

Bauers Family Tree Farms News

A Semi-Annual Newsletter

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Farm Update - October 2009

As the tree's second growing season comes to a close, we are proud to report that the trees are growing very well and there have been virtually no Teak tree fatalities! After just two years of growth (the seedlings were put in the ground in June of 2007) some of the trees are more than 30 feet tall. When you figure that the trees



Jake with a teak tree

May 2009 - Start of the growing Season

are actively growing about 8 months a year, for a 30 foot tree, that comes to average growth rate of 3/4 of an inch per day!

Currently the average size tree is about 15 feet tall, with trees ranging between 10 ft to 30 ft. The trees look very healthy. In 2007 and 2008 Costa Rica and the farm, enjoyed two years of record rainfall giving the trees a fantastic start. This year has proved to be a dryer than average year, yet the teak trees have faired very well.

Despite the lower rain fall they continue to grow vigorously. Dimas, our forest engineer, reports that he is pleased with the way the Teak trees have progressed. Furthermore he also says that once teak trees reach an age of 3 years (our trees will turn 3 in Feb 2010) they have developed a very strong root system and are far less likely to succumb to harsh natural conditions.

Currently the farm workers are performing a final clearing for the season on the other plant life competing with the trees. This work consists of about 15 farm workers with machetes chopping down the 3-6 foot tall plant life that is growing underneath the teak trees.

The clearing is done so that the other plants do not take over the Teak trees. Since plants grow very rapidly in Costa Rica they can quickly take over the light or water supply, so they must be trimmed. The plant life must also be trimmed to keep the leaves of the trees cool. During the day when the sun is shining, everything heats up. For example if the surrounding plants are 6 ft tall and the teak trees are 10ft tall there is a lot to thermal radiation being put onto the huge Teak leaves which in turn, can put a lot of strain on the tree. The surrounding plants are cut



Jake and Julian with a teak tree

July 2009 - Average size Teak tree

to a height approximately 1 ft. By doing so there is more air circulation between the tree's leaves and the other plants, keeping the tree cooler and allowing the tree to grow normally.

Although the surrounding plant life must be trimmed once or twice a year, it is important that it not be totally cleared. If the land was completely cleared except for the Teak trees, the heavy Costa Rican rain showers would erode the soil causing the Teak roots to be exposed.

The final reason for the thinning is to prevent fires during the dry season.

During the dry season, the plant life dies and turns brown. If left uncut the dead plant life could catch fire and spell disaster for the young Teak trees.



This type of maintenance will be preformed on the farm for the next several years. As the Teak trees start to grow larger and begin to canopy over the ground, the surrounding plant life will slowly lose its light supply and begin to thin out. This, however, will not be the end of the maintenance work. Once the trees start to canopy over, the Teak branches will need trimming in order to assure that the trees grow tall and straight providing the best logs for future timber use.

Blue Morpho Butterfly

One of the beautiful things that is frequently encountered on the farm is the Blue Morpho Butterfly. The butterfly has incredible iridescent blue wings with black edges. As it flies through the forest, the contrast of the blue to the deep greens of the vegetation is a site to be seen.

The underside of the butterfly's wings are just the opposite. They are dull and brown with several different sized eye spots. This allows them to camouflage themselves amongst the forest as they hide from their predators, typically birds and other insects.

The Blue Morpho is among the world's largest butterflies. They can have wing spans more than 7 inches. Blue morphos live in the tropical forests of Latin America from Mexico to Colombia.

Adults spend most of their time on the forest floor and in the lower shrubs and trees of the understory with their wings folded. When looking for mates, the blue morpho will fly through all layers of the forest. Humans most commonly see morphos in clearings and along streams where their bright blue wings are most visible.

However, pilots flying over rainforests have even encountered



large groups of blue morphos above the treetops, warming themselves in the sun.

The blue morpho's entire lifespan lasts only 115 days, which means most of their time is spent eating and reproducing. The blue morpho's diet changes throughout each stage of its lifecycle. As a caterpillar, it chews leaves of many varieties. When it becomes a butterfly it can no longer chew, but drinks its food instead. Adults use a long, protruding mouthpart

called a proboscis as a drinking straw to sip the juice of rotting fruit, tree sap, fungi and wet mud. Blue morphos taste fruit with sensors on their legs, and they "taste-smell" the air with their antennae, which serve as a combined tongue and nose.

These are truly wonderful creatures. We consider ourselves fortunate each time one is encountered while walking through the forest.

If A Tree Falls in the Forest Does it Generate an Adequate Return

We borrowed the above title from a series of articles published by Morningstar.com in September of 2009. The articles are an introduction to the asset class of timber investments, investment trends and a look at a few publicly traded timber investment companies.

The articles have many points that remind us why we like timber as a long term consistent asset. Most important, in these volatile times, the articles

point out that above all, timber consistently grows. As global economies seem to head down up and sideways; trees continue to consistently grow year after year. All that is needed is the sun, rain and a bit of care.

Following are several excerpts



from the Morningstar articles.

Timberland is an unusual asset. In some ways, it's a lot like a copper deposit or oil reservoir, since resource extraction can be deferred, allowing inventories to be "warehoused" when pricing is soft without risk of obsolescence or spoilage.

In other ways, timberland assets share more in common with corn or sugar cane fields. If managed properly, investors can expect a steady stream of cash flows into perpetuity, whereas a copper deposit or oil reservoir ceases to generate income when the ore runs out or the well runs dry.

Initial attempts to develop timberland performance data took place in university economics, agriculture, and forestry departments, where researchers constructed a variety of synthetic return series based on log prices in a particular region. More recently, through the efforts of institutional investors and academics, we've seen the emergence of timber indexes, notably the NCREIF Timberland Total Return Index and the now-defunct Timberland Performance Index.

The NCREIF return series, initiated in 1987, has since become the accepted benchmark for the asset class. The NCREIF Timberland Total Return Index, as the name suggests, includes an income component and a capital appreciation

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Total Return (%)	27	30	37	11	20	37	22	15	14	11	19
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Return (%)	6	11	4	-5	2	8	11	19	14	18	10

Source: NCREIF

component. The total return data, which are publicly available on NCREIF's Web site (the income and capital appreciation components are not), are presented in the table. (see top of the column)

A quick glance at the annual returns should quicken the heart of any profit-seeking investor. A hypothetical investor who put \$10,000 into timberland in 1988 would have ended up with \$158,096 by the end of 2007, assuming he or she could duplicate the NCREIF results. Before taxes and fees, an investor in the S&P 500 would have seen his or her initial \$10,000 pile grow to \$93,341. And that's before the dark days of late 2008.

fluctuation in asset price) measured.

The Sharpe Ratio is a ratio developed by Nobel laureate William F. Sharpe to measure risk-adjusted performance. The Sharpe ratio tells us whether a portfolio's returns are due to smart investment decisions or a result of excess risk. This measurement is very useful because although one portfolio or fund can reap higher returns than its peers, it is only a good investment if those higher returns do not come with too much additional risk. The greater a portfolio's Sharpe ratio, the better its risk-adjusted performance has been.

The higher the positive correlation with inflation (CPI) the closer an as-

	Timberland	Large Equity	Small Equity	LT Corp Bonds	LT Gov't	Int Gov't	T-Bills	Inflation	Real Estate
Return (%)	14.80	11.80	13.50	8.70	9.30	7.10	4.50	3.00	8.80
Standard Deviation (%)	10.90	16.60	19.90	8.10	10.10	5.90	2.00	1.10	6.70
Sharpe Ratio	0.99	0.45	0.44	0.53	0.48	0.48	N/A	N/A	0.59
Correlation w/CPI	0.42	-0.14	-0.42	-0.05	0.03	0.12	0.57	1	-0.14

Source: Ibbotson SBBI, NCREIF, Morningstar

On a risk-adjusted basis, timberland looks even better, boasting a set of risk and return characteristics that would make Bernie Madoff blush. The following table presents a standard set of performance metrics for timberland and an investor's typical toolkit of asset classes covering the 20-year period of 1988 through 2007.

A few things that stand out to us on the above table other than the high total return is a low standard deviation, a high Sharpe Ratio and a high correlation with inflation.

Standard Deviation is a standard measure of risk, the higher the percentage the more risk an asset has. The risk comes from the volatility (meaning the

set's price follows inflation. A negative correlation means that the asset's price moves in the opposite direction of inflation. Timber's high positive correlation to inflation could be the most important measure now. With our current high government spending and large government deficits many experts are predicating large increases in inflation in the coming years.

Thank You

Thank you for your support. Here's to a sun, rain and a lot of growth!

- Jake, Joe and Jaime