seedlings prepared for shipment in standard type bale.

The new method of packing seedlings for shipment, in "Wraparound" crates, has these advantages over the standard type bale:

- a. No special tools or skills needed by nursery personnel to fasten package.
- b. Maximum daily packing output of the nursery increased by removing packaging bottleneck.
- c. Packages easy to open for inspection of stock quality, watering plants, etc. d. Planters have less difficulty in getting seedlings from package. e. Partial packages can be correctly stored until planting is possible. f. Crates can be reused.
- g. Packaging cost reduced as less labor is required.

Crate Size 1 Specifications. --Crate to be of wirebound construction, veneer and cleats to be of gum material. Inside measurements 22 1/2 by 16 by 7 1/2 inches. Cleats 5/8 inch, scotch miter. Veneer thickness 1/9 inch. Wire binding to be four (4) wires, end wires to be 15 gage, intermediate wires 16 gage. Crate to have three top and three bottom slats. Slats are to be 3 5/8 inches wide with 2-inch openings and are to be set back 1/2 inch from ends. Front and back are to have two slats 3 5/8 inches wide with no openings.

Crate Size 2 specifications.--Same as above, with following exceptions: Inside measurements 22 1/2 by 5 1/2 by 5 1/2 inches. Cleats 5/8 by 5 1/4 inches, scotch miter. Top, bottom, and sides to be one (1) slat 4 3/4 inches wide.

Printing.--Letters are to appear on center slat, top of crate (fig. 1):

1. TREES FOR GEORGIA (letters to be 1 inch high).
2. GROWN BY (letters to be 3/8 inch high).
3. GEORGIA FORESTRY COMMISSION (letters to be 3/4 inch high).
4. Species _____, Packed by _____
(3/ 8-inch letters appearing on left end of top center slat).
5. Nursery _____, Date _____
(3/ 8-inch letters appearing on right end of slat).

A liner is used when packing seedlings for shipment in the crate described. This is necessary to insure that ample moisture remains in the bale. Since the liner is supported by the wirebound crate, no reinforcement is necessary. Polyethylene of 1.5 mil is ideal for this purpose. Specifications used in purchasing this material are as follows: 1.5 mil clear perforated polyethylene film, size of roll 28 inches by 1000 feet; film perforations may vary from 1/16 to 1/8 inch in diameter and are to be on approximately 3-inch centers.