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## Identifikasi karakteristik morfologi, sistem budidaya, dan pemanfaatan ubi jalar (*Ipomoea batatas* L.) oleh masyarakat lokal di Distrik Wanggar Kabupaten Nabire

Identification of morphological characteristics, cultivation systems, and utilization of sweet potato (*Ipomoea batatas* L.) by local communities in Wanggar District, Nabire Regency**Nursin Leurima**

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DOI: <https://doi.org/10.30862/cassowary.cs.v6.i2.198>

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Keywords: Cultivation system, Local community, Morphological, Sweet potato, Utilization

### ABSTRACT

**ABSTRACT:** Sweet potato (*Ipomoea batatas* L.) is one of the world's most important food crops with great potential to be developed in Indonesia. This plant is rich in carotenoids and anthocyanins. Anthocyanin compounds in sweet potatoes function as components of healthy food. The purpose of this study was to identify the morphological diversity of sweet potato accessions, cultivation systems, and utilization of local communities in Wanggar District, Nabire Regency. The method used in this research is descriptive method with direct observation techniques in the field, at 3 villages: namely Wiraska, Wanggar Sari, and Karadiri in the Wanggar District, Nabire Regency. Data on sweet potato diversity were analyzed using cluster analysis with the NTSYS version 2.0 program. The result of this research are: (1) At the research sites in the villages of Wanggar Sari, Wiraska, and Karadiri there were 6 cultivars of sweet potato plants based on local names, namely: Unggu, Mokupudugu, Ueta, Mokupudugu, Nota, and Gelakue genotypes. These 6 cultivars had a diversity of morphological characters, (2) Based on the results of the cluster analysis, there are 2 main clusters that have the lowest similarity in morphological characters (34%), namely Cluster I (Unggu and Gelakue) and Cluster II (Makupudugu, Nota, Ueta, Kilumbi). The genotypes of Ungu and Gelakue in Cluster I have similar morphological characters of 43%, (3) Local communities in the Wanggar District still use traditional sweet potato cultivation systems and techniques that have been used from generation to generation, from land clearing to harvesting, and (4) In addition to being used as food, the plant parts of sweet potatoes are also used based on local wisdom communities as traditional medicines and natural fertilizers.

### AUTHOR BIOGRAPHIES

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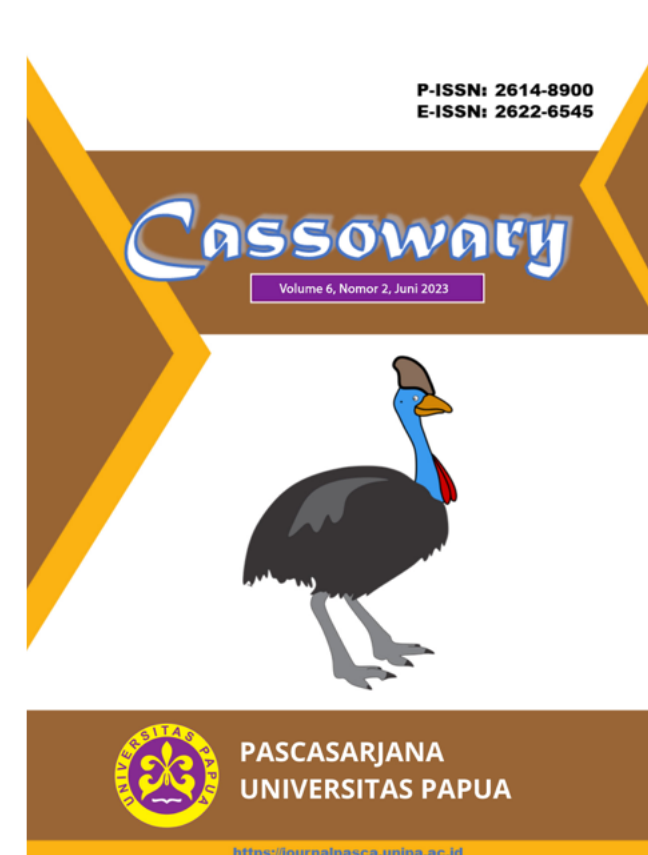
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### REFERENCES

- BPS. (2018). Provinsi Papua dalam Angka. Ulasan mengenai tanaman pangan. Badan Pusat Statistik Provinsi Papua. Papua.
- Deputi Menegristek. (2008). Ubi jalar/ketela rambat (*Ipomoea batatas* L.). Kantor Deputi Menegristek Bidang Pendayagunaan dan Pemasyarakatan Ilmu Pengetahuan dan Teknologi. MIG Crop. Jakarta.
- Ferita, Tawarati, I., dan Syarif, Z. (2015). Identifikasi dan karakteristik tanaman enau (*Arenga pinnata*) di Kabupaten Gayo Lues. Pros Sem Nas Masy Biodiv Indonesia. 321(1): 31-37.
- Ginting, E. and Utomo, J.S. (2011). Anthocyanins and total phenolic contents of purple-fleshed sweet potato cultivars and their antioxidant activity. In B. Kusbiantoro, L.K. Darusman, S. Budiarto and N. Bermawie (Eds). Proceedings of the International Conference on Nutraceuticals and Functional Foods in Denpasar, Bali on 1215 th October, 2010. Indonesian Centre for Rice Research, AARD. Jakarta. p.101-114.
- Hasyim. A. dan Jusup, M. (2008). Diversifikasi produk ubi jalar sebagai bahan pangan substitusi beras. Sinar Tani Edisi 30 Juli-5 Agustus 2008.
- Hetharie, H., Raharjo, S.H.T., Augustyn, G.H., dan Pesireron, M. (2017). Akurasi karakteristik tingkat in-situ tanaman ubi jalar pada Kecamatan Inomosol dan Huamual Muka Kabupaten Seram Bagian Barat. Jurnal Budidaya Pertanian. 13:103-110.
- Huaman, Z. (1991). Descriptor for sweet potato. CIP/AVRD/IBPGR.
- Husain. (2004). Konsep dasar potensi pengembangan pangan spesifik lokal di Provinsi Papua. Dalam: Y.P. Karafir, H. Manutubun, Soenarto, Y. Abdullah, B. Nugroho, dan M.J. Tokede (Ed.). Prosiding Lokakarya Nasional Pendayagunaan Pangan Spesifik Lokal Papua. Kerja Sama Universitas Papua dengan Pemerintah Provinsi Papua. Hal.33-42.
- Jamilah, C., Waluyo, B., dan Karuniawan, A. (2011). Parameter genetik aksesori tanaman kerabat liar ubi jalar koleksi UNPAD untuk peningkatan genetik dan sumber perbaikan karakter ubi jalar. Prosiding Seminar Nasional PERIPI Komda Jabar.
- Kanro, M. Zain, M., Lestari, M.S., Rauf A.W., Atekan, dan A. Malik, A. (2002). Pengelolaan sistem usahatani tanaman pangan dan upaya perbaikannya di Papua. Jurnal Penelitian dan Pengembangan Pertanian. Badan Litbang Pertanian. Vol 21(4).
- Kurnia, K. (2009). Yuk makan kudapan sehat. Pusat Penelitian Bioteknologi Institut Teknologi Bandung. Bandung.
- Limbongan J. dan Soplanit, A. (2007). Ketersediaan teknologi dan potensi pengembangan ubi jalar di Papua. Jurnal Penelitian dan Pengembangan Pertanian. Badan Litbang Pertanian. 26(4): 131-138.
- Litbang Pertanian. (2004). Pelestarian plasma nutfah sudah mendesak. Badan Litbang Pertanian. Kementerian Pertanian. Jakarta.
- Raharjo, S.H.T., Hetharie, H., Augustyn, G.H., dan Pesireron, M. (2014). Keragaman ubi kayu dan ubi jalar di Seram Bagian Barat dan peluang pemanfaatannya untuk ketahanan pangan dan industri. Hal.73-102.
- Santoso, S. (2002). Buku Latihan SPSS Statistik Multivariat. PT Elex Media Komputindo. Jakarta.
- Suda, I., Oki, T., Masuda, M., Kobayashi, M., Nishiba, Y., and Furuta, S. (2003). Physiological functionality of purple-fleshed sweet potatoes containing anthocyanins and their utilization in Foods. JARQ. 37(3):167-173.
- Widowati, S. dan Wargiono, J. (2012). Peran pangan fungsional dalam peningkatan Kesehatan. Prosiding Seminar Nasional Kesiapan Sumber Daya Pertanian dan Inovasi Spesifik Lokasi Memasuki Era Industri 4.0 Masyarakat dalam Wargiono dan Hermanto (eds) Ubi jalar Inovasi Teknologi dan Prospek

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PUBLISHED

2023-06-09

HOW TO CITE

Leurima, N., Mawikere, N. L., Djunna, I. A., Prabawardani, S., & Noya, A. I. (2023). Identifikasi karakteristik morfologi, sistem budidaya, dan pemanfaatan ubi jalar (*Ipomoea batatas* L.) oleh masyarakat lokal di Distrik Wanggar Kabupaten Nabire. *Cassowary*, 6(2), 69-79. <https://doi.org/10.30862/cassowary.cs.v6.i2.198>

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e-ISSN: 2622-6545

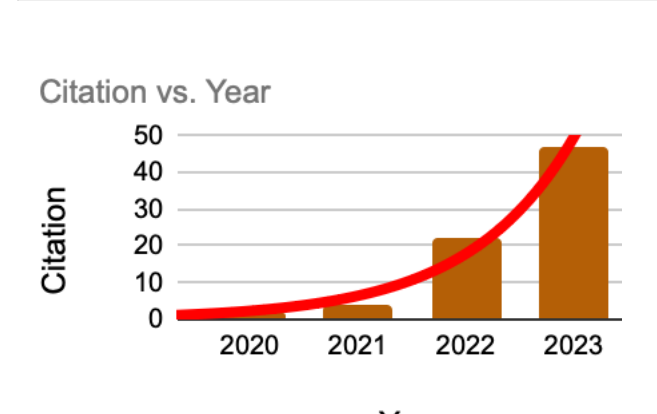


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