

News Release

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For the cultivation of greenhouse fruit and vegetables: plant clips made of certified industrial compostable biopolymer

- **BASF's ecovio® 60 IA 1552 extends end-of-life of clips to organic recycling**
- **Tests by recycling specialist Renewi prove successful processing in industrial composting acc. to ISO 2020**
- **Meet BASF at Fruit Logistica, Berlin, February 5 to 7: hall 1.2, booth C-23**

For the sustainable cultivation of greenhouse fruit and vegetables, BASF has developed a certified industrial compostable biopolymer that can be used to manufacture black and white plant clips. With clips made of ecovio® 60 IA 1552 annual creepers like tomatoes, cucumbers and peppers can be easily fastened in commercial greenhouses. The clips benefit from the biopolymer's balanced high performance of strength and flexibility, while being certified industrial compostable according to EN 13432. Thus they can be collected together with the plant residues after harvesting and put into organics recycling in industrial composting facilities (depending on local regulations) where they biodegrade. With this end-of-life option for clips, persistent microplastic in green waste usually caused by clips made of polyethylene (PE) or polypropylene (PP) can be avoided. At the same time more green waste can be turned into valuable compost contributing to a circular economy.

Clips made of ecovio® 60 IA 1552 are designed to perform effectively in horticulture for many different crops and in many climates throughout the entire crop cycle, easily adapting to various environmental conditions typical for greenhouses,

including temperature fluctuations, relative humidity, and exposure to UV radiation. Farmers also benefit from a more cost-effective waste disposal than with non-biodegradable materials: After harvesting they do not have to remove the clips made of ecovio® from the plants but simply collect them together for industrial composting.

Proven industrial compostability

Composting tests on industrial scale at the Dutch waste management company Renewi at Hook of Holland, show that the green waste together with the clips is successfully processed in industrial composting acc. to ISO 2020 and biodegrades within six weeks after each crop cycle. “As an expert in agricultural waste disposal, we recognize the significant value of BASF’s certified compostable ecovio® to increase organic waste collection and reduce landfill waste”, says Johan van Paassen, head of recycling at Renewi. “This ties in with our commitment to a circular economy, i.e. to make smart use of materials also at the end of life, manage waste effectively and give new life to used materials. This is especially true for agriculture where recycling plays an important role to ensure soil health and food safety.”

For manufacturers of clips, ecovio® 60 IA 1552 is an easy drop-in solution: It can be produced on standard PE or PP machinery for clips. The BASF biopolymer is also approved for food contact according to FDA and European regulations. “We are proud that our ecovio® grade for clips can help farmers to improve the sustainability of their horticultural production and contribute to enhancing compost quality”, says Antonella Pizzolante from global business management Biopolymers at BASF. “We believe that employing sustainable farming practices can advance a farmer's reputation and attract environmentally conscious consumers. We partnered with Renewi to prove to farmers and consumers alike that the green waste, along with the clips, successfully biodegrades in industrial composting, thus supporting environmentally responsible agricultural practices and enhancing the overall health of agricultural soil.”

BASF biopolymers enable organics recycling in agriculture and horticulture

Ecovio® 60 IA 1552 for clips complements BASF’s biopolymer portfolio for sustainable agriculture and food production. The certified industrial compostable ecovio® T 2206 can be used to manufacture black twines for growing annual fruit and vegetables in commercial greenhouses (acc. to EN13432) in many climates:

Tests show the twines' excellent performance until the end of the crop cycle when farmers can simply collect them together with the plant waste for organic recycling. The certified soil-biodegradable ecovio® M 2351 (acc. to EN 17033) for agricultural mulch films can increase the yield, speed up harvesting as well as save water and herbicides. The mulch films are completely biodegraded by microorganisms like bacteria and fungi that exist naturally in the soil. Farmers can plough them back into the ground after harvest. This saves time and money and helps to avoid persistent microplastics in agricultural soil which would occur with conventional mulch films made of non-biodegradable PE.

Further information: www.ecovio.basf.com and www.biopolymers.basf.com

About BASF's Performance Materials division

BASF's Performance Materials division is at the forefront of the much-needed sustainability transformation in plastics. Our products are co-created with customers around the globe to bring innovations to major industry sectors such as transportation, consumer goods, industrial applications, and construction. Our R&D focuses on all stages of the plastics journey: Make, Use and Recycle. The MAKE phase is about improving how plastics are made, from product design to the choice of raw materials and the manufacturing process itself. The USE phase enhances plastics' strengths such as light weight, robustness, and thermal resistance. At the end of the product lifecycle, the RECYCLE phase looks at how to close the loop to achieve a circular economy. In 2023, the Performance Materials division achieved global sales of €7.2 billion. Join #ourplasticsjourney at: <https://www.performance-materials.basf.com>

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. Around 112,000 employees in the BASF Group contribute to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio comprises six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €68.9 billion in 2023. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the United States. Further information at www.basf.com.