

Grow-How is going digital

For the past few years, our newsletter Grow-How! has been regularly distributed as a supplement with "Onder Glas", the trade magazine for horticulture. However, in 2017 it's high time that Grow-How! is also distributed digitally.

Would you like to receive Grow-How! digitally from now on? Scan the QR code to find the registration form on our website. Fill in your e-mail address to keep up-to-date with the latest developments at Van der Knaap! Are you unable to scan the code? Go to www.vanderknaap.info.



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A new face: Arie Bax

In mid-October, Arie Bax joined the Van der Knaap Group as Account Manager and Horticultural Advisor. Arie is mainly involved with the tree nursery sector in the North-West of the Netherlands. Arie has extensive practical and management experience and he fits in well with the sales team at the Van der Knaap Group.

To make an appointment, contact Arie by calling +31 (0)174 525050 or by e-mail at sales@vanderknaap.info.



Account Manager Arie Bax

Van der Knaap and Benefits of Nature

The Benefits of Nature foundation is a network of more than 160 businesses in the horticultural and agricultural sectors. This foundation can quantify the sustainability of a business using a footprint calculation.

The footprint can be seen as the ecological footprint that a business leaves behind as a result of its activities. The calculation covers more than thirty impact categories. The entire production process and all related activities are examined.

Benefits of Nature aims to improve the footprint of all businesses in the international green sector in order to achieve greater sustainability. Following the calculation, a course of action indicates points for improvement. For example,

this could mean choosing more sustainable suppliers and transport companies. This successful model was recently rewarded with the prestigious German TASPO Award. The foundation received first prize in the category "most innovative service of the year" with "economic and comprehensive sustainability analysis by an independent neutral body."

Van der Knaap is a proud member of Benefits of Nature and has recently carried out a footprint calculation for the production of coco products at its own production locations in Sri Lanka. This means in practice that Van der Knaap has a report giving insight into the various coco production processes at the company's production locations in Sri Lanka. This makes it easier for the company to make important decisions and underpin sustainability issues. Not only does this ensure improved sustainability at Van der Knaap, but also that of Van der Knaap's business associates.

The strong point of this system is that the whole chain, from "the cradle to the gate", works together and that healthy business results and sustainability go hand-in-hand thanks to the footprint calculation.



KPM: new fertiliser for potting soil

Van der Knaap has developed a new fertiliser for potting soils based on white peat: KPM (Knaap Peat Mix).

The standard 12-14-24 fertiliser mix is a good blend for potting soil mixes based on black peat, but this fertiliser was developed when German black peat was still being used. Nowadays, various sorts of white peat are more commonly used. White peat requires a different approach to black peat when base dressing and fertilising. That is why the Van der Knaap Group carried out many test trials on fertilisers at our test centre “de Kas” during 2016. Based on these results, a fertiliser has been developed which is better suited to the specific characteristics of white peat.

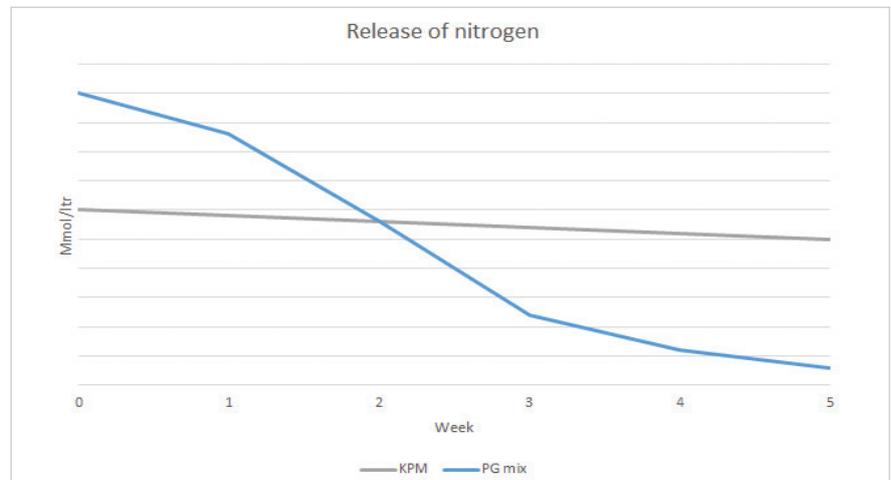
One of the most important advantages of the new fertiliser is that the nitrogen is released more slowly, prolonging its accessibility. For example, this is particularly important for cuttings or seed plugs, where nitrogen can be lost through leaching. Nitrogen is released slowly

in KPM so that it remains accessible to the crop, resulting in better growth.

KPM contains a unique combination of raw materials and additives, which improve the fertiliser’s performance. For example, KPM contains red iron. Iron is an important element for the formation of chlorophyll, which gives the plant its colour. It also contains a different type of phosphate. This type is more readily available than traditional phosphate and it can be

absorbed over a wider pH range. This is important for root and bud formation.

Plants which are currently being tested with the new fertiliser are responding positively. The most important characteristics which we see in the resulting crops are: better and faster rooting, no sign of deficiency as a result of the longer exposure to nitrogen and considerably more colour in the plant.



Release pattern nitrogen (N)

Substrate trials with Curcuma

Van der Knaap and KP Holland are collaborating on a trial aimed at optimising the cultivation of Curcuma cut flowers.

These two companies worked together previously on research into the possibilities of using peat-free substrates for cultivating Kalanchoes (see Grow-How! 24). This cooperation was a great success. The cultivation of Kalanchoes shows some room for improvement. The Van der Knaap Group has good facilities in its trial centre “de Kas” for setting up a test trial.

This trial concentrates on three different aspects. Firstly, it is investigating how variation in the dosage of potassium effects bud development. We are also

investigating whether a variation in air content and pore volume can boost generative growth. In this respect, we are looking in detail at how flowers and leaves split off in relation to irrigation. Finally, this trial aims to establish whether the later development of the aerial parts of plants can be influenced during the rhizome phase. An important goal here is creating a good balance between leaf and flower formation.

During the trial, progress is closely monitored and changes are made where necessary. The trial has shown positive results and has, therefore, been extended. It has revealed that cultivation can be steered so that the balance between flower and leaf formation remains stable. The rhizomes can produce

flowers for a longer period, resulting ultimately in higher total production.



The effects of nutrient deficiency

Trial: signs of deficiency

Professional growers use various sorts of substrate for cultivation of crops. Plants can be cultivated in the ground, in potting soil or on artificial substrates. Problems can occur during cultivation, whereby crops display signs of deficiency. Last year, a trial was held in "de Kas" to establish which symptoms crops display when certain nutrients are lacking.

The trial

When signs of deficiency occur, it means that a plant is unable to absorb one or more nutrients sufficiently. The lack of certain elements can result in the plant displaying abnormal growth, production or colour. During the trial, the deficiencies displayed by two crops, hydrangea and sweet pepper, when certain nutrients are lacking were studied. The hydrangea were cultivated on Knaap Elite, containing 100% fine coco, and the sweet peppers in Forteco Power Growpots.

To keep interference in the trial to a minimum, fertilisers were not added to the substrates. Both crops were treated with a nutrient solution with an EC-value of 2.5. An element was removed in every subsequent treatment. The reference plants did not lack any main or trace elements. The elements tested for their effect on the plants were: phosphorous, nitrogen, potassium, calcium, magnesium,

iron, boron, sulphate, zinc, copper, molybdenum and manganese.

Results

Soil and leaf samples were taken from both crops to establish whether the missing element could be detected in the leaf or in the substrate. We also checked to see if the plant had been able to absorb sufficient quantities of the other elements. It turned out in all cases that the element concerned was definitely not present and that there had been no problems with absorption of the other nutrients.

Above-ground

Based on the whole test procedure, it can be concluded that deficiency in certain elements such as nitrogen, phosphorous, potassium, calcium, magnesium and iron are soon apparent. For example, a phosphorous deficiency stunted growth and development after just one week, a nitrogen deficiency did that right from the start. Deficiencies



Magnesium deficiency

in potassium, boron or calcium resulted in necrosis. The above deficiencies also caused blossom end rot in sweet peppers. An iron deficiency caused the leaves to turn yellow.

Below-ground

Generally, root development can be said to be disappointing if there was also abnormal above-ground growth. The restricted growth above ground resulted in a wetter root ball, which is harmful for root development. Furthermore, a deficiency in certain nutrients meant the plant lacked the enzymes which promote root development.

Harvest (sweet pepper)

A zinc or copper deficiency led to a high fruit weight, but a very low number of fruit. However, the crops with a potassium deficiency had a high number of fruits, but a lower than average weight. The reference plants had the best results with a good average weight and quantity of fruits.



Overview of the trial

ISO 9001:2015 certification

A new version of the NEN-EN-ISO 9001 quality management system was published in the autumn of 2015. This new version stemmed from the idea that the standard should develop along with changes in society.

Developments which played a role in this were increasing internationalisation and globalisation, the social role of organisations and the growing attention for risk management. Two important points which are incorporated into the new ISO 9001:2015 standard are the integration of stakeholder management and risk management.

The Van der Knaap Group has been ISO 9001 certified since 1998. The changes in the norm fit in well with our strategic direction. By means of its own innovation and cooperation with interested parties, Van der Knaap aims to deliver goods and services in the field of rooting and growing media for the local and international consumer and professional horticultural market. The products and services provided by the Van der Knaap Group can help growers and customers achieve a socially and economically responsible outcome.

Last year, it was a simple decision to switch over to ISO 9001:2015. In-depth environmental and stakeholder analyses were carried out to prioritise risks and opportunities. This action led to a strategic improvement plan containing concrete proposals.

The whole organisation was involved and it has helped increase quality awareness among the employees even further.



At the end of September, the management team and the Quality Assurance department assessed the quality system. As a result, we were certain that we were ready for an external audit. At the end of October, the auditor from Kiwa audited the management, staff departments and production locations at Holland Potgrond, Holland Potgrond Limburg and Van der Knaap-Braam. He concluded that the Van der Knaap Group complies with the standards requirements of ISO 9001:2015.

We are very proud of this result and of obtaining our new ISO 9001:2015 certificate.

AGENDA 2017

STRAWBERRY DAY

Wednesday 11 January

SOFT FRUIT CONFERENCE

Thursday 12 January

Den Bosch, Netherlands

Van der Knaap Group will be at the annual Strawberry Day and the Soft Fruit Conference at the Brabant Halls Congress Centre in Den Bosch (NL). Pay us a visit, and find out more about our products for growing strawberries and other soft fruit.

TROPICAL PLANT INDUSTRY EXHIBITION

Wednesday 18 to

Friday 20 January

Fort Lauderdale, Florida, USA

You can find Van der Knaap at **stand number 1925** during this comprehensive trade show for flowers and plants in Florida.

IPM ESSEN

Tuesday 24 to

Friday 27 January

Essen, Germany

As in previous years, the Van der Knaap Group will be at this leading international trade fair in Essen (Germany). You can find us in **hall 3, stand 3D18**.

FRUIT LOGISTICA

Wednesday 8 to

Friday 10 February

Berlijn, Germany

This year we will be present at Fruit Logistica in Berlin, presenting our products for fruit and vegetable cultivation. You will find us in the **Holland Pavillion in hall 3.2, stand D-22**.

HORTICONTACT

Tuesday 14 to

Thursday 16 February

Evenementenhal, Gorinchem

We will be participating in the HortiContact trade show in Gorinchem (NL). You will find us at stand number 325.

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