

**PERTUMBUHAN BAYAM BRAZIL (*Alternanthera sissoo*) DENGAN
BERBAGAI MEDIA TANAM DAN PANJANG STEK BATANG SECARA
HIDROPONIK DENGAN SISTEM *DEEP FLOW TECHNIQUE***

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ABSTRAK

Bayam brazil (*Alternanthera sissoo*) merupakan salah satu jenis sayuran yang mulai banyak dicari oleh masyarakat Indonesia. Usaha pengembangan bayam brazil dapat ditempuh melalui budidaya secara hidroponik guna menghasilkan tanaman yang berkualitas unggul. Penelitian bertujuan untuk mengetahui interaksi antara media tanam dan panjang stek batang, menentukan media tanam dan panjang stek batang yang terbaik bagi pertumbuhan bayam brazil secara hidroponik dengan *deep flow technique*. Penelitian dilaksanakan di Badan Standarisasi Instrumen Pertanian Yogyakarta pada bulan Januari 2023 hingga Februari 2023. Metode penelitian percobaan lapangan menggunakan Rancangan Petak Terbagi. *Main plot* yaitu media tanam yang terdiri atas 3 taraf yaitu *rockwool*, *cocopeat*, dan spons. *Sub plot* berupa panjang stek terdiri atas 2 taraf yaitu 5cm dan 8cm. Data dianalisis menggunakan sidik ragam kemudian dilanjutkan dengan uji lanjut Beda Nyata Terkecil (BNT). Hasil penelitian menunjukkan terdapat interaksi antara perlakuan media tanam dan panjang stek pada parameter jumlah daun tanaman umur 1, 2 4 dan 6 MST dan jumlah mata tunas tanaman umur 1, 2 dan 4 MST. Media tanam *cocopeat* memberikan hasil terbaik pada parameter jumlah mata tunas tanaman bayam brazil umur 3, 5 dan 6 MST serta bobot segar tanaman. Panjang stek 8cm memberikan hasil yang terbaik pada parameter jumlah daun tanaman umur 3 dan 5 MST, tinggi tanaman umur 1, 2, 3, 4, 5 dan 6 MST, jumlah mata tunas tanaman umur 3, 5 dan 6 MST, volume akar, bobot segar tanaman, bobot kering tanaman, dan rasio akar tajuk tanaman.

Kata kunci: Bayam brazil, media tanam, panjang stek batang

**GROWTH OF BRAZILIAN SPINACH (*Alternanthera sissoo*) WITH
VARIOUS TYPES OF PLANTING MEDIA AND HYDROPONICAL STEM
CUTTINGS WITH DEEP FLOW TECHNIQUE SYSTEM**

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ABSTRACT

*Brazilian spinach (*Alternanthera sissoo*) is one type of vegetable that is being sought after by Indonesian people. Efforts to develop Brazilian spinach can be pursued through hydroponic cultivation in order to produce superior quality plants. The aims of this study were to determine the interaction between the growing media and the length of the stem cuttings, to determine the best planting medium and the length of the stem cuttings for the growth of Brazilian spinach hydroponically using the deep flow technique. The research was conducted at the Yogyakarta Agricultural Instrument Standardization Agency from January 2023 to February 2023. The field trial research method used a Split Plot Design. The main plot is the planting medium which consists of 3 levels, namely rockwool, cocopeat, and sponge. The sub-plot in the form of cuttings length consists of 2 levels, namely 5cm and 8cm. Data were analyzed using variance and then continued with the Least Significant Difference (LSD) test. The results showed that there was an interaction between the treatment of the growing media and the length of the cuttings on the parameters of the number of leaves of plants aged 1, 2, 4 and 6 WAP and the number of buds of plants aged 1, 2 and 4 WAP. Cocopeat growing media gave the best results on the parameters of the number of shoot buds of the Brazilian spinach aged 3, 5 and 6 WAP and plant fresh weight. The length of the cuttings of 8 cm gave the best results on the parameters of number of leaves at 3 and 5 WAP, plant height at 1, 2, 3, 4, 5 and 6 WAP, number of buds at 3, 5 and 6 WAP, root volume, weight plant fresh weight, plant dry weight, and plant crown root ratio.*

Keywords: Brazilian spinach, growing media, length of stem cuttings