

Contracting, Communication, and Pricing Trends for Forest Seedlings

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Abstract

Many nurseries and reforestation programs have a difficult time with shortages of farm labor and increasing labor costs. In most cases, these increasing costs will be passed on to the customer by increasing seedling prices. This labor shortage could also result in interruptions and delays in the timely lifting and delivery of seedlings. Given the situation, it is imperative that the nursery and customer maintain open and fair communication and that they document expectations in the form of a legal contract. This paper was presented at the Joint annual meeting of the Western Forestry and Conservation Nursery Association and the Pacific Northwest Reforestation Council (Corvallis, OR, October 11–12, 2017).

Communication

Cultivating communication between the nursery personnel growing the seedlings and the forester responsible for planting and early stand establishment is critical to successful reforestation (Haase 2014). The forester should start by visiting several nurseries to become familiar with nursery site conditions, soil, irrigation, frost protection, and climatic extremes that impact cultural practices, lifting windows, and delivery of their seedlings. The forester should look carefully at seedlings throughout the nursery to see if they are uniform in color and size or are highly variable. If a lot of variation exists, it is important to look much closer. Some questions to consider: do some areas have poor drainage, cold air frost pockets, shade, or poor air circulation in a greenhouse? What is the condition of the facilities and equipment? Is the nursery investing in repairs, maintenance, and improvements? The people growing the seedlings are just as important. I have known excellent nursery facilities, but the people

could not grow a quality seedling, and the opposite is true too.

It is also good to visit nurseries during more than one growing season. Every nursery will have years when something happens that can impact seedling quality. How did they respond to the situation? Did they make corrections or shrug it off as “no big deal”? Tree planting contractors who plant seedlings grown at several nurseries are also a good source of information concerning seedling quality. They do not like planting poor quality seedlings, because they can also be implicated when poor survival occurs. After doing due diligence reviewing nurseries, the forester can make an informed decision on which nursery to hire.

After the forester decides where he or she wants to grow their seedlings, it is important that the nursery and customer maintain open communication. Most of the time, the customer provides the seed for the nursery to grow. It is a good practice for the nursery to set aside a small sample of the seed to test for any problems with the seed provided. The nursery needs to document, as soon as possible, any problems in seedling quantity or quality, including what has happened and why, then the customer needs to be contacted. The customer should understand that growing seedlings is subject to year-to-year variation in weather, as well as extreme environmental events. When necessary, the customer and nursery may need to make adjustments to culturing practices and target specifications. Contracts should clearly state the seedling specifications and what will be done when seedlings do not meet those specifications. If years of problems repeat, the forester should consider taking his or her business elsewhere. Reducing risk is a primary reason why large forestry organizations grow their seedlings at several different nurseries.



Figure 1. During a nursery staff visit to a customer's stock type trials, a field forester asked the bareroot nursery manager about culling standards for seedlings with multiple tops (forks). (Photo by John Trobaugh, 2017)

It is good for the forester to visit the nurseries during the growing season and again when the nursery starts packing the seedlings. Such visits convey to the nursery that the forester cares about the quality of the seedlings and also establishes what to expect when the forester opens the bag of seedlings, so no surprises arise.

Just as important as the forester visiting the nursery, nursery personnel should visit outplanting sites to know the field conditions and constraints that the forester faces in the outplanting process. Site visits can provide a greater understanding of why certain seedling specifications are important to the customer (for example, seedlings with large, 7 to 8 mm

stem diameter with lateral branching are required, because the seedlings will be planted in an area with anticipated animal damage). With this information, nursery personnel can understand why a forester is requesting a lower seedling density, which will promote larger stem diameter and branches. Field and nursery visits are also an opportunity for the forester and nursery manager to discuss nursery culling standards, such as for seedlings with a low subordinate fork (figure 1).

Contracting

The days of a handshake agreement are long over. The nursery and the seedlings' owner need to have

a signed agreement clearly stating what is expected. Unfortunately, some contracts try to eliminate all risk for one side, and some contracts are very prescriptive, telling the grower how to grow. Other contracts contain multiple hyperlinks to volumes of policies and procedures that have nothing to do with growing seedlings. I reviewed two Government contracts that were very prescriptive, one sided, and averaged 54 pages per contract. The ideal contract tries to balance risk between the grower and customer and allows for the grower to grow the seedlings without excessive prescriptive instructions. I also reviewed five private contracts that balanced risk and were not overly prescriptive; these averaged six pages per contract.

Based on the best parts from each of the five private contracts, I came up with a simple seedling-growing contract for the Webster forest nursery consisting of the following sections.

- Section 1. Scope and Conduct of Work.
- Section 2. Period of Performance.
- Section 3. Payment.
- Section 4. Risks and Liabilities.
- Section 5. Miscellaneous.
- Section 6. Notification.

In 2009, the Washington State Attorney General office reviewed and approved this contract, which is included at the end of this article. Since then, a neighboring State Department of Justice, municipalities, universities, and corporations have accepted it.

Price Trends for Forest Seedlings

Like all things in the material world, forest seedling prices are controlled by supply and demand. If the supply of seedlings goes down and the demand stays the same, then the price will increase. For example, if a large seedling nursery closes within a specific region, and the demand for seedlings is high, then prices for the seedlings that are still available in that region will likely increase.

Currently, the primary supply-and-demand factor influencing seedling prices is the shortage of farm labor. With a shortage of domestic workers and without immigration reform, nurseries and farms

are turning to the H-2A guest worker program for farm labor. The H-2A program does not have a limit on the number of visas, but it is very complex. To qualify for workers, a nursery must obtain State and Federal certifications documenting a shortage of seasonal workers for agricultural services, offer at least 35 hours per week, and show that the guest workers will not adversely impact U.S. workers (Shropshire 2018). The H-2A program can be a slow and difficult process and has resulted in crop loss while waiting for visas (Wheat 2015, Wheat 2016, Wheat 2017a). Once the visas are acquired, the workers must be paid equal to or greater than the Adverse Effect Wage Rate (\$14.12 per hour for Oregon and Washington in 2018) and provide transportation, housing, and meals (Mortenson 2017, Shropshire 2018, Wheat 2015, Wheat 2017b). In addition, discrimination against U.S. workers cannot ensue, so the nursery must provide the same benefits to other employees working in similar positions (Shropshire 2018, Wheat 2017b).

In addition to immigration and guest worker visa issues causing labor shortages, unemployment is currently below 5 percent, and many employers are looking to hire. “Help Wanted” signs seem to be everywhere (figure 2). Furthermore, Washington State voters approved Initiative 1433 to increase the minimum wage to \$13.50 per hour (figure 3). Other



Figure 2. With low unemployment and high demand for workers, “Help Wanted” signs seem to be everywhere you go. (Photos by John Trobaugh)

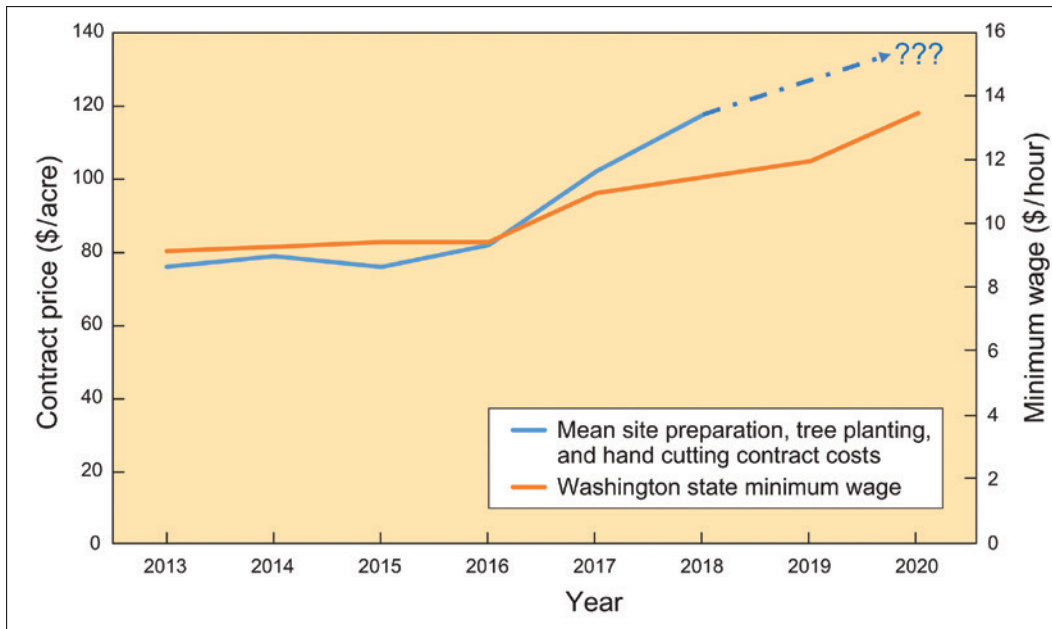


Figure 3. Washington State new minimum wage increase (voter approved initiative 1433) and Washington State Department of Natural Resources average silviculture contract cost.

States have also increased minimum wage rates. Forest seedling nurseries can be very dependent on farm labor to transplant, weed, thin, lift, and pack seedlings. Depending on the year, salaries, benefits, and purchased services (primarily farm labor contracts) can be as much as 60 percent of the total operating costs. At Webster nursery, the contract labor costs increased 14 percent in 2016 and another 40 percent in 2017. As these labor costs increase, they will be passed on to the customer with increased seedling prices.

Given the uncertainty about farm labor, seedling prices, and silviculture costs, this is a critical time to have open and honest communication between the nursery and forestry customers and a seedling growing contract.

Address correspondence to—

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**STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES**

NURSERY SEEDLING GROWING CONTRACT

Contract No.

This Contract is between the State of Washington Department of Natural Resources (**Grower**), and (**Purchaser**). For valuable consideration, the Grower agrees to grow at its nursery facilities seedlings from seed provided by the Purchaser.

The parties mutually agree to the terms below.

TERMS AND CONDITIONS

Section 1. Scope and Conduct of Work.

1. The Grower has suitable bareroot nursery space at its facility, a suitable labor force, technical expertise and the needed equipment, materials and supplies to grow seedlings from seed for one year, transplant one year old seedlings at approximately 24 seedlings per bed foot, and grow transplanted seedlings for a second year for Purchaser. Seedlings included in this contract for the sow year 2017 are specified in Schedule A, below.

Schedule A –Sow Year 2017

Seedlings Included in this Seedling Growing Contract

Species	Purchaser Code	Grower Code	Sow Year	Transplant Month	Harvest Season/Year	Quantity Thousands (M)	Price \$/M	Total \$
Douglas-fir			2017	April/May 2018	Winter 2018/2019			
Total								

The management and procedure governing the work is as follows:

2. The Grower shall furnish all necessary qualified personnel, material, and equipment, and manage and direct the activities to complete in a timely manner the work described in this Contract.
3. Purchaser shall furnish an adequate amount of seed to produce the net quantity of seedlings specified in Schedule A.
4. Grower shall grow the seedlings according to standard nursery practices and with the same care as every other crop in the nursery to achieve the minimum standards set forth in subsection 5 of this Section.

5. Grower will single sort Douglas-fir seedlings and cull all seedlings with a caliper of less than six millimeters and height from root collar to terminal bud of less than twelve inches. Seedlings will be free of any visually detectable disease or insects. Seedlings will be free of any forks at the base of the stem. Seedlings will be root pruned to a root length of ten inches (+/- one inch). Seedlings will be packed in Grower's seedling bags and stored in Grower's cold storage facilities for not more than fifteen days.

Section 2. Period of Performance.

1. **Effective Date:** The beginning date of this contract shall be the date the last party has signed the contract and returned a signed copy to the other party. Each project manager shall keep an original signed copy.
2. **Completion Date:** This contract shall terminate on June 1, 2019 or when all of its terms and conditions have been satisfied, per mutual agreement, whichever is earlier, unless terminated sooner as provided herein.

Section 3. Payment.

1. Payment due to Grower for seedling production services shall be based on the stated price per one thousand seedlings as set forth in Schedule A, plus applicable taxes, if any. Purchaser shall pay Grower 50% of the seedling price specified in Schedule A at the time Grower transplants the seedlings, based on the number of seedlings Purchaser requested and transplanted by Grower. Purchaser shall pay the remaining balance based on the net number of seedlings loaded for shipment. Grower will invoice monthly for seedlings shipped that month. All payments are due within 30 days from invoice.
2. Storage costs for the first 15 days following packing is included in the seedling price. If seedlings remain in Growers coolers beyond 15 days, a \$2.00 per bag or box per month storage fee will be added to the invoice, retroactive to the date that the seedlings were packed and placed in storage.
3. The seedlings will be transported by Purchaser. No transportation beyond loading at the loading dock will be provided by Grower.
4. The number of seedlings made available to Purchaser may vary from the ordered number of seedlings due to potential production of less than or more than the requested quantity. The Grower shall not be responsible for furnishing replacement trees for less than the requested quantity.
5. Purchaser has the first right-of-refusal for any excess seedlings above the requested quantity (overrun) at the contract price as set forth in Schedule A. Any seedlings below the minimum specifications may be purchased by Purchaser or specifications adjusted as negotiated between Purchaser and Grower. If Purchaser declines the overrun and/or seedlings below specifications, they become the property of Grower to sell or otherwise dispose of.

Section 4. Risks and Liabilities

1. The remedies provided in this contract are the sole remedies available to the Purchaser under the contract.
2. **No Warranties.** The Grower disclaims all warranties, express or implied, including any warranty of merchantability or of fitness for a particular purpose, in connection with the seedling production services provided by Grower.

3. Grower will not be liable to compensate the Purchaser in any manner if Grower is unable to deliver the seedlings or any part thereof by reason of any cause beyond its control such as Acts of God or of the public enemy, wars, insurrection, riot, crop failure, loss of seedlings by fungus or other disease, insects or other pests, fire, flood, strikes or other industrial dispute. If any of the aforementioned events do not cause total destruction of the seedlings, the Grower will deliver and the Purchaser shall accept such portion of the seedlings as have grown and met the Minimum Standards set forth in Section 1, subsection 5 and payments due will be reduced proportionately to the number of seedlings that meet the Minimum Standards.
4. If Purchaser's seedlings are significantly damaged by the Grower due to acts of negligence, such as misapplication of fertilizers or herbicides, Grower will reimburse the 50% payment made by Purchaser at the time Grower transplanted the one year old seedlings. However, if any such event does not cause total destruction of the seedlings, the Grower will deliver and the Purchaser will accept such portion of the seedlings as have grown and met the Minimum Standards as set forth in Section 1, subsection 5, and the Purchaser will pay to Grower a proportionate amount of the seedling price.
5. Risk of loss or subsequent damage to each shipment of seedlings shall pass to the Purchaser upon completion of the loading of the shipment at Grower's nursery if transportation is by Purchaser or commercial transportation.

Section 5. Miscellaneous

1. Amendment. The terms of this Agreement, including Schedule A, may be amended only by the written agreement of both parties.
2. Assignment. This contract is not assignable by either party to a third party.
3. Termination. This contract may be terminated by written agreement signed by both parties. If this agreement is terminated after seedlings have been transplanted, the Purchaser gives up all rights to the seedlings and shall continue to be obligated to pay the 50% payment due at transplant time, and if such payment has been made, shall not be entitled to its refund.
4. Dispute Resolution. In the event of any disagreement or dispute between parties under this contract, the parties agree to attempt to resolve the dispute through direct negotiation. If the dispute cannot be resolved by direct negotiation, the parties agree to participate in mediation in good faith. The mediator shall be chosen by agreement of the parties. If the parties cannot agree on a mediator, the parties shall use a mediation service that selects the mediator for the parties. The parties agree that mediation shall precede any action in a judicial or quasi-judicial tribunal.
5. Governing Law. This contract shall be construed, interpreted and enforced pursuant to the laws of the State of Washington. Venue shall be in Thurston County. The terms of this contract shall be given their ordinary meaning and shall not be construed in favor of or against either party here-to. If any provision of this contract violates any statute or rule of law of the State of Washington, it is considered modified to conform to that statute or rule of law.

Section 6. Notification

Written notices may be delivered personally, or by FAX, e-mail, U.S. mail or express delivery, to the designated contact persons or their designated replacements. Oral notifications are acceptable if confirmed by written notice within 5 business days.

Project Manager.

1. The Project Manager for the Purchaser is
Telephone Number –

2. The Project Manager for the Grower is John Trobaugh.
Telephone Number - 360-902-1270
DNR Webster Forest Nursery.
P.O. Box 47017
Olympia WA 98504-7017

IN WITNESS WHEREOF, the parties have executed this Agreement.

PURCHASER NAME

Dated: _____, 20 ____

By: _____

Printed Name: _____

Title: _____

FTIN: _____

UBI Number: _____.

**STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES**

Dated: _____, 20 ____

By: _____

Printed Name: _____

Title: _____