

Determination of potting media for effective acclimatization in micropropagated plants of tea clone Iran 100

ABSTRACT

Establishment of in vitro plantlets in the greenhouse on various additives of soil mixtures is considered as one of the trickiest phases of micropropagation. In the present research, we report the results of experiments aimed at optimizing acclimatization of tea clone Iran 100 plantlets (*Camellia sinensis* (L.) O. Kuntze) by using different types and ratios of potting media. Potting media like peat moss, vermiculite and perlite having various ratios are mixed together. This experiment was done in four repetitions by keeping the base of randomized complete block design. The properties such as survival rate, number of leaves, plant height and root length were measured and recorded in the period of the experiment. The collected data was analyzed by SAS statistical software and the mean of data was evaluated by the Tuckey Test using the probability of 1 percent. Nevertheless, the mixture containing peatmoss+ vermiculite+ perlite (2:1:1; v/v/v) resulted in increased percentage of plant survival, root length plant height and number of leaves of tea clone Iran 100 and it is therefore, a recommended medium for growth of the cultivar during acclimatization.

Keyword: *Camellia sinensis*; Tissue culture; Acclimatized plantlets; Peat moss; Vermiculite and perlite