GROW-HOW!

van der Knaap®

Autumn 2020 volume 14 no. 30

rooting/growing solutions

Opening of Van der Knaap México

Our new production location in Mexico was recently opened. Centrally located in Mexico, Van der Knaap Mexico focuses on producing high-quality coco substrates for local horticulture. Producing locally enables us to offer fast delivery times and be in direct contact with our customers.

Van der Knaap has been active in Mexico for more than ten years. Forteco substrate growbags are widely used there, and we support growers with technical cultivation advice. Partly due to the rise of blueberry cultivation in substrate, we decided to start our own production location in Mexico in order to serve the local market even better.

Van der Knaap Mexico is fully equipped to produce high-quality, homogeneous coco material under the name Knaap Profit. This material consists of a unique combination of coco coir and fibre, resulting in a perfectly draining substrate with a high air content. Knaap Profit coco is very stable and has a very low EC value. This makes it a perfect growing medium for the cultivation of soft fruit and various (greenhouse) vegetables.

Mexico has the right preconditions for starting our own production location. It has plenty of coco material available, a favourable climate, good infrastructure and a local sales market. The coconuts are tranported from southern Mexico to our loction in Querétaro, where they are prcessed into a high-quality end product.

Van der Knaap works together with a local partner in Mexico. In this way, we ensure a solid foundation for the future. Our team of experts is ready to get started. In his capacity as partner and location manager, Jan de Smet, the founder of Forteco who has extensive knowledge of growing on coco, keeps a close eye on the production process. Daniele dell'Erba is responsible for sales as the Area Manager for Latin America.

New organic pressed pot substrate

Van der Knaap is constantly looking for (more) sustainable solutions to root and grow plants. We recently added fully organic pressed pot substrate to the range.

A high-quality Press-Select pressed pot substrate, based on white peat and a unique binder is already being used in practice. The pressed pots produced with this substrate have a relatively high air-holding capacity and, even after drying out, are easily rewetted.

In recent years, demand for peat-reduced and organic solutions has increased. The R&D team has developed a fully organic pressed pot substrate that meets the requirements of a perfect pressed pot substrate without any added chemical binder. The substrate is easy to process into a strong pressed pot for young plants and offers a good foundation for healthy growth and development of the crop. The pressed pot is held together with natural components.

Part of the peat in this organic pressed pot substrate has also been replaced by coco. The unique properties of coco ensure even better moisture distribution in the substrate. The composition of the substrate makes it very suitable for the cultivation of (organic) young fruit vegetable crops, lettuce and other leafy vegetables.
The new organic pressed pot substrate was tested in a practical situation in the spring of 2020 in innovation centre 'de Kas' and performed equivalent to the Press-Select variant with white peat which has already been successfully proven in practice and Forteco's propagation cubes.

The organic pressed pot substrate has already gone through the strict approval process of the Forschungs-institut für biologicalen Landbau (FiBL) and has been added to the FiBL input list. For more information, please contact us on +31(0)174-525050 or sales@vanderknaap.info.

Customer focus: Kwekerij Osdorp

Tomato and aubergine on coco

Kwekerij Osdorp is located exactly where the name suggests: Amsterdam Osdorp. Every day, around eighty people with a disadvantage on the labour market find a useful daytime occupation at the three-hectare nursery. They grow tomatoes, aubergines and potted plants there year-round.

Care nursery

The Landzijde Foundation provides care for 110 care farms in North Holland. Kwekerij Osdorp is the only care nursery that is also owned by the foundation. With a team of seventeen people, they direct the eighty clients who work at the nursery every day. The total case load of 250 clients includes homeless people and (former) addicts. They can work at the nursery two or three times per week. They are picked up and returned by van and are served a hot meal for lunch. In addition, they are offered the opportunity to take courses and training.

There are plenty of checks within the nursery as well as close cooperation. All cultivation work is done by the clients. There is one supervisor for cultivation and one supervisor for the people. All they ask is that people stick to the applicable rules.

Jeroen Rijpkema

Nursery Osdorp is managed by Jeroen Rijpkema, who has always worked in nurseries and in 2004 ended up at a nursery where people with a disadvantage on the labour market were working. He found this a great initiative, and in 2009 Kwekerij Osdorp started under his leadership. Initially, vegetables were grown for half of the year and hedera for the other half of the year, so that they had the potted plants to work with in the winter. But as their customers wanted a year-round supply, they now work with two full crops.

“Cultivation is very important,” says Rijpkema. In his view, the products they grow should be at least as good as those of their competitors. “The people are even more important, however. So, as long as the costs have been paid at the end of the year and the people have had good daytime activities, then it has been successful.”

Growing on coco

Kwekerij Osdorp has three hectares at its disposal. Vegetables are grown on 18,000 metres: 14,000 metres of tomatoes and 4,000 of aubergine. They grow around ten varieties of tomatoes that taste good and with which they can really distinguish themselves. The popularity of the range is also evident from their customers. They supply La Place, Picnic and Sligro, among others.

Coco has been used from the start for cultivation. Rijpkema: “We immediately chose Forteco at the time. First of all, because our adviser had good experience with it. In addition, Forteco coco substrate growbags had already proven their worth.” They also asked their customers to provide input. Coco was their first choice too, because of its sustainable properties and natural appearance. Flexibility was an additional advantage: the option to determine the dimensions of the slabs. The choice fell on 1.30 metre slabs and they are still growing on those.

“We now have ample experience with growing on coco growbags.” Whereas an intermediate method was used at first that placed the growbags on the soil without the base, they are now growing entirely on substrate. “Soil life has been given a boost. The crop has beautiful white roots and looks good through to the end of cultivation. The plants are resilient and not susceptible to (fungal) diseases. It is simply a fantastic growbag,” says Rijpkema.

Different types of tomatoes are grown at Kwekerij Osdorp

Future

For the coming year, sustainability is on the agenda for Kwekerij Osdorp, which has been cultivating planet-proof since 2011. Rijpkema: “We will become completely self-sufficient with respect to power generation, thanks to the installation of solar panels.” Cultivation is also going to change somewhat. They are going to cultivate more pot plants next year, and the range will be supplemented with small conifers.

Trials in ‘de Kas’

Rooting of dahlia, begonia and poinsettia

Rooting media are the foundation for the growth of any crop. Concrete data on the performance of propagation plugs in combination with specific crops can therefore be of great importance to the grower.

When a trial is set up in practice, i.e., at a nursery on-site, it runs alongside normal production. It is then not possible to adjust the cultivation strategy accordingly. For optimal cultivation results, a change of substrate often requires an adjustment in the cultivation strategy, for example, in irrigation. This is where ‘de Kas’, Van der Knaap’s own test centre, offers a solution. Almost any desired cultivation situation can be set up in thirteen separate test greenhouses. Together with the grower, we investigate the perfect cultivation strategy for optimal performance of the crop.

In the summer of 2020, for example, we performed a rooting test with three crops: dahlia, begonia and poinsettia. They were rooted from cuttings in Obturo®, Fibre-Neth® and paperpots.

Van der Knaap specialises in customised solutions. All plugs can be tailored to the wishes of the grower and to the crop. For this trial, we analysed three variants of each plug, using input based on practice.

Dahlia on Fibre-Neth®

Begonia
Begonia performed very well on all plug varieties. The fastest root formation happened on Obturo® plugs. Above-ground development was also very good on all variants. On Obturo®, the crop remains slightly more compact. The pre-drilled cutting holes in the Fibre-Neth® plugs made adding cuttings easy and efficient.

Dahlia on paperpots

Dahlia
The rooting phase of dahlias went smoothly. Dahlias did well on all plugs, although the crop showed the earliest root formation and most compact shape on Obturo®. The roots develop nicely: they grow well throughout the plug and adhere well to the plug. This is useful, as it prevents the roots from breaking during planting and potting.

Poinsettia
Poinsettias performed best on Obturo® and paperpots. Here, too, the fastest root formation happened on Obturo® because of the higher moisture content of these plugs. It is clear that irrigation is of great importance for this crop; any changes have a direct impact on the quality.

In this trial, the cuttings were placed under tunnels during the initial phase. In practice, however, we also see good results with poinsettia on Fibre-Neth® plugs, when moisture is controlled with a misting system instead of tunnels.

Follow-up trial
Of course, we also wanted to know how the plants would continue to develop after this first phase, and how the different plugs would influence this. We chose to pot the poinsettias in an airy substrate mixture with a part coco for ideal moisture distribution and to replace a part of the peat. Here, the differences between Obturo® and Fibre-Neth® plugs on the one hand and paperpots on the other were plain to see. The rooting on these plugs, which retain their shape in a unique way without a biodegradable sleeve, is faster. The difference becomes less noticeable as cultivation progresses, but an optimal start could make the plant more resilient.

Poinsettia in the follow-up trial

The poinsettias on Fibre-Neth® plugs developed slightly more shoots on average, but the poinsettias developed nicely on all plugs. Since we did not use shading for this trial, the red colouring was delayed and the plants showed the characteristic colour around the end of November. Perfect timing for this poinsettia!

More information?
This trial has yielded many valuable insights into the development of dahlia, begonia and poinsettia. In addition, the results also offer interesting starting points for other cuttings and seeds. For detailed information, please contact us on +31 (0)174-296606.

Sustainable: drying plugs with geothermal heat

Van der Knaap recently opened a drying area for Obturo® plugs. Their unique composition makes Obturo® plugs excellent for drying and then rewetting to their normal moisture level. This has several advantages. Dried plugs have a longer shelf life. It also saves weight, which makes the plugs more efficient to transport worldwide. Drying plugs costs energy. However, Van der Knaap has devised a solution that is as sustainable as it gets: we dry with geothermal energy!

Since 2018, our innovation centre 'de Kas' in Honselersdijk has been connected to the geothermal energy network 'Aardwarmte Vogelaer'. With its relatively limited surface, the innovation centre is certainly not a major consumer, which means that some of the geothermal energy is also available for other applications. The return water (i.e. after being used in our cultivation greenhouses) is sufficient to heat the required air for the drying room through a heat exchanger. Because we use the geothermal energy efficiently, we return cooler water. This increases the efficiency of geothermal energy consumption.

To dry the plugs, they are placed on trolleys in a separate cell. The moisture is absorbed from the plugs with warm and dry air. After delivery, the plugs can easily be returned to the correct moisture percentage. Obturo® plugs absorb moisture with ease.

The main advantage of dried plugs is their increased shelf life. Living organisms such as bacteria can consume nitrate (NO_3) in plugs that are kept moist for a long period of time in sealed packaging. This happens especially when the oxygen present has been consumed by the presence of aerobic bacteria. When this happens, the bacteria will feast on the oxygen that is bound to NO_3, with N eventually escaping as nitrogen gas. In addition to this process, other important nutrients, such as calcium and magnesium, also disappear over time. However, drying the plugs halts these processes and the nutritional elements will not or hardly be consumed. This allows the plugs to be stored and transported without loss of quality.

Obturo® plugs can be tailored to customer requirements. The size, tray, cutting holes and potting soil mixture can be adjusted in consultation. In this way, Obturo® offers all the flexibility to perfect the cultivation process.

Drying of the plugs

Sustainable Development Goals (SDGs)

The United Nations has formulated seventeen Sustainable Development Goals (SDGs). Focusing on sustainable entrepreneurship is essential for the future. Our focus is currently on five objectives.

No poverty
With production locations all over the world, the Van der Knaap Group provides employment in countries such as Sri Lanka, India, the Dominican Republic and Mexico.

No hunger
We can contribute to this goal by providing the highest possible yield from the crops grown on our products.

We offer employees at our foreign production locations a hot meal every day.

Good health and well-being
We use the organic nutrient solution from our bioreactor to research the effect of the various micronutrients on growing crops that contain more vitamins, among other things. In other words: a healthier product.

Good health and well-being are of paramount importance at our production locations. Good personal protective equipment, extensive training and courses to create a safe and healthy working environment contribute to this.

Fair work and economic growth
We strive to take the social impact of our activities into account. Core themes include child labour, health and safety, discrimination and (fair) remuneration.

Partnership
Van der Knaap works together with local partners at the production locations for coco and peat products. Achieving sustainability goals is only possible if we work together.

Would you like more information about any of the topics in this newsletter? Please contact our Public Relations Department: tel. +31 (0)174 296606.

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