



ALba Laboratories

Making the world more colourful

P.O. Box 1592
Dassenberg 7350
Atlantis
South Africa
www.alba-atlantis.com

Newsletter

It is already the end of September and time for the second edition of our newsletter. We would like to thank everybody for their positive response to the first edition. Apparently most people did enjoy reading the newsletter as we only received two unsubscribe notifications!

Introducing our new products

Usually things do not always work out as planned and over the years we have actively participated in various projects that never materialised at the scale that our enthusiastic customers anticipated. After assisting the customers by doing the initiation of the product and the R&D to get the product ready for marketing, there was never the order for that product. Some of these products have been taken further to the nursery stage to ensure that we would be able to deliver a good final product... In a last attempt to find a good home for these products, let me describe some of them to you:

Tea tree (*Melaleuca alternifolia*)

In 2005 we were approached by a grower to "attempt" the production of tea tree plant material in tissue culture as the success rate of his tea tree cuttings was less than 30% and he was never able to supply sufficient plant material to complete the orders of his customers. There was also interest to start a community project with this crop to uplift the relatively poor village of Mamre in the Western Cape. Although the process of finding a suitable cultivation and subsequent root-inducing medium was relatively easy, we never received any orders for the product and apparently the community project is being held up due to lack of government funding. At this stage we are keeping the plant material in the laboratory to be able to assist with the community project, when/if it materialises. Obviously this is all at the expense of ALBA laboratories. On the positive side, we are able to delivery any amount of Tea trees if requested (minimum order amount 300 plants).



Not much of a looker, but supplying lots of essential oil: Tea tree

Tibouchina selection 'Tibet'

Quite a while back, on a sunny Sunday afternoon, we were admiring the beautiful Tibouchina shrubs in the garden of good friends. They mentioned that it was rather difficult to obtain good plant material and the suggestion was made to try to sow some seeds in flasks. Always willing to try new and different things, we took some seeds with us and now about 5 years later we still have a wonderful dark purple Tibouchina selection in tissue culture. We know the colour as last summer there were some flowers on the plants that we hardened off ourselves. However, except for the few plants we now have in our garden at home, we have no commercial future for this crop and although we are 'attached' to our selection, we need to make a decision whether to continue with the line and sell it or to destroy the plants (minimum order amount 300 plants).



Our selection 'Tibet' in flower

Ornithogalum 'Pella's Pride'

**Second issue,
September 2009**

Newsletter Spotlight

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The stunning 'Pella's Pride' flower

The cultivation of this beautiful flower started as a community project for the village of Pella. Over the years we did supply plant material to a few growers, who in turn were going to deliver bulbs to another local project for cutflower cultivation. However, the last part of the enterprise ceased to exist, leaving the growers in Pella with close to 10.000 bulbs and no prospects of selling the material. Currently they are selling a few of the flowers locally, but that is not really providing the returns that we once hoped for. We find the flowers to be very long lasting in the vase, with the petals drying but remaining white on the flower head. When properly cultivated the flower stems can reach about 80cm to 1 metre without becoming thin and wobbly. Several samples have been sent out to various nurseries, but thus far we do not have any sales for the plant material. Needless to say that we have stopped the production of this crop in the laboratory, but still are keeping a basic stock as we do believe that the project is viable (flowering size bulbs available).

Providing some general back-ground information:

Viruses in tissue culture

Last time it were bacteria that were the topic of this column, now it is an even smaller organism; viruses. Although it is possible to produce virus-free plant material through tissue culture processes, it is very slow and it takes a lot of visually checking for the virus itself in the plant material. Our end product would be plant material with the least expression of the virus. At the moment ALBA laboratories is not equipped for the testing of the plant material for their viral contents. We could approach an institute or e.g. the University of Stellenbosch to have virus testing done, but one has to realise that there are costs involved in such projects.

Obviously if the plant material is virus-free, it will be very easy to keep it that way as we do not have any of the biological vectors that can spread the infection. This is one of the reasons that certain crops have mother-stock in tissue culture; one replaces the mother blocks at a regular interval so the product from the nursery will be virus-free, or at least it will have very low virus levels.

We did have some plant material delivered to our laboratory with "a little bit" of virus expression in the plants. Unfortunately, this means that the plant material will remain virally infected! Even though we might be able to supply plant material that looks clean; it most likely is NOT clean. As a rule of thumb: what is in the plant when you deliver it to us, will in the plant material that you will receive from us.



Virus symptoms in *Dipladenia*, the blotchy leaf colour is a dead give-away for viral infection.

Giving information on commonly used techniques:

Tissue culture propagation of *Strelitzia* species



Strelitzia in flower, here in my front garden

Finally we managed to develop a protocol that allows us to propagate *Strelitzia* species in tissue culture. Although the method is slow and therefore costly, the plant material that we can deliver is growing out very well at the nursery and the success rate, once we have produced a rooted plantlet, is over 90%. Knowing that sowing the expensive *Strelitzia* seeds often only gives a 30% germination rate, this new methodology will allow nurseries to plan their *Strelitzia* production a bit better.

Unfortunately our trial plant material is produced exclusively for the nursery that we did the experiment with and we need to inform any potential customers that it will take approximately two years from delivery of the plant material to the laboratory, before they can expect any plantlet to come from the laboratory. As mentioned before... it is a slow method!

Supplying some back-ground on general misconceptions:

Canola or rape-seed oil

When visiting the recently opened Benguela fine-dining restaurant in the coastal village of Gansbaai, here in the Western Cape, I was asked if there was 'any truth' in the "say No to Canola"-email that was doing the rounds in South Africa. Unfortunately I did not manage to get hold of the email, but in the Cape Times of 24 August 2009 I found an editorial that stated that this hoax email had reappeared after its initial round about eight years ago. From what I gathered, it was mentioned that Canola oil was highly toxic... which is untrue. There are some issues with this name and the crop that could make the whole topic a lot clearer.

Firstly, Canola is a specific selection's name that has become the general name for the whole crop, Brassica napus, especially here in South Africa. The "old" name, rape seed, has a negative association and nowadays the crop has become known as Canola. Another less negative name would be something like 'cabbage seed' (in Dutch it is called "koolzaad") but I doubt if my lobby will be strong enough to get that name established!

Secondly, Canola is a Genetically Modified (GM) selection of 'cabbage seed' that has different oil contents than most other selections. However legislation dictated that it is not allowed to be grown in the EU! Like it or not, there probably is very little wrong with the oil of this crop, but most likely the anti-GM lobby is working their magic on broadcasting the imaginary problems with Canola oil. This is unfortunately affecting the whole 'cabbage seed' crop.

Finally we can recommend a visit to this restaurant, which has great food and a wonderful atmosphere. Just make sure you don't mention what line of business you are in, if you don't want difficult questions asked by fellow patrons!

Benguela fine-dining: 028 384 2120 or 071 337 2971



A beautiful picture of a rape seed (canola) field



Benguela Fine-Dining, the entrance to the restaurant



The beautiful atmosphere in the restaurant

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