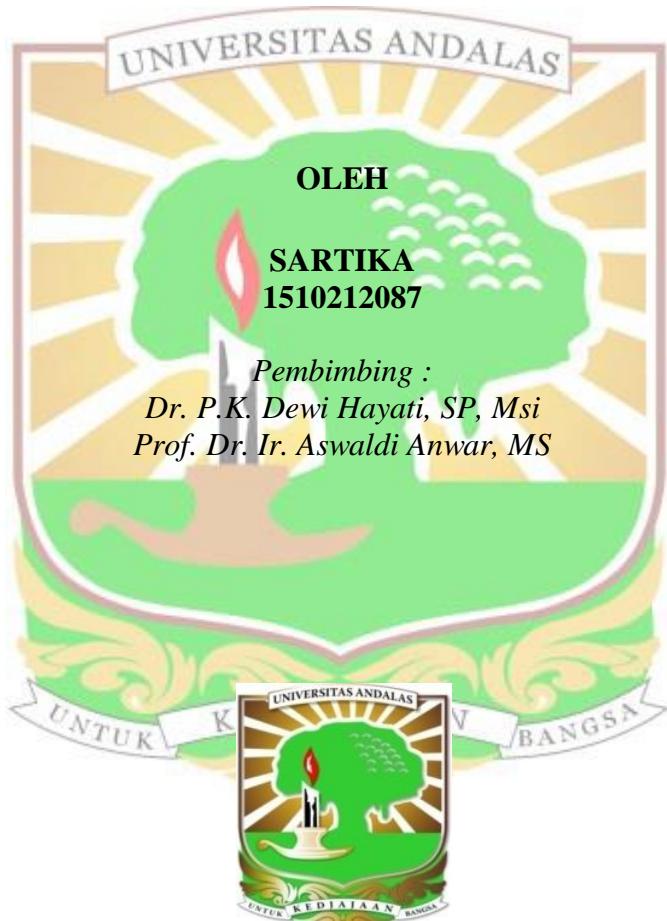


**SELEKSI BENGKUANG (*Pachyrhizus erosus* L.) VARIETAS
KOTA PADANG UNTUK MENDAPATKAN TANAMAN SEMI
PENDEK DAN SEDIKIT INFLORESENS HASIL IRADIASI
SINAR GAMMA GENERASI M2**

SKRIPSI



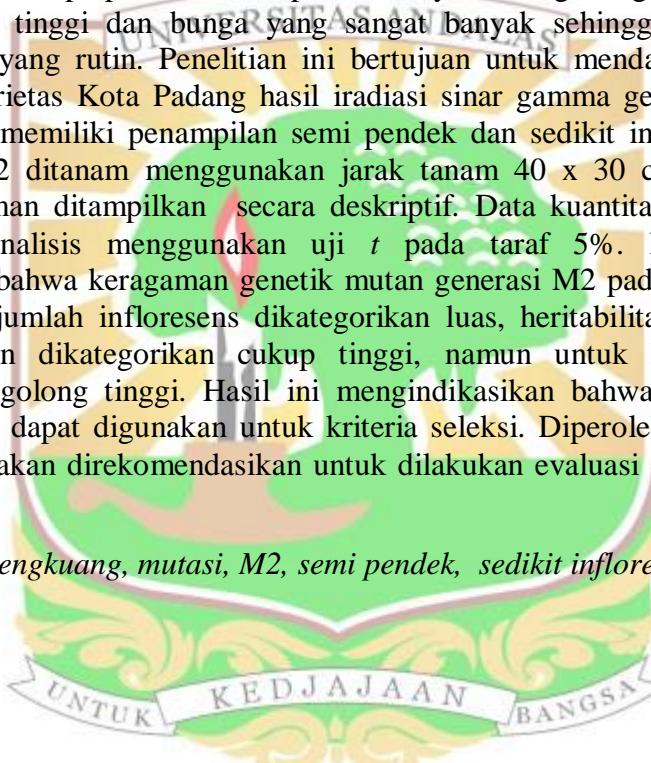
**FAKULTAS PERTANIAN
UNIVERSITAS ANDALAS
PADANG
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SELEKSI BENGKUANG (*Pachyrhizus erosus* L.) VARIETAS KOTA PADANG UNTUK MENDAPATKAN TANAMAN SEMI PENDEK DAN SEDIKIT INFLORESENS HASIL IRADIASI SINAR GAMMA GENERASI M2

ABSTRAK

Bengkuang (*Pachyrizhus erosus* L.) berpotensi untuk dikembangkan sebagai tanaman pangan sumber karbohidrat sekaligus protein nabati. Kendala yang sering dihadapi petani dalam pembudidayaan bengkuang adalah karakter tanaman yang tinggi dan bunga yang sangat banyak sehingga membutuhkan pemangkasan yang rutin. Penelitian ini bertujuan untuk mendapatkan tanaman bengkuang varietas Kota Padang hasil iradiasi sinar gamma generasi M2 dosis 150 Gy yang memiliki penampilan semi pendek dan sedikit infloresens. Benih bengkuang M2 ditanam menggunakan jarak tanam 40 x 30 cm dan data per individu tanaman ditampilkan secara deskriptif. Data kuantitatif yang diamati kemudian dianalisis menggunakan uji t pada taraf 5%. Hasil penelitian menunjukkan bahwa keragaman genetik mutan generasi M2 pada karakter tinggi tanaman dan jumlah infloresens dikategorikan luas, heritabilitas pada karakter tinggi tanaman dikategorikan cukup tinggi, namun untuk karakter jumlah infloresens tergolong tinggi. Hasil ini mengindikasikan bahwa kedua karakter tersebut sudah dapat digunakan untuk kriteria seleksi. Diperoleh tujuh genotipe harapan yang akan direkomendasikan untuk dilakukan evaluasi dan seleksi pada generasi M3.

Kata kunci: *bengkuang, mutasi, M2, semi pendek, sedikit infloresens*



SELECTING YAM BEAN (*Pachyrhizus erosus* L.) OF PADANG CITY VARIETY TO OBTAIN SEMI-DWARF CROP AND FEWER INFLORENCES THE RESULT OF GAMMA RAY IRRADIATION OF M2 GENERATION

ABSTRACT

Yam bean (*Pachyrhizus erosus* L.) has the potential to be developed as a food crop as sources of carbohydrates as well as botanical protein. The obstacle that is often faced by farmers in the cultivation of yam bean is a high plant character and a lot of flowers that require routine pruning. The objective of this study was to obtain the variety of yam crop as a result of gamma ray irradiation of M2 generation with a dose of 150 Gy which has a semi-dwarf appearance and fewer inflorescences. The M2 seeds of yam bean were planted using 40 x 30 cm planting distance and the data of individual plant was displayed descriptively. The quantitative data observed were then analyzed using the *t* test at 5% level. The results showed that the genetic diversity of M2 generation of mutants in plant height and number of inflorescences were categorized as ‘broad’, heritability in plant height characters was quite high, but for characters of number of inflorescence was high. These results indicated that the two characters could be used for selection criteria. There were 7 expected genotypes that could be recommended for evaluation and selection in the M3 generation.

Keywords: Yam bean, Mutants, M2, Semi-dwarf, fewer Inflorescence.