



Assessment of submergence tolerance of some traditional rice cultivars at seedling stage

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Submergence tolerance at the seedling stage of twenty one traditional Sri Lankan rice cultivars were compared with that of three improved cultivars. Two-week old seedlings were subjected to complete submergence stress for 9 days and for 14 days separately in a randomised complete block design with four replicates, with 20 plants per replicate. After the complete submergence stress, plants were allowed to recover for 14 days under normal growth conditions. Data collected on the number of surviving plants, plant height before and after the submergence stress and plant height after the two-week recovery period were analysed using SAS. The traditional rice cultivars *Kahata wee*, *Ranruwan*, *Surumaniyan*, *Welihandirn*, *Heenati-309*, *Polayal*, *Pachcheiperumal*, *Valihundiran* and *Matholuwa* recovered after 14-day complete submergence tolerance. Interestingly Bg300 and Bg250 could also survive under submergence stress but showed lower survival percentages than those of some traditional rice cultivars. According to the results, among the tested traditional rice cultivars, the cultivars with higher submergence tolerance are *Heenati-309*, *Pachcheiperumal*, *Valihundiran* and *Polayal*.

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