

Green growth: British soil-free farming start-up prepares for first harvest



Airponix technology creates a fine mist of water and nutrients, capable of growing staple crops such as potatoes



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Airponix technology uses a nutrient-rich 'fog' instead of soil to grow vegetables, promising yields up to 50 times higher than commercial growers

Later this month British start-up Airponix will harvest its first large crop of potatoes grown without soil, in a promising sign for a technology that claims it can deliver high vegetable yields with minimal costs and environmental degradation.

At its new 1,000 square metre greenhouse in Norfolk, Airponix has ditched soil to grow potatoes using a nutrient-rich "fog" sprayed out of modified inkjet printers down long polythene tunnels of crops.

Airponix claims its growing technique can produce yields 50 times higher per hectare per year compared to commercial UK potato growers, while requiring no arable land and 85 per cent less water than conventional agriculture.

"Trials of our breakthrough technology means that we can produce crops, such as potatoes, with lower production costs and higher quality, competing strongly against conventionally grown new baby potatoes," said co-founder Michael Ruggier in a statement.

"The potential cost of the system is very low and requires little energy to operate," he added. "Manual labour is also greatly reduced because harvesting is a simple clean process and root crops don't need washing. This means that everyone can benefit from our technology and it has the potential to guarantee high-yield high quality food production independent of external environmental conditions."

The technology is suitable for food production even in arid or degraded regions, and without the need for herbicides, fungicides or pesticides, Airponix claims.

The company says its system is an improvement on rival aeroponic growing methods thanks to its fine spray technology, which produces tiny water droplets better suited to staple food crops such as rice, wheat or potatoes.

The first crop of potatoes from its Norfolk greenhouse will be harvested at the end of the month.