

Category	: 8th Rice Genetics Symposium
Select Theme	: Genetics of Yield: Grain quality and quantity
Endorsement email	:
Genetics of Yield Grain quality and quantity Keyword 1	:
Genetics of Yield Grain quality and quantity Keyword 2	:
Genetics of Yield Grain quality and quantity Keyword 3	:
Title of Entry	: Selecting against an unpleasant aroma
Presenting author	: Melissa Fitzgerald
Presenting author email	: m.fitzgerald2@uq.edu.au
Co author 1	: V.daygon@uq.edu.au
Co author 2	:
Affiliation presenting author	: University of Queensland
Affiliation 1	:
Affiliation 2	:
Select only one type of presentation	: 15 minute oral presentation
Abstract	: Australian rice is mainly temperate japonica, and is grown under irrigation in a dry climate. Australia is now developing a rice industry in the North, where the climate is much more tropical. In selecting appropriate varieties and agronomic strategies for the northern industry, a panel of varieties was grown in two sites in Northern Australia and in one site in Southern NSW, in the dry climate. Sensory profiling revealed that the rice grown in the dry South climate was much nicer than the rice grown in the tropical North. Metabomics profiling revealed that the rice grown in the North emitted a number of volatile compounds that are considered to be unpleasant. The main one of these was indole. Indole is a very volatile compound and has a very unpleasant aroma. Indole is mostly found in the rice that has been grown in high humidity or high rainfall. Moreover, not all varieties emitted indole when cooked. Interestingly, indole production occurs in temperate japonica rice and indica rice. However, the genetic control of indole production is different in each germ plasm class. The genetics and biochemistry of indole production will be discussed, and selection tools to select against indole production will be presented.

Uploaded Files »

No files found.