

## Effect of Different Trellising Systems on Growth and Yield Performance of Different Cucumber (*Cucumis sativus* L.) Varieties

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The experiment was conducted to investigate the performances of cucumber varieties under different trellising systems in the Integrated Farm and Training Center, Faculty of Agriculture, University of Jaffna during May to July 2017. Two factor factorial experiment was conducted in Randomized Complete Block Design (RCBD), variety as first factor and different trellising systems as second factor with three replications which consist of 12 treatment combinations. Four different cucumber varieties (Sayali 518 F1, Ajax, Suvo Long and Eclipse) and three different trellises (Pandhol system, Angle system and Local system) were used as treatments. Growth parameters such as number of leaves per plant, vein length and leaf area were measured weekly interval commencing from two weeks after planting. Fruit quality parameters such as fruit length and fruit circumference and yield parameters such as average weight of fruit, number of fruit per plant, average yield per hectare, average marketable and non-marketable yield per hectare were measured at harvesting time to find the significant differences between treatment combinations. ANOVA was performed and mean separation was done in DMRT at p value 0.05. There were significant differences found among the trellises on growth and yield parameters except in fruit quality parameters. The pandhol trellising system consistently produced highest values in all the parameters. The variety sayali 518 F1 hybrid gave the highest values in the parameters assessed in the trial except in leaf area, fruit length and number of fruit per plant. However, non-marketable yield also high in the sayali 518 F1 variety, but when comparing the marketable yield with other three varieties Sayali 518 F1 gave the highest marketable yield. From this experiment it can be concluded that sayali 518 F1 hybrid variety recommended for profitable cucumber cultivation under pandol trellising system.

**Key words:** Cucumber, Trellising system, Pandhol system, Parameters, Varieties