

CONTRACT GRADING

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ABSTRACT: Contract grading and counting of over four million seedlings in 10.5 working days was accomplished in conjunction with contract lifting. Daily production rates exceeded nursery employee rates. Percentages of bad trees on grading belts and good trees thrown away were lower than nursery employee rates. The cost was \$0.02/M higher than nursery employee rates.

INTRODUCTION

Contract grading had been done at Lucky Peak Nursery during the fall of 1981 and 1982. These contracts were for approximately 1MM seedlings each year, after lifting was completed. This was done to work out potential problems in the grading contract without having to worry about field/shed coordination. In our contract, only grading was contracted, all support people were nursery employees. As a result of the experience and confidence gained during the two fall operations, we decided to contract both lifting and grading for the peak work season in the spring of 1984.

Appendix I shows the data for three seasons of contract grading and equivalent Force Account (nursery employee) grading.

Appendix II shows the schedule of items and specifications used in our contract. As with any contract, the success is partly determined by the commitment and quality of the contract inspectors and the contracting officers. We had good people in these positions in the field and shed.

OBSERVATIONS

1. Gross production for the contract graders was higher than Force Account crews.
2. Bad seedlings on the belt were less than or equal to those of Force Account crews.
3. Good seedlings thrown away were less than for Force Account crews.

Paper presented at combined meeting of the Western Forest Nursery Council and Intermountain Nurseryman's Association, Coeur d'Alene, ID, August 14-16, 1984.

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4. Force Account grading would have been \$0.02/M cheaper than contracting.

5. To Force Account-grade the volume contract-graded in FY84 would have required an additional 2 days (.55 person years).

6. Of the seedlings not meeting specifications on the belt, 21.6 percent was due to improper count.

DISCUSSION

1. Contract grading is a viable option. Our experience over three seasons shows an increase in daily production/grader each year. The first two years were with one contractor, and FY84 with another. We don't feel that we have peaked as far as daily production/grader. Just a small increase in the average production would result in a cheaper cost/M by contracting.

2. The average variation in bad seedlings on the four belts ranged from 6.48 to 8.3 percent. This is a reflection on uniformity of inspectors and graders. Inspectors stayed on the same belt for the entire season. This was done to maintain consistency in interpretation of specifications.

3. The incentive bonus for grading above a certain number of seedlings cost an additional \$151. The contract payment is set up so that 91 percent or better quality of graded seedlings resulted in 100 percent pay.

4. For units operating with a personnel ceiling, contracting can be very beneficial. We saved over 2 person years in processing 4MM seedlings.

5. Had we Force Account graded, we would have had to stop lifting for a few days until room could be made in our coolers. The shed would not have been able to keep up with the field operation. This would have a detrimental effect on seedling dormancy.

6. There is a need to look at our minimum daily production rates to recognize problems with difficult grading species.

7. A positive and cooperative working relationship with the contractor and the contractor's foremen is essential.

CONCLUSIONS

We will continue to try contracting our lifting and grading as long as the cost is equal-or-less than what nursery employees can do, quality of grading is acceptable, and current lifting and grading procedures stay the same.

APPENDIX I

Table I

Description	FY	Day of Work									
		1	2	3	4	5	6	7	8	9	10
Contract Min. Production (M)	82-84	250	288	336	350	350	350	350	350	350	350
Premium Pay Volume (M)	83-84	276	321	371	391	391	391	391	391	391	391
Gross Production (M) 48 Graders	82	276	305	359	334						
	83	450	386	277							
	84	303	285	317	294	436	402	476	435	581	480
*Force Account	*FA-83	258	321	371	304	371	357	484	405	280	318
Gross Prod./grader/shift (M)	82	5.7	6.3	7.5	7.0						
	83	9.4	8.0	5.8							
	84	6.3	5.9	6.6	6.1	9.1	8.4	9.9	9.1	12.2	10.0
Percent Bad Seedlings on Belt	82	8.03	9.31	10.86	12.98						
	83	11.16	10.29	5.67							
	84	6.69	8.44	8.30	7.51	8.10	7.80	7.39	6.63	7.37	7.21
Percent Good Seedlings on Floor	82	9.74	7.43	5.76	7.61						
	83	7.98	5.99	5.28							
	84	3.15	3.87	3.47	4.40	2.52	4.21	3.33	2.75	3.90	4.09
	FA-82	13.8	5.5	4.0	10.5						

Table 2									
Percent of FY84 Seedlings (on Belt) Not Meeting Specifications									
Improper Count	Short Root	Small Caliper	Stem Damage	Poor S/R	Poor Form	Short Top	Root Damaged	Poor Color	Total
1.75	1.33	.27	.33	.08	.29	.79	2.44	.08	8.08 percent
21.64	16.52	3.39	4.07	9.89	3.55	9.73	30.22	.99	100 percent

Table 3		
Full Time Equivalents (FTE) Used In FY84 (Nursery Employees)		
Contract	10.5 days to grade 4.288M	1.01 FTE
Force Account	12.4 days to grade 4.288M Based on Average Production Rates	3.38 FTE

Table 4	
Grading Cost/M	
FY82	\$8.55
FY83	9.64
FY84	8.63
FA-FY83	7.80
Support Cost For Two Days Extra Grading If Done By FA	\$0.81