

PHYTOTRADE NEWS UPDATE NUMBER 10

JUNE 2004

Welcome to the PhytoTrade news update... As you can see, the PhytoTrade office has been busy working on R&D, negotiating new trading partnerships, representing you at European trade fairs, preparing for our Annual General Meeting in Livingstone and... having babies!

MARKET NEWS...

Herbal Sciences International has delivered the results of anti-inflammatory, anti-oxidant and anti-bacterial assays conducted on kigelia. There were particularly interesting results on the anti-oxidant assay perhaps leading to the possible discovery of a new compound. Three presentations were made of the findings at industry seminars at the VitaFoods trade show in Geneva, May 2004, which was attended by the PhytoTrade team. The presentations, one of which was entitled "Chemistry and Biological Activity of Kigelia africana - from folklore to new nutraceutical and cosmetic applications" were made to large audiences and created very considerable interest in kigelia in the European market. Further research is ongoing, with a second anti-inflammatory assay currently underway, as well as some work to try and identify the new compound that the anti-oxidant assays appear to suggest might exist.

Nigel Lucas, a UK based soft drinks expert has delivered a report on his meetings with potential clients in the UK smoothie (a fruit drink, similar in consistency to a milkshake) market for baobab pulp and recommendations for the next

steps in order to successfully commercialise baobab pulp as a smoothie ingredient. On the basis of this, negotiations are underway with a commercial partner, and baobab samples dispatched for further evaluation. Amongst his recommendations were that:

PHYTOTRADE PHOTOS

Harare-based professional photographer, David Brazier has taken some fantastic photos of



PhytoTrade members' activities, You can contact him on

wideangle@mango.zw. Thank you David!



THE SOUTHERN
AFRICAN NATURAL
PRODUCTS TRADE
ASSOCIATION

- ◆ Further work be commissioned from Leatherhead Food International (LFI) to demonstrate the stabiliser/thickener properties of the pectin in baobab.
- ◆ A demonstration range of smoothies or fruit juice products be made using baobab.
- ◆ Feasibility investigated of producing a finer product without the dark specs.
- ◆ A commercial partnership be developed with one particular smoothie manufacturer based in the UK.

University of Zimbabwe student Ashwell Ndhkala completed the literature review on the historical use of baobab as a food in Africa, and the report was passed on to LFI for their views on the possibility or otherwise of securing a Non-Novel Opinion from the UK's Food Standards Agency.

Our collaboration with a major drinks manufacturer in South Africa is progressing well. The technical aspects of their research and development have all been carried out successfully and they are now working on the product marketing concept.

The partnership with Aldivia has continued to flourish. PhytoTrade and Aldivia were both represented at the In-Cosmetics trade show in Milan in April 2004, and participated together in a Business-to-Business meeting hosted by the BioTrade Facilitation Programme in Milan. Aldivia have been working hard to promote PhytoTrade Africa's oils, and at the end of April 2004 had sent out the following samples to potential clients:

Oils	Total samples
Baobab	218
Marula	359
Parinari	99
Melon	244
Mafura (Trichelia)	165
Ximenia	256
Mongongo/manketti	220

A new baobab oil-based sunscreen was launched by the well-known European sunscreen manufacturer Bergasol on a pilot basis, and another buyer has placed a preliminary order for

ximenia oil. Aldivia's CEO and R&D director have recently returned from a visit to the USA, during which several meetings were held with some potentially large clients. Aldivia will be making a trip to the region in June, visiting PhytoTrade members in Zambia, Zimbabwe and Namibia, as well as holding meetings with their distributor and various buyers in South Africa. Throughout their trip they will be accompanied by members of the PhytoTrade Executive Office.

In addition to the orders from Aldivia, there have been a variety of requests for samples of kigelia, following the interest generated for kigelia at VitaFoods. PhytoTrade still has to develop a set of standardised product specifications for kigelia extract, as this can only be prepared once the results of all the current R&D have been received and analysed.

PHASE TWO R&D STRATEGY

PhytoTrade's R&D Strategy focuses on products derived from species prioritised by our members. From each species more than one type of product is possible. Based on Interest Group feedback, historical efforts of members, technical and ethnobotanical literature, commercial interest, and taking into consideration available human and financial resources, our focus is on a limited set of products. The focus on these particular products from each species does not preclude the possibility of future work on other possible products such as fruit pulp from Parinari or mongongo, or botanical extracts from Kalahari melon or marula, or edible nuts from mongongo.

Objectives: PhytoTrade is engaged in the process of commercialising products from priority species in order to achieve the objective of enabling poor rural communities in Southern Africa to generate supplementary incomes through the sustainable exploitation of natural products. The specific objective of the PhytoTrade's R&D Strategy is, therefore to address the critical research and development-related constraints preventing the realisation of sustainable trade in PhytoTrade priority species and products by members.

Phase Two of PhytoTrade's R&D Strategy will seek to achieve the above objective by:

1. Addressing key regulatory issues to which our priority species and products are subject to in

- National, Regional and International markets;
2. Commissioning and facilitating selected R&D carried out in collaboration with key commercial and research partners;
 3. Commissioning and facilitating pilot production of relevant products;
 4. Assisting members and partners to develop and improve processing technologies;
 5. Commissioning and facilitating R&D of National, Regional and International market opportunities for selected products.

The strategy will also serve several related purposes. These include:

- ◆ Demonstrating to industry PhytoTrade's ability to play a valuable part in the necessary R&D processes to enable successful new product commercialisation;
- ◆ Increasing PhytoTrade members' negotiating and bargaining powers with commercial companies;
- ◆ Increasing the understanding of, and share in, IPR ownership of PhytoTrade's membership and National stakeholders;
- ◆ Leveraging greater levels of commercial and professional investment required to commercialise new natural products derived from priority species;
- ◆ Facilitating members' preparation of business plans;
- ◆ Facilitating the development of partnerships between members and commercial companies.

Product Groups: To better conceptualise our species prioritisation, processing technology requirements, R&D requirements and market development approach, the products are divided into products groups. These are fruit pulps, botanical extracts and lipids. We are not restricted to these product groups as in the future we may develop product groups that include gums, resins, hydrocolloids, essential oils.

Pipeline Products: An important feature of our strategy is to facilitate market-driven selection of new species and products likely to lead to new commercial opportunities for members. PhytoTrade often receives requests for additional products to research and promote from commercial companies. For some of our partners, having a portfolio of new product opportunities is crucial to their own commercial and financial strategies. Additionally,

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COSMETIC FORMULATION

In October 2003, a South African cosmetic formulator, Aubrey Parsons was commissioned by PhytoTrade Africa to develop a range of cosmetic products from marula oil under a Technical Assistance grant for PhytoTrade member, KYT. The range of cosmetics to be rolled out will include soap, hand cream, body lotion, shampoo, conditioner and lip balm.

BAOBAR TO BE LAUNCHED IN ZIMBABWE

In January 2004, PhytoTrade Member, Speciality Foods of Africa (SFA), applied for one of our Innovation Grants to develop a cereal-based health bar. Working together with National Distributors, a Zimbabwean cereal producer, and using formulation information commissioned in the UK by PhytoTrade, SFA has developed a formula for a baobab cereal bar to be marketed as a "Baobar". The bar has now been market tested in Harare and SFA hopes to be in full scale production towards the end of 2004. SFA will initially be producing the Baobar in Zimbabwe for the Zimbabwean market and later in South Africa for the export market.

NEW INFO ON MEMBERS ONLY WEBSITE

*Go to the Members Only section of the PhytoTrade Africa website and you'll find the **Phase One R&D reports** can be downloaded in PDF format. Hard copies will also be available at the PhytoTrade AGM and upon application.*

*Several **key research papers** on PhytoTrade focal species are also available as downloadable PDFs from the Members Only Website.*

*Focal **Literature lists** have been updated and will be available on the Members Only Website in July. Significant additions have been made to the Ximenia list, amongst others.*

PhytoTrade pro-actively identifies commercial potential for products derived from species common in southern Africa by screening information from technical and commercial sources.

It is a good idea to have a mechanism to allow us to bring these new product opportunities on stream. Therefore, we have conceived a “pipeline product” category within each product group. An example of this is the oil from Ximenia species. The literature suggests that this product has important potential, commercial companies have expressed interest in it, and at least two members could benefit from sales of Ximenia seed and oil. Whilst this species is not officially a PhytoTrade priority species, it is clear that it makes sense to bring this product on stream as it adds value to our overall strategy with little additional effort. PhytoTrade’s species and product groups are:

Product Group	Species
Lipids(fatty oils)	Kalahari melon, baobab, mongongo, marula, Parinari, & pipeline (including Ximenia & Trichelia)
Fruit Pulp	Baobab, Strychnos, marula and pipeline
Botanical Extracts	Kigelia and pipeline
New Products (gums, resins, hydrocolloids, essential oils)	To be determined by membership

Action Themes: PhytoTrade’s species and products require a series of actions to bring them to full marketability. They are at different stages of research and development, and have unique and specific commercial possibilities. The strategy is to bring them as quickly as possible to the stage of full marketability. In preparation of this 2nd phase of R&D the following has been taken into consideration:

- ◆ Results from the 1st phase of R&D;
- ◆ Views of PhytoTrade’s partners;
- ◆ Requirements of the Interest Groups;
- ◆ Commercial, technical, scientific data;
- ◆ Views and opinions of collaborating research institutions and other experts.

This process leads to actions specific to each product. However, these actions have a thematic dimension generic to all products. The identification of these themes facilitates coherent planning and enables us to conceptualise the commercialisation process better. The themes are:

- i) Regulatory issues;
- ii) Collaborative R&D;
- iii) Pilot production;
- iv) Process development;
- v) Market research and development.

Budget and Timeframe: The budget is approximately US\$200,000. Implementation commenced in February 2004 and requires a staggered approach with most activities to be completed before December 2004, but with some components running to the 1st quarter of 2005.

Implementation: The strategy involves collaborative R&D with key commercial partners. This investment will be directed at enhancing our intellectual property, creating good partnerships between the partners and members, and leveraging financial and expert investment. Where R&D requirements are identified that cannot be carried out with commercial partners, or where the work is to do with supply-side matters or basic processing development, PhytoTrade will seek to have this work carried out by members. Where the R&D is technically or logistically beyond the capabilities of our members, or where it is commercially more appropriate to use well-known international experts, PhytoTrade will contract professional research institutions and experts to carry out the work. The intention is to use local or regional service providers, with a focus on first class service and creating the appropriate commercial impact. Therefore, PhytoTrade’s services will be provided by:

- ◆ Commercial partners;
- ◆ Members;
- ◆ Research institutions and experts.

A PROUD MEMBER OF...

Do you wish to display the PhytoTrade logo on your stationery, website or even on your products? A logo has been developed especially for this purpose and is available upon application to Lucy, your Information Services Manager.

PHYTOTRADE BECOMES A MEMBER OF IFAT

In May 2004, PhytoTrade became a member of IFAT membership (International Fair Trade Association).

ORGANIC CERTIFICATION

In 2004, Tom Dieters, a Harare-based organic certification expert, carried out consultancy missions to Namibia and Zambia to explore the potential for organic certification of PhytoTrade member's production of natural products in specific areas in those countries. He also developed a set of Organic Certification Guidelines for PhytoTrade members, which will soon be available. Here follows a summary of his findings.

SUMMARY OF NAMIBIA MISSION

The Edufano Womens Co-operative in the Cuvelei district of northern Namibia produces marula, melon seed and some baobab oil for the European market. The consultancy assessed the opportunities and constraints and advised on how to go about obtaining the necessary certification for these natural products, with a focus on marula.

Each homestead has a field of about 3-10 ha of which a large portion is arable or used for grazing cattle. In the fields where the crops are grown, marula and baobab trees are found. Generally, producers have seen little benefit of fertiliser use and prefer not to spend money on it. Although neither fertilisers nor pesticides are used on marula or baobab, these trees may have indirectly received synthetic fertilisers in the past 3 years. A conversion period is therefore desirable. During the first organic conversion year, on-site training in organic agriculture should be provided and the rules and regulations of EC 2092/91 should be disseminated. After this training, most farms will be organically run and marula oil from these farms can be certified organic. An Internal Control System (ICS) should be set up before a certification body can be invited for inspection. There should be financial support to establish an organic demonstration plot. The initiative should be approached as follows:

1. Dissemination of information about organic production
2. Certification body approached and application for certification made
3. ICS set up and submitted to certification body with request for inspection
4. Conversion period starts
5. Training of producers in organic production, ICS and certification

SUMMARY OF ZAMBIA MISSION

The Parinari spp. or mupundu kernel has high oil content and is potentially useful to the cosmetics industry in Europe. The consultancy investigated the status of an area in Zambia where the mupundu

kernels are collected and assessed the possibility of organic certification.

The Katanino Forest lies in Masaiti district, Copperbelt Province and is ideal for organic certification. The forest (4532 ha) is a protected area and has never received any form of synthetic fertilisers or agro chemicals. The forest reserve also has clear visible boundaries. Producers living adjacent to the forest mainly grow maize and sweet potatoes and generally do not use fertilisers, as the cost of doing so is too high. The maize varieties grown are open pollinated or local varieties. Most producers have a few mupundu trees in their fields. The Provincial Forestry Department, with support of the Provincial Forestry Action Programme (PFAP), has identified the kernel of the mupundu tree as an income-earner for people living adjacent to the forest. PFAP has organised a Katanino Area Resource Management Committee, which is responsible for the Village Resource Management Committees (VRMC). In an attempt to identify a profitable non-timber product, PFAP and the VRMC arranged collection of the mupundu kernels for oil extraction.

The Katanino Forest can be certified organic without a conversion period. Producers and collectors must be identified and registered. The mupundu kernels they collect must be delivered to a central collection unit where quantities are recorded. In Lusaka, Tropical Products, a member of PhytoTrade Africa has been identified as a possible buyer and processor of the kernels and exporter of the oil. The process involves buying the kernels from the collectors, transporting the harvest to Lusaka, cracking the nuts, pressing oil from the kernels, and storing and exporting the oil to PhytoTrade's partner, Aldivia.

An organic training programme should be established for the producers. This will enable them to benefit from organic crop production and ensure that their production runs no risk of de-certification due to inclusion of kernels from non-authorised areas. The collectors from the Katanino Forest must be organised under an ICS managed by the PFAP programme. The ICS must include those who collect and sell mupundu kernels. In the start-up phase, investments in infrastructure, training and certification are needed and it is intended to familiarise producers and an oil exporter with organic processing. During the second phase the exporter supervises the ICS and prepares for annual inspections. It is recommended:

1. An inventory of mupundu trees be undertaken.
2. Lockable storage structures close to Katanino be erected.
3. New collection bags, three weighing scales, calculators and stationery for the proper labelling and registration of mupundu kernels be purchased
4. Producers trained in organic production.
5. ICS be set up.

The buyer of the kernels will be responsible for:

1. Payments to producers
2. Verification of the ICS.
3. Transport to the processing facility, including monitoring the cleanliness of trucks used.
4. Storage of kernels before processing, paying particular attention to hygiene and prevention of commingling.
5. Cracking of kernels and the separation of

kernels and shell.

6. Grinding of extracted kernels before pressing
7. Oil extraction by mechanical pressing of the kernel pulp (no solvent oil extraction, unless it is natural alcohol).
8. Observance of the highest hygienic standards throughout the process.
9. Clear documentation of all processing
10. Announcing all collection, transportation, and processing to certification agency.

Once the ICS is set up and the above-mentioned conditions are met, the forest can be inspected and will likely receive the organic certification without delay. Inspection and certification may take up to three months. If the harvest of the mupundu kernels starts in October 2004, inspection should take place in early July 2004. This allows producers four months to comply.

STAFF NEWS

We are delighted to report that Arthur Stevens was appointed as PhytoTrade's Business Services Manager on 1st June 2004. During the recruitment process, we took the decision to appoint this as a part-time position. This enables us to use additional resources to draw on other business development service-providers as and when required.

Arthur is a long established resident of Malawi and has been at the forefront of developing organic farming there. He grows a range of products on his farm in Zomba, including herbal teas, spices and medicinal plants for local, regional and European export markets. Arthur is also the resident analyst for the Malawi Stock Exchange. More recently he has been involved in agricultural-based assignments, including advice on organic production in Mozambique, post harvest handling of chillies in Rwanda and an assessment of the paprika sector in Zambia. Arthur will be working for us for 15 days a month, operating from his farm in Zomba which he shares with his three Jack Russels, 30 sheep and 50 free range pigs!

Lucy Welford, your Information Services Manager had a baby boy, Felix on 8th March 2004. Felix is

growing apace, and Lucy is quickly mastering the art of one-handed typing!

Sekayi Mujati, the PhytoTrade bookkeeper had a baby girl on 4th June. We wish mother and baby all the best.

Management Board Changes: We are pleased to announce the appointment of Nancy Kgengwenyane to our Management Board. She is currently the National Program Officer for UNDP Botswana, serving as the policy and legal advisor for the Governance Programme. She is an expert in the areas of environmental law; decentralization of governance structures, strengthening of public service institutions, capacity building and institutional strengthening of the legislative and regulatory bodies in charge of environmental policy. She has previously served as Senior State Counsel to the Attorney General's Office in the legislative drafting division in Gaborone, and as a legal consultant to SADC, UNDP and other development agencies. Nancy holds a Masters in Environmental Law from the University of Sydney and a Bachelors of Law (LLB) from the University of Botswana.

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