

ROSE PROPAGATION WITH LOXYDE AT LUDWIGS ROSES IN SOUTH-AFRICA

I'm a lucky man with a great job!

For the last 25 years of my life I built up my own company based on disinfection and hygiene. Mainly I specialise in water distribution systems such as irrigation systems in horticulture. My message is basically that “**biofilm micro-organisms poison irrigation systems**”. Simply put, if you remove and prevent biofilm in an irrigation system you will prevent 80% of disease and the energy that plants use to defend themselves against disease will be used in growth and yield – win-win really.



My job also means I get to travel around the world in an advisor capacity helping growers solve problems. In February I went to South Africa for the first time – beautiful country by the way – and was able to finally visit Ludwigs Roses Near Pretoria (www.ludwigsroses.co.za).



Ludwigs Roses is run by Ludwig Taschner and besides being the biggest rose grower and supplier in South Africa he has also made himself into a household name – everyone with a garden in South Africa knows of Ludwigs Roses.

Rose propagation at Ludwigs Roses is big, they do 30.000 of each variety at a time and they have dozen's of varieties. For propagation purposes, rose stems are cut, put in small pots and then placed in a greenhouse. Irrigation is by overhead foggers.

Failure rate until a few years ago was high. Depending on the rose variety, Ludwigs Roses would occur loses of between 30-70%. That is considerable, but it was as it was and over the years they had tried all kinds of products but nothing made any improvement. However a couple years back Ludwigs Roses started working with Loxyde.

Loxyde is a stabilised hydrogen peroxide which through a specialised process has been activated and stabilised at the molecular level. This makes it some 10-20 times more effective than standard hydrogen peroxide and therefore highly effective against biofilm and micro-organisms. It's also a lot more controlled than normal hydrogen peroxide.

When they first trialled Loxyde, they started by shock dosing the irrigation system to remove all biofilm, then they dosed 30ml Loxyde per m³ water on a continual basis into the fogging system.

The results were phenomenal! From losing between 30-70% of rose cuttings they went to a success rate of 100% on all varieties (see photo).

Also very noticeable was the total absence of algae growing on the footpaths and walls of the greenhouse (see photo). Normally due to the high humidity levels you would expect considerable algae growth on concrete footpath and walls of the greenhouse, but due to the continual presence of Loxyde this is prevented.

The continual use of Loxyde in the fogging water at Ludwigs Roses means a significant savings for Ludwigs Roses as well as better quality Roses. They now require less mother plants for cuttings, lower labour costs, lower fertiliser costs, etc... and its simply due to insuring that there is no biofilm in the irrigation system.

The reason biofilm is the problem is simply because biofilm micro-organisms are inherently different from the same micro-organisms that do not originate from a biofilm – biofilm micro-organisms are much more virulent and resistant and therefore far more likely to cause disease. Also due to the length of irrigation system they are in huge numbers and are continually released from the biofilm into the water which then comes into contact with plants.

The aim of continual disinfection is not to create a sterile environment. That is impossible and also not wanted, the purpose of continual disinfection is to prevent biofilm and biofilm micro-organisms. Loxyde is ideal for this purpose.

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