

**PENGUJIAN TOLERANSI BEBERAPA KLON  
TANAMAN TEBU ASAL SUMATERA BARAT TERHADAP  
CEKAMAN KEKERINGAN**

**SKRIPSI**

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## **ABSTRAK**

Penelitian ini bertujuan untuk mengetahui tingkat toleransi beberapa klon tebu asal Sumatera Barat terhadap cekaman kekeringan. Penelitian telah dilaksanakan pada bulan Maret sampai Juli 2018 yang bertempat di UPT Kebun Percobaan dan Laboratorium Fisiologi Tumbuhan Fakultas Pertanian, Universitas Andalas. Penelitian dilakukan dalam bentuk percobaan dengan menggunakan Rancangan Acak Lengkap (RAL) terdiri dari 5 perlakuan yang diulang sebanyak 3 kali. Setiap satuan percobaan terdiri atas 3 polibag dengan 1 bibit per polibag. Data hasil pengamatan berupa tingkat toleransi berdasarkan skor pengulungan daun, kadar prolin, indeks stabilitas dan pertumbuhan bibit. Data hasil pengamatan pertumbuhan bibit dianalisis menggunakan uji F dengan taraf nyata 5% dan jika berbeda nyata dilanjutkan dengan uji Duncan's New Multiple Range Test (DNMRT) pada taraf nyata 5%. Hasil penelitian menunjukkan bahwa terdapat perbedaan tingkat toleransi beberapa klon tanaman tebu yaitu Klon Puncak Pato dan Salimpauang digolongkan cukup toleran, Klon Bukik Batabuah digolongkan cukup peka, Klon Lawang digolongkan peka dan Klon Singgalang digolongkan kedalam kategori sangat peka terhadap cekaman kekeringan.

Kata kunci: *toleransi, kekeringan, tebu, pengulungan daun, prolin*

# TOLERANCE TEST OF SUGARCANE CLONES FROM WEST SUMATRA TO DROUGHT STRESS

## ABSTRACT

This research aims to determine the tolerance level of several sugarcane clones from West Sumatera to drought stress. The research was conducted in March to July 2018 at the Experimental Garden Unit and Laboratory of Plant Physiology, Faculty of Agriculture, Andalas University. The research was conducted in experiment using a Completely Randomized Design (CRD) consisting of 5 treatments which 3 replicates. Experimental unit consists of 3 polybags with 1 seed per polybag. Observation data in the form of tolerance levels based on leaf stretching scores, proline levels, stability index and seedling growth. Data on seedling growth observations were analyzed using the F test with a level of 5% and if significantly different continued with Duncan's New Multiple Range Test (DNMRT) at the level of 5%. The results showed that there were differences in the tolerance levels of several sugarcane clones, Puncak Pato and Salimpuang clones classified as quite tolerance, Bukik Batabuah clones classified as quite sensitive, Lawang clones classified as sensitive and Singgalang clones classified into very sensitive categories of drought stress.

Keywords: *tolerance, drought, sugarcane, leaf winding, proline*

