Variation of Emergence Ability of Rice Using Direct-Seeding Method

Jia-Ling Yang, Shu-Tu Wu and Fu-Sheng Thseng

ABSTRACT

Three groups of rice in total 235 varieties including landrace, improved japonic and indica cultivars in Taiwan were used in this experiment. The results are as follows:

(1) Dry-sown at 3 cm seeding depth: Differences were found among the 235 varieties in which 2.6% were unemerged, 43.4% had higher emergence percentage (> 80%), and 4.4% emerged at 100 percentage. The mean emergence of landrace cultivars were significantly higher than that of indica and japonica cultivars, but no significant difference between indica and japonica varieties. Among the 4 districts of improved rice in Taiwan, the emergence rate of cultivars from eastern district were significantly higher than those from northern district.

(2) Water-sown at 3 cm seeding depth: Differences were found among the 235 cultivars. in which 68.9% had higher emergence rate and 4.4% emerged to 100 percentage. No significant difference was found among the 3 groups of rice and also among 4 districts of improved rice.

Keywords: rice, direct-seeding, emergence ability.

1 Contribution No. 0441 from Taichung D.A.I.S.
2 Assistant Agronomist of Taichung D.A.I.S.
3 Professor of Dep. of Agronomy, Nat. Chung Hsing Univ., Taichung, Taiwan.