

### *Great expectations for Dube AgriLab in 2015, especially after a challenging 2014*

We hope that the farmers are experiencing better rainfall than what we have had earlier this season. Low rainfall makes for very difficult growing conditions and undue stress on the plants. As this newsletter is being published, the Hazelmere dam is at 40% and water interruptions are already being implemented in certain urban areas. We are all reminded to appreciate our limited resources and continue to work towards

finding new ways to make the most of them!

Good agricultural practices and adapted cultivars go towards this. While Dube TradePort is aiming to achieve ISO 14001 accreditation for environmental management, many of Dube AgriLab initiatives are aimed at reducing our usage of resources and negate pollution on the environment.

## PACKAGING



The boxes insulate the plant material, keeping it cool in transit. They can be flat packed to reduce space in storage, and are hand foldable, while strong enough that when folded up that they are stackable as well. Being made from polypropylene also means that they won't get soft when wet, which would compromise the integrity of the box.

Polypropylene boxes are reusable and 100% recyclable. Carton boxes that are not water

resistant or are lined with plastic would not be ideal and are difficult to recycle.

To encourage the re-use of the boxes, we will give R 8.00 credit per box and R 2.00 credit per lid. This can only be done on customer account however, as we unfortunately cannot do cash refunds. We will wash, disinfect and re-use the boxes; therefore we will also encourage our clients to accept a box that is not 100% brand new!

## NEW DEVELOPMENTS

Two major investments should have a big impact at the AgriLab!



The biggest project is our new hardening facility (greenhouse), which is nearing completion.



### HARDENING FACILITY:

This is a great facility that allows us more control over production and delivery and will also allow us to keep more plant stock. It is an insect free facility to ensure that the plants stay virus free, with UV water treatment system and ebb and flood irrigation. We will catch rainwater from the roof as our main water supply, and will recycle used nutrient solution, allowing us to reduce our environmental impact and become more cost effective in the long run.

We will run this facility with a very strict hygiene protocol as well, which will limit our ability to allow visitors inside. We plan to have an Open Day around March or April before our major planting, which will provide guests an opportunity to view the facility.

Please let us know if you would be interested in attending our Open Day, as it will give us an idea of how many people to plan for.

### TEMPORARY IMMERSION SYSTEM (TIS):

Another exciting development is that we will be taking receipt of our new TIS in January 2015.



The trials we have done using the Temporary Immersion System (TIS) have resulted in a great increase in our production rates and also improved our plant quality, which will make the investment well worthwhile!

The TIS is essentially a specialised plastic container (culture vessels), in which liquid medium is put in a bottom chamber and plants on top of a raft. The container is

attached to a compressor that will pump air to the chamber containing liquid medium which will lift the liquid over the plants, thus temporarily immersing the plants.

Using standard methods, the plants sit in the liquid medium all the time - this TIS allows for much better aeration and reduction of phenolic oxidation suppressing plant growth. The result speaks for itself!

**NOVACANE®**

After much excitement at the results during our first trials and production run, we started experiencing problems with our plant material and processes.

We have found some of the processes we were using didn't work well for extended periods when we increased our production. We encountered some physiological disorders on our mother plants, and latent contamination. We couldn't produce healthy plantlets from this and had to decide to throw out all material and start from beginning again as not to jeopardise the quality of the product. To add to the delay, obtaining certified plant material for mother stock is another challenge we are dealing with and we have very little material to work from. We are currently in the process of establishing new mother material into culture.

At the same time we are building a quarantine facility where we can keep our own mother block, from which we can produce new cultures and have a regular turnaround of fresh mother cultures. This should address similar problems. In addition, we believe that our new TIS should alleviate physiological disorders and stress on the plants, and new bacterial screening effort will also be put into place.

We regret to have had to delay deliveries, and we are grateful for your support and patience while we try to iron out all the production challenges. We are very happy though that the plants that we did manage to deliver are doing well in the field and this type of feedback definitely is very encouraging.



## ORDERING AND DELIVERY INFORMATION

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We have quite a backlog to fill on plants that were due for February – April 2015. We expect to deliver these during September – November 2015.

We are unable to confirm delivery times of new orders at present, but we will keep our

customers updated regularly. We will be in contact with everybody who has placed an order as soon as our mother plants have been established and we have a good base number of plants to work from – at that point we can make more accurate estimations of delivery dates.

## NEW LINES

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We are not exclusively doing sugarcane and are currently working on some new lines and reviving some older lines. We don't intend to keep a large variety as specialisation will allow us to be more efficient.

We are currently evaluating pineapples, ginger and some ornamental plants and doing some product development on fruit crops. Feel free to enquire if you have

requirements for plants of other crops.

While tissue culture is not always suited to all plants, and protocols for different species and even varieties are quite difficult to work out (as we are finding with sugarcane), tissue culture has the ability to overcome a lot of potential challenges and is increasingly the preferred method of propagation to ensure top quality plants are produced.

## HAPPY HOLIDAYS!

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We would like to wish all our stakeholders a pleasant, safe and relaxing festive season and a great, productive and high yielding New Year! As with most agricultural businesses, we are not fully closed during this

time, only scaling down to allow everybody to have a break. Our administration offices will be closed from 23 December – 5 January 2015.

**Regards,**  
**Marieke Mendes**  
**Senior Manager: AgriLab**

