FACTORS AFFECTING ON PHYSICAL DORMANCY BREAK OF *IPOMEOA HEDERACEA* SEEDS

A PROJECT REPORT PRESENTED BY

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Many live seeds will not germinate even if the environment has sufficient water and warmth for the seed to germinate. This is known as dormancy. Dormancy is broken or ended by a number of different conditions, and is caused by internal or external and sometimes both factors. Environmental factors like light, temperature, fire, ingestion by animals, are conditions that can end seed dormancy.

This research was focused on the seed of *Ipomeoa hederacea* that is one of a Morningglories. Those are some of the most difficult to control broadleaf weeds in row crop and other agricultural and non-agricultural areas in the southeastern U.S. Morningglories are very competitive and reduce both crop yields and harvest efficiency. It is necessary to identify its germination strategy to control its distribution. After identifying the germination strategy appropriate methods can be used to destroy the weeds. Investigations have been conducted to observe their germination by changing storage time, storage temperature and seeds' collection time.

Descriptive Statistical techniques such as Box Plots, Histograms, Contingency tables and Plots were used to represent data graphically. Conclusions were drawn based on several statistical methods; Analysis of Variance, Generalized linear model and Logistic Regression Models. Statistical software R was used for the analysis. Findings of this research suggest that the germination of *Ipomeoa hederacea* seed is highly affected on storage temperature and storage time. This research will serve as a base for identifying a seed controlling method.