Rice Ratoon Yield Enhancement with Plant Growth Regulators. (C02-tarpley163239-Poster)

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Abstract:

A good combined yield of the first (main) and second (ratoon) rice (Oryza sativa L.) crops is achievable in Southern Texas and Louisiana. Plant growth regulator (PGR) treatments were evaluated to promote ratoon tiller establishment and ratoon crop yield, without detracting from main crop yield and quality. Small research plots in a completely randomized design, and located at Beaumont and Eagle Lake, Texas; were sprayed with PGRs at roughly three days post-anthesis (as peak flowering) of the main crop. Gibberellic acid (Gibb) and cytokinin (benzyl adenine; BA) treatments significantly increased ratoon tiller numbers by 50% at one location; while main crop yield, percentage milled, and percentage wholes were not affected. In addition, Gibb and a high BA concentration were among treatments that promoted earlier ratoon tiller establishment. The main crop Gibb treatment resulted in a significantly increased ratoon crop yield of 450 kg per ha, apparently through increasing ratoon tiller initiation and establishment. The average combined yield among the treatments at this location was 11,750 kg per ha. Support for this study was provided by the Texas Rice Research Foundation.

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