

Sowing a future for peas

After a summer of dismal wet weather it may seem odd to be talking about the affect of drought on plants, but weather forecasters are still predicting a future of dry summers and some detailed research has been undertaken on peas.

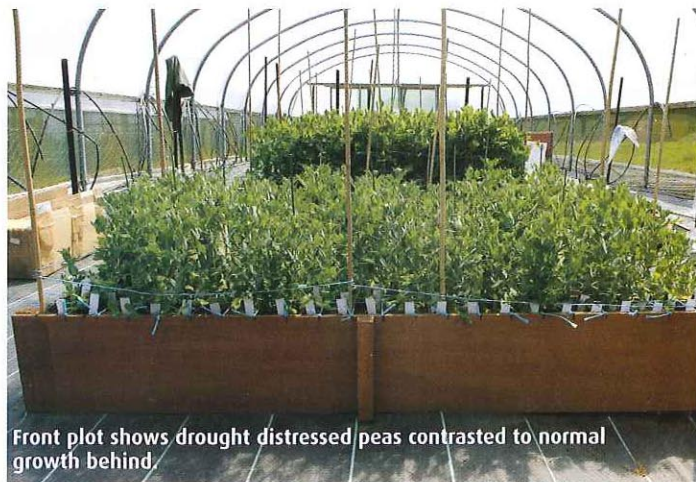
The research from the John Innes Centre and the Central Science Laboratory could help breeders develop pea varieties able to withstand drought stress and climate change. This research also shows that the composition of crops is likely to change with the climate.

"While many compounds have been reported to change in laboratory based drought stress

experiments, few have identified how such compounds change in crops under field conditions," says Dr Claire Domoney of the John Innes Centre.

The researchers used NMR spectroscopy to produce a profile of the levels of all the different small molecules or metabolites in pea plant leaves. This profile, known as the metabolome, was then compared with that from plants subjected to controlled drought stress. The study found several key plant metabolites increased under drought stress, some of which had not previously been shown to be involved. Less water, especially at critical times in the growing season, means lower yield and quality. This new information could be used to identify varieties of pea and other pulse crops that are more tolerant to changes in water availability.

Drought stress also induced changes in compounds that could have an impact on taste and flavour. Changes in climate are likely to alter the characteristics of commercial crops and could possibly affect



Front plot shows drought distressed peas contrasted to normal growth behind

their value. Peas and other legumes make a valuable contribution to sustainable food production by fixing nitrogen in

the soil for the next crop, reducing the need for nitrogen fertilizer.

Hampshire Young Farmers MUCK-A-DAY planned

Next year Hampshire YFC are holding a Muck-a-day, a revised version of a YFC rally. It will be held on Saturday, 13 June 2009 at the Janaway's farm near Odiham.

It is in the planning stages at the moment but to make it a success anyone who wishes to become involved with donating anything, sponsorship, having a trade stand, exhibiting or passing on any expertise would be most welcome to get in contact with the county office on 01962 776270 or email: Hampshireyfc.org.uk.

Thank you and we look forward to seeing you at the show - if not before.

