EUREKA NETWORK PROJECT

5763
Allium ursinum

GROWING GARLIC LIKE WILDFIRE

Wild garlic leaves are delicious and all the rage in contemporary cuisine but the plant is becoming a victim of its own success. German biotechnology specialists Bock Bio Science GmbH and Czech research institute Vyzkumny Ustav Bramborárský cloned it to make its use sustainable.

Whether it's grilled lamb shank and ramson leaves at Noma in Copenhagen or herring and ramson buds at The Fat Duck in the UK, wild garlic is frequently reported on menus at some of Europe's top restaurants. The trend for foraging for wild ingredients means people are also looking for the plant in the woods and cooking up the leaves as a vegetable or herb in their own kitchens. Also known as broad-leaved garlic, bear leeks and buckrams, Allium ursinum (its Latin name) is also cropping up in baking, frozen foods and cheeses.

The white-flowering plant could be in danger of being over-picked, though, warns Friederike von Rundstedt, owner of the German company Bock Bio Science GmbH. "There are no controls over picking Allium ursinum in the wild. If people keep taking large quantities from the wild, as industry currently demands, it will end up extinct," she says.

Von Rundstedt decided to see if the delicate plant could be cloned and grown in laboratories to make its popularity sustainable. Her company, which employs 36 workers, turned to Czech research institute Výzkumný Ústav Bramborárský (VUB) in Havlíckuv Brod to develop a process to grow it all year round as a EUREKA project.

Both EUREKA project partners benefited from national funding schemes. The German part of the project was funded by the central innovation programme for SMEs (ZIM), a funding programme of the Federal Ministry for Economic Affairs and Energy (BMWi). The Czech project part was funded by the Ministry of Education, Youth and Sports.

> *"The results are promising and delicious*

Sustainable method

The two teams of biologists tested processes to grow the garlic in greenhouses and then in the open air. By comparing and mixing methods they developed a version that could grow all year round, in contrast to Allium ursinum which usually grows for just a few months of the year. "The results are promising and delicious!" says von Rundstedt.

The processes developed could also be applied to other endangered plants like wild crocuses, say the partners. "The reproduction process allows us to control climatic factors and eliminate the strong seasonality of the plants," says von Rundstedt. "It is economically efficient, makes a good use of energy and conserves energy."

As a result of the project, Bock has negotiated test contracts with various producers in northern and southern Germany and forecasts an increase in 2019 and 2020 sales of between 5 and 10 percent. "The cooperation with the Czech partner was so successful that we've decided to keep researching and working together," says von Rundstedt.

MAIN PARTNER

Bock Bio Science GmbH
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OTHER PARTNERS

Vyzkumny Ustav Bramborarsky Havlickuv Brod, S.r.o., Czech Republic

TOTAL R&D INVESTMENT

€ 900 000

DURATION

January 2011 to July 2015

COUNTRIES AND NATIONAL FUNDING BODIES INVOLVED

Federal Ministry for Economic Affairs and Energy (BMWi)

Ministry of Education, Youth and Sports

EUREKA is a European network for market-oriented R&D.

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