Technology Strategy Board

Driving Innovation

Results of competition: Agri-Tech Catalyst - Late stage award - Round 1

The Agri-Tech Catalyst competition is co-funded by the Technology Strategy Board, the Biotechnology and Biological Sciences Research Council and the Department for International Development.

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Exosect Limited (lead) Eseye Limited	Harnessing natural fungi to control insect and mite pests in grain storage	£185,514	£92,757

Project description - provided by applicants

Harnessing natural fungi to protect grain from insect pests: Customers want food products to be residue-free and grain producers want to eliminate the risk of using chemicals in controlling pest and disease infestations. Grain storage protection against insect pests is notoriously difficult.

Exosect is developing a highly effective grain treatment using an indigenous isolate of an insect-specific fungus, Beauveria bassiana, (Bb) formulated with electrostatically charged wax particles. These particles help stick the fungal spores to the insect which gives the fungus time to kill the insect. The treatment is expected to achieve 90%+ control on a range of key grain insect pests. To address consumer and food producer concerns about the use of 'friendly fungi', Exosect will consult with industry experts and trade associations in order to prove that the product exceeds strict safety standards, performs to high commercial standards and is cost effective without causing any taint to food.

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GrowUp Urban Farms Ltd (lead) I+S Associates Ove Arup & Partners Limited Sterner AquaTech UK Ltd	The potential for commercial implementation and operation of aquaponic urban farms.	£973,245	£340,015

Project description - provided by applicants

This project will build the UK's first aquaponic urban farm to quantify the economic and environmental potential of sustainable urban farming. Led by GrowUp - a start-up specialising in aquaponic farming - it will use aquaponics in an innovative configuration to exploit a symbiosis between waste streams of aquaculture and nutrients required for hydroponic plant growth. The consortium's expertise in aquaponics, commercial hydroponics & recirculating aquaculture will allow them to manage and investigate this relationship at scale in an urban location in London.

The project will build a prototype to demonstrate scaled urban production, focused on optimised control of growing systems, creating an opportunity for the franchise of a UK global commercial offering in local, urban sustainable intensified agriculture. Consortium partners are GrowUp Urban Farms; I+S Associates; Sterner AquaTech and Arup, including support from the GLA, the London Borough of Newham, Siemens and Plymouth University.

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