



In the "AgriTex" innovation project, [WESOM Textil GmbH](#), together with the [Fiber Institute Bremen e.V.](#) and the [Institute for Polymer and Production Technologies e.V.](#), has set itself the goal of developing a compostable technical textile that is to be used in agriculture, among other things. The project is funded over three years by the [Central Innovation Program for SMEs \(ZIM\)](#) and has a funding volume of around 570,000 euros. A corresponding application was approved by the [Federal Ministry for Economic Affairs and Energy \(BMWi\)](#) in April 2020.

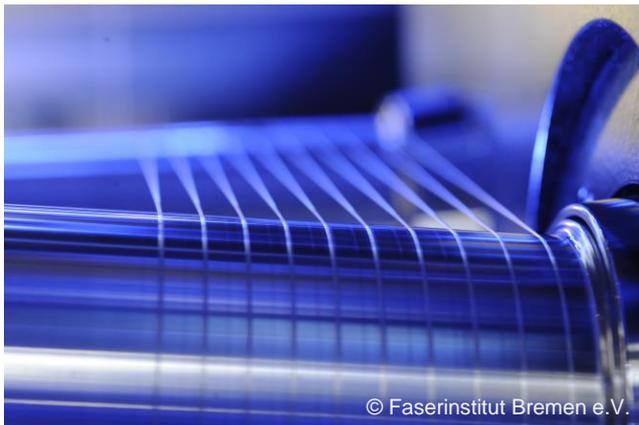


Plastics have become an integral part of our everyday lives and are used in a wide variety of areas. At the same time, pollution from plastic waste is one of the greatest global problems of our time. There are already various options for the sensible and environmentally friendly disposal of plastics, e.g. recycling or thermal recovery. However, it cannot always be guaranteed that the waste is also disposed of in the corresponding disposal routes. For example, in agriculture, even if used properly, a release cannot always be prevented or a return is not possible depending on the application. Bio-

degradable plastics can help to solve this problem, but many of today's products only rot very slowly, as otherwise the required stability and robustness cannot be guaranteed.



The aim of the "AgriTex" project partners is to develop an innovative, biodegradable textile for applications in agriculture. On the one hand, the textile withstands the highest mechanical and weather-related requirements during use, on the other hand it rots quickly after a predefined period of use under natural conditions in the environment or on the compost. This two-phase behavior is made possible by a new type of bicomponent fiber made from the biodegradable plastic PLA. The new technology is to be developed and tested using a hail protection net for fruit growing. Hail protection nets are exposed to considerable loads from various weather conditions and usually have to be replaced after a few seasons. Proper disposal of the old nets represents a considerable cost factor for agricultural businesses. With "AgriTex" the nets can be composted with other biological waste in a cost-neutral manner. In addition, unintentionally released netting components from the structure remain, e.g. by storms or damage caused by game, no longer in the long term in the environment and the pollution of ecosystems by plastic waste is effectively prevented. The ecological and economic advantages of the new technology are not only in demand in fruit growing, but will also be of interest for many other applications in agriculture, landscaping or fishing in the future.



The idea for the "AgriTex" project came about as part of the [PREVON - Production Evolution Network](#) innovation network, which is funded by the Central Innovation Program for SMEs (ZIM). As part of the membership, the partners are actively supported in the implementation of R&D projects and in securing funding.