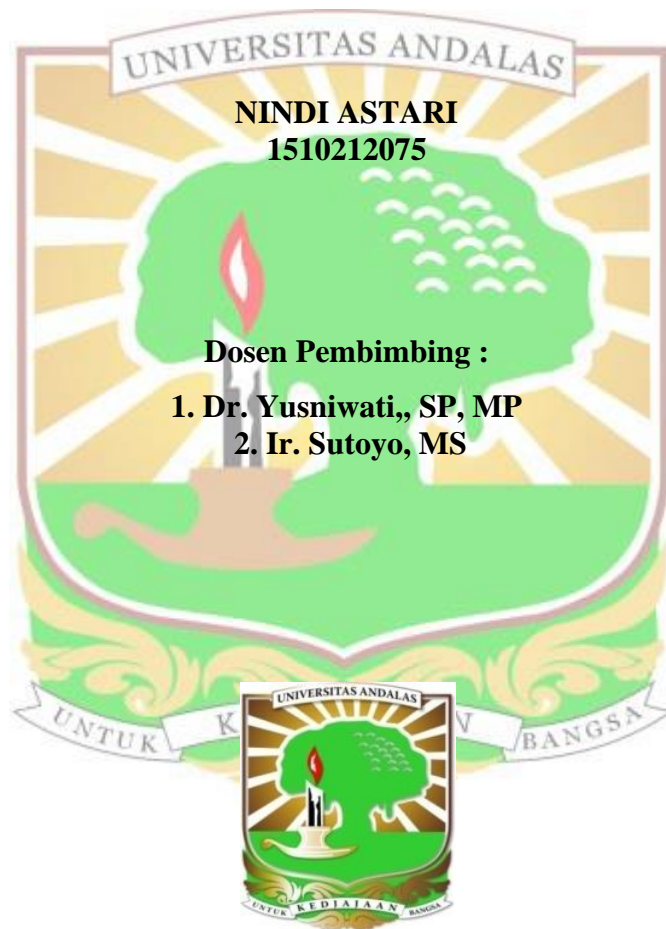


**INDUKSI KALUS EMBRIOGENIK GANDUM  
(*Triticum aestivum* L.) DENGAN MENGGUNAKAN BEBERAPA  
KONSENTRASI 2,4-D SECARA *IN VITRO***

**SKRIPSI**

**OLEH**



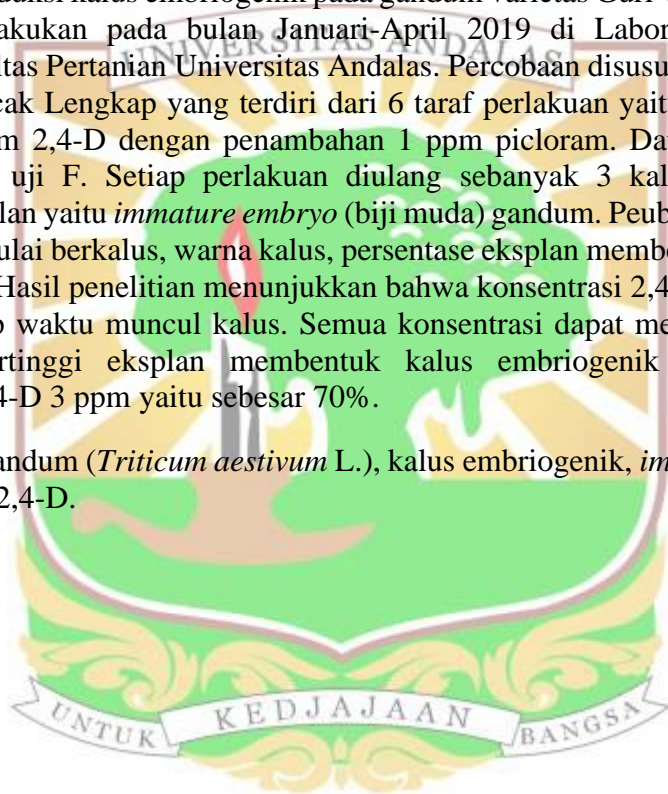
**FAKULTAS PERTANIAN  
UNIVERSITAS ANDALAS  
PADANG  
2019**

# INDUKSI KALUS EMBRIOGENIK GANDUM (*Triticum aestivum* L.) DENGAN MENGGUNAKAN BEBERAPA KONSENTRASI 2,4-D SECARA *IN VITRO*

## Abstrak

Penelitian ini bertujuan untuk mendapatkan konsentrasi ZPT 2,4-D terbaik dalam menginduksi kalus embriogenik pada gandum varietas Guri-6 secara *in vitro*. Penelitian dilakukan pada bulan Januari-April 2019 di Laboratorium Kultur Jaringan Fakultas Pertanian Universitas Andalas. Percobaan disusun menggunakan Rancangan Acak Lengkap yang terdiri dari 6 taraf perlakuan yaitu 0,5; 1; 1,5; 2; 2,5; dan 3 ppm 2,4-D dengan penambahan 1 ppm picloram. Data statistik diuji menggunakan uji F. Setiap perlakuan diulang sebanyak 3 kali. Bagian yang dijadikan eksplan yaitu *immature embryo* (biji muda) gandum. Peubah yang diamati yaitu waktu mulai berkalus, warna kalus, persentase eksplan membentuk kalus, dan tekstur kalus. Hasil penelitian menunjukkan bahwa konsentrasi 2,4-D berpengaruh nyata terhadap waktu muncul kalus. Semua konsentrasi dapat membentuk kalus. Persentase tertinggi eksplan membentuk kalus embriogenik terdapat pada konsentrasi 2,4-D 3 ppm yaitu sebesar 70%.

Kata kunci: Gandum (*Triticum aestivum* L.), kalus embriogenik, *immature embryo*, 2,4-D.



# **EMBRIOGENIC CALLUS INDUCTION OF WHEAT (*TRITICUM AESTIVUM* L.) BY USING SEVERAL 2,4-D CONCENTRATION *IN-VITRO***

## **Abstract**

This study aims to obtain the best concentration of ZPT 2,4-D in inducing embryogenic callus in wheat variety Guri-6 in-vitro. The study was conducted in the Network Culture Laboratory of the Faculty of Agriculture, Andalas University in January-April 2019. The experiment was arranged using a Completely Randomized Design consisting of 6 levels of treatment namely 0.5; 1; 1,5; 2; 2.5; and 3 ppm 2,4-D with the addition of 1 ppm picloram. Statistical data were tested using the F test. Each treatment was repeated 3 times. The part that is used as explants is immature embryo (young seeds) of wheat. The observed variables were callus start time, callus color, explant percentage that forming callus, and callus texture. The results showed that the 2,4-D concentration significantly affected the time of callus formation. All concentrations can form a callus. The highest percentage of explants forming embryogenic callus was found at a concentration of 3 ppm which is equal to 70%.

Keyword: Wheat (*Triticum aestivum* L.), embryogenic callus, immature embryo, 2,4-D.

