

## **Longleaf Economics**

### **Does Longleaf Pine Make Dollars & Sense?**

With interest in longleaf at its highest point in decades, maybe ever, landowners and managers are asking what kind of investment it actually is. The answer surprises some, but there is every reason to expect very positive returns on investments and in a reasonably short time span. Lumbermen have long realized the value of longleaf products like high-quality, straight grained dimensional lumber and strong durable poles. The market continues to recognize this quality by paying top prices for these products.

For years, however, longleaf was regarded as a poor investment for a couple of reasons. First, it was considered a difficult species to plant. If it was established successfully, a lengthy period in the grass stage before it initiated height growth extended the period before income could be earned, gaining longleaf a reputation for slow growth. The tree was also often relegated to "longleaf sites", usually deep dry sands where growth was indeed slow as it would have been for any species. Recent developments in nursery techniques, management practices, and markets have made that prognosis dated.

### **Risk Reduced**

Better quality seedlings have taken much of the risk out of planting longleaf pine. We have learned much about handling and planting longleaf seedlings in the past several years as well. These gains, coupled with increased knowledge about the role of competing vegetation and the development of selective herbicides to control it, have made it possible to shorten and in many cases eliminate the grass stage. That accomplished, we have learned that longleaf is not, as often reported, a slow-grower...only a slow starter. Research has shown that once established on average and poor sites, it will catch and pass faster starting loblolly or slash pine in a reasonable time; 12-15 years on poor sites and 25-30 years on average sites. On very good, productive sites, it takes longer to catch up, often outside a reasonable investment period if return on the investment is the only measure used.

One consideration often overlooked is that the growth rate of wood volume is not the only or even the most important measure of the value of a forestry investment. The more important measure is the growth rate in value or dollars. Remember that longleaf products return a premium and value is actually growing at a faster rate than volume.

### **Projected Financial Return**

All investment analysis must be based on assumption or projections of future performance. Forestry investments are not different. The accuracy of these projections is critical to the accuracy of the analysis. The basic information needs are growth and yield projections. Growth is projected in terms of volume of wood produced and yield in terms of products grown and in what proportions. Unfortunately, we have little information to draw on with longleaf, particularly planted longleaf, and even less information on longleaf planted in old agricultural fields, as is taking place all over the South with the Conservation Reserve Program (CRP) program. The limited data we do have, however, indicate very

good growth can be expected if management is done properly and that product yields are very favorable, with a high proportion of poles and quality saw-timber produced.

We also know that the wood from longleaf is heavier than that of other Southern pines. That means that when wood is bought on a weight basis, and it almost always is, more money is paid for longleaf than for the same volume of other pines. One 20-year data set, collected in Mississippi by the consulting firm John Guthrie and Son's, indicates a premium of 10 to 20 percent paid for sales containing mostly longleaf in every year, in good markets and bad.

In addition, longleaf pine straw has become very valuable in the landscaping business. Returns of \$100 to \$500 per acre per year have been reported and management techniques for straw production are the subject of much study.

One analysis, done by Rick Hamilton of North Carolina State University, predicted a very reasonable internal rate of return of 7.9 percent for planted longleaf on a site with a site quality index of 45 and an internal rate of return of 9.4 percent for a site quality of 55. These rates were calculated for revenues earned by sale of wood only. Both are comparable with rates earned by most investments, even the stock market over the long term. When the sale of pine straw is added to the mix, the return rate of the investment increases from 9.35 percent and 10.1 percent, respectively.

A general truth in financial analysis is that the earlier in the investment revenues are earned and the later in the investment costs are incurred, the better the investment. This is due to the power of compounding interest and the importance of time when discounting incomes and costs back to the year of investment to make comparisons between investment opportunities possible.

Unfortunately, in forestry investments, the opposite is generally the case. Costs are incurred early in the investment and profits are earned later or even at the end of the investment. Early returns from the sale of pine straw before commercial wood products are produced help longleaf produce income at about the same age as faster starting loblolly or slash. CRP payments offset the early costs of planting very quickly and make forestry, and particularly longleaf, a very lucrative investment indeed. Since longleaf plantings are currently eligible for CRP contracts of 15 years rather than 10 like other pines, they are particularly attractive.

An analysis using a planting cost, after cost share, of \$97 per acre; a one-time first year herbicide application costs of \$45 per acre; \$10 per acre per prescribed burn costs at ages 8, 11 and 14; and an annual CRP payment of \$40 per acre, yields a very attractive Internal Rate of Return of nearly 29 percent! Remember, this is after most of the significant costs have been incurred and before the first stick of wood or bale of straw is sold from the land. This return is the result of essentially frontloading the investment with early returns. This is also an almost entirely risk-free investment scenario. The CRP payments are guaranteed by the government if the landowner can keep as few as 200 trees per acre alive during the life of the investment.

Longleaf is resistant to diseases and insect attacks, and notably tolerant of fire, reducing risk of loss to these factors significantly. It is difficult to calculate the value of this risk reduction, but this natural insurance policy against loss does indeed have value. The long-term value of this investment is maximized if the trees are allowed to grow into poles, often thought to be optimal in rotations of 55 years or so on most sites, but the CRP payments make it a very profitable investment over the short term as well. Most of us can appreciate the long-term value of an investment, say in 50 years, but have a much greater interest in return in terms of our own lifetimes.

**Source**

<http://www.longleafalliance.org/restoring-and-managing/longleaf-economics>