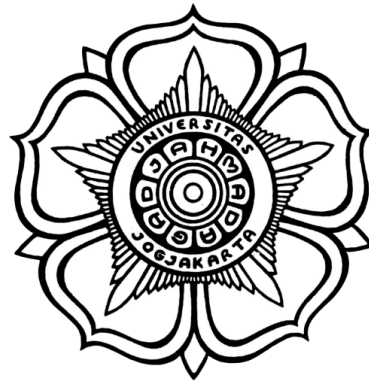


**PENGARUH DURASI DAN KECEPATAN UKURAN PARTIKEL DENGAN
HIGH ENERGY MILLING TERHADAP KARAKTERISTIK FISIK KIMIA DAN
BIOAVAILABILITAS NANOKALSIUM TULANG IKAN GABUS**

Tesis

Untuk memenuhi sebagian persyaratan mencapai derajat master
Program Studi Ilmu Perikanan

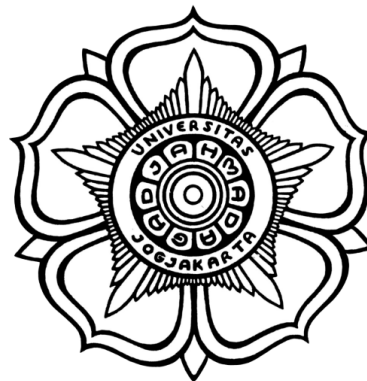


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PROGRAM PASCASARJANA
FAKULTAS PERTANIAN
UNIVERSITAS GADJAH MADA
YOGYAKARTA
2025

THE EFFECT OF MILLING DURATION AND SPEED WITH *HIGH ENERGY MILLING* ON THE PHYSICAL CHEMICAL CHARACTERISTICS AND BIOAVAILABILITY OF NANOCALCIUM SNAKEHEAD FISH BONES

Thesis
Submitted to
Study Program of Fisheries Science for the Degree of Master



submitted by
Meisy Chairunnisya
20/471441/PPN/04689

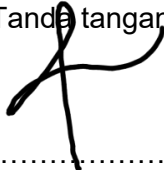
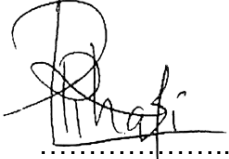

POSTGRADUATE PROGRAM
FACULTY OF AGRICULTURE
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YOGYAKARTA
2025

Tesis

**PENGARUH DURASI DAN KECEPATAN PENGECILAN UKURAN PARTIKEL
DENGAN *HIGH ENERGY MILLING* TERHADAP KARAKTERISTIK FISIK
KIMIA DAN BIOAVAILABILITAS NANOKALSIMUM TULANG IKAN GABUS**

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Tanggal 30 Januari 2025

Mengetahui,
Ketua Departemen Perikanan
Fakultas Pertanian
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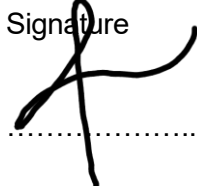
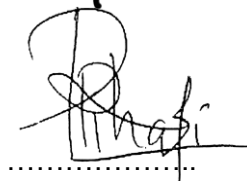



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Thesis

**THE EFFECT OF *MILLING* DURATION AND SPEED WITH *HIGH ENERGY MILLING*
ON THE PHYSICAL CHEMICAL CHARACTERISTICS AND BIOAVAILABILITY
NANOCALCIUM OF SNAKEHEAD FISH BONES**

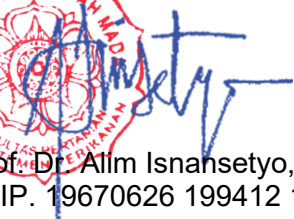

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This thesis was declared acceptable in partial fulfillment of the requirement for
the master degree in Fisheries Science
January 30th 2025

Approved by,
Chair of Department of Fisheries
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