

**MAJOR PRACTICE IN LETTUCE (*Lactuca sativa* L.) PRODUCTION AT  
GOURMET FARMS, SILANG, CAVITE**

**ROJEAN REOLIGIO MADRIAGA**

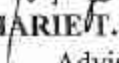
An undergraduate major practice manuscript presented to the faculty of the Department  
of Crop Science, College of Agriculture, Central Luzon State University,  
Science City of Muñoz, Nueva Ecija, Philippines, in partial  
fulfillment of the requirements  
for the degree

**BACHELOR OF SCIENCE IN AGRICULTURE  
(Crop Science - Horticulture)**


**JUNE 2019**

**ACCEPTANCE SHEET**

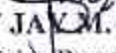
This undergraduate Major Practice entitled "**MAJOR PRACTICE IN LETTUCE (*Lactuca sativa* L.) PRODUCTION at GOURMET FARMS, SILANG, CAVITE**", prepared and submitted by **ROJEAN REOLIGIO MADRIAGA**, in partial fulfillment of the requirements for the degree of **BACHELOR OF SCIENCE IN AGRICULTURE**, is hereby accepted:

  
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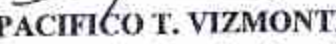
  
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## BIOGRAPHICAL SKETCH

The author, Ms. Rojean R. Madriaga was born on November 8, 1998 in Cauayan City, Isabela. She is the fifth among the six children of a loving couple, Mr. Jaime Balantac Madriaga Sr. and Leticia Reoligio Madriaga. Her brothers and sisters are Joey, Annie, Francis, Fernan, Novelin and Jailee.

She finished her elementary grade from Calaoacan Elementary School, Calaoacan Angadanan Isabela and her secondary education from Villa Concepcion High School, Villa Concepcion Cauayan City, Isabela.

With her dream to pursue her college studies and to give honor to her parents, she took up Bachelor of Science in Agriculture, major in Crop Science with specialization in Horticulture at Central Luzon State University (CLSU), Science City of Munoz, Nueva Ecija.

As a requirement for graduation she conducted her major practice entitled Major Practice in Lettuce Production at Gourmet Farms, Silang, Cavite.

During her college days, she is a member of Gamma Kappa Rho, Fraternity/Sigma Gamma Lambda, Sorority.

The will to success is through hard work, believe in yourself that you can do and make it. Most importantly is trusting God for everything.

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**ROJEAN R. MADRIAGA**

## TABLE OF CONTENTS

	<b>PAGE</b>
<b>TITLE PAGE</b>	i
<b>ACCEPTANCE SHEET</b>	ii
<b>BIOGRAPHICAL SKETCH</b>	iii
<b>ACKNOWLEDGEMENT</b>	iv
<b>LIST OF TABLES</b>	ix
<b>LIST OF FIGURE</b>	x
<b>LIST OF APPENDIX TABLES</b>	xi
<b>LIST OF APPENDIX FIGURES</b>	xii
<b>ABSTRACT</b>	xv
<b>INTRODUCTION</b>	1
Importance of the Major Practice	1
Objectives of the Major Practice	3
Time and Place of the Major Practice	3
<b>REVIEW OF RELATED LITERATURE</b>	4
Lettuce as a Crop	4
Varieties of Lettuce	5
Growth Requirements of Lettuce	5
Temperature	5
Soil Requirement	5
Moisture and Light Requirements	6

Cultural Practices of Lettuce	6
Land Preparation	6
Planting	6
Nutrient Management	7
Water Management	7
Weed Management	7
Pest and Diseases Management	8
Harvesting and Packaging	8
Marketing	8
<b>METHODOLOGY</b>	9
Farm Visit and Orientation	9
Inputs and Labor Required	9
Varieties of Lettuce Used	9
Cultural Practices in Lettuce Production	10
Seedbed Preparation	10
Preparation of Growing Media for Seedling Production in Seedling Trays	10
Sowing of Seeds	10
Area Preparation	11
Transplanting	11
Watering the Lettuce Plants	12
Pest and Weed Management	12
Harvesting	12

Post-harvest Activities	13
Marketing	14
Data Gathered	15
Other Activities	17
<b>RESULT AND DISCUSSION</b>	19
Brief Description of the Area	19
Agro-Climatic Condition of the Area	19
Growth and Yield Parameters	21
Summary of Cost and Return Analysis for 1 hectare Lettuce Production Packed as Scaled Fresh Lettuce	22
Flow of Production, Processing, and Marketing Activities as Performed at Gourmet Farms	23
<b>PROBLEMS ENCOUNTERED AND RECOMMENDATION</b>	25
<b>SUMMARY AND CONCLUSION</b>	26
<b>LITERATURE CITED</b>	28
<b>APPENDICES</b>	30
Appendix A. Tables	31
Appendix B. Figures	34

## LIST OF TABLES

TABLE NO.		PAGE
1	Daily weather in Cavite City for the whole month of July 2018	20
2	Growth and yield parameters gathered from three varieties of lettuce grown at Gourmet Farms	21
3	Summary of cost and return analysis for 1 hectare lettuce production packed as sealed fresh lettuce	22

## LIST OF FIGURE

FIGURE NO.		PAGE
1	Flow of production, processing, and marketing activities as performed at Gourmet Farms	24

## LIST OF APPENDIX TABLES

APPENDIX TABLE NO.		PAGE
1	Activity plan of the major practice student at the Gourmet Farms, Inc. at Brgy. Buho, Silang, Cavite	31
2	Detailed cost and return analysis for 1 hectare lettuce production packed as sealed fresh lettuce	33

14	Sorting of lettuce	43
15	Weighing of lettuce	43
16	Labelling	44
17	Sealing of lettuce	44
18	Blowring of lettuce	45
19	Finish product of lettuce salad	45
20	Sealing of mixed green product	46
21	Packaging of lettuce for sale	46
22	Chiller	47
23	Delivery truck	47
24	Composting area	48
25	Nursery area	48
26	Planting area in field	49
27	Processing area	49
28	Central Kitchen	50
29	Canteen area	50
30	Bolo o "gamas"	51
31	Washing equipment	51
32	Drying machine	52
33	Blower	52
34	Shrink wrapping machine	53
35	Impulse plastic sealer	53



developed some managerial aspects in lettuce production and obtained useful ideas that can be applied in her future endeavor.

Through this major practice an income of Php 6,108,706.9 was computed in growing lettuce for 1 hectare in one season of production.

## ABSTRACT

**MADRIAGA, ROJEAN REOLIGIO**, Department of Crop Science, College of Agriculture, Central Luzon State University, Science City of Muñoz, Nueva Ecija. May 2019.

### **Major Practice on Lettuce (*Lactuca sativa* L.) Production at Gourmet Farms, Silang, Cavite**

Venue: **Gourmet Farms Inc. (GFI)**  
Brgy. Buho, Silang, Cavite

Adviser: **Dr. Rosemarie T. Tapic**

The major practice in lettuce production was conducted July 2018 at the Gourmet Farms, Brgy. Buho, Silang, Cavite with the objectives of being familiar with the growth requirements of lettuce, perform the cultural management practices, compute the production cost and income for one season production of lettuce on a hectare basis, and to experience the marketing strategy of lettuce at practice at Gourmet Farms..

During the major practice, the student participated in performing different cultural management practices involved in lettuce production from as soil mix preparation to marketing. This includes sowing of seeds, bed preparation for seedling production, transplanting, watering, pest and weeds control, harvesting and related post-harvest activities until the lettuce were marketed.

Participating in the cultural practices for lettuce production as well as the day to day experience in dealing with people in the farm helped the major practice students

## LITERATURE CITED

- ABBATI. 2017.** Lettuce-Properties, Benefits and Medical Uses. Retrieved on December 18, 2018 from [food and diseases.com/lettuce-health-benefits-medical-uses-and-properties-2/](http://foodanddiseases.com/lettuce-health-benefits-medical-uses-and-properties-2/)
- ASIA FARMING. 2018.** Lettuce Retrieved from [www.asiafarming.com/lettuce-farming/](http://www.asiafarming.com/lettuce-farming/)
- DEANON, J. 2000.** Vegetable Production in Southeast Asia, University of the Philippines Press. Philippines. Retrieved on January 16, 2010 from <http://vegetable-in-southeast-asia>
- DROST, D. 2010.** Lettuce in the Garden. Retrieved on March 16, 2016 from [https://extension.usu.edu/files/publication/HG\\_Garden\\_2005-16.pdf](https://extension.usu.edu/files/publication/HG_Garden_2005-16.pdf)
- FANG-ASAN, M., M. T. DAGUTEN and L. N. DIGAL. 2009.** Lettuce Supply Chains and Marketing Margins in Benguet, Philippines. Retrieved on April 1, 2017 from [ojs.upin.edu.ph > article > view](http://ojs.upin.edu.ph/article/view)
- HADFIELD, J. 1995.** The A-Z of Vegetable Gardening in South Africa. Retrieved on April 6, 1995 from <http://oregonstate.edu/Dept/NWREClettuce.html>
- JANSEN, M. 1994.** Vegetable Crop Profile: Lettuce. Selected references and abstracts. Vegetable and potato Producer Association of Nova Scotia, Kentville Agricultural Centre, Kentville, NS. 163 pp. Retrieved from [www.faa.gov.nl.ca > plants > pdf > peas](http://www.faa.gov.nl.ca/plants/pdf/peas)
- KAISER, C. and M. ERNST. 2012.** Organic Lettuce and Leafy Greens. Retrieved on March 16, 2016 from <http://www.treesaregood.com/treecare/resources/proper-mulching.pdf>
- KUEPPER G., B. JANET and T. RAEVEN. 2002.** Organic lettuce “Lactuca sativa” and green organic products. NCAT Agriculture Specialists.
- KWAZULU-NATAL DEPARTMENT OF AGRICULTURE AND ENVIRONMENTAL AFFAIRS. 2001.** Vegetable Production Guidelines for KwaZulu-Natal. Pietermaritzburg.
- PHILIPPINE STATISTICS AUTHORITY. 2014.** Other Crops: Volume of Production by Crop, Geolocation and year. Retrieved on February 10, 2014 from [countrystat.psa.gov.ph](http://countrystat.psa.gov.ph)

- RAVI, O. 2017.** 16 Best Benefits of Lettuce for Skin, Hair, And Health. Retrieved on October 17, 2018 from [www.stylecraze.com/articles/best-benefits-of-lettuce-for-skin-hair-and-health/](http://www.stylecraze.com/articles/best-benefits-of-lettuce-for-skin-hair-and-health/)
- RINDELS, S. 1994.** Lettuce Varieties. Retrieved on April 6, 1994 from <https://hortnews.extension.iastate.edu/1994/4-6-1994/kinds.html>
- RODRIGUEZ. 2015.** An Intensive Organic Lettuce Farm in Cavite. Retrieved on July 1, 2015 from <https://www.pressreader.com/Philippines/Agriculture/2015>
- WILLIAM, R. 2018.** Lettuce. Retrieved on February 10, 2015 from [plantvillage.ces.psu.edu/topics/lettuce/infos](http://plantvillage.ces.psu.edu/topics/lettuce/infos)
- WORLD WEATHER ONLINE, 2018.** Cavite Historical Weather. Retrieved from <https://www.worldweatheronline.com/cavite-weather-history/cavite-city/ph.aspx>