Novel seed treatment technology is reducing the need for synthetic fertilizers
Andes raises USD 15 million in Series A funding co-led by Leaps by Bayer and Cavallo Ventures

16.09.2021 - Leaps by Bayer, the impact investment arm of Bayer AG, announced that it has co-led a USD 15 million Series A investment round in agriculture and biotechnology innovator, Andes, with Cavallo Ventures. Other new investors Builders VC, Germin8, Acce1r8 and Wilson Sonsini participated, alongside existing investors KdT Ventures and Endurance.

Through its novel seed treatment technology, Andes is reducing the need for synthetic fertilizers. The California-based company has developed a process for seamlessly integrating seeds with a unique library of microbes that colonize the seed’s root structure. This kick-starts a process known as biological nitrogen fixation, enabling the crop to draw down nitrogen from the air instead of relying on synthetic nitrogen fertilizers.

By developing self-sustaining Microprime seeds, Andes reduces the need for synthetic fertilizers, which require huge amounts of energy to produce and account for 3%, or 1.5 gigatons, of global greenhouse emissions. In enabling microbes to ride along with the seeds as they get planted, Andes’ Microprime technology provides a highly scalable solution that saves growers time and money.

The first generation of Microprime treated corn seeds will provide the equivalent of 30 to 50 lbs/acre of nitrogen through biological nitrogen fixation. The company is creating second generation microbes that target doubling the amount of nitrogen provided by the Microprime seeds.

Andes is also developing microbial strains for nature-based permanent carbon capture solutions to sequester and store CO2 from the atmosphere into the soil. This initially focuses on capturing carbon via microbial-powered corn crops. If deployed successfully at scale, it could capture gigaton-levels of carbon from corn and other crops. With the world’s
total annual greenhouse gas emissions estimated to be 50 gigatons, nature-based carbon capture could make a sizeable contribution to global decarbonisation.

Agriculture currently consumes 50% of habitable land and 70% of the earth’s fresh water. Andes and Leaps by Bayer are committed to better using these resources through more efficient and sustainable agricultural practices.

Dr. Jürgen Eckhardt, Head of Leaps by Bayer said: “We invest in paradigm-shifting advances that can radically reduce the environmental impact of agriculture. Andes is an exceptional example of that: using novel seed technology to reduce the use of synthetic fertilizers and developing the next generation of agricultural carbon capture solutions. It’s exciting that our funding will help the Andes team scale its current offering and explore the possibilities of truly world-changing technologies like carbon capture.”

“We are well past the need for sustainable products and practices. We can only avoid an irreparable climate disaster through solutions that are highly scalable and reliable,” Gonzalo Fuenzalida, Andes CEO, explained. “At Andes we are seamlessly integrating the power of microbes within seeds to dramatically cut the need for synthetic fertilizers. This investment will allow us to expand on this success, as well as expand our technology to utilize the millions of acres of agricultural land to capture and store carbon emissions.”

Andes will use part of the funds to scale its self-sustaining, nitrogen-fixing seeds across the U.S. market and expand into South America. The balance of funding will be invested to advance further research and development into Andes’ complementary nature-based permanent carbon capture technology.