

PLANT TECHNOLOGY

Plant tissue culture references & cases



“Viscon helped us to
increase our quality
& quantity significantly.”



From outsourcing TC to in-house production

The Kiri tree is the rising star of the modern industry. The wood of Kiri trees is fast growing, strong, light and resistant. WeGrow is a nursery specialized in Kiri tree propagation and cultivation. WeGrow is becoming one of the most known Kiri tree producers in the world. Young tissue culture plants are produced and rooted in their main lab in Germany, and then shipped to their nursery locations worldwide.

Challenges:

A few years ago, WeGrow started with buying young tissue culture plants from other labs and localize the rooting and hardening process in Germany. This led to many uncertainties and challenges.

The solution:

WeGrow decided a few years ago to produce their own tissue culture plants and invested in a new lab. The company approached VPT to help develop a unique tailor-made tissue culture protocol for their unique clones. VPT worked with a team of experienced tissue culture specialists to develop this protocol and trained the WeGrow staff. Further more, VPT has done an in-depth research on the optimal light source for their clones. VPT helped to source all the LED's in their current growth chamber.

CASE

WeGrow

The results were very encouraging and up to this day WeGrow is able to carry on the success after the knowledge transfer. The staff from WeGrow is now able to produce, research and fine tune their unique protocol by themselves. Furthermore, VPT, as one of the first LED users on a commercial scale, advised WeGrow to continue their production with the help of LED. The VPT team gathered much research data on the light receipt that Kiri trees require for the growth period. WeGrow has now built a brand new multilayer growth chamber fully equipped with LEDs after the recommendations from the VPT team.

Added value:

WeGrow is also one of the many believers in the unique Viscon Plant Technology (VPT) rooting & hardening tray system. The tissue culture plants are being rooted and hardened in the VPT trays and reach almost a 100% success rate.

The VPT trays are used as shipping packaging as well. The packaging regulates the temperature and humidity while plants are being shipped. This guarantees the plants to arrive at their nurseries intact.

First of all, the tissue culture plants were not always delivered with the same quality. They showed many unequal performances. Secondly, when the production of tissue culture is in-house, many aspects cannot be controlled especially aspects such as delivery terms and times. Thirdly, when outsourcing, the company doesn't have the freedom to control their own clones.

CASE

D&F

Turnkey TC factory

Located in the heart of the Chinese fruit production region in Shandong province, D&F is probably one of the most renowned soft fruit young plants producers in China at the moment. Their high-quality seedling produced from tissue culture is celebrated in the market, and the demand is higher each year. D&F has now a 5000 m2 state of art production lab and can manage to produce over 20 million plants per year.

Challenges:

D&F had no prior experiences with tissue culture production before this project. However, they had the ambition to become the biggest tissue culture soft fruit seedling producer in China. They reached out to many parties to seek for expertise and Viscon Plant Technology (VPT) was the one company who could offer the whole package. From designing the lab to making the protocols, from staff training to the whole set of production automation solutions, from tracking & trace software to fully computer controlled climate chambers with LEDs, VPT can fulfill all the challenges.



Solutions:

The whole lab area was 100 % designed by the tissue culture experts from VPT to guarantee the best work flow and the hygiene procedures required by this practice. The unique ViCabins are fully computer controlled, and can offer a stable and clean environment for the production. This was also one of the first commercial projects that used LEDs in the Chinese horti sector. From taking care of the media design to processing the plants, VPT looked into every little detail to maximize the automation process in order to reduce labor.

Added value:

A trained VPT expert stayed at D&F's location for a whole year by request, to make sure the full staff was well trained and could carry the extensive production volume in a relatively short time. The staff received a very in-depth training and now they are able to make their own protocols independently.

Viscon Plant Technology is still developing together with D&F. The two companies share the same vision of high quality products and professionalism.



"Viscon's practical know-how has **proven to be valuable for us.**"



"Viscon is a friend and partner to our business."



Consultancy on hydroponic growing

CP is the biggest company in Thailand and covers a wide range of different business. CP decided to enter the vegetable business in 2016 and started to cooperate with Viscon Fresh Produce. In 2017, a semi-automated deep water hydroponic system was built together with a fully controlled modern greenhouse.

Challenges:

Due to the lack of experience, the first production period was challenging. There were many questions puzzling the local CP team. Viscon Plant Technology (VPT) brought in a team of young professionals, to help CP out and to start up their hydroponic production. The production greenhouse is located in the tropical area of Thailand, which means heat and humidity can all be very challenging. The other challenge was to produce these vegetables without any use of pesticides. The general public of Thailand is weary of the scandals of pesticides used on fresh vegetables. The public demands safe and fresh local produce.

CASE

CP

Solutions:

With a team of young professionals, among which a dedicated expert in the greenhouse hydroponic production, the VPT team is able to give professional advice on the climate control. This guarantees a smooth production, even with such challenging weather conditions. VPT also helped CP to set up their own unique pest control systems without using a single drop of chemical pesticides. At this moment, their vegetables received very positive feedback from the market and CP is very happy with the current hydroponic setup. CP is currently considering to expand their vegetable business due the big success of the product.

Added value:

After an intake by phone with the customer, VPT sends an expert to Thailand on a monthly basis. The expert meets up with the local team, looks into the issues the local team is facing and gives out detailed and thorough advice. With such visits, CP has the confidence to expand their new business and to experiment with new technologies and new vegetable varieties which are not common in the local Thai market.



Excellence in sustainable plant production



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