

COMPREHENSIVE RESEARCH ON RICE

ANNUAL REPORT

January 1, 1976 - December 31, 1976

- I. Physiological and Genetic Determinates of Yield and Quality in Rice RB-5.
- II. Project Leader: R. W. Breidenbach
- III. Carryover Funds:

Balance January 1975	--	\$1250.00
Present Balance	--	692.37
- IV. Objectives:
 - (1) To test the hypothesis that photorespiration is a significant and genetically variable parameter determining net assimilation of carbon dioxide.
 - (2) To develop procedures for rapid screening of large numbers of rice genotypes for variations in photorespiration and net assimilation.
 - (3) To test the heritability of differences in photorespiration and net assimilation.
- V. As verbally reported at the recent Rice Research Board Conference, direct efforts on photosynthesis in rice have been nil because of delays in development of necessary growth facilities. These are now completed and will be used for rice research by both myself and others. Further development of concepts fundamental to our understanding of rice photosynthesis have been achieved using other species and have been in part supported by funds carried over from the previous year. Although these results are very promising, further support from the Board will not be requested at this time. Instead, support for our continuing program on photosynthesis as a determinant of yield and quality in several crop species including rice will be supported from other sources. I sincerely thank the Board for their support at this time and hope that both now and in the future the Board concludes that their investment has been worthwhile.