## Peningkatan Mutu Fisiologis dan Pertumbuhan Benih Cabai Rawit (Capsicum Frutescens) Kedaluwarsa melalui Teknik Invigorasi menggunakan Ekstrak Jagung Muda (Zea Mays)

(Improvement of Physiological Quality and Seed Growth of Expired Cayenne Pepper (Capsicum Frutescens) through Invigoration Technique using Young Corn Extract (Zea Mays)) Supervisor: Netty Ermawati, SP., Ph.D

Linda Ambar Agustiana
Study Program of Seed Production Technique
Department of Agricultural Production
Program Studi Teknik Produksi Benih
Jurusan Produksi Pertanian

## **ABSTRACT**

One of the problems in companies engaged in the seed. Production is the large number of seeds that can not be sold immediately or accumulate in storage warehouses resulting in expired seeds. Seeds in this condition will experience deterioration and decrease in quality so special treatment is needed to improve their physiological quality. The purpose of this study was to determine the increase in the physiological quality and growth of expired cayenne pepper (Capsicum frutescens) seeds through invigoration techniques using young corn extract (Zea mays). The research was conducted in the laboratory and Green House of Seed Production Techniques, Polytechnic of Jember, using the Non-Factorial Completely Randomized Design (CRD) method with the concentration of young corn extract (K) as the treatment factor. Data were analyzed using ANOVA and followed by DMRT level of 5%. The K factor consists of 5 levels, namely K02 (without soaking in young corn extract), K1 (20% of young corn extract), K2 (25% of young corn extract), K3 (30% of young corn extract), and K4 (35% of young corn extract). The results showed that the use of young corn extract for expired cayenne pepper seeds invigoration had a significantly different effect on the parameters of growth synchrony and vigor index, and had a very significant effect on the parameters of germination power, maximum growth potential, and growth speed. These results indicate that young corn extract is capable of acting as a bioinvigorator in improving the physiological quality of expired seeds.

**Key words**: cayenne pepper, young corn extract, seed physiology