Entry No. IRRC-0237

Category	: International Rice Research Conference
Select Theme	: High through-put technologies: Genotying, Phenotyping and Omics
Endorsement email	:
High through put technologies Genotying Phenotyping and Omics Keyword 1	: Image processing
High through put technologies Genotying Phenotyping and Omics Keyword 2	: Phenotype
High through put technologies Genotying Phenotyping and Omics Keyword 3	:
Title of Entry	: QSorter - high-throughput phenotyping technology for rice and other grains
Presenting author	: Rita Teixeira
Presenting author email	: rita.teixeira@qualysense.com
Co author 1	: Francesco D'Ellendice
Co author 2	: Evelyn Chen
Co author 3	:
Co author 4	:
Co author 5	:
Co author 6	:
Co author 7	:
Co author 8	:
Co author 9	:
Co author 10	:
Co author 11	:
Co author 12	:
Co author 13	:
Co author 14	:

Affiliation presenting author	: QualySense
Affiliation 1	:
Affiliation 2	:
Affiliation 3	:
Affiliation 4	:
Affiliation 5	:
Affiliation 6	:
Affiliation 7	:
Affiliation 8	:
Affiliation 9	:
Affiliation 10	:
Affiliation 11	:
Affiliation 12	:
Affiliation 13	:
Affiliation 14	:
Select only one type of presentation	: 15 minute oral presentation
Abstract	: Currently, there is no tool available that can non-destructively measure the physical and biochemical properties of grains and seeds simultaneously on single-kernel basis. This limits the amount of data that scientists can acquire and correlate during their research. When measuring biochemical properties, commercial laboratory instruments measure the average value of general properties (moisture, protein and oil content, others) of a sample. These measurements can be destructive, time-consuming and will not tell you the distribution of the properties in your sample. The QSorter is the most advanced high-speed single kernel (one by one) analysis and sorting technology for grains, seeds, and beans. It is the first life-science robot able to combine near-infrared spectroscopy and 3D vision technology. Our technology was recently developed to measure quality traits in rice. This project is in collaboration with official grains inspection service agencies (such as the United States Department of Agriculture), and several breeding programs (e.g., University of Queensland, Department of Primary Industries, etc.) throughout the globe. QualySense wants to actively contribute to the uniformity and consistency of rice quality inspection. The QSorter Rice is a fast analysis tool that not only measures all main quality rice traits (such as chalkiness, broken vs head grains, geometry, colour, contrasting varieties, moisture content, protein content, etc.), but also sorts according to the parameter of interest. This will allow farmers and mills to consistently check and accelerate their lots' inspection. It will also allow breeding institutes to accelerate their research programs - you are able to select the seed/grain

containing the traits of interest much earlier in the process, reducing greatly the duration of breeding cycles.

Read Less»

Uploaded Files »

No files found.