

HALF YEARLY PROGRESS REPORT

FIRST

Name of Research Scholar	Shilpa Thakur
Name of the Faculty	Department of Biotechnology (Life Sciences)
Topic of Ph. D. Work	Modern Developments of Red Rice-Based Fermented Products And It's Major Important Applications: A Critical Study
Session of the Registration	
Research Guide/Supervisor's Name	Dr. Shrikant Sharma (Assistant Professor)

I. Progress against Planned Work

SL	Duration		Planned work	Actual work
	From	To		
	1/Nov/2019	5/May/2020	CHAPTER 1 INTRODUCTION: 1. RESEARCH BACKGROUND 2. RICE IS THE MOST COMMON BREWED CASUAL DINING INGREDIENT IN INDIA 3. OBJECTIVES OF THE STUDY 4. PURPOSE OF THE STUDY 5. LIMITATION OF THE STUDY	In this initial stage, the chapter 1: Introduction was framed.

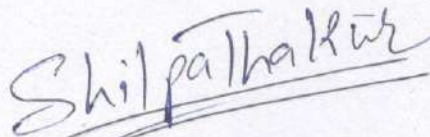
			<p>Topic is elaborated and studied as follows: The ambit of the aforesaid scenario, the proposed study " MODERN DEVELOPMENTS OF RED RICE-BASED FERMENTED PRODUCTS AND IT'S MAJOR IMPORTANT APPLICATIONS: A CRITICAL STUDY," was undertaken, and the last six months of it involved an extensive writing phase. As a result of which, the data collected and analyzed through primary and secondary data collection was duly arranged and tabulated. Thereby, I initiated the process of thesis writing, wherein characterization of four different chapters was done.</p>	Work was going on
			Outline of complete thesis	Chapter 1 was finally framed and completed

II. Details of Publications:

SL	Title of the Paper	Journal/ Conferences	Volume & No. / Venue & Dates	Page No.

III. SEMINAR

Date:


Signature of the Research Scholar

IV. Recommendation of Research Guide

Certified that the performance of the Research Scholar is: Satisfactory/ not Satisfactory

Comments:


Name & Signature of Research Guide

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SECOND

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	8/May/2020	10/Nov/2020	CHAPTER 2: LITERATURE REVIEW In review of literature, Ancient Indian wisdom included the use of fermented foods. This ground-breaking method of food fermentation has evolved and matured for generations as a way to preserve and strengthen the food supply while also	Chapter 2 work is going on

		<p>satisfying a hidden need. A long legacy of rice-based fermented foods with a wide range of flavours and textures has developed in India, the world's second-largest rice producer.</p> <p>During the writing of the thesis, I Defined over internet and issues related to the Red rice fermented products and their current uses.</p>	
		<p>During this period, I followed various references with special references the following:</p> <p>"Asif, M., Rooney, L. W., Ali, R., & Riaz, M. N. (2013). Application and opportunities of pulses in food system: a review. Critical reviews in food science and nutrition, 53(11), 1168-1179."</p>	completed chapter 2

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Certified that the performance of the Research Scholar is: Satisfactory/ not Satisfactory

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S. Sharma

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THIRD

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	13/Nov/2020	15/May/2021	CHAPTER 3: RESEARCH METHODOLOGY RESEARCH DESIGN AND STRATEGIES Primary Data Collection Secondary Data Collection Chemicals identified in RYR include done and done, unsaturated fatty acids, β - sitosterol, dyes, and monacolins. Monolins block HMG CoA (reductase inhibitors A) enzyme, the salary level step in	Chapter 3 was framed and started working on it.

		<p>lipid synthesis. At least 11 monocolins are found in RYR, including the one, monacolin K, is highly identical to ketoconazole, a cholesterol-lowering drug.</p> <p>During this period, I followed various references with special references the following:</p> <p>“Prabha, K., Ghosh, P., Abdullah, S., Joseph, R. M., Krishnan, R., Rana, S. S., & Pradhan, R. C. (2021). Recent development, challenges, and prospects of extrusion technology. Future Foods, 3, 100019.”</p>	<p>Finally completed chapter 3</p>
		<p>CHAPTER 4: RESULTS AND DISCUSSIONS</p> <p>OMPILING EXISTING INFORMATION ON MONASCUS SECONDARY METABOLITES, WITH A FOCUS ON THEIR BIOSYNTHESIS AND BIOLOGICAL ACTIVITY SPECTRUM</p> <p>ASSESSMENT OF THE FOLK OF FUNCTIONAL AND RICE BASED FERMENTED FOOD AND BEVERAGES.</p> <p>INDIAN RICE-BASED FERMENTED MEALS AND BEVERAGES</p> <p>ALCOHOLIC COCKTAILS CREATED FROM RED OATS, MALT, AND MILLET</p> <p>PRODUCTION OF FERMENTED BEVERAGE PROTOTYPES</p> <p>During this period, I followed various references</p> <p>Joshi, V. K., & Kumar, S. (2015). Meat Analogues: Plant based alternatives to meat products-A</p>	<p>Chapter 4 was framed and completed</p>

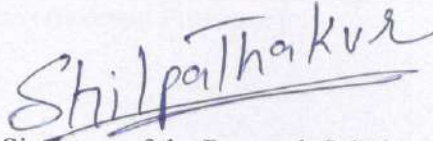
			review. International Journal of Food and Fermentation Technology, 5(2), 107-119.”.	
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	17/May/2021	19/Nov/2021	<p>CHAPTER 5:</p> <p>CONCLUSION AND FUTURE SCOPE</p> <p>The fermentation rice-based dietary composition may be a gift from God since that increases overall nutritious capacity while also providing physiological benefits. Due to complementary actions, ancient co-fermentation of grains with</p>	Chapter 5 was framed completed

			<p>those other grain, foliar seeds, or plants may boost amino acid & metal compositions, as well as therapeutic potential. Textile finishing grains utilizing lactate bacteria and yeast improves calcium or nutrition fortifying, power output, and dephytinization. In context of these historic customs, M. J. Rob Nout investigated 'Rich nourishment first from lowest - Cereal fermentation process in African countries.' Despite the fact that India is rich in food products, the most of of all these food habits are regional and are typically retained inside one given population.</p>	

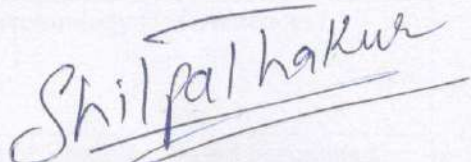
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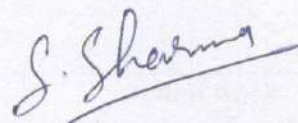
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