

SAWLOG PRODUCTION GRANT SCHEME



NEWS OF UGANDA'S COMMERCIAL TREE PLANTING FUND FOR THE PRIVATE SECTOR

NO. 12 NOVEMBER - DECEMBER 2006

INSIDE:

- ♣ **SPGS safari to Fort Portal.**
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SPGS Plantation Guidelines

We have periodically been issuing (free of charge) various Plantation Guidelines over the past two years: The complete series numbers 30 at present – 13 of which have been completed. Many of these, however,



Cover photo: Ponsiano Besesa (left) and Richard Bakojja posing in front of the latter's spectacular 3-yr old PCH planting near Mubende. This improved seed (from FPQ, Queensland) is currently available from the SPGS.

have now 'sold out', so we are now taking the opportunity to update and revise them where necessary prior to reprinting. The rest are in various draft stages of completion and once they are all done, we are then going to pull them together to form a comprehensive *Silvicultural Manual for Plantation Forestry in Uganda*. During the coming few months, however, we will be printing many new ones as well as reprinting many of the earlier ones – notably the following, which proved especially popular:

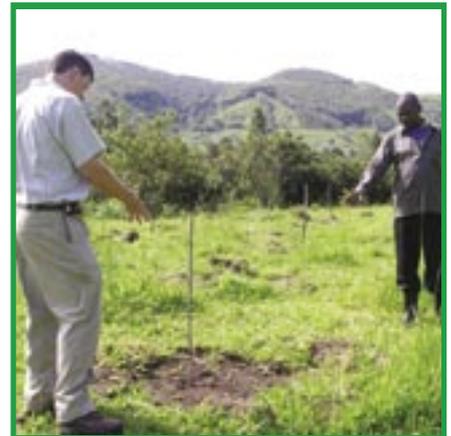
- No. 9. Growing Eucalypts for Fuelwood & Poles.
- No. 10. Growing Eucalypts for Timber & Large Poles.
- No. 12. Establishment & Management of Commercial Pine Plantations in Uganda.
- No. 16. Safe Use of Glyphosate Herbicide.

The new ones on their way to the printers include:

- No. 3. Planning: the Key to Successful Plantation Development.
- No. 4. Productivity & Costs of Plantation Development in Uganda.
- No. 6. Site Species Matching for Timber

Plantations in Uganda.

- No.14. Land Preparation.
- No.17. Post Plant Use of Glyphosate Herbicide.
- No.22. *Eucalyptus* & The Environment.
- No.25. Techniques for Planting & Beating Up.
- No.26. Thinning Plantations to Maximise Sawlog Production.
- No.27. Pruning for High Quality Timber.



The Guidelines compliment our advisory visits in the field

PUBLICATIONS

Here we highlight some of the more interesting recent publications we have come across:

FIRE MANAGER'S HANDBOOK (South African Edition, 2003) by William C. Teie.

This useful book is the result of adapting two American handbooks but reworked to fit South Africa's conditions. It is also very applicable to Uganda, covering all aspects pertaining to fire fighting, including weather, topography, fire behavior, safety and fire fighting methods. Although it refers to modern equipment and facilities not yet available here in Uganda, most of the book deals with the fire itself, which is a very important aspect to learn about. The book is well written, with many good images to help explain issues: definitely a must for the bigger timber growers. This book is available from the South African Institute of Forestry - www.foresters.org.za The SPGS have a copy you can look at and if there is sufficient interest we could import a number of copies to sell at cost price.

TROPICAL FORESTRY UPDATE Vol. 16 No. 2 (2006). This is the quarterly publication from ITTO - the International Tropical Timber Organisation. Although predominantly concerned with natural tropical forests, there is much of relevance here to everybody involved in the forest sector in Uganda. Many of our readers will relate to the articles on small and medium-sized enterprises and the problems they have with financing (one is written by James Mayers from IIED - a frequent visitor to Uganda). Another article discusses the

recent Certification (under FSC) of almost 300,000 ha of dense tropical rainforest in the Congo. As well as being a home to semi-nomadic, indigenous communities, a commercial logging company holds long-term rights to harvest timber from the area. In another interesting article, Adrian Whiteman from FAO highlights the changing nature of investment in natural tropical forests. He concludes that there is little scope for increased commercial investment in long-term natural tropical forest management (particularly in secondary or logged over primary forest) and especially when compared to tree crops and other forms of agriculture. This very interesting 32-page publication can be downloaded free at www.itto.or.jp

UNASYIVA Vol. 57 No. 223 (2006) is the latest quarterly forestry journal from FAO (available free online from www.fao.org). One article in particular caught our attention – namely, 'Short Rotation Forestry – a complement to "conventional" forestry' by Christersson & Verma. They state at the outset that "greater attention to short rotation forestry on agricultural land and on fertile forest soils could offer a way to provide forest industries with enough wood resources and people in the developing world with enough fuel, while conserving natural forests". The authors go on to discuss what they mean by short rotation forestry, where irrigation and fertilisation are often used. Examples quoted include poplars in the USA, Canada and India (for timber, pulp and paper), willows in Sweden (bioenergy), bamboo species in China and Ethiopia and eucalypts in Australia (bioenergy and essential oils).

SPGS UPDATE



By Paul Jacovelli & Allan Amumpe



Heading off-road during an inspection of Ponsiano Besesa's plantation in Kasana-Kasambya Central Forest Reserve near Mubende (Sept. 2006).

At least life is never boring working for the Sawlog Scheme. As we await the first funds to be made available for this second 'bridging' phase, we have been busy on field visits to encourage planters to meet their targets under phase one and we also organised our biggest safari yet (at least in terms of numbers - see article on page 4). We have even moved offices and also found time to recruit two new graduates to the SPGS team.

Up until the end of September 2006, we had approved payment for 4,315 ha of new planting (86% of our target). What is very encouraging is that 90% had also been approved for the 2nd follow-up payment and 80% for the third and final payment. Our next round of site visits will hopefully see us approaching our target of 5,000ha (and to think just 2 years ago that this seemed a far off dream). For the next phase, 60 new contracts are currently being drawn up for signing by the Permanent Secretary of the Ministry of Water & Environment: these cover 5,000 hectares of new timber plantations between Oct. 2006 and Sept. 2008.

Changing offices signifies a change in supervision of the Scheme, from the NFA to the Forestry Inspection Division (FID). To us, it signifies other things too. Although this second phase may appear basically the same as before – especially with the grant payments, training and advisory services being there – it has some clear differences.

With our team of 5 graduates, we will fast-track them to pick up skills in commercial forestry, which will benefit both the large and small scale (community) planters in Uganda. These fresh faces (and legs) will enable the SPGS to have a more visible presence in the field and to support the ever growing demand for tree planting, including the smaller scale growers. Our link with FID will give us a chance to work with a few selected Districts (although not all 80 plus of them!) to advise on commercial tree growing and, in some cases, we will provide seedlings too.

We will be branching out (please excuse the pun) in the north too in this bridging phase. We spent a week touring around Gulu, Nebbi, Apac and Lira in September. The interest in many places was very encouraging and we expect to sign up a number of clients in the near future. The clients' safari to Fort Portal has also stimulated many to seriously think of growing *Eucalyptus grandis* for timber, particularly in those cooler, wetter areas in the western parts of the country.

We will help build the capacity of the Uganda Timber Growers Association (UTGA), which should be a big step forward for the private sector investors here. Then there is an exciting new research component too, enabling us to coordinate a small but focused research programme, looking initially at species and provenance trials. We also intend to drive on (even through the road might be pot-holed) with the campaign to improve the investment environment in

the sector too (as you can read on page 8).

Last but not least, we are going to look to the future too. As someone asked at the recent clients' meeting in Fort Portal: "Why is it called the bridging phase: bridging to where?" To answer that we have to turn the clock back to almost a year ago now, when we started talks with the GoU and EC Delegation. The way the SPGS has catalysed private sector interest in commercial tree planting has been clear for all to see. What has surprised many is the massive demand not just to continue but to expand the Scheme. With Uganda needing some 70,000 ha of timber plantations just to meet its internal demand by 2025, the SPGS offers the Government a very cost effective way of achieving just that.

Thus a scaled up programme was being planned for funding under the next round of EU funding (known as the 10th European Development Fund or EDF). Since the 10th EDF only starts around 2009, however, funds were thankfully found for this 2-year 'bridging' phase to at least maintain the momentum of the first phase.

Since then there have been doubts cast about the EU method of assisting Uganda under the 10th EDF. Other than direct budget support, the only sector to be funded (with regards to specific projects) will be Infrastructure, with Rural Development being dropped. This means two things: we have to work together to convince the GoU that the SPGS is worth supporting beyond 2008 and secondly, to actively promote the Scheme to attract funding from other sources beyond 2008. We are convinced that the combination of the results to date from the private planters combined with the huge demand to continue planting is a powerful argument for attracting funding for the SPGS to continue. We will only succeed in this regard, however, with your continued support – in terms of successful planting and lobbying in the right circles. As with all successful enterprises, it will be a team effort.

“Go West young man”

“Go West young man” used to be the cry in the American pioneer days and the same could apply to the Sawlog Scheme as we held our inaugural meeting for the clients of the Bridging Phase on 4th & 5th October 2006. Some 60 private planters converged in Mubende District at the Kasana-Kasambya Central Forest Reserve (CFR) and later headed towards Fort Portal. The meeting was targeting all the clients of the 2nd phase of the SPGS, which includes some 45 who are ‘new’ to the SPGS fold. The theme for the day was – “learn from the experiences of others before you make costly mistakes”.

The demonstration planting at Kasana-Kasambya of *P. caribaea* var. *hondurensis* (PCH) is now 3-years old and looking very impressive. The seed was from Forest Plantations Queensland (FPQ) and the growth and form are generally excellent. This stand is ready for pruning (which Bric ably demonstrated using the recommended Lasher pruning saw), with the first thinning probably only a year away. There were many appreciative comments from the clients, particularly regarding the exceptional growth rate and the uniformity of the stand (though the occurrence of foxtails was raised by several people). The SPGS team stressed the importance of first obtaining a high stocking at establishment and then the need for timely and heavy thinning in order to produce saw logs quickly.

The crucial issues of species choice and seed origin came up at the next stop, which was Richard Bakojja’s 100 ha plantation in the same CFR. Standing in the one spot, we were able to clearly see the enormous difference in quality (growth and stem form) between the excellent PCH (planted 2004 or p04) from Australian seed compared with the p03 *Pinus oocarpa* from very poor quality local seed. “The decisions we make today are the realities of tomorrow” Richard wisely stated, warning new planters to think very carefully when they choose the seed for their plantations. We were then entertained by Richard eagerly demonstrating his ‘Garden Master’ pruning shears, which certainly make light work of a low (first) pruning.

The convoy then cruised towards the deep West, towards the tea and eucalypts around Fort Portal. It should be a beautiful drive, especially with the road recently being upgraded. For anyone with an environmental conscience, however, it is like a scene from a disaster movie. Vast tracts of natural high forest are literally going up in smoke, being cleared for subsistence farming. Whilst these forests appear largely on private lands (i.e. not in protected areas), there appears to be no control at all to this destruction.

Anyway, a combination of lunch and the excellent pine plantations in Oruha CFR soon revitalized everyone. This p03 PCH (from Australian seed again) must be one of the best young plantations in the country and is a living testament to Peter Ogwayi (NFA Manager) and his enthusiastic team. Peter and his Sector Manager, Denis Mutaryebwa, have been on the SPGS trips to South Africa and Swaziland over the last 3 years and clearly something rubbed off! In an adjacent stand lower down the valley, we were able to see very clearly the enormous potential of growing *Eucalyptus grandis* on suitable sites in Uganda. The stand was just 3 years old and had just received its 2nd thinning (though Denis admitted it had been underthinned the first time).

We then stopped at a mature (p66) PCH stand where the NFA had a harvesting and sawmilling operation. Standing stock had been calculated to be 861 cubic metres, which equates to a mean annual increment of 21.5m³/ha/yr. Like most plantations in the country, however, this had not been thinned or pruned and thus the sawlog quality was not great. An area of concern from the clients was that the site where the mill was situated amongst the trees was not very safe as the wind could blow down the exposed trees.

The penultimate stop was at James Finlay’s (JFU) tea estate at Kiko near Fort Portal. Their staff explained that they grow *E. grandis* solely for fuelwood on an 8-year rotation.



Richard Bakojja demonstrating his Garden Master® pruning tool during the October 2006 SPGS clients' meeting.

They described their intensive land preparation and establishment techniques that have resulted in very well stocked and fast growing plantations. After a whistle-stop tour of their fuelwood stocks and the tea factory, the group then contributed significantly to helping JFU reach their monthly sales' target by purchasing over 30 kgs of freshly made tea.

As the sun set over the dramatic Rwenzori mountains (the legendary Mountains of the Moon), we were just in time to fully appreciate the magnificent *E. grandis* seed stand just outside Fort Portal town (as pictured on the cover of the last newsletter). Sam Ssozi, who is in charge of the Toro Botanical Gardens that surrounds the seed stand, then explained to us all about their fascinating project. They are growing lots of Sweet Wormwood (*Artemisia annua*) - an aromatic herb that produces artemisinin (an anti-malarial agent). The leaves are dried before being sold locally for further processing into anti-malarial pills. The brisk trade that then took place in the dried leaves of the plant (drunk as an infusion for preventative and curative treatment of malaria), should at least ensure that most of the SPGS clients survive at least until the next meeting!

Our thanks go to the following for their assistance and time: Richard Bakojja (SPGS client); the NFA staff at Mwenge Plantations; Saladin Tiba, Joseph Ngonzi & Doreen Klafula (all JFU, Kiko) and Sam Ssozi and his colleagues at the Toro Botanic Gardens.

Meet some of the new SPGS clients



The SPGS's Community Planting Officers – Zainab, Charles and Alex – had to earn their board and lodgings on the recent client's safari: they were asked to imagine they were journalists and had to produce an interested feature. Here is the result.

Well we don't know about you, but to us the clients' safari to Fort Portal was not only getting to know more about commercial forestry, but also to get to know more about the investors as well. It would have been great if we got to know everybody but this was not possible due to constraints of time. We would like to share with you, however, the lives and experiences of just a small sample of three of the new clients that we had an opportunity to interact with.

Seated next to me in the van on the way to Fort Portal, **Fred Babweetera** of Core Woods became the first victim of my curiosity. Being the very reserved person that he is, he preferred talking more about his investment than himself. All he could tell me about his personal life was the soccer team that he would die for, Tottenham, and that he loved spending his free time taking a walk in Mabira forest.

Fred is a share holder in Core Woods, a tree planting company in Hoima district. Fred has just completed a PhD in population biology at Oxford and currently works for the Budongo Conservation Project. Asked what inspired him into venturing into such a long term investment, all he could say was 'I am a forester by profession and not practicing it would be self betrayal, besides that, I love nature and trees are just a beautiful treasure from God'.

Fred started planting trees in his home village, immediately after his university education. He did it just because he had the love for trees but had never thought of doing it on a commercial basis. Two years ago, he realised that he could actually hit two birds with one stone, get his personal satisfaction from planting trees and make money out of them as well. He teamed up with a colleague and together they started Core Woods as a company engaging in commercial tree planting. The company has so far planted 30ha on Bujawe CFR and has a contract with SPGS for 200ha. Fred is very confident that with a team of over 30 casual labourers in the peak season and the 5 permanent employees, they will meet this target by the end of the two years.

He admitted facing a number of challenges the biggest being encroachers. He lamented over 5ha lost when encroachers uprooted what they had planted. This demoralised them but they believe it was just a set back just like any other in other businesses and they are determined to go on. He was very grateful to the SPGS and he advised all those on the scheme to utilise this opportunity that the SPGS has offered them profitably. To Fred and Core Woods, the sky is the limit.

Mr. Athuba Pithua, popularly known as OPIPAAF, was another planter that wouldn't easily go unnoticed. Charles

bumped into him on his way for lunch and he couldn't risk letting him go without getting to know him a little more.

OPIPAAF is a retired clerk from Ministry of Defence. He is planting in Nebbi district in Northern Uganda on private land. He is a new contract holder with SPGS but not new in tree planting business. Being a sawmiller, OPIPAAF sees involvement in commercial forestry as another lucrative business besides his hotel investment. He employs about 50 people on his plantation.

He has planted cypress, pines and eucalypts on his land. He however admits facing a number of challenges in his investment especially financial, but believes

that with proper planning for the grant from SPGS, he should be able to successfully plant the contracted area. All he could say was 'tree planting runs in my blood, I value a tree right from the top most leaf to the deepest root'.

If we decided to tell you all about OPIPAAF, I am afraid I couldn't get enough space for the 50 year old youth **Mr. Bariho** of Omutubiri Kigunga Youth Cooperative. Mr. Bariho Feresiano's pride for his organisation, was his talk to whoever was willing to listen. Deriving their inspiration from Mr. Busingo (an SPGS client in Ibanda), a group of 80 community members organised themselves into the cooperative society. The group started planting in 2004. He confesses that their first planting is not good because of poor seed but with technical knowledge and guidance from SPGS, plantings of the following seasons have been so excellent. The group has so far established 60ha of *P. caribaea* and *Cupressus lucitanica*.

Just like all investments, Mr. Bariho says forestry is costly and challenging but with proper planning and technical support, the rewards are just amazing to both the current and future generation. To all the new clients, it's our pleasure to welcome you on board and we look forward to partnering with you in development.



Fred Babweetera caught in a pensive moment during the clients' safari.



SPGS clients' safari - Oct 2006



Richard Bakojja sharing his experiences with the 'new' planters.



E. grandis seedlings at James Finlay's Kiko tea estate.



The convoy heads on from the 1st stop – the PCH and Hoop Pine demo. planting near Mubende (3-years old).



The SPGS clients admiring the E. grandis seed stand in Fort Portal.



After a busy safari and meeting, even the battery on one of the SPGS Land Rovers needed recharging but luckily there were willing hands available!



Denis Mutaryebwa (NFA Sector Manager) describing their thinning of E. grandis for timber production in this impressive 3-yr old stand (seed from South African seed orchards).

... and photos from clients' inspections - Sept 2006



An example of excellent land preparation by Wakitaka Farms, planting at Ngereka Central Forest Reserve, north of Jinja. The site had just been pre-plant sprayed with Glyphosate and the rains had been ordered for the next day.



Dr. Abel Rwendire's young pine plantation near Luweero being weeded by a brush-cutter. Although we don't want to stifle innovation, here we recommended the use of Glyphosate (particularly pre-plant) rather than the crop having the competition you can see.



Edward Mupada's field staff proudly posing by their excellent 3-yr old PCH planting in Kasagala CFR, Nakasongola.



Betty Wanders, Nursery Supervisor for Busoga Forest Co., (reluctantly!) posing with a healthy *E. grandis* seedling ready to be planted out.



Teddy Nyamaizi, Plantation Manager for Deutsche Forst Consult, under the spotlight in front of their earliest (p05) PCH planting under the SPGS. The cameraman was visiting selected projects for an EU promotional film.



Engineer Ephraim Kisembo (3rd from left) with his team amidst their much improved pine planting near Masindi.

TAKING STOCK ...AND LOOKING FORWARD TOO



Cornelius Kazoora

We have recently commissioned two studies that we believe will be very important for current (and potential) commercial investors in the forest sector. The first of these is being undertaken by **John Carvalho**, who is working in close collaboration with Paul Jacovelli (SPGS) and the Uganda Investment Authority, to produce an updated - and much more useful - *Forestry*

Investment Guidelines for Uganda. John is well known for his long involvement in forestry in Uganda: he has unrivalled knowledge from his days in the Forest Dept. as well as his more recent practical involvement with the private sector timber industry here. John co-authored the study (with Paul Jacovelli) in 1999 - *The Private Forest Sector in Uganda - Opportunities for Greater Involvement* - which first promoted the idea of a private sector tree planting fund.

The second study is being undertaken by **Cornelius Kazoora** from the Sustainable Development Centre. Cornelius's work is to review the background to the SPGS and in particular, to highlight why certain decisions were made that led to the current set up of the Scheme. This work is partly in response to the interest shown in the Sawlog Scheme from many quarters and a specific request from the SPGS's Steering Committee to document the experiences to date. Rather than just produce a historical report, however, we have widened the scope somewhat and intend to use Cornelius' work to feed into a more forward looking piece of work, which will hopefully help us take the Scheme forward - beyond the 2-year Bridging Phase. Thus in addition to reviewing the progress made to date, he will investigate ways of improving the Scheme and recommending how it might attract further funding.

Cornelius is uniquely placed to carry out this work too, since he co-authored (with Geoff Tyler) one of the key early studies carried out under the Forestry Secretariat

in 2001 - *Financing Private Sector Forestry Investment in Uganda* - which identified possible ways forward for the Tree Planting Fund (as it was then called, prior to the SPGS starting in 2003). He also is an active member of the SPGS's Steering Committee.

Both consultants will soon be arranging meetings with a number of the SPGS planters as well as other stakeholders. We urge you to collaborate with them fully to ensure these studies move the SPGS forward. We will have draft reports ready before Christmas and hope to arrange a workshop early in the New Year to discuss them. Of course, we will also keep you informed through this newsletter.



John Carvalho

CALLING ALL COMMERCIAL TREE GROWERS



The Uganda Timber Growers Association (UTGA) has recently been formed by commercial, private sector tree planters in Uganda. Its major aim is to unite all tree farmers engaged in tree planting as a business. Although the many objectives of UTGA have been outlined in its Constitution, the key ones are as follows:

- * To promote commercial tree planting by the private sector and attract additional funding so as to develop a viable and vibrant commercial forest plantation business in Uganda.
- * To improve the standards and skills in managing tree plantations, in line with internationally accepted norms.
- * To protect and support the interests of commercial tree growers in Uganda.
- * To lobby for affordable financial services for the long-term venture of timber production.

The Association welcomes all commercial tree planters – including those on the Sawlog Production Grant Scheme and those planting on either private land or in the NFA's Central Forest Reserves.

Full members must have planted at least 25 hectares (60 acres) to join, though Associate membership is available for other interested parties. Full membership fee is UGX400,000 plus UGX200,000 annual subscription.

Elections will be held before the end of 2006 so subscribe now to make sure you are part of this important development.

For more details please contact a member of the Interim Committee:

J. B. Byamah (Chairman) 0772 471 164.

Hon. Sheila Kawamara Mishambi (Secretary) 0772 403 120

Robert Bariho (Treasurer) 0752 700 744

The full Constitution of UTGA can be viewed or downloaded at

www.sawlog.ug



COMMUNITY PLANTING UPDATE



This current planting season in particular has been very challenging to the entire SPGS team, because we had to beat the deadline of hitting our targets before the end of the first contract. We worked tooth and nail, however, to make sure that we met the expectations of our communities. We were able to supply seedlings to communities in Luweero, Masaka, Bushenyi, Mbarara and Rakai.

The communities in Luweero received 25,900 seedlings, (16,100 *P. caribaea* and 9,800 *E. grandis*). The offloading at Bukalasa nursery went on until late but the enthusiastic and eager planters were more than willing to offload on candle light until the last pot got off the track. By the next day, individuals were already flooding the nursery with cars, basins and wheel barrows to collect their share. One could see that these guys really knew

what they wanted.

The trip to Muziira in Bushenyi was a memorable one – at least for Zainab and Alex. The road to Muziira had become impassable due to the heavy rains and this made it a difficult task to deliver the seedlings. The truck loaded with seedlings got stuck at a point about 2km from Muziira. News spread like a wild fire and within no time the members were there to give a hand. The seedlings were offloaded

from that point and some of them offered to spend a night on the truck and guard their treasure lest they risk loss to thieves. They were determined to get their seedlings at all costs. They eventually received 12,425 *P. caribaea* seedlings.

The story in Masaka and Rakai was similar: the urgency with which the seedlings were offloaded and planted was an indication of hunger and thirst for more. The beehive activity at the offloading site was spectacular. Masaka received 6,000 seedling (3,000 *P. caribaea* and 3,000 *E. grandis*) and Rakai 18,900 *P. caribaea*.

Following the delivery of these 63,225 seedlings from the SPGS to these communities, this is expected to raise the total area planted under SPGS community planting initiative to around 200 ha by the end of this planting season. To our esteemed communities, we once again want to let you know that the SPGS is ready and willing to continue offering its support for as long as you adhere to our standards and keep showing your desire to establish timber trees.

Invasive Plants – III - Paper Mulberry

(*Broussonetia papyrifera*)

This deciduous tree occurs naturally in Japan and Taiwan but has become a major pest in many parts of the world, often spreading from gardens where it was planted as an ornamental shrub. In Uganda, Paper Mulberry has taken over large areas of Mabira forest, where the natural forest trees had been cleared for agriculture in the past. It spreads both by seed and through vegetative expansion, by producing new shoots from its roots. Its seeds are spread far and wide by wildlife that feed on its fruits. Paper Mulberry is highly invasive and can spread very quickly so prompt action needs to be taken once it is found in your area. The practice of harvesting small branches and leaves from the Paper Mulberry to be used as animal fodder is only assisting it in its spread and is thus not recommended.

Paper Mulberry grows to a maximum height of about 15 m. Its twigs are hairy reddish brown; the bark is tan and smooth to moderately furrowed; the wood is soft and brittle, and it has conical buds. The leaves are alternate, opposite or whorled

along the stem. The leaf margin is sharply toothed; the leaf base is heart-shaped to rounded with pointed tips, and the upper leaf surface has a rough feeling. It exudes a milky sap when cut. The fruits are reddish purple to orange, 1.5-2.0 cm in diameter.

The control of Paper Mulberry is most effectively done by either chemical or manual means:

1. Chemical

Basal bark, cut-stem, hack-and-squirt, or injection methods of herbicide application are recommended because these methods, if used properly, focus the application onto the target species, minimize the overall amount of herbicide applied and reduce environmental impacts. Basal bark application of the broadleaf systemic herbicide Garlon® 4 can also be used with a 50% mix in water for cut stump applications. Herbicide can also be applied using a hatchet to make angled cuts into the trunk, into which concentrated herbicide is squirted from a hand-held spray bottle. For this method, use a 10% mixture of Garlon® 4 in horticultural oil, or a 15% rate for larger trees. NB. Until



Garlon® 4 or its equivalent is available in Uganda, however, a high concentration of Glyphosate (6 litres per ha or a 3% mixture can be tried). As with all herbicide operations, a follow up spray is essential.

2. Manual

Pull seedlings by hand when the ground is moist ensuring that as much of the root is extracted as possible to reduce vegetative propagation. Seedlings need to be piled and burnt to prevent re-growth and spread. Multiple slashing operations will be required for larger trees, ensuring that all slashed material is collected and burnt to prevent spread.

SEED UPDATE

The SPGS has strict rules regarding the origin or provenance of seed used by its clients. This is for investors' own good not to make life difficult: just ask any of those planters who used poor seed three or four years ago! The SPGS is about commercial tree planting and we cannot understand why any serious planter would want to start their 20-year investment by using inferior seed when there is now improved genetic material available that can yield double the volume. The NFA's National Tree Seed Centre (NTSC) supplies seed to different end users and also sells unimproved, local seed of the main commercial tree species. In an agroforestry or other small scale planting it is not so critical but on a larger commercial scale, it is extremely important to only use improved seed – which for the near future usually means imported.

SPGS Approved seed sources: Below is the SPGS's latest list of approved seed sources: if you want to plant other timber species (or seed origins), you must obtain approval from the SPGS first.

Species	Origin	Price Ushs	Expected per kg	Notes
PCH	FPQ ¹ , Australia	1,900,000	35,000	Available from SPGS only for clients
PCH	Brazil	850,000	20,000	Seed production stands
P. oocarpa	Brazil	850,000	25,000	Local POO not recommended.
P. patula	NFA SW Ug.	500,000	35,000	Improved seed from RSA due soon.
PCC*	Brazil	850,000	25,000	Recommended for trial only.
POO x PCH**	Brazil	850,000	25,000	Recommended for trial only.
E. grandis	Fort Portal	90,000	150,000	Seed stand. NB. Uncleaned seed
E. grandis	South Africa	5,500,000	2,000,000	Seed orchard NB. Cleaned seed.
Musizi	Uganda	50,000	400	No improved seed available
Terminalia spp.	Uganda	50,000	4,000	No improved seed available
Hoop Pine†	Kifu CFR	n/a	3,000	Unimproved
Hoop Pine	FPQ, Australia	n/a	3,000	Seed orchard seed due soon.

¹ Forest Plantations Queensland (formerly Dept. of Primary Industries).

* *P. caribaea* var. *caribaea*.

** A hybrid between *P. oocarpa* and *PCH*.

† *Araucaria cunninghamii*.

PCH: The SPGS has just imported 41kgs of the seed orchard PCH from Australia: this is now being offered to clients (contact Allan – see details back page). It is available on a first come, first served basis, though we will initially restrict individual clients to 5kg. The NTSC should also soon have some Australian PCH stocks itself too.

E. grandis: We are currently in discussions with both South Africa and Zimbabwe and hope to import seed orchard grade EG seed soon as well. We will keep you informed.

Ordering Seedlings: We have heard from a number of people that they have been let down after ordering seedlings from both NFA and private nurseries this season. After discussing with various people - including the NTSC, NFA staff and some clients – we have identified the following issues:

- ❖ Some planters are still not ordering well enough in advance: 6 months is recommended to allow time for the nursery to procure and sow the seed (remember PCH takes 4 months from sowing to reach optimum planting size).

- ❖ To secure your order, a deposit should be paid (30% recommended).

- ❖ Even where people have booked or ordered seedlings there have been problems: this seems to be down to poor communication from the nursery managers/owners to their customers when problems have arisen (e.g. lower than expected germination or a shortage in seed supply).

- ❖ When buying seed, the nurseryman must know what germination to expect (this information should be given by the supplier) and sow sufficient seed to produce the desired number of plants. So if you know the germination of the Brazilian PCH seed is significantly lower than the FPQ seed, then more needs to be sown to compensate.

- ❖ We suspect too that some people have not stored their seed properly once they have bought it from the NTSC. See the text box for guidance.

- ❖ **In short, it seems better communication and more forward planning on both sides is required.**



SEED STORAGE

- ✓ Keep out of direct sunlight at all times.
- ✓ Prior to storing, reduce moisture content to 5-10% (this reduces or stops fungal activity).
- ✓ Store seeds at 0-4°C in airtight containers or plastic bags.
- ✓ Eliminate obvious pathogens and protect seed during storage.
- ✓ Store in the dark.
- ✓ Viability will remain high if kept at a constant temperature.



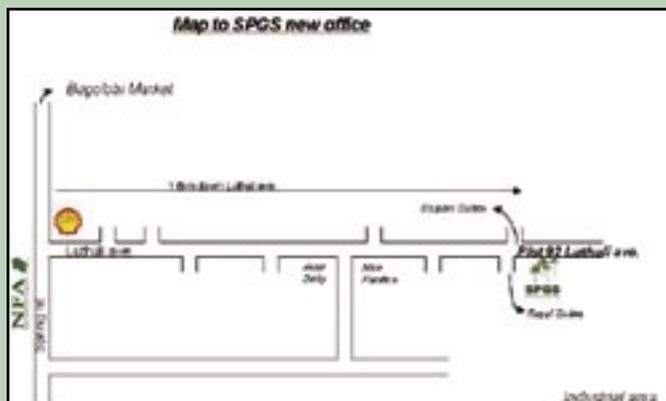
The SPGS site visits often attract quite a following!

PLANTERS' DIARY

- * *Either* order your seedlings from recommended nurseries for March/April 2007 planting ..or
- * Buy your improved seed from SPGS or NTSC and sow.
- * Remember to calculate your seedling needs allowing for beating up (and also taking the expected germination into account if sowing yourself – see page 11).
- * Start preparing firebreaks prior to the upcoming hot, dry period.

In The Next Issue

- 👉 Species & provenance trials.
- 👉 The potential of Musizi (*Maesopsis eminii*).
- 👉 More profiles of our new planters.



TRAINING UPDATE

We are very sorry but we have had to postpone the planned **Plantation Maintenance** training course since we have all been tied up getting the Bridging Phase rolling. And most of us have to recharge the batteries (also known as annual leave) before starting the new project. Don't worry though as we will reschedule the course early in the New Year.

We thought that we should run another **Plantation Planning and Establishment** course first, especially targeting the field supervisors or managers from the new 'crop' of SPGS planters. This course is planned for **10th - 14th Dec. 2006** and will be based at our usual venue at Kasunga Tea Training Centre, near Kyenjojo. This course is ideal to give people a basic understanding of commercial forestry and most importantly shows them the standards expected from them under the Sawlog Scheme. Numbers are limited to 25: tuition, handouts and the years of experience from the Technical Advisors are provided free: the participants must cover transport to and from the venue, meals and accommodation.

For those of you who are worried about fires (and that will eventually be all commercial planters) we will run **Fire Prevention & Basic Fire Fighting** course(s) later in November or early Dec. This is a 1 day course and can be organized at a time and venue to suit those interested.

Please book your reservations (at least 2 weeks prior to the event) and preferably in writing to Allan.



And finally.....

Don't forget that on our next round of visits, we will be looking to see who is worthy of our prestigious SPGS awards for 2006. There are 3 awards in two categories – namely:

- * The **Best Plantation** established in 2006 under the SPGS.
- * The **Runner-Up** for the above.
- * The **Most Improved** SPGS planter in 2006.

Prizes will be awarded at the next clients' meeting (early in 2007) and photos will appear in the next newsletter. What we will be looking for are healthy, well weeded, fast growing, uniform crops. Simple really!



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The Technical Assistance for the SPGS is provided by: Cardno-Agrisystems Ltd.: Challenging the Causes of Poverty.

SPGS OFFICE CONTACTS: Allan Amumpe (Project Manager); Josephine Mbogga (Office Manager); Paul Jacovelli (CTA); Bric Milligan (TA). **Physical Address:** Plot 92 Luthuli Avenue, Bugolobi, Kampala
Emails: info@sawlog.ug josephinem@sawlog.ug paulj@sawlog.ug bricm@sawlog.ug
Mob: (Allan) 0782 673 899 **Web-Site:** www.sawlog.ug