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## Does okra (*Abelmoschus esculentus* L.) - cowpea (*Vigna unguiculata* L. Walp.) intercropping planting system affect okra yield?

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Due to the depletion of land with the urbanization, as well as due to the lower levels of nutrients in soil, crop production has gone down. Okra production also has severely affected as a consequence of these problems. An experiment was conducted at Crop Farm of Eastern University, Sri Lanka to study the impact of planting patterns on okra yield. The experiment was laid out in Randomized Complete Block Design. Treatments were okra as monocrop (90 x 60 cm) (T1), alternative planting of okra and cowpea (T2), 60/150 cm and 75/120 cm paired row planting of okra with two rows (T3 and T5) and three rows of cowpea in between paired rows of okra (T4 and T6). Okra variety Haritha and cowpea variety Waruni were used in the experiment. Parameters were taken at weekly intervals up to three pickings. Parameters such as days for 50% and 100% flowering, number of fruits per plant at 2<sup>nd</sup> picking and fresh weight per fruit in okra showed higher values in T4. Fruit length and dry weight per fruit was not affected with the different planting patterns at each picking. Seeds per fruit of okra in the 1<sup>st</sup> picking of T4 was higher than the other tested treatments. Yield from okra in T4 was 1.5 times higher than the yield from okra in T1 (control). The present study concluded that 60/150 cm paired row of okra and three rows of cowpea between paired rows of okra would be the most suitable planting pattern in sandy regosol. That particular planting pattern would give comparatively higher yield than the other tested treatments.

Key words: Cowpea, Okra, Paired row planting, Alternative planting