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Research Highlights

Screening of '*jhum*' rice varieties of northeastern region for drought tolerance

Screening of 83 *jhum* and upland rice germplasm from northeastern region was completed for drought tolerance under managed stress conditions at Lembucherra, Tripura (the target environment) and under rain-out shelter facility at CRURRS, Hazaribag. Twenty most promising genotypes based on drought scores were further screened under rainout shelter for drought tolerance during summer 2012. Based on leaf rolling and drying on 1-9 scale, one genotype was scored as '1', 35 genotypes as '3', 39 genotypes as '5', 6 genotypes as '7' and 2 as '9' (Fig1). Grain yield was positively correlated with grain number/panicle (0.7583**) and biomass (0.2076*), but negatively correlated with drought score (-0.4369**), canopy temperature (-0.3898**) and chaffs/panicle (-0.3065**). Based on grain yield and other traits, the promising drought tolerant genotypes identified were RCPL 1-128, Bhalum 3, Berain 2, Full Badam and Kataktara. Development of Mapping population using these

donors to identify the QTLs for grain yield under stress is initiated. Crosses involving Swarna x RCPL 1-128, Swarna x Bhalum 3, Swarna x Full Badam, Swarna x Kataktara, Swarna sub1 x RCPL 1-128, Swarna sub1 x Bhalum 3, Swarna sub1 x Full Badam, Swarna sub1 x Kataktara, Naveen x RCPL 1-128, Naveen x Bhalum 3, Naveen x Full Badam and Naveen x Ktaktara are completed. F1 seed will be sown for raising F2 during winter season. Genotyping of the germplasm set with 30 known drought QTL specific markers is completed. Genotypic and phenotypic data will be analysed. The work was carried out under DBT Twinning Project on "Identification of major QTLs for grain yield under drought stress in

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Paddy varieties of medium early duration in line for submission for release by SVRC in 2014

- TRC 2008-6 (IET 22580) was promoted to AVT2 on the yield superiority in zone III in AICRIP.
- The entry recorded an average yield of 5241 kg /ha with and yield advantage of 7.5% over national check and 12% over regional check.
- It has plant height of 118cm, 50% flowering in 95 days.

TRC 2008-6 (IET 22580)

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