

14 December 2005

BREEDING WHEATS TO MEET THE NOODLE MARKET

BY GEOFF THOMAS, SAGIT PROJECT MANAGER

New research at the Waite Institute conducted by Associate Professor Daryl Mares, Cereal Grain Biochemistry, aims to develop wheat varieties which will better meet the emerging demands of world markets for Asian noodles.

To quote the AWB:

“Customer feedback and AWB testing have confirmed several long-term trends in the quality of AH received in South Australia. Continuing issues with milling yield, noodle colour stability, dough properties (strength, stability and balance) and baking performance have been improved by the uptake of Yitpi, but further improvements are required. If these are not made, the market options and margins for South Australian wheat will decline.

Yitpi has been chosen as a Premium Choice Variety because it has enhanced milling yield and noodle qualities (eating texture and colour), and acceptable baking performance. Lifting the proportion of Yitpi in South Australia’s receivals will increase the proportion of the crop that is AH, and increase the overall AH: APW ratio, providing a more balanced quality profile”.

Furthermore, AWB forecasts that the future viability of the Australian wheat industry will depend on increasing exports into SE Asia (in the face of increasing competition from USA and Canada).

Currently, Australia’s wheat exports are used primarily for pan bread, flat bread and Asian noodles in roughly equal proportions, so the forecast suggests we should be focusing on improving quality for Asian noodles and ‘sponge and dough’ pan bread

Colour and colour stability are critical issues for noodle quality and depend on a range of grain/flour constituents including: protein, natural plant pigments and enzymes that vary with the variety and with the growing conditions.

The first stage of the project, which is already underway, involves analysis of samples of wheat varieties from 28 sites in SA from the 2004 harvest for grain and flour constituents that affect colour and colour stability. These varieties will be ranked in order of their suitability for noodles and to assess variation of the season in which they were grown.

The second stage involves analysis of a diverse set of varieties, including benchmark varieties from other states, with the aim of identifying lines that perform better, at least for particular traits, in Asian noodles

The outcome of this work will be guidelines for development of improved varieties and production of grain that will meet the requirements of the high value end of the Asian noodle market, allowing SA growers to capture a greater share of this expanding market.