

RODANTE E. TABIEN, Ph.D.

Associate Professor, Plant Breeding and Genetics
Texas A&M AgriLife Research and Extension Center at Beaumont
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Education/Training

- 1996: Ph.D. Plant Breeding. Texas A&M University, College Station, Texas
1989: M.S. Plant Breeding. University of the Philippines (UP) at Los Baños, Philippines
1979: B.S. Agriculture (Agronomy-Plant Breeding). UP at Los Baños, Philippines

Positions/Employment

- Dec. 2002 to date -Assistant/Associate Professor, Plant Breeding and Genetics, Texas A&M AgriLife Research, Beaumont, Texas
1997- 2002 Supervising Science Research Specialist/Chief Science Research Specialist, Philippine Rice Research Institute, Science City of Muñoz, Philippines.
1991-1996 Rockefeller Foundation Fellow at Texas A&M University, College Station, Texas, USA.
1986-1991 Research Assistant, Plant Breeding Department, International Rice Research Institute (IRRI), College, Laguna, Philippines.
1983-1985 Research Associate, Legume Breeding Section, Institute of Plant Breeding, UPLB, College, Laguna, Philippines.
1979-1983 Instructor, Dept. of Crop Science, Central Luzon State University, Muñoz, Nueva Ecija, Philippines.
1979 Research Assistant, Breeding Section, Cotton Research and Development Institute, MMSU, Batac, Ilocos Norte, Philippines.

Program Overview

My program focuses on the development of conventional inbred rice varieties for Texas producers using the conventional and molecular breeding tools that enhance cultivar release. Higher grain yield both in the main and ratoon crop, improved biotic and abiotic resistance and excellent grain quality are the priority traits for incorporation into the new varieties. Gene discovery for stress tolerance such as disease, herbicide, cold, flooding and drought through mass screening to identify new donors, and gene mapping to locate the gene(s) is a major part of the program.

Significant 5 year Accomplishments

- Led the Texas Rice Inbred Breeding Project funded by the Texas Rice Research Foundation and TAMU-Ukulima Rice Project in South Africa
- Released two inbred rice varieties, three germplasm and one mapping population
- Mapped and validated QTL for sheath blight and tiller production, evaluated disease resistance of Texas elite rice lines, studied the relationship of grain quality and flowering, screened germplasms for anaerobic germination, cold tolerance at germination and early seedling stage, evaluated yield stability in selected varieties and determined relationship of weather data and milling traits.

Ten most recent publications (52 total)

1. Tabien, R. E., C. L. Harper, and P. M. Frank. 2015. Registration of ‘Antonio’, a very early high yielding U.S. conventional long grain rice cultivar. J Plant Registrations. 1:53-59.

2. Tabien, R. E., S. O. P. B. Samonte, L. T. Wilson, C. L. Harper, J. C. Medley, and P. Frank. 2015. Development and registration of a high yielding rice cultivar ‘Colorado’. *J Plant Registrations*. 1:60-66.
3. Pinson, S. R. M., Y. Wang, and R. E. Tabien. 2015. Mapping and validation of quantitative trait loci associated with tiller production in rice (*Oryza sativa* L.). *Crop Sci*. 55:1537-1551.
4. Pinson, S. R. M., Y. Wang, and R. E. Tabien. 2015. Registration of TIL:383.13, TIL:625 and TIL:634, three long grain tropical japonica rice (*Oryza sativa* L.) germplasm lines containing novel indica alleles that increase tiller production and grain yield. *J. Plant Registrations*. Accepted.
5. Kondhia, A., R. E. Tabien, A. M. Ibrahim. 2015. Evaluation and selection of high biomass rice (*Oryza sativa* L.) for drought tolerance. *American J Plant Sci*. 6:1962-1972. <http://dx.doi.org/10.4236/ajps.2015.612197>.
6. Zhou, X. G., G. Liu, and R. E. Tabien. 2014. Evaluation of rice cultivars and elite lines for resistance to blast, sheath blight and narrow brown leaf spot on main and ratoon crops, 2013 *Plant Disease Management Reports* 8: FC239.
7. Samonte, S. O. P. B., R. E. Tabien, and L. T. Wilson. 2013. Parental selection in rice cultivar improvement. *Rice Science*. 20(1): 45-51.
8. Zhou, X. G., R. E. Tabien, and F. Dou. 2013. Disease resistance evaluation of rice varieties and lines under center pivot irrigation system in South Africa, 2012. *Plant Disease Management Reports* 7: FC110.
9. Pinson, S. R. M., G. Liu, M. H. Jia, Y. Jia, R. G. Fjellstrom, A. Sharma, Y. Wang, R. E. Tabien, and Z. Li. 2012. Registration of a rice gene mapping population consisting of ‘TeQing-into-‘Lemont’ (TIL) backcross introgression lines. *J Plant Registrations* 6:1-8.
10. Wang, Y., S. R. M. Pinson, R. G. Fjellstrom, and R. E. Tabien. 2012. Breeding value of qSB9b and qSB12a to rice sheath blight using F2:3 family of TeQing-into-Lemont introgression lines. *Molecular Breeding* 30(1):293-303.

Honors and Awards

- 1998 Best Poster Award, Crop Science Society of the Philippines
- 2002 AFMA Outstanding Research & Development Paper, Bureau of Agricultural Research Anniversary, Quezon City, Philippines
- 2003 Best Paper Award, Crop Science Society of the Philippines and 17th Biennial Scientific Meeting of the Federation of Crop Science Societies of the Philippines
- 2004 Best Poster Award, National Rice R&D Review and Planning Workshop, Philippine Rice Research Institute, Science City of Munoz, Philippines
- 2004 AFMA R&D Paper Award. 16th National Research Symposium. Bureau of Agricultural Research, Department of Agriculture of the Philippines

Professional Experience

- Advised/co-advised 4 post-doctoral research associates, 3 PhD students and 2 MS students.
- Authored/co-authored 52 peer-reviewed journal articles, 1 book chapter and 110 scientific abstracts/presentations.
- Acquired \$2,083,156 in the last 5 years to support the rice breeding program.