Title of thesis

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Centre Aligned
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SUBMITTED TO THE

INTEGRAL UNIVERSITY IN PARTIAL FULFILLEMENT OF

THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF SCIENCE (AGRICULTURE)

In

‘COURSE OF THE STUDENT’

by

Name of Student
Enrollment Number

Times New Roman, Capital, Bold, 12 font size, Line spacing= Multiple 1.15

under the Guidance of

Name of Advisor
Designation

Times New Roman, Bold, 12 font size, Line spacing= Single

Department of Agriculture
Integral Institute of Agricultural Science and Technology (IIAST)
Integral University
Lucknow-226 026

Times New Roman, 12 font size, Line spacing= Single

2025

Year of submission

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2025

CERTIFICATE-I

This is to certify that the thesis entitled '**.....**' submitted for the degree of '**Master of Science**' in Agriculture in the subject **.....** to the Integral University, Lucknow by a bonafide student **Mr. ..... Enrollment No. .....** had worked under my supervision and that no part of this thesis has been submitted for any other degree.

The assistance and help received during the course of research work has been duly acknowledged.

Name and Signature of Advisor
Designation
Affiliation

CERTIFICATE-II

This is to certify that the thesis entitled '**.....**' submitted by **Mr. ..... Enrollment No. .....** to the Integral University, Lucknow for the partial fulfillment of the requirements for the degree of '**Master of Science**' in Agriculture in the subject **.....** has been approved by the Student's Advisory Committee after the oral examination on the same in collaboration with an External Examiner.

(Name of External Examiner)
Designation
Affiliation

Advisory Committee

Major Advisor and Chairman _____

Co-Advisor _____

Member (Minor) _____

Member (Related Field) _____

Dean's Nominee _____

Dean _____

On Letter head of concerned Advisor's Institute

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Affiliation
Designation

Advisory Committee

Major Advisor and Chairman _____

Co-Advisor _____

Member (Minor) _____

Member (Related Field) _____

Dean's Nominee _____

Dean _____

DECLARATION

I, hereby, declare that the present dissertation entitled …….. embodies the original research work carried out by the undersigned and has not been published and/or submitted to elsewhere for the award of any degree.

Date

(Signature student)
Name of the student

Wheat (*Triticum aestivum* L.) is one of the major cereal crops with a unique protein, which is consumed by humans and is grown around the world in diverse environments (Abedi et al. 2010). Wheat is the world's most flavored staple food and provides more nourishment for humans than any other food source. It also contains carbohydrates, minerals, vitamins and fats. With a small amount of animal or legume protein added, a wheat-based meal is highly nutritious. Wheat is foremost among cereals and as a main source of carbohydrates and protein for both human beings and animals; contains starch (60-90%), protein (11-16.5%), fat (1.5-2%), inorganic ions (1.2-2%) and vitamins (B-complex and vitamin E) (Rueda-Ayala et al. 2011).

In India, during past three decades, intensive agriculture involving exhaustive high yielding varieties of cereals particularly, wheat has led to heavy withdrawal of nutrients from the soil. This resulted in the increase in consumption of chemical fertilizers but the trend of fertilizer use efficiency is not encouraging. These erratic fertilizers use patterns, if continued for years, could cause much greater drain on native soil fertility and the soil may not be able to support high production levels in future. Therefore, in the event of nutrient turnover in soil-plant system being considerably high under intensive farming, neither chemical fertilizer nor organic/biological sources alone can achieve production sustainability.

Plants require nutrients for their growth and development. These nutrients are present in soil and continuously depleted during cultivation of crop plant. So, to overcome these problem fertilizers are used to replenish the nutrients. They are used for higher yield and effective growth of plant and agricultural products (Ramteke et al. 2012). Fertilizers are sources of plant nutrient that can be added to soil to maintain its natural fertility. They are intended to supply plant needs