

GMO barley could help produce key lab-grown meat ingredient

Using abundant geothermal waters for heating and volcanic ash instead of soil, biotech company ORF Genetics is growing barley [in Iceland] to produce growth factors – one of the most important, and costly, ingredients in laboratory-grown meat.

Sales of plant-based meats have soared during the pandemic as customers shift diets due to growing unease about factory farming, working conditions in meat-packing plants and suspicion over a possible link between wild animal meat and COVID-19.

ORF and other firms hope that means more people will want to try cell-cultured meat when it becomes available in the next year or so, though high costs and doubtful consumers could mean “clean meats” – as the nascent industry calls them – take longer to gain acceptance.

“This technology will have a huge impact on the environment,” Bjorn Orvar, co-founder and chief scientific officer of ORF, told the Thomson Reuters Foundation in Iceland’s capital, Reykjavik.

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The barley seeds have been bio-engineered to produce growth factors, proteins that stimulate the growth of specific tissues including those needed to recreate animal muscle and fat cells.

When the grains mature after about three and a half months, the growth factor is extracted in the laboratory.

ORF has used the same approach to produce a line of anti-aging skin products called BIOEFFECT, but saw the huge potential for its technology to lower the cost of lab-grown meat.

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