GM cereal crops created to grow in salty water - Telegraph

12/10/2009 http://www.telegraph.co.uk/earth/agriculture/geneticmodification/5770087/GM-cereal-cr...
Scientists have found a way of genetically modifying cereal crops to grow in salty water in a move that could help alleviate hunger in some of the world's poorest nations.

By Aislinn Simpson
Published: 7:00AM BST 08 Jul 2009

The research saw scientists enhance genes already present in plants which lock sodium ions into the roots rather than moving up to the shoot where they can cause long-term damage.

The tests were carried out on a model plant by the University of Adelaide working in collaboration with the Department of Plant Sciences at the University of Cambridge.

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If cereal crops such as rice, wheat and barley, can be modified in the same way, a more secure future could be provided for billions of people around the world threatened with hunger.

Countries which could benefit include Bangladesh, coastal Vietnam and Burma, where rising sea levels caused by climate change are threatening some of the most productive land in the world.
Pakistan's agriculture is also heavily reliant on the Indus River, which is becoming increasingly salty, threatening less food production in a country with a rapidly growing population.

Professor Mark Tester, from the School of Agriculture, Food and Wine at the University of Adelaide, said preliminary tests on rice plants were "very promising".

"Salinity affects the growth of plants worldwide, particularly in irrigated land where one third of the world's food is produced. And it is a problem that is only going to get worse, as pressure to use less water increases and quality of water decreases," he said.

Dr Giles Oldroyd, of the John Innes Centre, one of the world's leading plant research centres, said that developing salt-tolerant plants was key to resolving major concerns about global food production in the future.

"The research has been undertaken in a model plant and it is important to show that this also works in crops," he said. "However, this is an exciting development that should lead the way in engineering crop plants that can grow on salt damaged soils."

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**Genetic Modification**

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