

ABSTRACT

AGRONOMIC EVALUATION OF 125 F1 CASSAVA (*Manihot esculenta* Crantz) CLONES DERIVED FROM FEMALE PARENTS OF UJ 3 IN THE RESEARCH STATION OF BPTP NATAR SOUTH LAMPUNG

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The objective of this study was to evaluate the diversity of 125 F1 clones of cassava (*Manihot esculenta* Crantz) derived from female parents of UJ 3 at research station of BPTP Natar, Lampung Selatan. The study was conducted from March 2013 – March 2014. A total of 125 F1 clones offspring of female parents UJ 3 were evaluated.

Clones derived from botanical seeds was harvested from the farmers field in the village Masgar, Sub-District of Tegineneng, District of Pesawaran. The seeds were sown in the land of 300 seeds/m² in November 2012. Subsequently, the clones were transferred to the field in March 2013.

The qualitative character of clones F1 showed high diversity for the variables of surface color on the petiole, the lower surface of the leaf stalks and potato flesh has a wide diversity while qualitative character of clones the F1 derived from female parents UJ 3 shows moderate diversity for the variables of leaf color, upper trunk, trunk bottom, and

potato skins outer and qualitative character clones F1 offspring female parents UJ 3 shows a narrow diversity in the variable part of the potato skin.

The quantitative character of clones F1 showed high diversity for the variables of number of lobes leaf, petiole length, leaf lobe length, width lobe leaves, plant height, stem diameter, the tuber distribution, tuber number, fresh weight, and starch content. A wide diversity of qualitative characters may be an indication that the quantitative character also has a wide diversity. The extent of the value of genetic diversity in a qualitative and quantitative character indicates that the character's appearance is supported by genetic factors that exist in each of the clones F1 offspring female parents UJ 3. Ten promising clones based on the width of the lobe leaf, stem diameter, number of tubers, fresh weight and starch content were TB 6 – 4, TB 3 – 11, TB 3 – 8, TB 2 – 44, TB 5 – 7, TB 2 – 34, TB 2 – 47, TB 2 – 41, TB 3 – 4, and TB 6 – 18.

Keywords : agronomic character, diversity, and cassava .