



Makhteshim Agan and Yisum Partner to Develop a Novel Method for Protecting Plants Using Yeast Isolated from Strawberry Leaves

- Novel biocontrol agent is environmentally-friendly, non-toxic and effective for a large variety of plants –

Tel Aviv and Jerusalem, Israel, September 16, 2013 - Makhteshim Agan, the world leader in crop protection solutions and Yisum Research Development Company, the technology transfer arm of the Hebrew University of Jerusalem today announced the signing of a research and development agreement for the development and commercialization of a novel, non-toxic and environmentally-friendly bio-control method for protecting a variety of plants.

The novel bio-control agent, developed by Dr. Maggie Levy from the Hebrew University's Department of Plant Pathology and Microbiology (Agriculture Faculty), is based on naturally-occurring yeast, *Pseudozyma* that was isolated from strawberry leaves. Dr. Levy and her team showed that the yeast secretes substances which inhibit the growth of several fungal and bacterial pathogens, thus increasing the plant's resistance to infestations while enhancing growth.

"We are very happy to strengthen our collaborative endeavours with Makhteshim Agan, a global crop protection leader and a long-time partner of Yisum in developing innovative, environmentally friendly crop protection agents and methods," said Yaacov Michlin, CEO of Yisum. "The novel bio-control agent developed in the lab of Dr. Levy has proven to be non-toxic and highly effective against an impressively wide variety of plant pathogens. Its development and commercialization will therefore serve to reduce the amount of pesticides used in agriculture, for the benefit of farmers, consumers and the environment."

"We are excited to be able to leverage the technology, experience and know-how that we have amassed over the past decades in order to collaborate and create new generations of highly effective and environmentally safe crop protection solutions," added Mr Sami Shabtai, Makhteshim Agan's Head of Innovative Development. "In a world challenged by the double-edged sword of rapid population growth and shrinking agricultural resources, the need for sustainable solutions is clearer than ever. We are proud to be part of the solution and look forward to working with Yisum to continue introducing new innovative products and to make them available throughout the world."

Pseudozyma, the yeast isolated from strawberry leaves by Dr. Levy and her team, inhibits a broad variety of fungal and bacterial pathogens, and application of the yeast spores significantly inhibited the growth of different fungal causal agents of plant diseases such as powdery mildews (a gray mold that has more than 400 different hosts), crown rust (the black spot disease of cultivated Brassicas) and late wilt disease in corn. Pathogenic bacteria such as *Clavibacter michiganensis*, the causative agent of bacterial canker of tomato, were also controlled by the yeast.

About Yisum

Yisum Research Development Company of the Hebrew University of Jerusalem Ltd. was founded in 1964 to protect and commercialize the Hebrew University's intellectual property. Products based on Hebrew University technologies that have been commercialized by Yisum currently generate \$2 Billion in annual sales. Ranked among the top technology transfer companies in the world, Yisum has registered over 8,100 patents covering 2,300 inventions; has licensed out 700 technologies and has spun out 80 companies. Yisum's business partners span the globe and include companies such as Syngenta, Monsanto, Roche, Novartis, Microsoft, Johnson & Johnson, Merck, Intel, Teva and many more. For further information please visit www.yisum.co.il

About Makhteshim Agan

Makhteshim Agan Industries Ltd. is a leading manufacturer and distributor worldwide of crop-protection solutions and the largest off-patent player in the sector. The Company supplies efficient solutions to farmers that assist them in combating disease and increasing yields. In 2012, the Company's revenues were over \$2.83 billion, and it is ranked seventh in the world in the agro-chemicals industry. The Company is characterized by its know-how, high-level technological-chemical abilities, expertise in product registration, and observance of strict standards of environmental protection, stringent quality control and global marketing and distribution channels. For more information, visit us at www.ma-industries.com.

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