

L. Walp) Cultivars Based on Agronomic Parameters

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An experiment was conducted at the Agronomy farm of the Eastern University of Sri Lanka to determine the agronomic responses of moisture stress in selected cowpea cultivars namely, 'Arlington', 'Vijaya' and 'Waruni' during the flowering stage and to select the most drought tolerant cowpea cultivar based on the above responses. The experiment was laid out in the Randomized Complete Block Design with six treatments and four replications. Moisture stress was imposed at once for the selected cowpea cultivars for a period of 12 days during the flowering stage. The control plants were watered to Field Capacity at three days interval. The measurements such as length of pods, 1000 grain weight and yield were determined for the stressed and control plants. Moisture stress reduced the length of pods of all the three cultivars. The highest % pod length among the stressed plants was observed in the 'Waruni' cowpea cultivar (72%) followed by 'Vijaya' (60%) and 'Arlington' (57%). The highest 1000 grain weight (On percentage basis) was observed in the 'Waruni' cultivar of cowpea (93%) followed by 'Arlington' (80%) and 'Vijaya' (66%). There was not much variation in the % yield of the above three cultivars which experienced moisture stress. Hence, it could be concluded that 'Waruni' cultivar of cowpea resisted drought better than 'Arlington' and 'Vijaya' cvs. on the basis of the above responses. This could be due to the varietal characteristic feature of the 'Waruni' cowpea cultivar.