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MOLECULAR BREEDING OF SALT TOLERANT WHEAT

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Over the last few decades, on average ca 2000 ha of irrigated agricultural land has been lost every day due to high salinity levels. The size of high salinity areas has been growing from 45 million ha in the early 1990s to its current volume of 62 million ha. Globally, 3.1% of the total land mass is affected by salinity, with over half of the world's countries afflicted. Presently, about one-fifth of the world's irrigated lands are too salty for agriculture. Clearly, this negative trend has to be broken. Our aim is to develop wheat (*Triticum aestivum* L.) varieties with increased salinity tolerance. Starting from Gom-25, a commonly grown in Bangladesh variety already fairly well adapted to salt and heat stress, we introduced ca 1 million mutations per genome by EMS (Ethyl Methane

Sulphonate) and raised a population of ca 1800 lines. Mutated wheat lines with an increased salinity tolerance are now selected from this population. The aim is to reuse some parts of the one million ha area of salt contaminated land in Bangladesh.

Biography

Johanna Lethin had completed her Bachelor degree from Southwest Baptist University in Bolivar, Missouri, USA in Biology and Master's degree from Halmstad University in Biomedical science, scholarship worker for CropTailor AB where my work was to find high Beta glucan oat lines from a mutagenized Swedish oat population.

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