

POST ANTHESIS PGR APPLICATION AND FIRST AND SECOND CROP PRODUCTION IN DRILL-SEEDED RICE

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Grain filling in the first crop must be completed before initiation of second crop growth in tropical and subtropical, lowland rice production. The ability of plant growth regulators to stimulate second crop production prior to the termination of grain filling in the first crop was explored. Auxins, cytokinins, gibberellins, and cell division inhibitors were applied during grain filling of the first crop. Auxins tended to increase grain yield in the first crop and had no effect on second crop production. Cell division inhibitors decreased first crop yield and stimulated second crop growth although there was no effect on second crop yield. With the definition of the effects of plant growth regulators applied during grain filling in rice, the possibility of stimulating first and second crop yields and, consequently, total crop production in rice may be possible.