



**EFFECTS OF DIETARY *Bacillus subtilis* var. *natto* ON GROWTH  
PERFORMANCE AND LYSOZYME GENE EXPRESSION IN NILE  
TILAPIA (*Oreochromis niloticus*) INFECTED WITH *Flavobacterium*  
(*columnare*) *oreochromis***

**UNDERGRADUATE THESIS**

Submitted in Partial Fulfillment of the Requirements for the Degree of Bachelor of Biotechnology (S.Biotek) in the Biotechnology Study Program, Department of Biology, Faculty of Science and Mathematics, Diponegoro University, Semarang.

Arranged by:

**Annisa Wina Sabilla**

**24020221130021**

**BIOTECHNOLOGY STUDY PROGRAM  
BIOLOGY DEPARTMENT  
FACULTY OF SCIENCE AND MATHEMATICS  
DIPONEGORO UNIVERSITY  
SEMARANG  
AUGUST, 2025**