

## OFF SEASON PRODUCTION OF BIG ONION (*Allium cepa* L.)

M.K.A.P. Fransis<sup>1</sup>, T. Hettigedara<sup>2</sup>, N. Senanayaka<sup>1</sup>

<sup>1</sup>*Department of Plant Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Puliyankulama, Anuradhapura, Sri Lanka.*

<sup>2</sup>*Field Crops Research and Development Institute, Department of Agriculture, Mahailuppallama, Sri Lanka.*

Big onion is one of most important condiment in Sri Lanka. Annual production of big onion is 45,682 mt though the demand (170,732 mt) is higher than the production. Big onion is cultivated once a year in the *Yala* season. Field experiments were conducted at the Field Crops Research and Development Institute, Mahailuppallama and Agriculture Research Station, Kalpitiya to investigate the feasibility of off season big onion production in areas having low rainfall during late *Maha* season. Varieties Galewela light red and Dambulla selection were used and seedlings were transplanted

at three leaves stage. Seedlings were transplanted at two time periods January 1<sup>st</sup> Week (T1) and January 3<sup>rd</sup> Week (T2) and the experiment was arranged in a Randomized Complete Block Design with three replicates. Application of fertilizer and other cultural practices were performed as recommended by the Department of Agriculture. Results showed a significant difference between planting time and the best time of

planting for off season cultivation is 1 week of January under Mahailuppallama conditions only . However there was no significant difference between varieties. The only significant parameter was the 'thin neck' bulb production. The highest production of thin neck bulbs was observed in T1 (81.6%). Interaction effect between variety and time of planting ( $p < 0.70$ ) was not significant. There were no significant differences in bulb producing percentage, marketable bulb percentage, and net plot yield and interaction effect at both locations.

**Key words:** Big onion, Dambulla selection, Galewela light red, Off season cultivation