Evaluation of Mustard Cultivars in Coastal Ecosystem under Late Sown Condition

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Abstract—*Rice is the main crop in South 24 Parganas district of West Bengal and farmers prefer kharif varieties having more than 145−150 days. Due to ground water status, the sowing of next crop at optimum time is problematic, but we have to overcome this situation. Taking due cognizance of above facts, seven (7) mustard cultivars were evaluated under rice-mustard sequence in a triplicated randomized block design for 14 traits at RRS, BCKV under coastal saline zone (CSZ) of West Bengal to study their performance under late sown condition. The cultivars were planted at 30 cm × 20 cm spacing during winter 2013−14 and 2014−15. The soil was clay in texture and had the following key properties for the 0−30 cm layer: pH 5.84, EC 1.55 dS/m, available N 155.24 kg/ha, available P 105.76 kg/ha, available K 365.86 kg/ha and available B 2.63 kg/ha. The cultivar 'Kranti' produced significantly ($p \leq 0.05$) higher seed yield (1.33 t/ha) closely followed by the hybrids 'PAC 409' (1.23 t/ha) and 'Pusa Bold' (1.21 t/ha). Seed yield showed significant ($p \leq 0.05$) positive correlation with all the independent variables (plant height, dry matter, days to 50% flowering, number of siliqua/plant, seeds/siliqua, except number of fertile plants/m^2, number of secondary branches/plant and length of siliqua. However, number of secondary branches/plant had significant ($p \leq 0.05$) and negative correlation with seed yield of mustard. Plant height revealed the highest degree of correlation ($R^2=0.88$) with seed yield followed by siliqua per main branch ($R^2=0.77$), days to harvest ($R^2=0.75$) and 1000-seed weight ($R^2=0.52$). The results indicate that selection of suitable mustard cultivars based on these traits will be more effective in improving seed yield in mustard.*