



THE UNIVERSITY OF
WESTERN AUSTRALIA
Achieve International Excellence



The UWA Institute of Agriculture

Hector and Andrew Stewart Memorial Lecture 2013

Improving salt tolerance of wheat

Prof. Rana Munns

Honorary Fellow, CSIRO; Winthrop Professor UWA



- Date:** Wednesday, 17 April 2013
Time: 5.00 - 6.00 pm
Place: MCS Lecture Theatre (Room G.33, Bayliss Building)
Parking: Visitor Parking along Myers St and Parkway;
from 5pm: free parking in red and yellow car bays (Fairway Entrance # 4)

Saline soils restrict plant growth in a large proportion of the Australian wheat belt. Plants exclude most of the salt from the water they take up from a saline soil, but with time it can build up to high concentrations in older leaves, and kill them. This reduces the supply of carbohydrates to the growing leaves or developing grain.

In a search for genes that reduce the rate of sodium accumulation in leaves, we discovered novel genes for controlling sodium transport in an ancestral wheat, crossed them into modern durum wheat, and showed that one of them increased yield in saline soils in farmers' fields by 25%.

This lecture will show how the combination of fundamental plant biology and targeted plant breeding can produce significant outcomes for crop production in saline soils.

Professor Rana Munns is an internationally renowned and highly cited scientist, known for her research on mechanisms of stress tolerance in plants and their application.

She started at UWA as a Research Fellow in 1977, then moved to CSIRO Plant Industry in Canberra, and is now Honorary Research Fellow with CSIRO.

She is also currently Editor-in-Chief of Functional Plant Biology, and holds a part-time appointment as Winthrop Professor at UWA's School of Plant Biology.

In 2007 she was elected a Fellow of the Australian Academy of Science, and in 2012 she was presented with the ISI Citation Award for Plant Science.

Enquiries: (08) 6488 4717

Email: ioa@uwa.edu.au

Website: ioa.uwa.edu.au