EFFECT OF NURSERY NUTRIENTS MANAGEMENT PRACTICES ON GROWTH AND YIELD OF SAMBHA MAHASURI RICE (ORYZA SATIVA L.) UNDER FLOOD PRONE ECOSYSTEM

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Abstract: Present investigation was carried out to study the “Effect of nursery nutrients management practices on growth and yield of samba mahasuri rice (oryza sataiva L.) under flood prone ecosystem” during wet season, 2013-14 and 2014-15. Experiment was laid out in randomized block design with three replication and one variety Samba Mahsuri sub1 in cemented pond (size; 21x17.50 m x1.25 m). Twenty five days old seedlings were transplanted in ponds. Recommended dose of nursery N, P, K & silicone @ 40:40:40 +120, 50 ppm Kg ha-1 was applied at 10 DAS. Main field accomplished with nursery reframed with time schedule as (T1)N30 Kg ha-1 with combination of P and K @ 60, 50 Kg ha-2 applied as basal before transplanting followed by (T2)N 30Kg ha-2 as top dressing at 5th day after de-submergence and P full dose before transplanting and K 20 kg ha-1 at 5th days de-submergence one week before flowering respectively (30Kg N ha-1 at each days), (T3) N 30 Kg ha-1 with 40 Kg ha-1 P and K as basal application @ N 30 Kg ha-1 at 5th, 20th days after de-submergence and one week before flowering and with 40Kg ha-1 P and K as basal further recommended dose of N applied during post flood @ 60, 30 and N 30 Kg ha-1 at subsequently at 5th, 20th days after de-submergence and one week before flowering as foliar respectively, fifteen (15) days complete submergence treatment was given after 20 days transplanting. Results indicated that before submergence lower dose of N @ (30 Kg ha-1) and potassium (1/2) 25, 20 kg ha-1 at 5th days after de-submergence significantly increased the maximum plant survival, plant height, dry weight, ear bearing shoot m-2, panicle length number of grain per panicle, test wt. in samba mahsuri sub1 rice variety at par with T1-N3 in which N was applied in four split doses (N 30 Kg ha-1) as basal top dressing was higher in comparison T2,N2,T3,N4,T2,N3 T1,N1 5th days after de-submergence corresponded N 30 Kg ha-1 applied as basal at transplanting, mean while, plant mortality at recovery was higher (6.68 to 5.58%) in comparison to T1,N1 (6.32 to 5.92%). Although maximum plant mortality (6.68 to 5.58%) was recorded with N1,5th days after de-submergence and one week before flowering respectively. bfore 5th days 20th days and booting and panicle emergence after de-submergence and one week before flowering significantly improved survival and yield (Kg/plot) of samba mahsuri sub1 rice variety. Above package and practice might be recommended for farmer practice after further validation.

Keywords: Nursery nutrient management, Plant height, Dry biomass, Panicle length

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