Accelerated growth: global production capacities of bioplastics 2021-2026

Bioplastics currently represent still less than one percent of the more than 367 million tonnes of plastic produced annually¹. However, contrary to a slight decrease in the overall global plastic production, the market for bioplastics has continuously grown. This development is driven by a rising demand combined with the emergence of more sophisticated applications and products. Global bioplastics production capacity is set to increase significantly from around 2.41 million tonnes in 2021 to approximately 7.59 million tonnes in 2026. Hence, the share of bioplastics in global plastic production will pass the two percent mark for the first time.

Material development and diversification

Bioplastic alternatives exist for almost every conventional plastic material and corresponding application. Due to a strong development of polymers, such as PBAT (polybutylene adipate terephthalate) but also PBS (polybutylene succinate) and PAs (polyamides) as well as a steady growth of polylactic acids (PLAs), the production capacities will continue to increase significantly and diversify within the next 5 years.

Applications and market segments

Bioplastics are used for an increasing variety of applications, ranging from packaging and consumer products to electronics, automotive, and textiles. Packaging remains the largest market segment for bioplastics with 48 percent (1.15 million tonnes) of the total bioplastics market in 2021.

Land use share for bioplastics estimated to be at 0.01 percent of the global agricultural area

The land used to grow the renewable feedstock needed to produce bioplastics is estimated to remain at approximately 0.70 million hectares in 2021. This accounts for just over 0.01 percent of the global agricultural area of 5.0 billion hectares. Along with the projected increase of bioplastics production in 2026, the land use share is expected to be still below 0.06 percent. In relation to the available agricultural area, this share is minimal. Thus, there is no competition between the renewable feedstock for food and feed and the production of bioplastics.

About this market data update

The market data update 2021 has been compiled in cooperation with the market experts of the nova-Institute (Hürth, Germany). The market data graphs are available for download on http://www.european-bioplastics.org/news/publications/