

A New Cowpea Variety (*Vigna unguiculata* (L.) Walp.) Suitable for Dry and Intermediate Zones of Sri Lanka - ANKCP 02

B.N.Samaranayake¹, M.C. Millawithanachchi²,
N.T. Prathapasinghe¹ and A.S.Wijewardhana¹

¹*Grain Legumes and Oil Crops Research and Development Center,
Angunakolapellassa, Sri Lanka*

²*Rice Research Station, Labuduwa, Sri Lanka*

ABSTRACT

Cowpea is a grain legume crop with many attributes for tolerance to harsh environmental conditions existing in the Dry zone rainfed farming systems of Sri Lanka. With the objective of developing cowpea varieties with high yield and better consumer preference, a hybridization and selection program was carried out at the Grain Legumes and Oil Crops Research and Development Center (GLORDC) from *Yala* 2011 season to *Maha* 2015/16 season. Crosses were done and six cross combinations were advanced using modified bulk method up to F4 generation. Fourteen advanced breeding lines were selected and tested in preliminary yield trial and major yield trial during *Maha* 2013/14 and *Yala* 2014, respectively. Better performing lines were tested at National Coordinated Variety Testing (NCVT) trials during *Maha* 2014/15, to *Maha* 2015/16. Selected lines were tested for the adaptability during *Maha* 2015/16 and *Yala* 2016 in farmer fields. ANKCP 02 varieties performed well in the station yield trials. The highest yield recorded by ANKCP 02 (1,458 kg/ha) was at Maha-Illuppallama. According to the ranking method, ANKCP 02 ranked as 01 and received rank 02 with respect to variance component ranking method during *Maha* 2014/15 season. In adaptability testing at farmers' fields, it ranked as 01 during 2016 *Yala* and received rank 02 in *Maha* 2015/16. According to the farmers' responses, seed quality characters of the new variety is higher compared to the standards, cooking qualities and the taste also preferred by the consumers. Hence ANKCP 02 was recommended for cultivation in 2017 by Varietal Releasing Committee of the Department of Agriculture.

Key words: Adaptability, ANKCP 02, Cowpea, High yielding