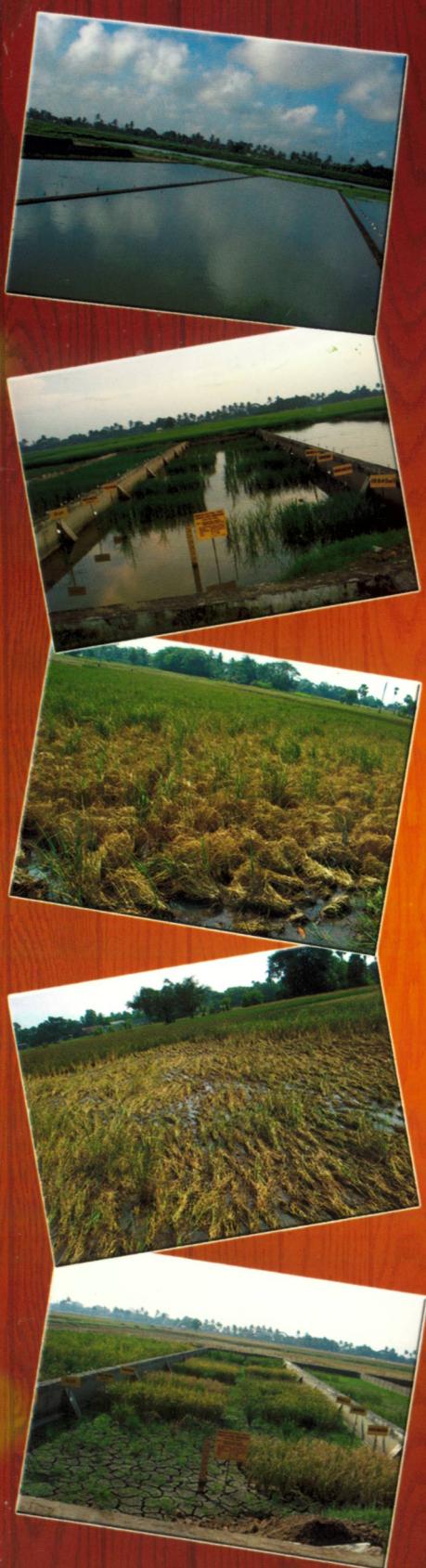


Research Bulletin No. 7

SUBMERGENCE TOLERANCE IN RICE: BIOPHYSICAL CONSTRAINTS, PHYSIOLOGICAL BASIS AND IDENTIFICATION OF DONORS



R. K. SARKAR
KRISHNA KAVERI DAS
DEBABRATA PANDA
J. N. REDDY
S. S. C. PATNAIK
B. C. PATRA
D. P. SINGH



Central Rice Research Institute
(Indian Council of Agricultural Research)
Cuttack-753 006, Orissa, India

CONTENTS

Sl. No.	Particulars	Page
1.	Summary	07
2.	Introduction	08
3.	Biophysical constraints and plant survival under submergence	09
4.	Physiological basis of submergence tolerance	14
5.	Farmers' wisdom in preserving submergence-tolerant landraces	22
6.	Genes related to escape and quiescence strategies	24
7.	Impact of SUB1 on plant survival and productivity	25
8.	Rice genotypes with better submergence tolerance than SUB1-introgressed lines	28
9.	Research gaps, synthesis and future strategies	31
10.	References	32