



Helping to feed the world

Substrates produce higher yields for greenhouses

Feeding the world better with less. That's the idea behind BvB Sublime® (www.bvb-sublime.nl/BVBSublime), a hydrophilic polyurethane substrate engineered for use in hydroponic greenhouses.

“Our world population is growing and placing huge demand on our ability to grow enough food. With BvB Sublime® substrates in high-tech greenhouses, we can produce better crops at higher yield using far less land,” says Peter Brookes, Business Manager at Huntsman Polyurethanes Europe.

The product is a partnership between Huntsman, Recticel and BvB Substrates (www.haasnoot.nl). Based on Huntsman's technology, the Sublime substrate is designed to hold water, while offering maximum air/water ratio throughout the crop life. “Substrates are not new to greenhouses. What Huntsman has been able to do through technical innovation is to provide a substrate with the right cell structure, leading to more efficient water and nutrient use,” Brookes says. This, in turn, leads to an increase in crop yield. While selected growers are currently trialing BvB Sublime® substrate, initial trials resulted in five percent higher yields in cucumber crops and seven percent higher yields in tomato crops. BvB Sublime® substrate has been thoroughly tested for food safety—it is inert, clean and safe. The substrate can be re-saturated in the event it dries out, and if stepped on or crushed, the substrate does not collapse, but bounces back to its original shape.

In the development of Sublime® substrate, Huntsman kept sustainability in mind. “The substrate does not become costly waste to dispose of at the end of the crop cycle,” Brookes offers. Instead, BvB Sublime® substrate becomes fuel for biomass or coal-boiler systems, or for industrial furnaces. With the same caloric value as coal—even with the existing plant material—the substrate is simply mixed into the regular fuel stream. “Grower controllability, sustainability and profitability are built into BvB Sublime® substrate.”

Brookes explains that hydroponic greenhouses are on the rise throughout the world, growing at a rate of five to 10 percent each year. Sublime® substrate has not only been adopted for use in Europe, but has been launched in Canada, Australia, New Zealand, Korea and Japan. “With farmland at a premium, high-tech greenhouses are a way for these countries to meet the needs of its growing population.”

Brookes adds that technical innovations in the field of hydroponic greenhouses could pave the way for urban farming. “High-tech greenhouses could easily be brought into cities, providing high-quality, high-yield fruits and vegetables to urban populations year-round.”

Benefits of BvB Sublime

- Higher crop yields
- Healthier plants
- Easily controlled moisture levels
- Can be re-saturated
- Inert, non-reactive and tested for food safety
- 100 percent thermally recyclable
- Can be adopted for use in urban farming applications