

ABSTRAK

Falentioningrum, Okta, Nabella. (2019),. *Identifikasi dan Inventarisasi Tanaman Umbi-Umbian Sebagai Sumber Karbohidrat Alternatif di Wilayah Jember Selatan dan Barat*. Skripsi, Program Studi Pendidikan Biologi Fakultas Keguruan dan Ilmu Pendidikan, Universitas Muhammadiyah Jember. Pembimbing: (1) Dra. Sawitri Komarayanti, M.S. (2) Ir. Elfien Herrianto, M.P.

Kata Kunci: Identifikasi, Inventarisasi, Umbi-umbian, Karbohidrat Alternatif

Indonesia hanya mengandalkan satu jenis tanaman sebagai sumber pangan karbohidrat yaitu beras. Sebagian besar penduduk Indonesia mengkonsumsi padi sehingga seiring dengan terus bertambahnya jumlah penduduk semakin meningkat pula kebutuhan beras.

Masalah yang muncul yaitu masyarakat Indonesia kurang memanfaatkan tumbuhan lain untuk di jadikan sebagai sumber karbohidrat alternatif pengganti beras, hal ini menyebabkan kerentanan pangan. Pemanfaatan bahan pangan dengan menggunakan sumberdaya hayati perlu diupayakan dengan mengenalkan tumbuhan lokal penghasil sumber karbohidrat alternatif yaitu umbi-umbian. Penelitian ini bertujuan untuk mengetahui keanekaragaman umbi-umbian yang berpotensi sebagai sumber karbohidrat, untuk mengetahui keanekaragaman karbohidrat pada umbi-umbian, dan mengetahui pemanfaatannya sebagai sumber belajar Biologi.

Penelitian ini di lakukan di Wilayah Jember Selatan (Kecamatan Ambulu, Wuluhun, Kencong) dan Wilayah Jember Barat (Kecamatan Bangsalsari, Balung, Semboro). Jenis Penelitian deskriptif kualitatif, dengan responden pedagang umbi di pasar dan petani umbi pada bulan Mei 2019 menggunakan metode eksplorasi dan *snowball sampling*, instrumen penelitian ini tanaman umbi-umbian dan alat atau sumber pendukung, teknik pengumpulan data dengan observasi, wawancara, identifikasi dan dokumentasi.

Hasil identifikasi umbi-umbian potensi sumber karbohidrat alternatif yang di temukan yaitu: Ubi kayu putih ,Ubi kayu kuning, Ubi jalar putih, Ubi jalar kuning, Ubi jalar ungu, Ubi jalar oranye, Ubi jalar madu, Kimpul, Bentul, Gembili, Kentang, Uwi Ulo, Suweg/Porang, Bote , Gadung, Garut, Ganyong, Talas Hitam. Hasil inventarisasi di temukan 13 spesies tanaman umbi-umbian. Kandungan karbohidrat beras 80,0 gr/100 gr beras, umbi yang paling berpotensi sebagai sumber karbohidrat alternatif pengganti beras adalah umbi Garut dengan kandungan karbohidrat 73,4 gr/ 100 gr umbi. Setelah melakukan kegiatan analisis kurikulum K-13 Revisi bahwa tanaman umbi-umbian yang berpotensi sebagai sumber karbohidrat alternatif tersebut dapat berpotensi sebagai sumber belajar Biologi pada SMA/MA sederajat Kelas X BAB keanekaragaman hayati.

Kesimpulan dari penelitian ini yaitu telah di temukan 13 spesies yang berpotensi sebagai sumber karbohidrat alternatif dan data hasil penelitian ini dapat berpotensi sebagai sumber belajar biologi SMA/MA sederajat kelas X pada mata pelajaran Biologi BAB keanekaragaman hayati.

ABSTRACT

Falentioningrum, Okta, Nabella. (2019). *Identification and Inventory of Tubers as Alternative Carbohydrate Sources in the South and West Jember Areas.*

Jember: Thesis, Teaching and Education Faculty Biology Education Study Program, Muhammadiyah University of Jember.

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Keywords: Identification, Inventory, Tubers, Alternative Carbohydrates

Indonesia is a fertile country and has diverse biological resources, but ironically Indonesia only relies on one type of plant as a source of carbohydrate food, namely rice. Most of the Indonesian population consumes rice, so that as the population continues to grow, the need for rice increases.

The problem that arises is that the Indonesian people use less other plants to be used as alternative carbohydrate sources instead of rice, this causes food vulnerability. The use of food by using biological resources needs to be sought by introducing local plants that produce alternative carbohydrate sources, namely tubers. This study aims to determine the diversity of tubers that have the potential as a source of carbohydrates, to know the diversity of carbohydrates in tubers, and to know their use as a source of learning Biology.

This research was conducted in the South Jember Region (Districts of Ambulu, Wuluhan), Kencong and West Jember Areas (Bangsalsari, Balung and Semboro Subdistricts). This type of research is descriptive qualitative, the study was conducted on tuber traders in the market and tuber farmers in May 2019 using the sampling exploration and snowball method. The research instruments were tubers which have the potential to be alternative carbohydrate sources, as well as supporting tools or sources, techniques collecting data by observing, interviewing, identifying and documenting.

Results Identification of tubers of potential alternative carbohydrate sources found are: Eucalyptus yams, Yellow cassava, White sweet potato, Yellow sweet potato, Purple sweet potato, Orange sweet potato, Honey sweet potato, Knots, Knots, Billiards, Potatoes, Uwi Ulo, Suweg / Porang, Bote, Gadung, Garut, Ganyong, Talas Hitam. The inventory results found 13 species of tubers. The carbohydrate content of rice is 80.0 gr / 100 gr of rice, tuber which has the most potential as an alternative carbohydrate source to replace rice is Garut tuber with a carbohydrate content of 73.4 gr / 100 gr tuber. After conducting the revised K-13 curriculum analysis, root crops that have the potential as alternative carbohydrate sources can have the potential to be a source of learning Biology in the equivalent of Class X SMA / MA BAB biodiversity.

Based on these results, the conclusions from the study of Identification and Inventory of Tuber Crops that Potentially as Alternative Carbohydrate Sources in the South and West Jember Region are 13 species that have the potential as alternative carbohydrate sources and the results of this study could potentially serve as high school biology learning resources / MA equivalent class X on Biology subjects biodiversity chapter.