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Correlation between Net Assimilation Rate (NAR) and crop yield of selected *Piper nigrum* .L (Black Pepper) selections/ varieties

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Black Pepper (*Piper nigrum* .L) is a spice and root climber, mainly cultivating in wet and intermediate zones of Sri Lanka. Farmers cultivate local pepper types and an Indian introduction called Panniyur-1, but not the recommended local selections. The Dept of Export Agriculture is about to release several high yielding black pepper selections in the very near future. Even though, the department has gone through different germplasm evaluation programmes at field level, such programmes at nursery level are minimum.

Therefore, this study was carried out to study the correlation between NAR and crop yields of selected black pepper selections/varieties and also to compare the growth parameters at the nursery level. Five different black pepper selections of Panniyur-1, GK-49, MB-12, MW-21 and MW-18 were selected for the study. Rooted stem cuttings were colleted using bamboo rapid multiplication method and raised them in humid chambers to get plants by vegetative propagation.

NAR and crop yield of black pepper highly correlated with a R Square value of 0.5947. The results of this study suggest that the NAR can be used for germplasm evaluation of black pepper at nursery level. Panniyur-1 showed highest performances when compared with local pepper selections and GK-49 and MB-12 are better among the black pepper local selections

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