

Gravity Gardens raises €2.6 million to scale dry seed activation technology across European crops

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Nijmegen-based AgTech startup targets a major constraint in conventional seed priming with a chemical-free, water-free process designed to improve crop establishment and make seed activation viable beyond high-value crops



Gravity Gardens, a Nijmegen-based AgTech startup developing chemical-free seed activation technology, has raised €2.6 million in a Seed round as it moves towards commercialising a dry process designed to improve seed establishment without adding water, chemicals or coatings to the seed.

The financing combines equity investment with European Regional Development Fund (ERDF) regional development funding and was backed by VP Capital, Brightlands Venture Partners, Graduate Ventures and a group of private investors. The latest round follows earlier support from StartLife and a Rabobank innovation loan, taking Gravity Gardens' total funding raised to more than €3 million.

Founded in 2024 by Founder and CEO Paulino Valdés and co-founder and CTO Robin Le Vigouroux, Gravity Gardens is targeting a part of the seed industry where technical performance has long been established but economics and processing complexity have limited adoption.

Seed activation is not a new concept. Seed companies have used treatments for decades to improve the speed and uniformity of emergence and help seeds perform under difficult establishment conditions. The commercial challenge, however, has been the process required to achieve those benefits.

Conventional priming is typically a wet process. Seeds are hydrated under controlled conditions and subsequently dried before they can be handled, stored and planted. That adds processing steps, infrastructure requirements, capacity constraints

and costs. As a result, seed activation has largely been economically viable in higher-value vegetable and flower crops, while remaining out of reach for many broad-acre crops where seed volumes are substantially higher and margins per unit of seed are lower.

Gravity Gardens is attempting to change that equation by removing water from the process altogether.

Its technology is designed as a dry seed activation process that requires no hydration stage, does not add chemicals and leaves no coating on the seed. The company argues that eliminating the need to hydrate and subsequently dry seed could simplify processing and reduce the cost barriers that have restricted seed activation to a relatively narrow segment of the market.

The company is also positioning the technology around seed vigour rather than germination alone. While germination measures whether a seed can successfully produce a seedling under defined test conditions, vigour is more closely linked to how rapidly and robustly a seed establishes under variable field conditions.

“Every seed company in Europe has a seed lot sitting in storage that germinates at grade A quality on the bench and then disappoints in the field,” Valdés said. “Germination matters, but it is not the number that decides your season. Vigour is, and vigour is the first thing you lose as a lot ages or as the spring turns against you.”

He said conventional priming has remained effective but its wet processing requirements have limited where its economics work.

“Priming has been the industry’s answer for forty years and it is a good answer, but it is a wet one, and the cost and complications that come with that are why it only ever made sense for a handful of high-value crops,” Valdés said. “What we have is dry, which takes those costs out. Cheap enough for field crops, and aimed at the thing that actually decides the season. That combination is what has not existed before.”

The proposition is attracting investors looking for technologies that can improve agricultural productivity while reducing dependence on inputs and natural resources. Erica van Eeghen, Senior Manager Ventures at VP Capital, said the company’s focus on seeds addresses what she described as the foundation of the agricultural production system.

“The most impactful innovations are often the ones that improve the foundations of a system. Seeds are exactly that foundation,” van Eeghen said. “Gravity Gardens has developed a technology that could make stronger crop establishment accessible to many more farmers while using fewer natural resources. That is what makes this investment so compelling.”

Gravity Gardens says its technology has already undergone seven external trials, including validation experiments conducted by Vertify. The company has its own research, development and production facility in Nijmegen and is running programmes with Vertify, HLB, Oost NL and Foodvalley. Through Foodvalley, Gravity Gardens has also accessed an SME Innovation Voucher.

The technology was developed with support from the European Space Agency Business Incubation Centre Noordwijk, adding an unusual technology-development pathway to a company focused on one of agriculture’s most basic inputs.

For investors, the potential lies not only in improving establishment but in expanding the addressable market for seed activation. If a dry process can materially reduce the cost and operational complexity associated with conventional priming, activation could potentially move from a specialist treatment for high-value seeds towards a broader agricultural input technology applicable to field crops and horticultural production.

Marcel Zijp, Senior Investment Manager at Brightlands Venture Partners, said the platform combines biological performance with the potential for wider commercial deployment.

“Germination is the most critical phase in plant development. Gravity Gardens’ platform stimulates the plant’s natural power, and its cost competitive technology can be applied in a wide variety of crops,” Zijp said. “We believe this is an important step towards less chemical use and the natural strengthening of plant germination.”

The new funding will now shift Gravity Gardens from technology validation towards industrialisation. The company plans to invest in industrial-scale equipment development and expand trial programmes across additional crops, with market readiness targeted for 2027.

Gravity Gardens is working with Dutch engineering group Demcon on the development of industrial-scale equipment while continuing field and research programmes in parallel. The combination of equipment scale-up and expanded crop trials will be

critical to determining whether the technology can move from a promising seed-treatment platform into a commercially deployable solution for large-volume agricultural markets.

The timing also reflects a broader shift in agriculture towards technologies that can improve crop performance before plants enter the field. Seed treatment is increasingly viewed as an opportunity to build resilience into crop production at the earliest stage, particularly as growers face variable weather, pressure to reduce chemical inputs and tighter resource constraints.