HANDBOOK

AGRICULTURAL INDUSTRIAL TECHNOLOGY STUDY PROGRAM

FOREWORD

Praise be to God Almighty for the presence, because finally this *"Guidebook of the Agricultural Industrial Technology Study* Program*"* can be completed. This book is a handbook for students in the Department of Agricultural Technology, Faculty of Agriculture, Bengkulu University who will or are conducting final project research.

This book contains the requirements, curriculum, flow chart, thesis writing format, and administrative completeness of completing the final project within the Department of Agricultural Technology, as well as a means of communication between the supervisor and the guidance student. This book contains guidance material during the completion of the final project between the supervisor and the guidance student. Thus, it is expected to be able to streamline the completion time of the student's final project.

The drafting team realizes that this book is still a lot of improvements, therefore it is desirable to have input and suggestions for the improvement of this book in the future. So that this book can benefit all of us.

Drafting Team

Department of Agricultural Technology

VISION AND MISSION

AGRICULTURAL INDUSTRIAL TECHNOLOGY STUDY PROGRAM

The vision of the Agricultural Industrial Technology Study Program is:

- Become a Competent Study Program in Competitive Agro-Industrial Science and Technology at the National and International Levels in 2025.

The mission of the Agricultural Industrial Technology Study Program is:

1. Organizing a competitive Agro-industrial Education Program to improve and develop the abilities of agro-industrial competent students and competitiveness at the national and international levels.
2. Supporting research to find new science and technology in agro-industry, especially the use of resources and products in tropical and coastal forest areas.
3. Disseminate the results of the latest research in the field of Agro-industry to improve the knowledge and welfare of the surrounding community.
4. Organizing the management of the Study Program in accordance with the rules of *Good Governance.*

ETHICS AND DISCIPLINE OF UNIB STUDENTS

Rector's Regulation No: 2844/J30/HK/2008

Student Ethics

CHAPTER II

Article 2

1. Every student is obliged to behave and behave politely, maintaining dignity as a member of the academic community and as a member of society.
2. Every student is obliged to maintain and maintain all campus facilities for the smooth learning and teaching process.

CHAPTER III

Article 8

1. Every student is prohibited from dressing immodestly, dirty, and inappropriately in learning and teaching activities and other activities carried out on the UNIB campus.
2. Every student is prohibited from wearing un collared clothes, intentional or unintentional tearing pants and or wearing slippers in teaching and learning activities and or other scientific activities.

Rights and Obligations of Students in Learning

CHAPTER IV

Article 8. Student Obligations

Attending learning process activities at least 75% of the learning process carried out by lecturers.

CURRICULUM
AGRICULTURAL INDUSTRIAL TECHNOLOGY STUDY PROGRAM

COURSES PER SEMESTER AGRICULTURAL INDUSTRIAL TECHNOLOGY STUDY PROGRAM UNDERGRADUATE PROGRAM, FACULTY OF AGRICULTURE, UNIVERSITY OF BENGKULU

Semester 1 :

No.	Code	Course Name	Sks Weight	Information
1	MKU-102	Pancasila	2 (1-1)	R
2	MKU-103	Indonesian	3 (1-2)	R
3	MKU-105	English	2 (1-1)	R
4	MFE-101	Mathematics	3 (3-0)	R
5	MFE-102	Physics	3 (2-1)	R
6	MFE-103	Chemistry	3 (2-1)	R
7	MFE-104	Biology	3 (2-1)	R
8	TIP-101	Introduction to Agricultural Technology	2 (2-0)	R
Number of Credits for Semester 1			**21 (14-7)**	

Semester 2 :

No.	Code	Course Name	Sks Weight	Information
1	MKU-101	Religious Education	3 (1-2)	R
2	MKU-104	Civic Education	2 (1-1)	R
3	TIP-102	Agro-industrial Material Knowledge	3 (2-1)	R
4	TIP-103	Industrial Physics	3 (2-1)	R
5	TIP-104	Basic Microbiology	3 (2-1)	R
6	TIP-105	Industrial Mathematics	2 (2-0)	R
7	TIP-106	Agricultural IndustrialChemistry	2 (2-0)	R
8	TIP-107	Basic Statistics	2 (2-0)	R
Number of Credits for Semester 2			**20 (14-06)**	

Semester 3 :

No.	Code	Course Name	Sks Weight	Information
1	MFE-105	Introduction to Natural Resources and the Environment	2 (2-0)	R
2	TIP-201	Operating Units	3 (2-1)	R
3	TIP-202	Biochemistry	3 (2-1)	R
4	TIP-203	Industrial Microbiology	3 (2-1)	R
5	TIP-204	Physical Properties of Agricultural	3 (2-1)	R

		Products		
6	TIP-205	Machinery and Equipment	3 (2-1)	R
7	TIP-206	Computer Deployment	3 (1-2)	R
Number of Credits for Semester 3			**20 (13-7)**	

Semester 4 :

No.	Code	Course Name	Sks Weight	Information
1	TIP-207	Industrial Economics	2 (2-0)	R
2	TIP-208	Packaging Technology	3 (2-1)	R
3	TIP-209	Techniques and Procedures for Working	3 (2-1)	R
4	TIP-210	Material Handling and Transportation System	3 (2-1)	R
5	TIP-211	Measurement and Instrumentation	3 (2-1)	R
6	TIP-212	Operational Research	2 (1-1)	R
7	TIP-213	Industry Statistics	2 (2-0)	R
8	TIP-214	Human Resource Management	2 (2-0)	R
Number of Credits for Semester 4			**20 (15-5)**	

Semester 5 :

No.	Code	Course Name	Sks Weight	Information
1	TIP-301	Layout and Material Handling	3 (2-1)	R
2	TIP-302	Engineering Economics	2 (2-0)	R
3	TIP-303	Quality Control	2 (2-0)	R
4	TIP-304	Production Planning and Control	2 (2-0)	R
5	TIP-305	Biomass-Based Product Development	3 (2-1)	R
6	TIP-306	System Modeling	2 (2-0)	R
7	TIP-307	Research Methods	2 (1-1)	R
8	TIP-308	Communication	2 (1-1)	R
Number of Credits for Semester 5			**18 (1 4-4)**	

Semester 6 :

No.	Code	Course Name	Sks Weight	Information
1	MKU-106	Computers and Programming *(Coding)*	3 (1-2)	R
2	MFE-200	Scientific Papers	2 (2-0)	R
3	MFE-300	Academic English	2 (2-0)	R
4	TIP-309	Field Studies of Agricultural Industry	2 (0-2)	R
5	TIP-310	Plantation Product Technology	2 (2-0)	R
6	TIP-311	Decision Making Analysis	2 (2-0)	R

7	TIP-312	Process Engineering	2 (1-0)	R
8	TIP-313	Industrial Sanitation	2 (2-0)	R
9	TIP-314	Marketing	2 (2-0)	R
Number of Credits for Semester 6			**19 (1 5-4)**	

Semester 7 :

No.	Code	Course Name	Sks Weight	Information
1	MKU-300	Entrepreneurship	2 (1-1)	R
2	TIP-401	Work Practice	4 (0-4)	R
3	TIP-402	Industrial Project Planning	3 (2-1)	R
4	MKU-400	Real Work Lectures	4 (0-0)	R
Number of Credits for Semester 7			**13 (3-10)**	

Semester 8 :

No.	Code	Course Name	Sks Weight	Information
1	MFE-400	Thesis	5 (0-5)	R
Number of Credits for Semester 8			**5 (0-5)**	

Elective Courses
Odd Semester

No.	Code	Course Name	Sks Weight	Information
1	TIP-315	Vegetable and Fruit Industry Technology	2 (2-0)	C
2	TIP-316	Essential Oil Industry Technology	2 (2-0)	C
3	TIP-317	Forest Products Industry Technology	2 (2-0)	C
4	TIP-318	Livestock and Aquatic Products Industry Technology	2 (2-0)	C
5	TIP-319	Sensory Testing	2 (2-0)	C
6	TIP-320	Fermentation Technology	2 (2-0)	C
7	TIP-321	Drying Technology of Agricultural Industrial Products	2 (2-0)	C
8	TIP-322	Refreshing Material Industry Technology	2 (2-0)	C
9	TIP-323	Spice and Phytopharmaceutical Industry Technology	2 (2-0)	C
10	TIP-403	Industrial Ecology	2 (2-0)	C
11	TIP-404	Waste Management and The Industrial Environment	2 (2-0)	C
12	TIP-405	Management Information System	2 (2-0)	C

Elective Courses
Semester Genap

No.	Code	Course Name	Sks Weight	Information
1	TIP-324	Vegetable Oil Industry Technology	2 (2-0)	C
2	TIP-325	Food technology and nutrition	2 (2-0)	C
3	TIP-326	Traditional Food Industry Technology	2 (2-0)	C
4	TIP-327	Packaging and Storage Management	2 (2-0)	C
5	TIP-406	Quality Management	2 (2-0)	C
6	TIP-407	Amdal Agroindustrial	2 (2-0)	C
7	TIP-408	Bioindustry Technology	2 (2-0)	C
8	TIP-409	Mechanization of Agriculture	2 (2-01)	C
9	TIP-410	Occupational Health and Safety	2 (2-0)	C
10	TIP-411	Process Evaluation and Clean Production	2 (2-0)	C
11	TIP-412	New Product Development	2 (2-0)	C
12	TIP-413	Introduction to Supply Chain Management	2 (2-0)	C

INFORMATION :
R = REQUIRED
C = CHOICE

RULES AND REGULATIONS

PROPOSAL SEMINAR AND RESEARCH RESULTS

1. Students who will conduct academic seminars and thesis exams are required to wear clothes: **plain white shirts, black bottoms, and almameter**
2. Students who will conduct an academic seminar are required to come at least 15 minutes before the activity takes place
3. Academic seminars can be held if attended by: **PU and PP lecturers (unless there is a written message), at least 1 invited lecturer and at least 10 active students**
4. There must be a supporting seminar officer such as minutes and moderators
5. Students who will carry out academic **seminars are not required to provide snacks for students and lecturers who attend**
6. The implementation of the academic seminar is carried out from Monday-Friday with the provision of a minimum **of registration in the field 4 days before the implementation of the seminar**

LEARNING OUTCOMES

AGRICULTURAL INDUSTRIAL TECHNOLOGY STUDY PROGRAM

Assessment range : Absolute Number of

Weight		**Values**
A	: X > 85	= 4.00
A-	: 80 ≤ X < 85	= 3.75
B+	: 75 ≤ X < 80	= 3.50
B	: 70 ≤ X < 75	= 3.00
B-	: 65 ≤ X < 70	= 2.75
C+	: 60 ≤ X < 65	= 2.50
C	: 55 ≤ X < 60	= 2.25
D	: 45 ≤ X < 55	= 1.00
E	: X < 45	= 0.00

Note :

- **University Compulsory Courses (MKU code) Pass a Minimum of "C+"**
- **For the final thesis exam, the "D"** score **is a maximum of 2 (two) courses at the final Transkip that have been approved by** the **Faculty of Agriculture**

ADMISSION REQUIREMENTS

PRE-PROPOSALS AND ACADEMIC SEMINARS

PRE PROPOSAL :

1. Pre-Proposal Draft that has been approved by the Academic Supervisor
2. Biodata sheet (must be typed) containing :
    a. Full Name
    b. NPM
    c. GPA
    d. Number of Credits Passed
    e. PA Lecturer
    f. Lecturer guidance / consultation draft Pre Proposal (if any)
    g. Supporting courses for the implementation of the thesis (which have been taken and graduated)
3. Screen Shoot title search on google.com
4. The file is sent to the usulanta01jtp@gmail.com email

Proposal Seminar :

1. Photocopy of ACC PU and PP Draft Papers
2. Draft proposal paper and PPT (*soft file* sent to email: pstipjtp@gmail.com)
3. Plastic envelope folder (1 piece)
4. 1 duplicate each
5. Registration is carried out in the TP department every working day
6. Registration is carried out no later than 4 days before the seminar

Seminar Results :

1. Photocopy of ACC PU and PP Draft Papers
2. Draft proposal paper and PPT (*soft file* sent to email: pstipjtp@gmail.com)
3. Plastic envelope folder (1 piece)
4. 1 duplicate each
5. Registration is carried out in the TP department every working day
6. Registration is carried out no later than 4 days before the seminar

REGISTRATION REQUIREMENTS FOR THESIS EXAM

1. Transkip grades that have been checked and in ACC departments and faculties
2. Thesis 4 copies and 4 brown envelopes
3. Biodata of prospective graduates
4. PU and PP approval sheets
5. Articles already on the ACC commission
6. 1 CD containing :
    a. Thesis
    b. Article
    c. Graduation Photos
7. The value of proposal seminars and result seminars (archives are in the department)
8. Registration is carried out no later than 4 days before the exam

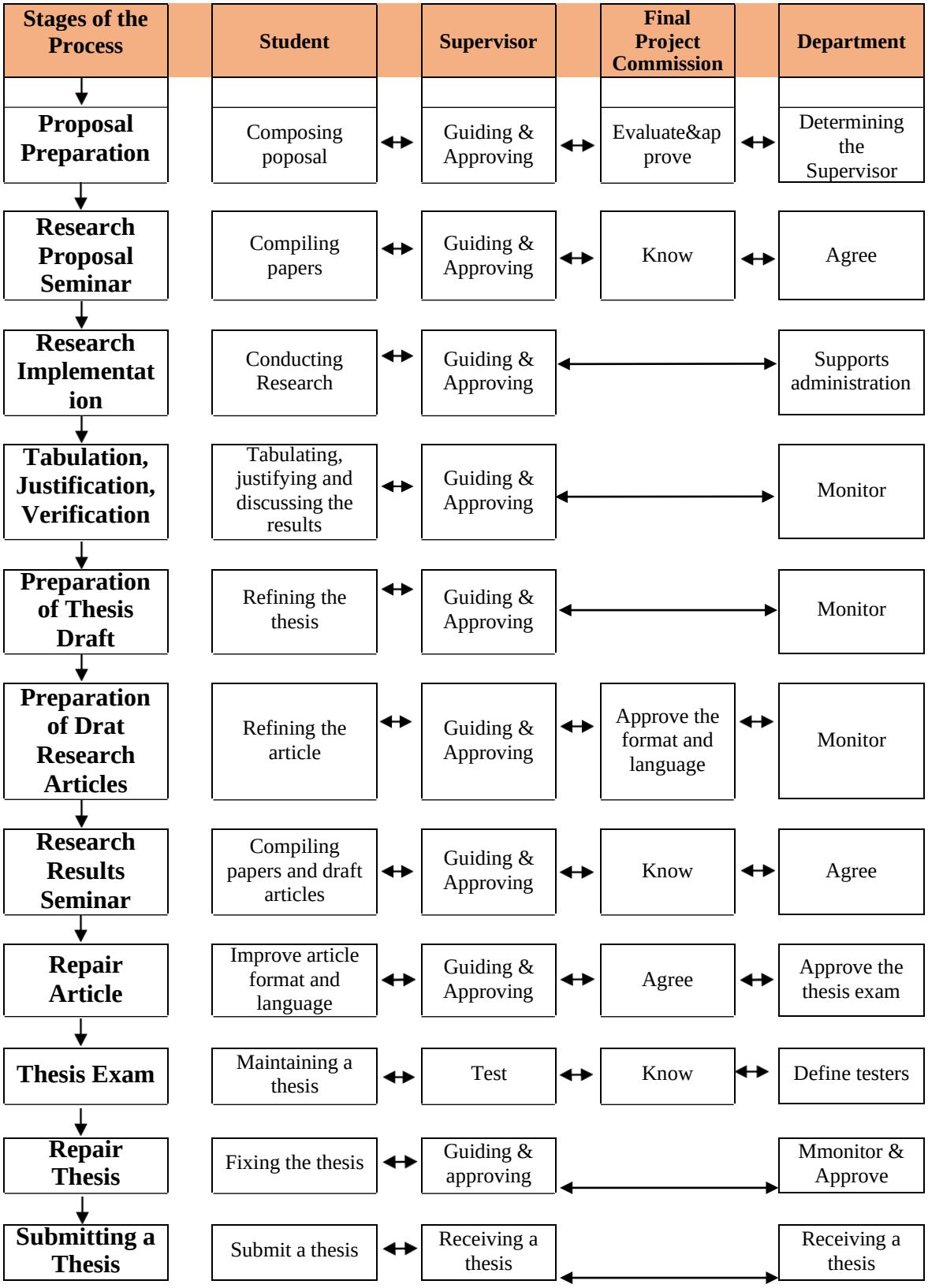
PREPARATION OF THESIS ARTICLES

AGRICULTURAL INDUSTRIAL TECHNOLOGY STUDY PROGRAM

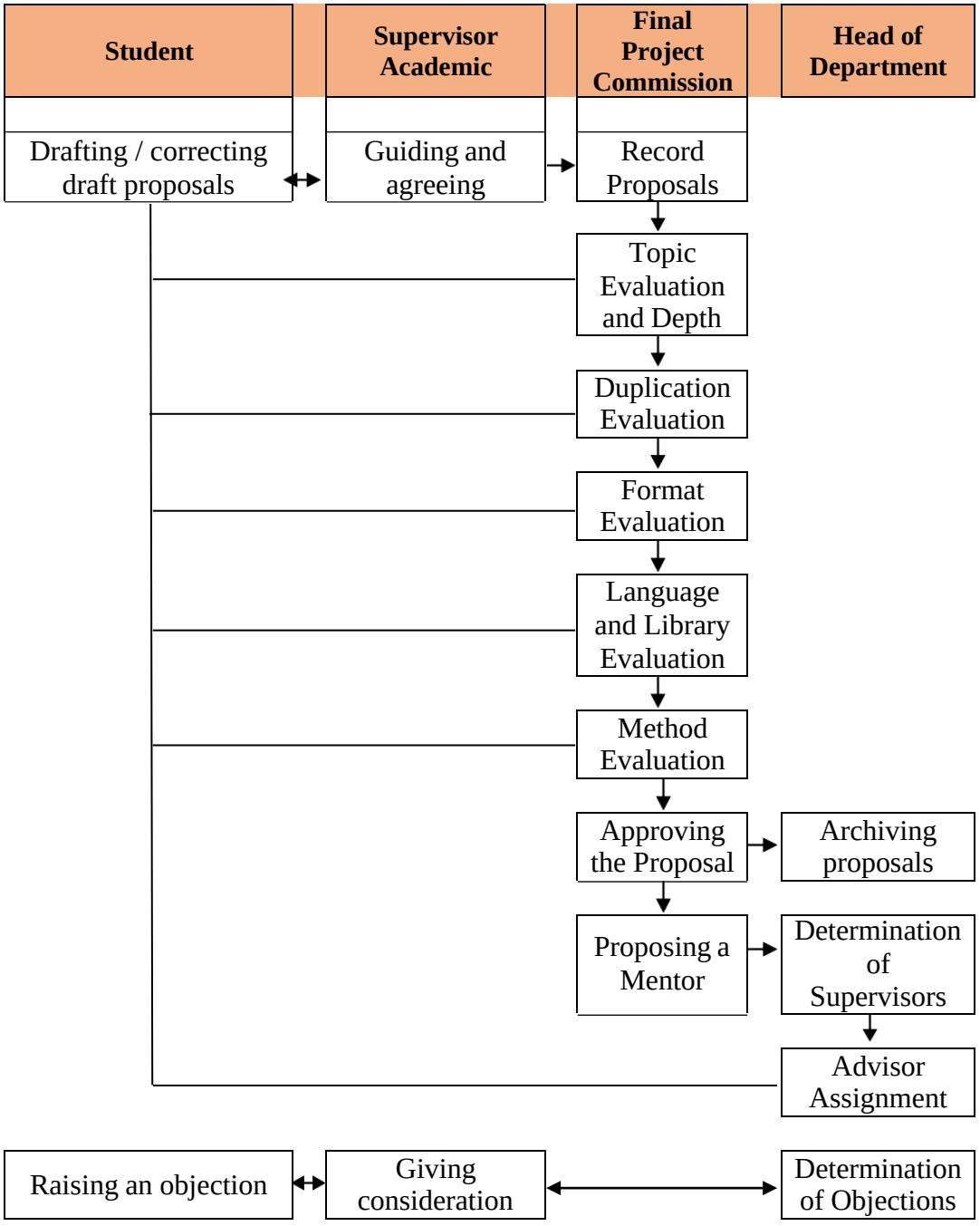
1. The content of the article has been approved by the Main Supervisor and The Accompanying Supervisor
2. The format of writing articles refers to the agro-industrial journal template which can be downloaded on the Agro-industrial Journal website https://ejournal.unib.ac.id/ index.php/agroindustry/index
3. Articles are collected in hardcopy form to the department staff
4. Correction of the article is carried out by the final project commission team
5. Correction results can be taken after the article is corroborated by the final project commission team
6. Article files that have been approved by the final project commission team are sent via email: artikelskripsi.tipunib@gmail.com
7. Similarity checking is carried out by TP department staff
8. *The* maximum similarity check allowed is 20%, if it exceeds this number, it must be corrected again but can still carry out the Thesis Exam
9. Coordination back to the Main Supervisor and Accompanying Supervisor for the perfection of the article
10. Articles that have passed *the similarity check* of a maximum of 20% will be submitted to the department as a condition for uploading grades

ATTACHMENT

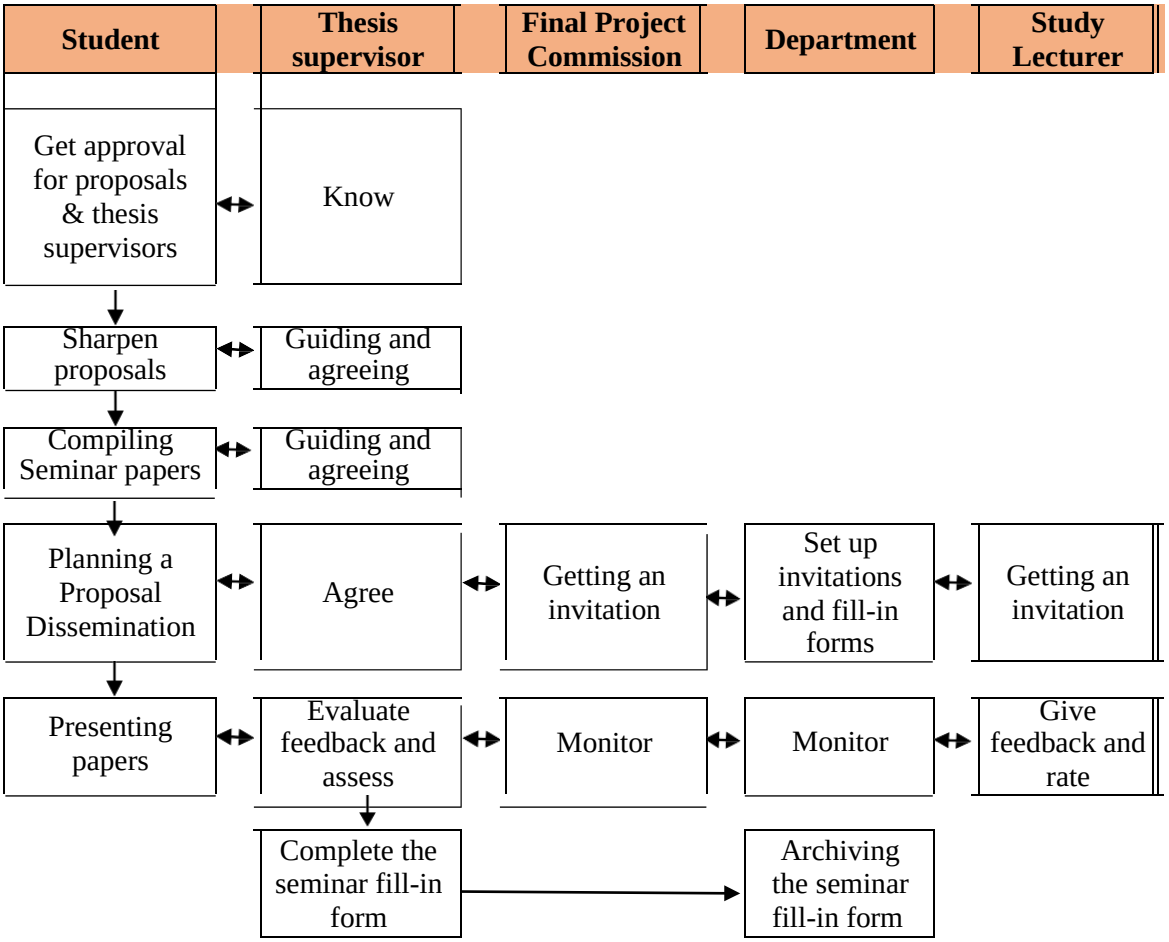
Appendix 1. Stages of the Thesis Preparation Process



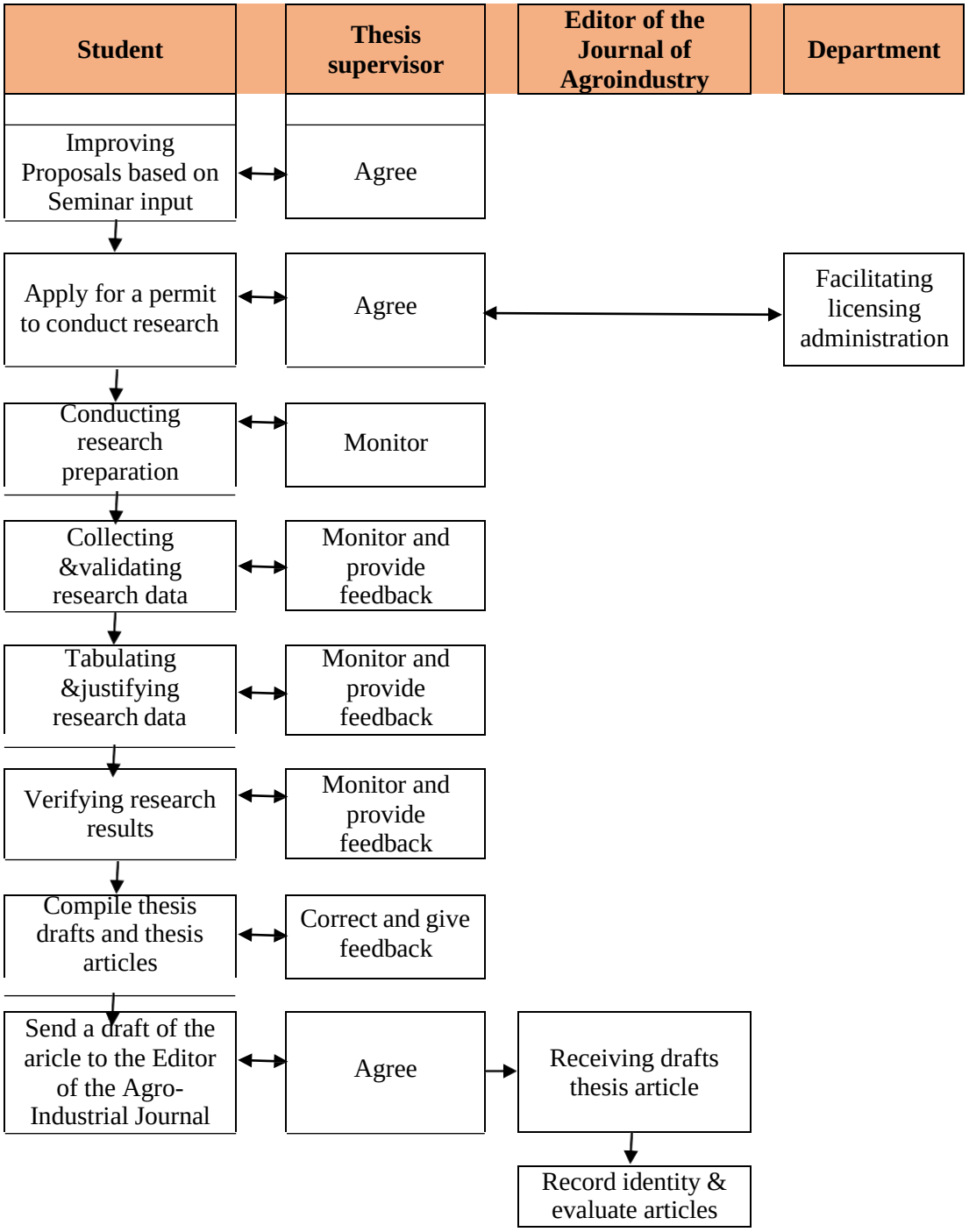
Appendix 2. Proposal Submission Mechanism and Guidance



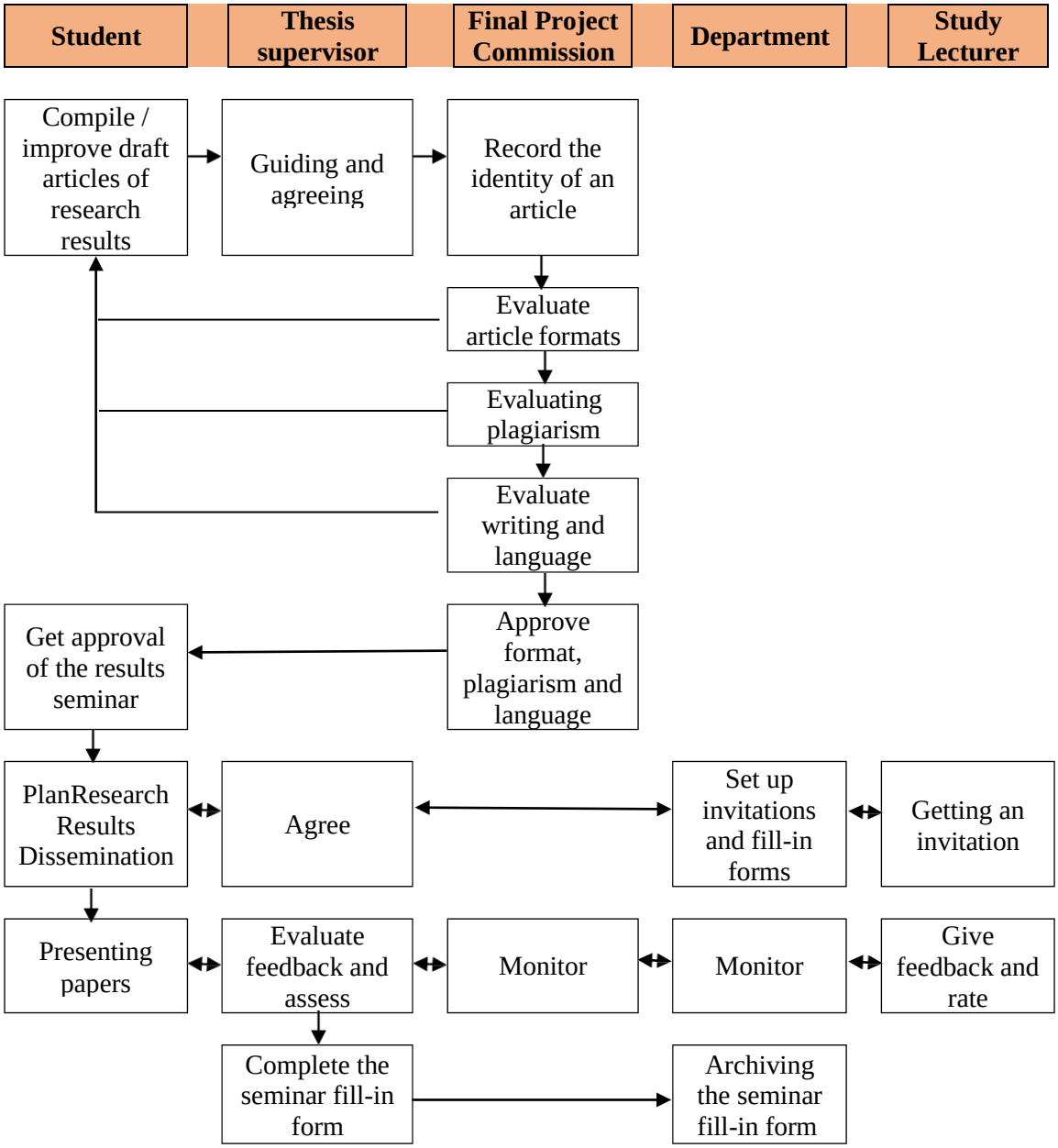
Appendix 3. Mechanism for Organizing Proposal Seminars



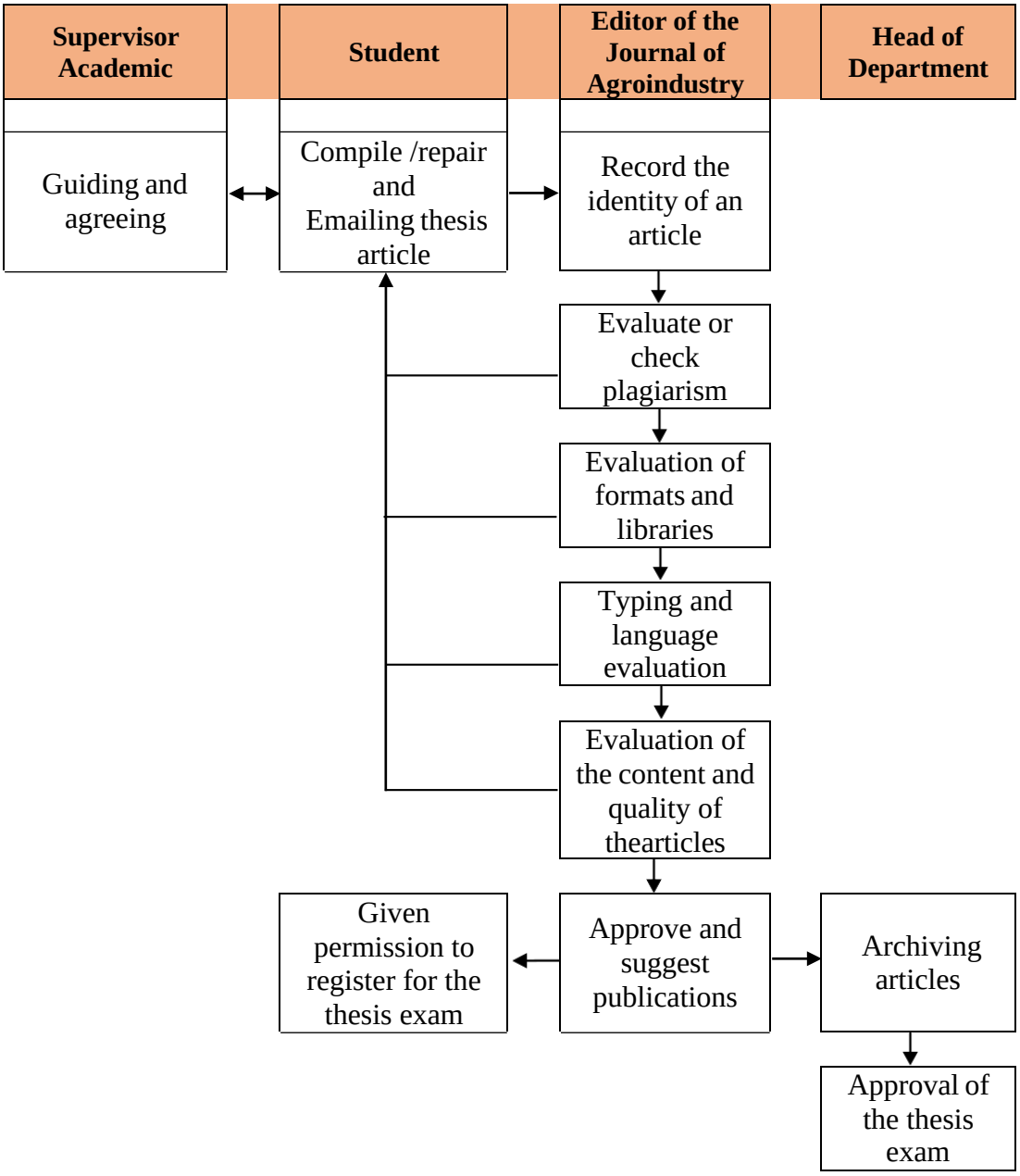
Appendix 4. Research Implementation Mechanism



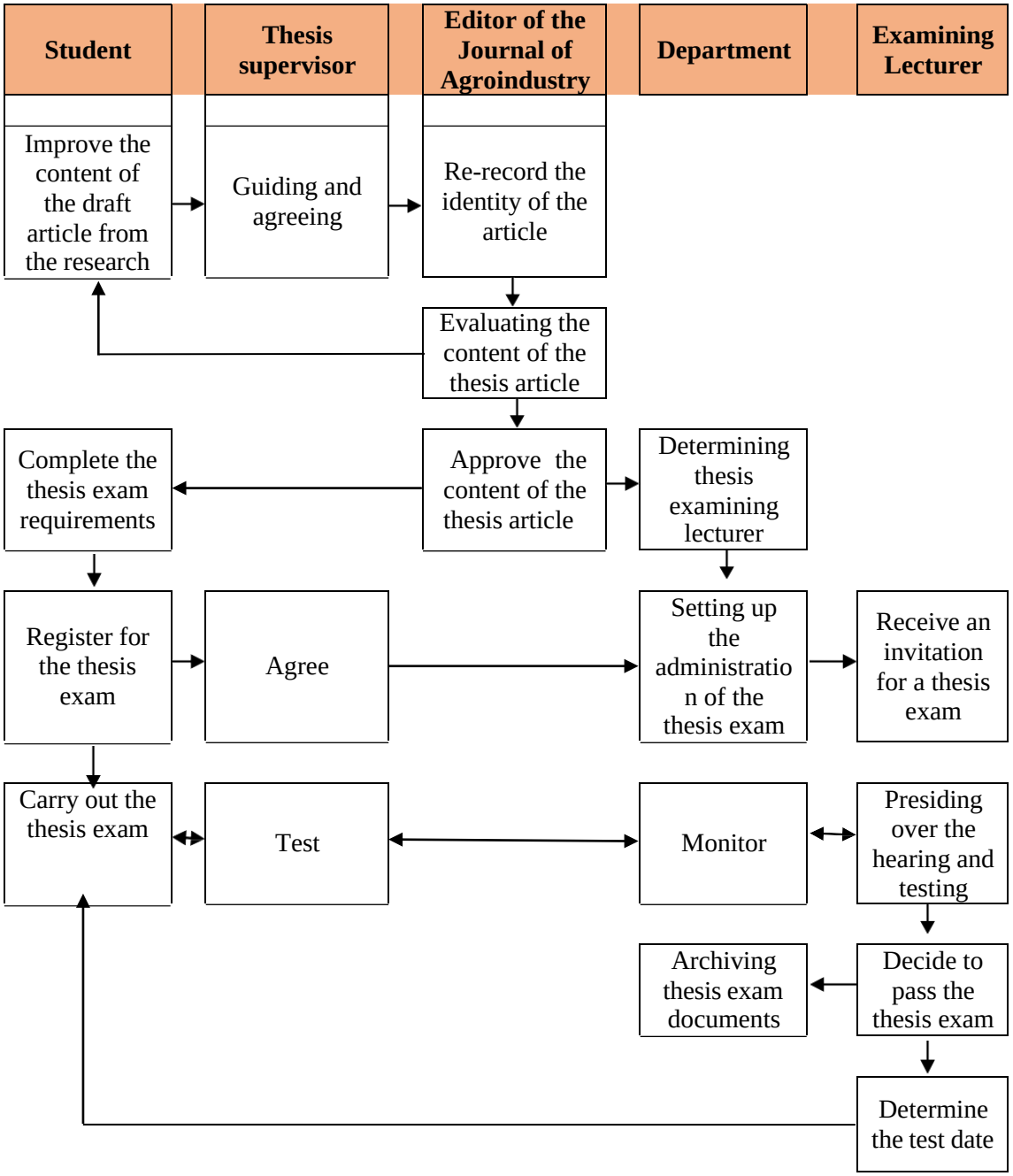
Appendix 5. Mechanism for Organizing Results Seminar



Appendix 6. Mechanism for Compiling Thesis Articles



Appendix 7. Thesis Exam Mechanism



Appendix 8. Main Parts of Some Scientific Papers (KTI)

A. RESEARCH PROPOSAL

The Front:

Front Cover Page
Title Page
Attestation page
Foreword Page
Table of Contents page
Attachment List page (if needed)

Main Part (Contents):

I. INTRODUCTION
II. LITERATURE REVIEW
III. RESEARCH METHODS
IV. SCHEDULE OF CONDUCT OF RESEARCH (If required)
V. RESEARCH PERSONNEL (If required)
VI. RESEARCH COST NEEDS (If needed)

Final Part:

BIBLIOGRAPHY
APPENDIX (If required)

B. JOURNAL ARTICLES

- Article Title
- Author's Name and Institution
- Abstract
- Introduction (Description of the problem, knowledge related to existing problems, formulation of problem solving, research objectives)
- Research Methods (What you do and how you will do)
- Results (What you found from the study)
- Discussion (verification / justification of research results)
- Acknowledgments
- Bibliography
- Attachments (If needed)

C. REPORT ON THE RESULTS OF RESEARCH OR THESIS

The Front:

Outer Leather Page (front cover page)
Statement of Authenticity page of the Written Work
Title Page (Inner cover)
Supervisor Approval Page
Tester Approval Page
Motto / Offering Page (If needed)
Curriculum Vitae Page (If needed)
Acknowledgments Page (If needed)
Foreword Page
Table of Contents page
Table page (If needed)
Image List page (If needed)
Attachment List page (Jiika required)
Summary Page
Summary

Main Part (Contents):

I. INTRODUCTION
II. LITERATURE REVIEW
III. RESEARCH METHODS
IV. RESULTS AND DISCUSSION
V. CONCLUSIONS AND SUGGESTIONS

Final Part:

BIBLIOGRAPHY
APPENDIX (If required)

Appendix 8. Example of a Front Page (Cover)

PENGARUH SUBSTITUSI TEPUNG UMBI TALAS (*Colocasia esculenta L. Schott*) TERHADAP SIFAT FISIK, KIMIA DAN ORGANOLEPTIK KUE BAY TAT

SKRIPSI

Oleh:

Trio Putra Setiawan
E1G017049

PROGRAM STUDI TEKNOLOGI INDUSTRI PERTANIAN
JURUSAN TEKNOLOGI PERTANIAN
FAKULTAS PERTANIAN
UNIVERSITAS BENGKULU
2022

Appendix 9. Examples of Statements of Authenticity of Writings

PERNYATAAN

Saya menyatakan bahwa skripsi yang berjudul **"Pengaruh Substitusi Tepung Umbi Talas (*Colocasia esculenta L. Schott*) Terhadap Sifat Fisik, Kimia dan Organoleptik Kue Bay Tat"** ini merupakan karya tulis sendiri (ASLI) dan isi dalam skripsi ini tidak terdapat karya yang pernah diajukan oleh orang lain untuk memperoleh gelar akademis di suatu institusi pendidikan dan sepanjang pengetahuan saya juga tidak terdapat karya atau pendapat yang pernah ditulis atau diterbitkan oleh orang lain kecuali yang secara tertulis diacu dalam naskah ini dan disebutkan dalam daftar pustaka.

Bengkulu, 22 Juni 2021

Materai 10.000

Trio Putra Setiawan
NPM. E1G017049

Appendix 10. Title Page Example

PENGARUH SUBSTITUSI TEPUNG UMBI TALAS (*Colocasia esculenta L. Schott*) TERHADAP SIFAT FISIK, KIMIA DAN ORGANOLEPTIK KUE BAY TAT

SKRIPSI

Sebagai salah satu syarat untuk memperoleh gelar

Sarjana Teknologi Pertanian pada Fakultas Pertanian

Universitas Bengkulu

Oleh :

Trio Putra Setiawan
NPM. E1G017049

Pembimbing :

Ir. Laili Susanti, M.Si.
Ir. Hasanuddin, M.Sc.

Bengkulu
2021

Appendix 11. Sample Attestation Page (Advisor)

PENGARUH SUBSTITUSI TEPUNG UMBI TALAS (*Colocasia esculenta L. Schott*) TERHADAP SIFAT FISIK, KIMIA DAN ORGANOLEPTIK KUE BAY TAT

Oleh :

Trio Putra Setiawan
NPM. E1G017049

Telah diperiksa dan disetujui pada Tanggal :

22 Juni 2021

Pembimbing Utama,	Pembimbing pendamping,
Ir. Laili Susanti, M.Si.	Ir. Hasanuddin, M.Sc.
NIP. 19661209 199103 2 001	NIP. 19581014 198503 1 007

Mengetahui,
Fakultas pertanian
Dekan,

Prof. Dr. Ir. Dwi Wahyuni Ganefianti, M.S.
NIP.19631114 198803 2 012

Appendix 12. Sample Attestation Page (Tester)

PENGARUH SUBSTITUSI TEPUNG UMBI TALAS (*Colocasia esculenta L. Schott*) TERHADAP SIFAT FISIK, KIMIA DAN ORGANOLEPTIK KUE BAY TAT

Oleh :

Trio Putra Setiawan
NPM. E1G017049

Telah dipertahankan di depan Tim Penguji pada Tanggal :
7 Juli 2021

Ketua,	Sekretaris,
Ir. Wuri Marsigit, M.App. Sc. NIP. 19610311 198702 1 001	Ir. Laili Susanti, M.Si. NIP. 19661209 199103 2 001
Anggota,	Anggota,
Ir. Hasanuddin, M.Sc. NIP. 19581014 198503 1 007	Dra. Devi Silsia, M.Si. NIP. 19690215 198501 2 003

Mengetahui,
Fakultas pertanian
Dekan,

Prof. Dr. Ir. Dwi Wahyuni Ganefianti, M.S.
NIP.19631114 198803 2 012

Appendix 13. Sample Summary Page

RINGKASAN

"PENGARUH SUBSTITUSI TEPUNG UMBI TALAS (*Colocasia esculenta L. Schott*) TERHADAP SIFAT FISIK, KIMIA DAN ORGANOLEPTIK KUE BAY TAT" (Trio Putra Setiawan, dibawah bimbingan Laili Susanti dan Hasanuddin, 2021, 85 halaman)

Konsumsi tepung terigu di Indonesia terus meningkat sejalan dengan meningkatnya konsumsi mie instan, roti, biskuit dan *cookies.* Konsumsi tepung terigu yang tinggi berakibat pada kebutuhan Indonesia terhadap gandum menjadi tinggi pula. Talas (*Colocasia esculenta L.Schoott*) merupakan salah satu bahan pensubstitusi terigu yang memiliki peluang yang cukup besar dikembangkan. Tepung talas mempunyai potensi untuk dapat digunakan sebagai bahan substitusi pada pembuatan kue bay tat maka dilakukan penelitian ini untuk mengetahui pengaruh substitusi tepung talas terhadap sifat fisik, kimia dan penerimaan organoleptik kue bay tat Bengkulu.

Rancangan percobaan yang digunakan pada penelitian ini adalah Rancangan Acak Lengkap (RAL) satu faktor yaitu perbandingan tepung terigu dan tepung talas. Terdapat 5 taraf perlakuan dengan perbandingan berdasarkan perbandingan tepung talas 0%, 25%, 50%, 75%, dan 100%. Masing-masing perlakuan diulang sebanyak 3 kali sehingga didapat 15 unit percobaan. Parameter pengamatan terdiri dari uji fisik meliputi kadar air, warna, daya kembang dan tesktur. Uji kimia meliputi kadar abu, kadar protein dan serat sedangkan uji organoleptik meliputi rasa, aroma, warna, tekstur dan penerimaan keseluruhan (*Over All*). Proses pembuatan tepung talas yaitu umbi talas yang telah dikupas dan dibersihkan dipotong, kemudian direndam dengan air menggunakan larutan garam dengan konsentrasi 7,5%. Kemudian di oven pada suhu 50° C selama 24 jam. Selanjutnya dihaluskan menggunakan blender hingga menjadi tepung dan selanjutnya diayak dengan menggunakan ayakan ukuran 80 mesh. Proses pembuatan kue bay tat yang pertama memasak santan kelapa dan gula pasir, kemudian dicampurkan bahan pendukung selanjutnya ditambahkan tepung terigu dan tepung talas kemudian diadon hingga kalis. Kemudian adonan dicetak, dan diberikan selai nanas selanjutnya di oven selama 20 menit dengan suhu 120 - 135^0C. Setelah kue kue bay tat masak langsung diangkat dan dinginkan.

Hasil penelitian menunjukkan bahwa kadar air semakin tinggi seiring dengan penambahan tepung talas kadar air yang didapatkan sebesar 6,16% - 11%, warna yang didapatkan semakin gelap seiring dengan penambahan tepung talas, warna paling cerah pada perlakuan 100% tepung terigu dengan nilai 7.5 YR 6/10, sedangkan warna paling gelap pada

perlakuan 100% tepung talas dengan nilai 7.5 YR 3/6, nilai daya kembang semakin rendah seiring dengan penambahan tepung talas daya kembang yang dihasilkan sebesar 56,27% - 65,82%, tekstur semakin rendah seiring dengan penambahan tepung talas tekstur yang dihasilkan sebesar 91 mm/10s – 97,33 mm/10s. Kadar abu yang dihasilkan semakin rendah seiring dengan penambahan tepung talas kadar abu yang dihasilkan sebesar 1,15% - 1,73%, serat yang dihasilkan dengan penambahan tepung talas lebih tinggi dibandingkan tanpa penambahan tepung talas, serat tertinggi yang dihasilkan sebesar 7,11%, protein yang dihasilkan dengan penambahan tepung talas lebih rendah dibandingkan tanpa penambahan tepung talas tertinggi protein tertinggi yang dihasilkan sebesar 9,19%. Tingkat kesukaan panelis terhadap warna menunjukkan nilai sebesar 3,03 - 4,23 (netral - sangat suka), tingkat kesukaan panelis terhadap aroma menunjukkan nilai sebesar 3,33 – 4,03 (netral - sangat suka), tingkat kesukaan panelis terhadap tekstur menunjukkan nilai sebesar 3,53 - 4,13 (netral - sangat suka), tingkat kesukaan panelis terhadap rasa menunjukkan nilai sebesar 3,6 – 4,36 (netral - sangat suka), tingkat kesukaan panelis terhadap *over all* menunjukkan nilai sebesar 3,4 - 4,23 (netral - sangat suka).

(Program Studi Teknologi Industri Pertanian, Jurusan Teknologi Pertanian, Fakultas Pertanian, Universitas Bengkulu)

Appendix 14. Sample *Summary* Page

SUMMARY

"THE EFFECT OF SUBSTITUTION OF TALAS FLOUR (*Colocasia esculenta L. Schott*) ON THE PHYSICAL, CHEMICAL AND ORGANOLEPTIC PROPERTIES OF BAY TAT CAKES" (Trio Putra Setiawan, supervised by Laili Susanti and Hasanuddin, 2021, 85 pages)

The consumption of wheat flour in Indonesia continues to increase in line with the increasing consumption of instant noodles, bread, biscuits and cookies. High consumption of wheat flour has resulted in Indonesia's need for wheat to be high as well. Taro (Colocasia esculenta L. Schoott) is one of the substitutes for flour that has a large opportunity to be developed. Taro flour has the potential to be used as a substitute for bay tat cake, so this study was conducted to determine the effect of taro flour substitution on the physical, chemical and organoleptic properties of Bengkulu Bay tat cake.

The experimental design used in this study was a completely randomized design (CRD) with one factor, namely the ratio of wheat flour and taro flour. There are 5 levels of treatment with comparisons based on the ratio of taro flour 0%, 25%, 50%, 75%, and 100%. Each treatment was repeated 3 times to obtain 15 experimental units. Observation parameters consisted of physical tests including water content, color, swellability and texture. Chemical tests include ash content, protein and fiber content while organoleptic tests include taste, aroma, color, texture and overall acceptance (Over All). The process of making taro flour is that taro tubers that have been peeled and cleaned are cut, then soaked in water using a salt solution with a concentration of 7.5%. Then in the oven at 50°C for 24 hours. Furthermore, it is mashed using a blender until it becomes flour and then sieved using an 80 mesh sieve. The process of making a bay tat cake is the first to cook coconut milk and sugar, then mix the supporting ingredients and add flour and taro flour then knead until smooth. Then the dough is molded, and then given pineapple jam in the oven for 20 minutes at a temperature of 120 - 135^0C. After the bay tat cake is cooked, remove it and let it cool.

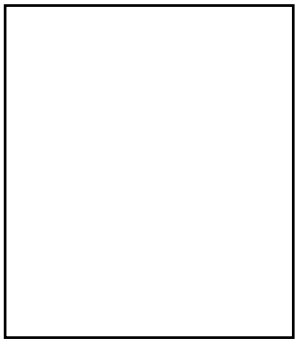
The results showed that the water content was getting higher with the addition of taro flour, the moisture content was 6.16% - 11%, the color was getting darker with the addition of taro flour, the brightest color was in the treatment of 100% wheat flour with a value of 7.5 YR. 6/10, while the darkest color was treated with 100% taro flour with a value of 7.5 YR 3/6, the swelling power value was getting lower along with the addition of taro flour the resulting swelling power was 56.27% - 65.82%, the lower the texture. along with the addition of taro flour the resulting texture is 91 mm/10s – 97.33 mm/10s. The ash content produced

was lower along with the addition of taro flour, the ash content produced was 1.15% - 1.73%, the fiber produced with the addition of taro flour was higher than without the addition of taro flour, the highest fiber produced was 7.11% , the protein produced with the addition of taro flour was lower than without the addition of taro flour, the highest protein produced was 9.19%. The panelist's level of preference for color shows a value of 3.03 - 4.23 (neutral - very like), the panelist's level of preference for aroma shows a value of 3.33 - 4.03 (neutral - very like), the panelist's preference for texture shows a value of 3.53 - 4.13 (neutral - very like), the panelist's level of preference for taste shows a value of 3.6 - 4.36 (neutral - very like), the panelist's level of preference for over all shows a value of 3.4 - 4.23 (neutral - very like).

(Agricultural IndustrialTechnology Study Program, Department of Agricultural Technology, Faculty of Agriculture, Bengkulu University)

Appendix 15. Sample Curriculum Vitae Page

RIWAYAT HIDUP



Penulis skripsi bernama lengkap Trio Putra Setiawan dilahirkan di Desa Babat, Kecamatan STL Ulu Terawas, Kabupaten Musi Rawas, Provinsi Sumatera Selatan pada tanggal 25 September 1998. Penulis merupakan anak ketiga dari keluarga Bapak Sunyoto dan Ibu Darmiati. Penulis menempuh pendidikan formal sekolah dasar di SD Negeri Talang Jaya Babat (2004 - 2010), kemudian melanjutkan sekolah di SMP Negeri Terawas (2010 – 2013) dan kemudian melanjutkan sekolah di SMA Negeri Terawas (2013 – 2016). Pada tahun yang tahun 2017 penulis diterima sebagai mahasiswa Program Studi Teknologi Industri Pertanian Jurusan Teknologi Pertanian Fakultas Pertanian Universitas Bengkulu melalui jalur Seleksi Bersama Masuk Perguruan Tinggi Negeri (SBMPTN).

Selama mengikuti perkuliahan penulis masuk dalam organisasi Himpunan Mahasiswa Teknologi Industri Pertanian (HIMATIN) sebagai anggota di Biro Kaderasi pada periode 2018/2019, selain itu juga penulis pernah menjabat sebagai Kepala Bidang Penalaran dan Keilmuan pada organisasi HIMATIN periode 2019/2020, kemudian penulis juga menjabat sebagai Badan Penasehat Organisai (BPO) HIMATIN periode 2020/2021. Penulis juga aktif di organisasi kedaerahan Forum Mahasiswa Silampari (FMS) Bengkulu, sebagai Sekertaris Umum periode 2019/2020.

Penulis pernah menjadi asisten praktikum pada beberapa mata kuliah seperti, Mesin dan Peralatan, Teknik dan Tata Cara Kerja, Tata Letak dan Penanganan Bahan, Penerapan Komputer, Pengetahuan Bahan Agroindustri, Satuan Operasi, Mikrobiologi Dasar, Mikrobilogi Industri, Sifat Fisik Produk Pertanian, Sistem Penanganan dan Transportasi Produk Pertanian, Kimia (Agribisnis), dan Teknologi Pengemasan. Penulis melaksanakan Kuliah Kerja Nyata (KKN) Mandiri periode 91 di Dusun IV Talang Jaya Desa Babat, Kec. STL Ulu Terawas, Kab. Musi Rawas, Sumatera Selatan pada bulan Juni - Juli 2020. Penulis melaksanakan Praktek Kerja di PT. Kencana Sawit Indonesia (KSI) Wilmar Group, Sungai Kunyit, Kec. Sangir Balai Janggo, Kab. Solok Selatan, Sumatera Barat pada 5 Oktober – 14 November 2020.

Appendix 16. Examples of Motto Pages and Offerings

MOTTO DAN PERSEMBAHAN

MOTTO :

“BIAR LAYAR ROBEK, BIAR KEMUDI PATAH, LEBIH BAIK TENGGELAM DARI PADA PUTAR HALUAN”

PERSEMBAHAN :

Alhamdulillah puji syukur atas kehadirat Allah Subhanahu wata‟ala atas nikmat dan karunia-Nya sehingga penulis dapat menyelesaikan amanah dan tanggung jawab ini dengan baik dan Shalawat kepada Nabi Muhammad Shallallahu „alaihi wasallam yang menjadi suri teladan yang baik bagi umatnya. Penulis mempersembahkan skripsi ini kepada :

1. ……..
2. ……..
3. ……..
4. ……..
5. ……..
6. ……..
7. ……..

Appendix 17. Sample Thank You Page

UCAPAN TERIMA KASIH

Ucapan terimakasih penulis sampaikan kepada pihak-pihak yang banyak membantu dan memberi dukungan kepada penulis dalam menyelesaikan skripsi ini, untuk itu penulis mengucapkan terimakasih kepada :

1. Allah Subhanahu wata‟ala Tuhan Maha kuasa atas segala-galanya dan Nabi Muhammad Shallallahu „alaihi wasallam yang menjadi suri teladan yang baik bagi umatnya.
2. ……..
3. ……..
4. ……..
5. ……..
6. ……..
7. ……..
8. ……..
9. ……..
10. ……..

Appendix 18. Sample Preface Page

KATA PENGANTAR

Puji syukur kehadirat Allah SWT, atas limpahan Rahmat dan Karunia-Nya, sehingga penulis dapat merampungkan skripsi penelitian dengan judul: **"Pengaruh Substitusi Tepung Umbi Talas *(Colocasia esculenta L. Schott)* Pada Pembuatan Bay Tat Terhadap Sifat Fisik, Kimia Dan Penerimaan Organoleptik"**, ini untuk memenuhi salah satu syarat untuk memperoleh gelar sarjana pada Program Studi Teknologi Industri Pertanian Fakultas Pertanian Universitas Bengkulu.

Penghargaan dan terima kasih yang setulus-tulusnya kepada Ayahanda tercinta Sunyoto dan Ibunda yang kusayangi Darmiati yang telah mencurahkan segenap cinta dan kasih sayang serta perhatian moril maupun materil. Semoga Allah SWT selalu melimpahkan Rahmat, Kesehatan, Karunia dan keberkahan di dunia dan di akhirat atas budi baik yang telah diberikan kepada penulis.

Penghargaan dan terima kasih penulis berikan kepada Ir. Laili Susanti, M.Si selaku Pembimbing Utama (PU) dan Ir. Hasanuddin, M.Sc selaku Pembimbing Pendamping (PP) dalam skripsi ini yang selalu memberikan bimbingan dan masukan dalam penyelesaian skripsi ini.

Akhir kata penulis menyadari bahwa dalam penulisan skripsi ini masih jauh dari kesempurnaan. Karena itu, penulis memohon saran dan kritik yang sifatnya membangun demi kesempurnaannya dan semoga bermanfaat bagi kita semua. Aamiin

Bengkulu, Juni 2021

Trio Putra Setiawan
NPM. E1G017049

Appendix 19. Sample Table of Contents Page

DAFTAR ISI

Appendix 20. Table Page Example

DAFTAR TABEL

Tabel Halaman

Appendix 21. Sample Image List Page

DAFTAR GAMBAR

Gambar Halaman

Appendix 22. Example of An Attachment List Page

DAFTAR LAMPIRAN