Interesting

"Recyclate from household waste is already a frequently used raw material for ornamental plant packaging. The next step is to get the word out and scale up!"

Two exporters of flowers and plants conducted a market consultation to find out how plastic from household waste can be used in seeding pots and plant trays. The use of recyclate was already common. That is why the focus in the pilot shifted to the end-of-life section, which is where the problem lies. Plastic dyed with carbon black appears to be difficult to detect in the sorting system.

Pilot results

Seeding pots are often dyed with carbon black. It is a cheap and relatively durable dye. Black is very suitable for nursing plants, because that colour protects the roots against too much sunlight. However, carbon black cannot be detected with Near Infra-Red in the separation systems and that is a major problem for recycling. To achieve a circular process, a solution must be found for recognising carbon black or an alternative dye needs to be developed.

The management boards of Royal Lemkes and Van Dijk Flora support the recommendation that emerged from this pilot. This recommendation to the ornamental horticulture sector is that they, from 2020 onwards, together with stakeholders, focus on developing a standard norm for seeding pots for plants made from recyclate. Standardisation can be based on the percentage of recyclate, end-of-life detection options and communication towards the consumer, such as the use of a waste separation symbol.

JOSÉ VAN DER KLAUW (VAN DIJK FLORA), SUSTAINABILITY MANAGER AND MARIEKE KESSELS (ROYAL LEMKES), SUSTAINABILITY COORDINATOR:

Focus on the demand side, not on the supply of recyclate. In other words, on the product for which you want to use recyclate. The supply side is too hazy. It is also important to seek collaboration with sorting companies and to tackle end-of-life recyclability. In our pilot we, two competing colleagues, worked together. In such instances, it is important to properly define the area of collaboration. This allows you to share the knowledge with each other in that area in a transparent manner.
Dilemmas

Royal Lemkes and Van Dijk Flora looked at how they could use their purchasing power to apply more PCR. Two ways have been worked out for this, each of which comes with their own specific problems:

1. **Imposing a purchase requirement on the manufacturers of seeding pots: a minimum percentage of PCR**
   A minimum percentage can be a good way forward, but there is a dilemma, as this method deprives manufacturers of the possibility to use the most optimal mix available at that time. This can have an undesirable effect on the price. A solution can be to adjust the purchasing requirement from a minimum percentage of PCR to a minimum percentage of recyclate.

2. **Ban on the use of carbon black**
   Pots without carbon black are easier to select for recycling in the sorting phase. However, the risk of placing a ban on carbon black is that manufacturers of the packaging are inclined to opt for the original (virgin) material more often. A solution can be to start up a dialogue with waste processors in order to achieve a better sorting result, in which pots with carbon black are filtered out as well.

What next?

The management boards of Royal Lemkes and Van Dijk Flora have endorsed the recommendations from the pilot and are going to work on developing standards for seeding pots made from recyclate.

MARKET PERSPECTIVE

- The entire ornamental horticulture sector, including sales, is interested in the use of recyclate. Sharing the information from this pilot with other parties in the sector will have a stimulating effect.
- Buyers of plants and flowers are interested in communicating the origin of the plastic in the packaging materials towards consumers.
- In order to actually increase the percentage of recyclate from household waste, collaboration with waste sorting companies is of the utmost importance. When their systems are able to detect seeding pots, the recycling of the plastic will rise exponentially.

"When sorting systems are able to detect black seeding pots with carbon black, the recycling of this will explode."

The Plastic Packaging Waste as Raw Material (KVG) programme encourages the use of household plastic packaging waste in products. By better matching supply and demand of recycled plastics, we will reduce the use of plastics. This will bring us closer to a circular economy. The programme focuses on two pillars: purchasing and innovation.

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