Variation of morphological and protein pattern of cassava (Manihot esculenta) varieties of Adira1 and Cabak makao in Ngawi, East Java

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Abstrak

Tribadi, Suranto, Sajidan. 2009. Variation of morphological and protein pattern of cassava (Manihot esculenta) varieties of Adira1 and Cabak makao in Ngawi, East Java. Nusantara Bioscience 2: 14-22. This research is intended to find out the morphological and anatomical variation as well as the protein band pattern of cassava (Manihot esculenta Crantz) widely spread in three different areas of height. The sample collecting is done using simple random sampling in the three different areas of height that is 50, 300, 1000 meters asl in Ngawi District, East Java while the analysis of protein band pattern is done using SDS-PAGE. The result of the research of morphology and anatomy is analyzed descriptively and presented in the form of tabels, histograms and figures. The analysis of protein band pattern is done using quantitative and qualitative analysis that is based on the appearance or not the gel band pattern by counting the molecular weights based on code marker S 8445 and qualitative method based on the quality of the band formed. The band pattern formed is istimated and presented in the form of zimogram. The result of the research shows that the height of the cultivating site very much influences toward variations of root, stem and leaf morphology. The longest root is at 50 meter heights asl (Cabak makao local variety, the widest stem diameter is at 50 meters asl (Cabak makao local variety) the longest leaf and branch is at 300 meters asl (Cabak makao local variety) and 1000 meters asl (Cabak makao local variety). There is no difference of anatomy in the root, stem and leaf and no difference of protein band pattern either in Adira1 or Cabak makao local variety.