



**Davao del Sur State College**  
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# Methods of Agricultural Research



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# PREFACE

Agricultural research plays an essential role in addressing the continuing challenges faced by agriculture, including food insecurity, climate change, declining natural resources, emerging pests and diseases, changing market conditions, and the need for sustainable production systems. Through systematic and scientific inquiry, research provides evidence that supports the development of technologies, practices, and policies that can improve agricultural productivity, profitability, sustainability, and the well-being of farming communities.

This course pack for Methods of Agricultural Research (AGRES 601) was developed to provide students with a practical and systematic foundation for understanding and conducting agricultural research. It guides learners through the major stages of the research process—from identifying agricultural problems and formulating research objectives to developing hypotheses and conceptual frameworks, selecting appropriate research designs, sampling techniques, experimental layouts, and methods of data collection.

The succeeding lessons strengthen students' competencies in research implementation through statistical analysis, development and validation of research instruments, interpretation and presentation of findings, scientific writing, and responsible conduct of research. Particular emphasis is given to validity and reliability, appropriate statistical techniques, research ethics, data privacy, informed consent, confidentiality, and academic integrity. The course pack also guides students in preparing a research proposal and critically evaluating completed undergraduate research.

Through explanations, agricultural examples, learning activities, and assessments, this course pack is intended not only to develop students' knowledge of research methods but also to strengthen their ability to think critically, analyze agricultural problems, make evidence-based decisions, and communicate scientific findings effectively. Ultimately, it seeks to prepare students to conduct scientifically sound, ethical, and relevant agricultural research that contributes to agricultural innovation, sustainable development, and the improvement of rural communities.



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