Quality has no borders under RHP

Potting soils and substrates are not beautiful like flowers and plants but *their* quality is reflected in the uniformity and *quality* of crops. Consistency in economic returns across all the square metres in a greenhouse requires good crop management *and* the right choice of growing media.

by Ron van der Ploeg and Anabel Evans

The RHP Foundation came into existence for exactly the reason of choosing the right growing media. It is impossible to judge the specific chemical and physical properties of substrates with the human eye and as the Dutch growers started to take advantage of the economies of scale in the 1960s, the problems with steering crop growth multiplied up into the thousands of square metres. The solutions identified through the research of the RHP Foundation have since been developed into certifiable minimum quality standards for peat products, raw material, potting soil formulas, substrates, soil supply and soil improvement materials. A product with the RHP Quality Mark satisfies all requirements listed in the certification scheme. There are 50 internationally active companies currently affiliated to the RHP Foundation, all of which are involved in deciding the continuing research programs on an annual basis. The WOK method to provide a measure of the water uptake over time of substrates is a recent research innovation from RHP. Growers can request the WOK number of a product to determine its suitability for their cropping system; it also provides measured data for product comparisons. In the bedding and pot plant nurseries, for example, a high WOK number gives advantages of a quick water uptake where an ebb and flood system is practiced; importantly, the speed is correlated with the uniformity of water uptake in the medium. WOK exemplifies the RHP ambition to communicate the actual characteristics of growing media; the interest in the percentage-mix of raw materials is becoming less meaningful as RHP director Hein Boon explains.

Trudy Sonneveld, RHP communications, and Hein Boon, director RHP Foundation: The WOK analysis is a practical parameter to forecast the water balance of substrates under practical circumstances. It is a tool for growers and substrate suppliers to define a substrate.

Hein Boon: "Traditionally, potting soils were simply a peat and lime and fertilizers mix. The demand for peat alternatives, the different requirements of individual crops and the availability of other raw materials, however, have led to an increase in the number of raw materials used in potting soil formulas. The presence of different raw materials creates both unique characteristics but also the chance of undesired interactions; for example, the pH value of peat is very stable while the combination with other raw materials can introduce a higher degree of fluctuation in the pH of the growing media."

Knowledge centre

The alternatives to peat range from coconut coir products, bark, wood-fibre, rice-hulls and green-compost etc. The RHP function as a knowledge centre on growing media studies the chemical and physical properties of these individual raw materials. The cooperation with the RHP affiliated companies as well as third party companies further

International scope

The RHP Quality Mark has been included in the certification package of ECAS (European Certification body for the Agricultural Sector) since 1999 and has been tested by the Accreditation Board for independence, who controls the quality and effectiveness. Certified companies are visited once every two months. Acceptance by the Accreditation Board means that the quality mark is also recognised internationally. This status is a major added value for purchasers of potting soil and substrates in all European countries. (www.rhp.nl)

RHP
Certified for
Horticulture

investigate the characteristics resulting from the various compositions of raw materials used in product development. Data from 2000 and 2008 shows the volume of peat alternatives incorporated into the 5 million cubic metres of growing media manufactured by RHP registered companies has risen from 10 to 22%.
The standards within the RHP Quality Mark include phyto-sanitary aspects; the increasing use of organic by-products sourced from the Tropics puts a strong accent on this aspect. Growing media samples are taken, for example, to control the presence of (tropical) weeds and germs. It is also stipulated that green-compost must not originate from the horticultural production sector to prevent the transfer of plant diseases into new crops. Furthermore, a standard for measuring the stability of the organic matter in different kinds of substrates has recently been introduced. Called the respiration-method, a high activity indicates that the organic material easily breaks down and therefore the product is unstable. This is a critical measure, especially for growers choosing substrates for crops with a long culture period. "The quality of potted anthurium, as an example, relies on the consistency of the potting soil characteristics over years rather than weeks," says Boon. "The respiration-method gives growers an objective measure to create consistency in their growing systems; the risk of quality deterioration over time is minimised." Boon adds, "The maximum activity accepted in the RHP Quality Mark is based on a long culture period to safeguard against any misuse of unstable products."
RHP does set high standards. It is quality minded. Boon realises that their vision of "quality control and product improvement" is not in line with the business philosophy, or capacity, of all companies. Nevertheless, the international scope of the RHP Quality Mark and the associated investments by the 50 companies are a credit to the ornamentals industry. |||

Similar to flowers and plants, the supply of growing media is an increasingly international market with quality and innovation, sustainability and logist[illegible] driving the product development of substrate manufacturing companies.

SPECIAL

Quality "first" for Dutch Plantin

May 1st, 2009 is the first time that the RHP certificate can be applied to grow-bags containing compressed planks of cocopeat. Dutch Plantin is the company that has achieved this recognition. Fer Weerheijm, managing director Dutch Plantin, says, "RHP has checked and approved the origin of the raw material, the processing location in India, the grow-bag characteristics (e.g. organic material, bulk density, air pores, water capacity) and the uniformity of the grow-bag dimensions (length x breadth x height) after the wetting and expansion stage." The expansion of grow-bags, which are manufactured from compressed planks to minimise shipment costs, is fundamental to the quality of the growing media. Weerheijm says, "Unfortunately, growers do not always appreciate the importance of optimum and uniform expansion of grow-bags until plant growth begins to deteriorate and a crop becomes uneven; slitting the bags open in these situations quickly reveals a poor root development." Growers are unable to judge the wetting characteristic beforehand, but with the RHP Quality Mark Dutch Plantin is assuring growers that their grow-bags all expand to the same size and have predictable chemical and physical properties (also controlled by RHP).
May 2009 is also a milestone for Dutch Plantin's supply of bio-substrates. "There is a growing demand from particularly Germany and the UK for nursery supplies that can be used in organic business concepts. The organic standards are taken from the food industry and therefore the growing systems must be free of chemicals, fertilisers etc.," says Weerheijm. "We have achieved an organic certification for our bio-substrates manufactured in India from the Institute for Marketecology (IMO), which is one of the first and most renowned international agencies for inspection, certification and quality assurance of eco-friendly products. These bio-substrates are washed but, unlike the RHP products, do not undergo a buffering process as this involves the addition of fertiliser. Growers using the cocopeat bio-substrates must therefore be aware of the presence of the natural salt complex, which can bind calcium and release sodium and potassium into the root zone."

WOS innovationfrom Slingerland

On January 1st, 2009 Horticoop and Royal Tuinbouwcentrum Lent joined forces. Lent is a leading enterprise in the production and marketing of potting compost and other growing substrates by means of its subsidiaries, Lentse Potgrond and Slingerland Potgrond. Last year Slingerland Potgrond achieved recognition for being the first company to receive a RHP certificate for its orchid substrates. Quality manager Ronald Keijzer says, "The control over the production process by an independent organization to guarantee the substrate quality has received positive reactions from our clients. We see the market increasing, particularly for exports, and as a leading supplier of orchid substrates it is expected that we are RHP certified. >>>