

Certified Vendor Program¹

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Abstract.--With demands for timber resources and the cost of reforestation rising, inconsistency in planting standards, and several important groups impacted by the success or failure of each planting effort, the Texas Forest Service, in 1982, initiated its Certified Vendor Program. Now, through specific guidelines, inspection and training, more energy can be spent reforesting new NIPF lands, knowing current cases have been properly planted.

INTRODUCTION

The common goal of everyone involved in reforestation is to successfully establish a stand of healthy trees in the field. No matter what facet of the process you may be involved with, all efforts are concentrated at this one goal. As the demand for the resource continues to rise along with the costs of reforestation, the ability to reach this goal is becoming more and more challenging.

During the planting season of 1987, 1.12 million acres were artificially reforested in the southeastern United States on nonindustrial private forest lands. Using an estimated cost per acre of \$115.00 for site preparation, seedlings and labor, that acreage figure represents an annual investment of over 128 million dollars in reforestation. The East Texas contribution amounts to 22,500 acres and \$1.67 million annually with almost equal amounts being invested by the landowners and the three cost-sharing programs available in the state. These figures offer striking evidence that mistakes resulting in increased seedling mortality are extremely costly. In 1982, the Texas Forest Service began implementing a Certified Vendor Program in a effort to reduce mistakes during the time the trees leave the nursery and are planted in the field.

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REASONS FOR THE PROGRAM

Resource Demands

Results of the recently completed U.S.F.S. Forest Survey of East Texas reveal that removals of softwood have exceeded growth over the last few years (Fig. 1). Much of this trend, along with the potential for changing it, can be explained by looking to the nonindustrial private landowner (NIPF). This group owns approximately 60% of the commercial Forest land in Texas and yet has the poorest record historically in reforesting following a harvest.

Currently, only one acre in nine is reforest by NIPF landowners in Texas (Fig. 2). Given that figure, it is imperative that this important "acre" survive after being planted. Thus, one reason for the Certified Vendor Program is to improve the odds of survival through proper handling and planting methods. Of course, promotional and educational efforts continue to work towards seeing more of the other "eight acres" planted.

Program Consistency

A second reason for the vendor program was the need to bring consistency to the NIPF regeneration program. Prior to beginning the program, there were years where we were losing 8,000-12,000 acres per year when it could not be explained away by "dry weather." Seedling counts across East Texas revealed 500-550 seedlings per acre were being planted versus the 726 per acre called for in the management plans. Foresters had as many different ways of

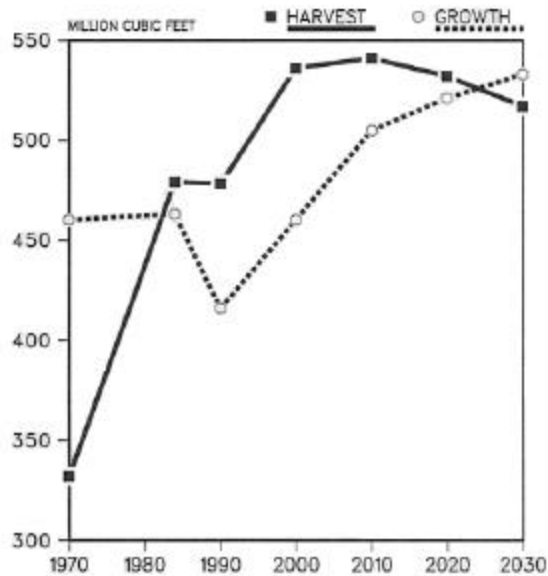


Figure 1.--Historic plus projected harvest versus growth figures for East Texas (USDA, 1987).

inspecting the jobs as the agency had foresters: Not to mention there was no standard means of comparing one vendor or job to the next and, therefore, good vendors were not being rewarded for excellence and poor vendors were taking advantage of the system, the agency and the landowners.

Groups Impacted

Another important reason for the Certified Vendor Program is the group of people impacted by the success or failure of a tree planting job. This group includes landowners, funding institutions and planting vendors.

More than any other group, tree planting will have the greatest impact on landowners. Not only do they invest their hard earned savings into the project, they also make the decision to invest 20-30 years of their lives into these 6 to 8 inch tall trees. Survival is the first hurdle to pass but the next 19 risk-filled years are theirs to bear as well. The vendor program is aimed at helping clear that first hurdle with vigorous, healthy trees.

Since nearly all NIPF landowners in Texas take advantage of one of the three programs currently operating in the state that share the financial burden of reforestation, these funding institutions are also impacted by the success or failure of a job. Limited funds and the continued rise in reforestation costs mandate that the tracts requiring re-planting be kept to a minimum. The Certified Vendor Program helps reduce the amount of re-planting caused by poor planting methods.

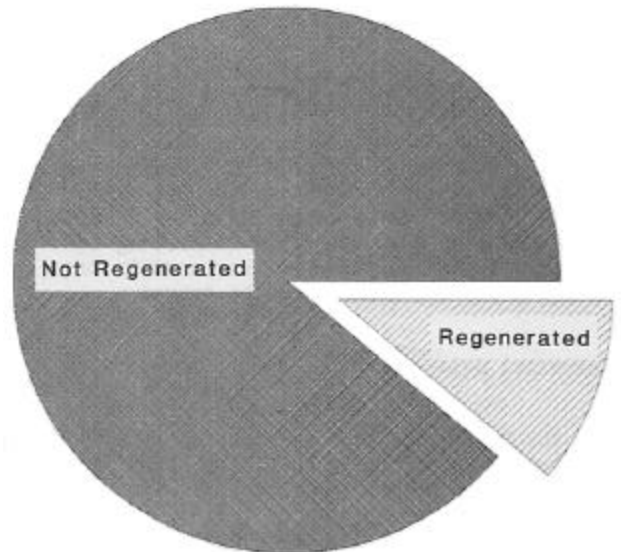


Figure 2.--Comparison of NIPF acres regenerated following harvests.

Tree planting vendors themselves are also impacted by their own planting jobs. A vendor has his/her livelihood and reputation riding on each planting effort. Since its inception, many vendors have commented on how this quality control type program is like having a "silent supervisor" on each NIPF tract their crews plant.

Cumulative Effect

Dr. S. J. Rowan (1987) recently released the results of study on the effects of tender loving care(TLC) from lifting to outplanting on survival. Although TLC produced positive results throughout the process, he concluded that nothing had a greater impact on survival than did proper handling and care during the actual transplanting in the field. This cumulative effect on survival is further magnified when consideration is given to the rather unique geographic location of Texas' commercial forestland. Planting pines in the western fringe area of the Great Southern Yellow Pine Forest demands extra care and, thus, the Certified Vendor Program.

KEYS TO SUCCESS

Having established the obvious need for the vendor program, the next step is to develop a clear set of objectives. The three main objectives of the Texas Certified Vendor's Program are:

1. Insure quality reforestation
2. Develop a qualified vendor community
3. Allocate work fairly

The keys to the success or failure in reaching these objectives lie in the methods chosen to implement the program.

Insure Quality Reforestation

Quite obviously, the primary objective of the Certified Vendor Program from its inception was to deliver a quality reforestation effort to NIPF landowners. Moving to meet this goal, however, required more care and planning than would the other two. The keys here are to develop a good set of technical guidelines, implement a uniform method of inspecting the work and train the personnel responsible for carrying out the program on the ground.

Technical Guidelines

The beginning point to insuring a quality reforestation effort is for all parties involved to be working within the same framework. In Texas, we developed a set of technical guidelines covering the three main topics of site preparation, planting and timber stand improvement. Each topic is further broken down into smaller sections which spell out in detail what practices are permitted, how to carry them out and what the minimum limits of acceptability are for each practice. Every forester, technician and vendor is supplied with, or has access to, a copy of these guidelines so everyone knows, in advance, what is expected of them.

For example, here is how "reforestation" is further broken down into sections. There are seven sections which include planting rates, planting methods, seedling care, protection of seedlings, environmental considerations, vendor certification and vendor completion requirements. Everyone involved with reforestation on any given NIPF tract is working under the same rules and knows the consequences for breaking them. Of course, these guidelines are only good as long as there is some way to verify they are being complied with, which means on site inspections.

Inspection

The strength and credibility of the vendor program center around the inspection process. Almost every NIPF tract planted in East Texas is inspected by a trained tree planting inspection crew. These two-man crews systematically check 1/100th acre plots over an entire area, with the number of plots per tract dependent upon actual tract size (table 1).

Upon arrival at each plot site, the plot is numbered and marked with a wire flag in case it is necessary to return to that particular plot. Next, the total number of trees per plot are counted by using a 1/100th acre tape or rope and that number is recorded on a data sheet. Then the trees within the plot are checked for "above ground problems" (table 2) such as debris in the hole or planted too shallow. Finally, before

Table 1.--Number of plots taken based on the size of the tract and approximate distance between plots in Gunter's chains.

Tract Size (acres)	# of Plots	Dist. (chains)
0-60	1 per ac	3.25
61-90	1 per 2 ac	4.50
91+	1 per 3 ac	5.50

leaving a plot, two trees are carefully excavated outside of the plot itself to inspect for any below ground problems like severe root pruning or "J" rooting (table 2).

Table 2.--A list of specific above and below ground problems inspection crews look for at each plot.

<u>Above Ground Problems</u>	
Debris in hole	Cull seedlings
Too shallow	Too deep
Not packed	Unidentified
<u>Below Ground Problems</u>	
Excessive angle	"J" rooting
"L" rooting	Twisted roots
Pruned improperly	Cull seedlings

Before leaving the planting site, the inspection is completed by checking seedling bundles and counting and culling two bundles of seedlings, if possible. The bags are checked for species type to insure the right species is planted on each tract and the bag dates for when the bundles left the cold storage. Vendors have 14 days to either plant the trees or heel them in after the seedlings leave cold storage. Failure to do so results in bag confiscation and replacement seedlings must be furnished by that vendor. The seedling bundle count provides important information to the nursery as to how many plantable tree's per bag are leaving the nursery. This is especially important since the data is received during lifting and grading so adjustments can be made as needed.

Since the inspection process is so important to the success or failure of the program, some means of "inspecting the inspectors" or quality control is vital. In Texas, we have quality control people in each management area whose job it is to spot check every inspection crew

working in their area. The crews never know where or when the quality check will be performed and poor job performance could mean a severe reprimand or their jobs.

Training

From the previous section it becomes apparent that a virtual army of inspectors is needed. That entails training this army initially and then continuing to update them on any changes from year-to-year plus refresher courses. The source of manpower for these inspectors came from our forest technician ranks who were, up to this point, primarily considered fire fighters. Their number one priority is still to suppress wildfires, however wildfire suppression does not require the bulk of their time except for generally short periods of time during the year.

Tree inspection training requires about three days to complete. The first day is spent in a classroom session reviewing the technical guides, plot procedure, mathematics involved in working up the data, and other matters concerning the inspection of a tree planting job. The next two days are spent in the field in "hands-on" type exercises with individual instruction at each station. Both the classroom and field exercises have exams the trainees must pass prior to becoming a certified inspector.

Develop a Qualified Vendor Community

Approximately 22,500 acres of NIPF lands are reforested annually in East Texas. Even though this level of planting pails in comparison with some other southeastern states, it is impossible for the Texas Forest Service personnel to plant this acreage and undesired, even if it were possible. Therefore, it is imperative that a qualified community of vendors be developed to handle the work. To begin to accomplish this, we must once again turn to training.

As stated, each vendor interested in planting trees in NIPF lands in East Texas is supplied with a copy of our technical guidelines. Additionally, we require a vendor to attend one of the day-long meetings held at different locations and dates during the fall. During these meetings, the vendors have

explained in detail the requirements of the program, technical guides, inspection process and other matters concerning planting season through a multimedia presentation and question-answer session. At the conclusion of every meeting, -the vendors wishing to participate in the Certified Vendor Program sign an agreement stating they will plant according to the guidelines. The requirements are tough but fair and our list of vendors grows each year.

Allocate Work Fairly

The final objective to meet after everything else has been implemented is to find a means of allocating the work to the vendor community. The best method we have found is through the use of the sealed competitive bid system. Not only does this remove the agency from any bias in vendor selection, it also keeps reforestation costs down for the landowner due to vigorous competition. Landowners, not the Texas Forest Service, have the option to accept or reject the bids received on each tract. Since the vendors must meet minimum requirements under the program and vendors are not paid until these requirements are met, the landowner is assured of a quality planting job.

CONCLUSION

With the increasing demands for forest resources and planting mistakes resulting in reforestation failure becoming more costly, the Texas Forest Service has begun to take steps to meet both problems. In essence, we take this saying to heart, "you can achieve results two ways: expect it or inspect for it": We expect a great deal from our own people and the vendors, but then we make inspections to insure we get it.

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