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### **NTT Mahogany Project and NTT Mahogany Project 2006-2008 Responsible Managers Inspection Report**

An inspection of the NTT Mahogany Project and NTT Mahogany Project 2006-2008 property at M'Ogonwo, NT was conducted over the period 4 - 5 April 2011

#### **Abstract**

Both NTT projects are planted in two regions as follows:

Project 1	339.24 ha	Elderslie Station near Cooktown - QLD
	116.76 ha	M'Ogonwo Douglas River - NT
Project 2	494 ha	M'Ogonwo Douglas River – NT

This report addresses management matters for both NTT projects and properties.

Since the termination of the previous Projects Manager, Khaya Management Ltd, a process has been set in place by Huntley Management Limited (HML) to effectively manage the NTT operations. All management tasks are now undertaken by HML's Responsible Manager, Malcolm Cleland. This arrangement is proving to be very effective and economical.

The M'Ogonwo property is supervised by the Projects independent forester, Ian Knoble, who visits the NT properties approximately each 6 weeks and reports to the Responsible Manager. There is a resident operations person on the NT property, who carries out the day to day care and maintenance of the property.

The Elderslie property is supervised by the Responsible Manager. Project activities are undertaken by a local forest manager. Malcolm Cleland visits Elderslie as required, approximately each 3 months. Heavy rain prevented access to the Elderslie property during this inspection and, as a consequence the property will be visited again in late May 2011.

#### **M'Ogonwo Inspection**

##### **First Impressions**

The trees are now quite impressive with many well over 5m tall. The entrance to the property and the drive are tidy and well maintained and the trees on either side are free from weedy competition. These are the oldest trees having been planted in 2005 for Project 1

The overall impression is that the plantation well managed throughout.

### **The season**

This 'wet season' had been an especially wet one with 1.5 meters of rain being recorded since November 2010. The average wet season rainfall is about 860 mm. Fortunately; the high rainfall has come in frequent relatively small increments rather than high volume tropical storms. The trees have had a consistently moist root zone for the last 6 months and have flourished. The absence of heavy storm rains has resulted in less soil erosion and allowed some remediation and consolidation of previously eroded areas.

### **NTT Mahogany Project**

The 166.76 ha of these plantings have looked well for several years. They are now putting on a lot of volume and many are more than 30 cm through the trunk. Many of the trunks of these trees are free of limbs for 6 or more meters.

#### Density

The planting density of these areas was between 600 and 700 seedlings per ha. The best areas of these plantings are now approaching canopy closure. As a consequence, low levels of light now enter the plantation and weed competition is now limited to areas of low density or low canopy volume. As a consequence the Project 1 planting will require less spraying in 2012 and may be limited to a perimeter spray only.

At this time there would appear to be little competition effect between trees. This is unlikely to last and a thinning programme is scheduled in two years in accordance with the Project Prospectus.

#### Trial Work

A thinning trial has been implemented to observe the effects of opening up the plantation. Of special interest will be the effect on weed growth, side shooting and changes in tree growth.

The control of shooting from the thinned tree stumps is to be investigated.

Some of the better wood from the thinning trial will be sent for sawing as a separate trial.

The existing trials on fertiliser and trace element nutrients will continue. While the growth rate trial is likely to produce our first formal indications of tree growth in September/October.

## **Summary**

The NTT Mahogany Project plantings at M'Ogonwo continue to do well and are now approaching a stage where the work input per ha will decline. The principal areas for management to watch are termite infestation, nutrition and density stress and fire prevention.

## **NTT Mahogany Project 2006-2008**

### **2006 Planting**

This planting progresses well. There are significant variations in the site quality over the planting area [as is normal in all forestry] this good wet season has seen the plantings consolidate and become more uniform. We think that this may be associated with the trees penetrating to deeper and more nutrient rich soil layers. Weed control has been generally excellent.

### **Density**

This planting was made at approximately 1,000 seedlings per ha. The planting is now generally close to canopy closure, some two years before the low density 2005 trees. Weed growth is limited to areas where full light can enter the plantation such as areas of low population, poor canopy or the outside rows of the planting.

There is little sign of tree competition. Notwithstanding this observation a thinning trial has been implemented. From this trial a thinning strategy will be developed to optimise both the timing and method of thinning.

### **Pruning**

Some areas have been identified that will benefit from further pruning. This will be conducted with pole saws from the ground. Previous prunings have been done with shears or chain saw.

### **Trial Work**

Trials for growth rate, macro nutrients and trace elements are being augmented with a tree density trial. [above]

### **2008 Planting**

This planting is progressing quite well despite the difficulties in establishing the plantation which spanned 2 years.

## Pruning

In the next 6 months a pruning programme will be undertaken to rationalise the planting and prepare the best trees for a fruitful life. The pruning programme will be conducted with hand shears and pole saws rather than by power shears and chain saw.

## Erosion

The Project 2 plantings have areas of soil erosion that require remediation. This year machinery was hired to grade up diversion banks and put up soil stops where appropriate. Further an intensive programme to establish the fast growing tall and sterile Velteva grass as a barrier to soil movement was implemented. The wet this year has had few high intensity storms and the remedial actions undertaken have been quite effective. This should provide a basis for an effective control program in 2012.

## Summary

Both the 2006 and 2008 planting are progressing within the parameters of the project expectations. Further close attention to tree management will continue to reduce costs and improve effective forestry practice.

## General Comments

It has been noted in previous reports that some of the more rapidly growing trees have sometimes toppled and bent. They have not straightened and have had to be removed. This may be associated with a deficiency of copper in the soil. Some similar toppling is happening in our trial areas where treatment with both macro and micro nutrients has been made. After removal the toppled trees are cut through. In each case they show a massive area of sap wood in proportion to heart wood. This may be an exhibition of very rapid growth rates and will be further investigated.

## Termites

Termites are of concern as they do occasionally select a tree and kill it. The programme for their control is becoming more sophisticated and easier to implement. A termite control program will remain a feature of the NT plantation management.

Malcolm Cleland  
14 April 2011

**Project 1 M'Ogonwo**

2005/6



2005/6



2005/6 Thinning trial



Cross Section of thinned tree



2005/6 Thinning



Clear fire break



**Project 2 M'Ogonwo**

2006/7



2006/7 note shading



2008



2008 Replanted 2009



Erosion control



Erosion control

