

Contract Pulling

Donald E. Wermlinger²

Boise National Forest Lucky Peak Nursery has used contract pulling for 13 years with a result of lower cost and shorter pulling season with limited facilities.

INTRODUCTION

For the past 13 years, Lucky Peak Nursery has used contract pulling. During those years we have worked out a system that works well for us and we would like to tell you about it.

Last year our pulling costs were 3.51/M, a considerable savings over using our own employees. Our fall pulling, 10-20% of the total, is done by our own employees because of the uncertainty of the volume needed for custom lifting.

The Boise area lends itself to contract pulling because there are a large number of farm laborers who live in the area, and there is little farm work available from February to April. This lends itself to competitive bids.

In the last 9 years we have had 4 different contractors. Past experiments with mechanical lifting have not been satisfactory due to soil conditions at Lucky Peak.

ADVANTAGES OF CONTRACT PULLING

1. Cost Reductions
 - a. Hiring, firing, payrolling and supervising done by contractor.
 - b. No crew transportation cost to government.
 - c. No building facilities for lifting crew comfort.
2. Contractor provides people skilled at stoop labor
 - a. reduced accidents(backstrain, dirt in the eye, etc.)

¹Paper presented at the Intermountain Nurseryman's Association Meeting, Aspen, Colorado, August 13-16, 1979.

²Assistant Nurseryman, Boise National Forest, Lucky Peak Nursery, Boise, Idaho.

3. Getting trees out faster because of this early work has improved field survival and height growth.
4. Contractor can hire, fire and increase his work force faster because of fewer paper work requirements.

DISADVANTAGES OF CONTRACT PULLING

1. More difficult coordination between field and packing plant.
2. Slower control of standards.
3. No direct control of individual worker.
4. Threat of default
5. Difficulty of maintaining source identification.

5 YEAR RECORD OF CONTRACT PULLING

Table 1.--Yearly record of cost and lifting time 1

Year	Prod. MM	Cost/M	Lifting days	Date Span s.f.	Cost/lf
1979	9.2	3.51	13	3/6-3/22	.34
1978	9.8	3.08	23	2/21-3/15	.258
1977	4.7	3.28	21	2/24-3/23	.22
1976	6.3	3.36	24	3/18-4/16	.217
1975	7.0	**2	37	3/5-4/24	.199

¹ Compiled from Lucky Peak Annual Reports 1974-8 and contract records.

²Unable to compute because of default. Combination of contract and nursery pulling used. Cost/M appears to have raised little in 5 years. We feel this is due to cultural practices which have reduced cullage.

SELECTED ITEMS FROM LIFTING CONTRACT R4-79

This contract has evolved over 13 years and will continue to have minor revisions.

Schedule of Bids

Services to lift from seedbeds and box tree seedlings in estimated quantities reflected below.

Lift and box tree seedlings-90,000 if Further
loosen soil by hand spading to free seedlings
for boxing 2,463 if

Contract Period

The estimated date performance will start on this contract is February 20, 1979. Minimum daily production will be 6,500 lineal ft. of tree bed harvested per work day; this is approximately 813 lineal ft./hour. Contractor's Notice to Proceed will not be issued until ground and weather conditions are suitable for work. It is understood that weather and ground conditions will dictate contract work schedules, and claims for weather caused disruptions will not be considered.

Basis of Award

Award will be made in the aggregate. Offers submitted for any quantities less than those specified will be considered as nonresponsive and therefore rejected.

Specifications

Division 100 - General Specifications

110 Scope of contract

The services covered in this contract include the furnishing of all labor, supervision, transportation, operating supplies, and incidentals, to perform all work necessary to lift from seedbeds and box tree seedlings; and when deemed necessary by the Contracting Officer or his representative, further loosen soil by hand spading to free seedlings for boxing; in compliance with all terms, specifications, conditions, and provisions of this contract.

120 Description and Location

Services are to be performed at the U.S. Forest Service's Lucky Peak Nursery, located approximately 17 miles east of Boise, Idaho, on State Highway 21.

The attached map is intended to show project location and nursery layout only. A more specific work area map will be provided to the successful bidder at the pre-performance conference. Exhibit 1 reflects the type and estimated quantity of seedlings to be lifted from each field.

130 Government-Furnished Property and Services.

The Government shall deliver to the Contractor the following listed materials, supplies, property, or services (hereinafter referred to as "Government-furnished property") at the places and times specified below. The Contractor shall be liable for all loss or damage of such delivered Government-furnished property until completion and final acceptance of work required under this contract. If the Government fails to make timely delivery of such Government-furnished property suitable for its intended use, and upon written request from the Contractor, the Contracting Officer shall make an equitable adjustment of contract delivery or performance dates or contract price, or both, pursuant to the "Changes" clause of the General Provisions of this contract.

a. Boxes and tubs for transporting seedlings.

- (1) Boxes are 22" x 18" x 11".
- (2) Tubs are 26k" x 18-3/4" x 101".

b. Burlap strips to cover seedling containers.

- (1) Box cover strips are 30" x 108".
- (2) Tub cover strips are 48" x 126".

c. Spading forks for loosening soil. d.

Bailing twine, if required. 140

Contractor-Furnished Equipment

The Contractor will provide all supplies and incidental items, other than those specified as Government-furnished, that may be required in the performance of the contract.

Division 200 - Technical Specifications

200 Lifting

Seedling stock will be undercut in the beds by Forest Service personnel prior to hand lifting. The undercutting process requires at least two passes by the tractor-mounted cutter/shaker. The Contractor will not begin lifting trees from any undercut area until authorized by the CDR or Government inspector.

210 Boxing of Seedlings

Each box or tub will contain three layers of seedlings. Each layer of trees will be

separated by a double layer of burlap covering the roots. Starting at bottom of container, the burlap will be laid in an "S" pattern over each layer of trees. The remainder of the burlap strip will be used to completely cover the top of the seedlings and then tucked in around the edges.

220 Field Handling of Seedlings

Pullers will properly lift and handle tree seedlings so as to avoid injury or unnecessary exposure to harmful elements.

1. Seedlings will be lifted from the seedbed by grasping two handfuls of seedlings at the soil line and lifting with a steady pull, not jerking, them free from the soil. Extreme care must be taken to avoid bending or kinking tree stems.
2. After shaking seedlings to remove all loose soil, the stock shall be immediately placed in the tree box. Seedlings must not be exposed to the open air for more than 20 seconds from the time they are pulled from the ground until they are placed in a box and covered with burlap.
3. Seedlings will not be beat or knocked against any object, in an attempt to remove excess soil from roots.
4. All layers of trees in each container will be placed in the same direction with no mixing of tops and roots. All containers will be completely filled. However, overfilling which results in root or top exposure or subjects seedlings to crushing, will not be permitted.

230 Stockpiling of trees on the ground will not be allowed. Pullers must keep boxes close to them to permit continuity of work and meet the limitation on exposure of trees. In the event of a temporary box and tub shortage, the Contracting Officer or his representative may, as an interim measure, permit seedlings to be bundled in burlap strips. Specific bundling instructions will be given to the Contractor at that time.

240 Seedling beds are to be completely lifted. Leaving hard-to-lift or partially covered seedlings in the beds will not be permitted.

250 Loosening Soil

Soil conditions exist in some seedbeds where undercut trees are difficult or impossible to pull from the ground without excessive damage to the root systems. Under these conditions, the specifications require additional loosening of soil around the roots by the use of spading forks, or some other hand implement that will loosen the dirt and prevent damage to roots.

260 The Government will transport the packed seedling containers from the field to the packing shed, and empty containers to the field.

280 Lifting and Boxing Coordination Requirements Between Contractor and Forest Service

Lifting and boxing must be coordinated with seedling requirements of the sorting and packing operations. Consideration must be given to changing crew size or number, irregular work hours, and weekend work. On occasions, it will be necessary to maintain the work force after 5:00 p.m., to insure sufficient stock for packing crews at night and the following morning. There may be periods of middle to late morning starting times due to frozen soil conditions and early afternoon shutdowns because of hot, dry, windy weather.

Division 300 - Inspection and Acceptance

310 Inspection Procedure

The Government will determine and record the Contractor's daily accomplishment by linear foot during the period of the contract.

320 Lifting Quality Inspection Requirements

Lifting will be in compliance with the technical provisions of Division 200. Should any of the following infractions occur, deductions from payments will be made for property damage at an assessed penal sum of \$3.50 per incident.

- a. Lifting less than two handfuls.
- b. Excess soil on seedling roots
- c. Abuse of seedlings to remove excess soil.
- d. Failure to properly cover lifted seedlings.
- e. Piling seedlings on ground.

- f. Exposing roots for longer than 20 seconds.
- g. Leaving any seedlings in beds. h. walking on seedlings.

330 The inspector in the field will promptly notify the Contractor or his representative at the time the infraction is observed. The infraction will be promptly recorded in the COR's daily diary.

Division 400 - Measurement and Payment

410 Basis of Payment

The lifting record, described herein, times the bid price per linear foot, minus any damages, will be the basis for payment on this contract.

EXHIBIT 1
Lineal Footage
2-0

	DF*	JP*	ES*	WF*	LP*	PP*
Field 1	7,043		4,892	39	22,144	
Field 4	3,647		4,074	1,351	21,258	
Field 5		996				22,635
Field 14						4,384
(92,463)	10,690	996	8,966	1,390	43,402	27,019

*Douglas Fir
Jeffery Pine
Engleman Spruce
White Fir
Lodgepole Pine
Ponderosa Pine