



Graham Stuart & Associates

15 Year Teak Investment Option (Grown from Tissue Culture)



15 Year Teak Investment Option

Trees and plants grown from seed are unpredictable, but tissue culture delivers much more consistent results. This is how it works.

A piece of a plant, which can be anything from a piece of stem, root, leaf, or bud to a single cell, is placed in a test tube.

The cells, tissues, and organs of a plant are separated, then grown in the test tubes with a nutrient media under controlled conditions of temperature and light. The cultured plant lives off a source of energy from sugar, salts, and vitamins.

From these cultured parts, an embryo or explant develops which then grows into a whole new plant or tree.

It was the French botanist George Morel who first discovered the technique in 1965 while he was attempting to obtain a virus-free orchid plant. Tissue culture has been around commercially since the 1970s in advanced countries, and is now widely used in the developing world.

Tissue culture is really the mass cloning of elite tree species, and has been shown to have better results than for open-pollinated seedlings from the same trees, with commercial plantations operating on as little as 14 year cycles for the growing of teak.

The concept has great relevance for countries in Asia where agriculture is still the predominant activity and requires new technology to increase production.

As a leading forestry provider, Oxigen uses tissue culture for the development not only of teak but also agarwood.

Teak Tree Price List

Quantity	Price per 300 trees (1 Unit)
1 Units	£10,000
10 Units	Call for a quote

Please note that all prices are correct at time of going to press and are quoted in UK Pounds Sterling.

The following projections are based on 300 Teak trees

Investor Buys 300 trees = £10,000
Tree Value = £33 (per tree)
Maintenance x 5 Years = £5,000
Total Outlay Over 9 Years = £15,000
Harvest Value Year 9 = £55,170 (90 trees harvested)
Harvest Value Year 15 = £246,540 (210 trees harvested)
Total Harvest Value = £301,710
Net Harvest Value = £271,540
Profit = £256,540

The ownership formula is simple. Oxigen owns the plantations, and individual blocks of trees can be bought and leased direct from Oxigen with management provided either by Oxigen or any other company of your choice, and payable quarterly, annually or in advance. The lease is valid until you decide to harvest your trees (with a maximum of 15 years at which point your trees would be harvested and payment forwarded to you). We suggest optimum harvest at years nine and 15 utilising an intensive maintenance/management programme.

The projections below show your potential returns based on harvests at years nine and 15. You can at any time choose to harvest a proportion of your trees and leave the rest in the ground for a later harvest.

Teak Projections - 300 Trees

Tree Age	Number of Trees Harvested	Value Per Tree	Gross Harvest Proceeds	Less Harvesting & Processing	Less 5% Profit Share	Net Harvest Proceeds	Cumulative	IRR%
9	90	£613	£55,170	-£2,758	-£2,758	£49,654	£49,654	21.30%
15	210	£1,174	£246,540	-£12,327	-£12,327	£221,886	£271,540	

This table shows the projected growth, harvests and yields from planting 300 teak trees.

These projections are based upon a conservative lumber price of £0.72 per board foot for the first thinning, increasing at an annual rate of 6% for the subsequent thinnings and the final harvest.

The 5% profit share is retained by Oxigen as our Harvest profit. The harvest and processing costs cover milling your trees and we have allowed a generous 10%. The actual costs are lower than this.

The care and maintenance fees are what we deduct from your harvest revenues starting at year nine for growing and maintaining your trees.



Graham Stuart & Associates



Notes to projections

THE PROJECTIONS IN THESE TABLES, AND THE EXPLANATORY NOTES, ARE PROVIDED FOR YOU TO BETTER UNDERSTAND THE PROCESS OF GROWING AND HARVESTING TEAK TREES. WHILST WE BELIEVE THESE ESTIMATES OF GROWTH, COSTS AND YIELDS TO BE FAIR AND REASONABLE, WE CANNOT GUARANTEE THE FUTURE VALUE OF YOUR TREES, NOR THE LUMBER PROCEEDS YOU WILL RECEIVE FROM THEIR HARVEST. WE ENCOURAGE YOU TO SEEK THE COUNSEL OF AN INDEPENDENT PROFESSIONAL WHO CAN EVALUATE THE REASONABLENESS AND ACCURACY OF THESE PROJECTIONS.

1. The projections above are based upon a conservative lumber price of £0.72 per board foot for the first thinning increasing at an annual rate of 6% for the subsequent thinnings and the final harvest.

It is important to note that although the young teak lumber from the first two thinnings is quite beautiful and wonderful for indoor furnishings, the majority of the teak from the first two thinnings is not yet weather resistant and it is that weather resistance of the older teak that gives teak its very high value on the international market, hence we have chosen to use a conservative figure. On the other hand, the prices projected for the older teak for the subsequent thinnings and final harvest, £0.72 per board foot increasing at an annual rate of 6%, may well be quite low. According to the United Nations FAO publication Forest Products Prices, the actual median export/import prices of teak back in 1988 (the last year that the FAO published Forest Products Prices) averaged £1.64 per board foot, ranging from £0.87 to £2.41, depending upon dimension and quality. According to the ITTO (International Tropical Timber Organisation) as of 2006, the current wholesale price for Teak stands at £4.50 per board foot.

2. The projections in Table 1 are based upon the price of teak increasing at 6% per year. However, according to the United Nations FAO publication Forest Products Prices, the median export/import prices of teak actually rose at an average rate of 9.7% per year for the 15 years from 1970 to 1988 (the last year of the report), and 13.2% per year for the last four years of the report. Teak prices have been rising at a rate greater than the 6% used in these projections.

3. Both the timing and number of trees harvested are your choice, based on a combination of our experience, the latest published silvicultural practices derived from years of others' experience in teak plantations and your requirements.

Our professional foresters, who monitor the growth profiles of your trees in the plantations, will report on the condition of your trees and help you determine the actual harvests of your trees.

Please also note that several additional months after any thinning or harvest will be required to mill, dry and grade your lumber and prepare it for the international export market if it is to be sold as boards. An additional year or more may be required for the earliest thinnings, because young tropical hardwoods are less known, or even unknown, in the world markets.

4. The useable height and diameter growth estimates are based upon growth rates obtained in our plantations and plantations in the Caribbean, Central America and Malaysia. Our actual teak growth rates exceed these projections. we have removed 1.5 inches in diameter and 30% in length to allow for wastage.

5. Our estimated volume per tree is calculated by: cross sectional area of the tree x the usable height of the tree or πr^2 times the usable height of the tree. These projections are based upon the volume of the trunks and include the additional wood volume that may be obtained from the larger branches in the later harvests.

6. The amount of marketable wood per tree is stated in board feet, a standard measure of wood used in the U.S. One board foot of wood is one foot square by one inch thick (1' x 1' x 1"). There are 12 board feet in a cubic foot of lumber and 424 board feet in a cubic meter of lumber.

The estimated amounts of marketable wood are based upon the estimated volume per tree in cubic feet, multiplied times 12 to obtain the number of board feet, and then reduced by the estimated amount of processing waste, which is sawing losses and damage to the logs while being harvested, transported and processed. The inefficiency of smaller diameter logs results in greater sawing loss on younger, smaller trees. Accordingly, we have subtracted a processing waste of 40% for the 9 and 15 year old trees. We will likely achieve more efficient yields than those projected since everything is milled on the farms, using the latest thin-kerf, high-yield bandmill technology.

7. The value per tree is arrived at by multiplying the number of marketable board feet per tree times the price per board foot at the time of harvest. See Notes 1 and 2 above. .

8. Net harvest proceeds - The estimated nett value of the lumber from each harvest is arrived at by multiplying the estimated value per tree times the number of trees harvested in that thinning or harvest.

9. Fees are the costs of harvesting your trees, milling your logs into marketable lumber, drying your lumber, care, maintenance and sale of your trees

10. Cumulative net proceeds is a running total of your estimated cash flow from the harvests of your trees.

