multilocation evaluation with an objective to evolve ecoefficient cultivars of rice by adopting high throughput technologies. The technologies developed at CIAT are expected to meet regional and global demand for plant phenotype data that can complement efforts to identify and validate promising genes as well as molecular marker approaches for rice improvement.

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The CIAT Transformation Platform & the Rice Pipeline

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CIAT has been working with transgenic events of rice for more than a decade and has scaled up its facilities recently. It has been uniquely placed to evaluate the gene technology with a generic permission from National Biosafety Committee of Colombia. The CIAT has now established the Transformation Platform to host all the in house or collaborative research projects demanding work with the transgenic plants. An ultimate goal is to provide transformation facility, expertise and knowledge for complementing conventional crop improvement technology with advanced ones. Currently, we are able to transform several variety of the Japonica rice. The base line protocol for the Indica variety is available as well. Rice transformation protocols were developed and improved with at least two selection systems. Our current capacity with the antibiotic selection is app. 2500 transgenics and 250-500 single copy events per year. Following analysis are routinely performed for the each batch of the transgenic plants :PCR, Sothern analysis and determination of copy number of the different trangenes. The expression analysis of the GOIs are routinely done. T 1,2,3,4 generation of the rice transgenic plants are growing and are tested in the Biosafety screen houses and in the confined field. Work at the CIAT Transformation Platform is complying with the QA (Quality Assurance) standards, we are performing QC (Quality Control) of the each construct used for the transformation experiments. Integrated LIMS system will be implemented this calendar year and all the activities in the platform comply with International and Colombian Biosafety rules.
