Course Syllabus

First Semester 2013

1. Faculty of Agriculture Department of Agronomy

2. Subject code: 01013331 Subject: Tropical Field Crop Production for Food, Feed and Fuel

3. Course Description:

Demand, consumption, significance and characteristics of tropical field crop for food, feed, and fuel. Production and utilization of tropical food, feed and fuel crops. Tropical field crop for food, feed and fuel, i.e. rice, corn, soybean, cassava, sugarcane, oil palm, forage and biomass plants, tropical pulse crops, physic nut and others.

4. Objectives

To provide knowledge in current situation, production and utilization of tropical field crops for food, feed and fuel.

5. Course Outline

5.1 Course introduction.

5.2 Demand, consumption, significance and characteristics of tropical field crops for food, feed and fuel.

5.3 Production and utilization of tropical field crops for food.

5.3.1 Major cereal crops, i.e. rice, corn, millet

5.3.2 Major gain legume crops, i.e. soybean, pulses

5.3.3 Major tuber and root crops, i.e. cassava, sweet potato

5.3.4 Major industrial crops, i.e. pine apple, sugarcane

5.4 Production and utilization of tropical field crops for feed.

5.4.1 Forage crops

5.4.2 Other field crops for feed, i.e. sorghum, maize, legume

5.5 Production and utilization of tropical field crops for fuel.

5.5.1 Ethanol crops, i.e. sugarcane, cassava

5.5.2 Biodiesel crops, i.e. oil palm, physic nut

5.5.3 Biomass crops, i.e. *Saccharum* spp., *Pennisetum* spp., *Leucaena* spp.

5.5.4 Biogas crops, i.e. grasses, maize

6. Teaching method

Lecture, class discussion and assignment.

7. Teaching tools

LCD projector, video, and handouts.

8. Evaluation

Class attention, and quiz	10%
Assignments	20%
Mid-term examination	35%
Final examination	35%

9. Grading

From 81% up	A
76-80 %	B^+
71-75%	B
66-70%	C^+
61-65%	C
56-60%	D^+
50-55%	D
Lower than 50%	F

10. Consultancy

Student may meet and consult to the course managers at:

Agronomy Department : Monday-Friday, 13:30-16:30

Ms. Parichart : Tel. 02-5793130 # 110, Mobile : 0832714539, E-mail : agrprc@ku.ac.th

Mr. Nop : Tel. 02-5793130 # 117, Mobile: 0875030979, E-mail : fagrnot@ku.ac.th

11. Text books for further reading:

Acquaah, G. 2005. **Principle of Crop Production: Theory, Techniques, and Technology**. 2nd Edition. Pearson Prentice hall, Upper Saddle River, New Jersy. 740p.

Dwight, T., P. Lakshmanan and D. Songstad (eds.). 2011. **Biofuels : Global Impact on Renewable Energy, Production Agriculture, and Technological Advancement**. Springer, New York. 357 p.

Simpson, B.B., and M.C. Ogorzaly. 1995. **Economic Botany: Plants in Our World.** 2nd Edition. McGraw-Hill, New York. 742 p.

Antonio, S. and W.D. Pitman. 2001. **Tropical Forage Plants: Development and Use.** CRC Press, Boca Raton, Fla. 391 p.

12. Teaching schedule:

Wednesday, 09.00-12.00 Venue: Vachiranusorn Bldg., 3rd Floor, Room# 302

Week	Date	Topic	Lecturer
1	21 Aug.2013	Course introduction. Demand, consumption, significance and characteristics of tropical field crops for **food.**	Parichart
2	28 Aug.2013	Demand, consumption, significance and characteristics of tropical field crops for **feed.**	Nop
3	04 Sep.2013	Demand, consumption, significance and characteristics of tropical field crops for **fuel.**	Ed
4	11 Sep.2013	Production and utilization of tropical field crops for food. - Major cereal crops, i.e. rice, corn	Prapa
5	18 Sep.2013	- Major grain legume crops, i.e. soybean, pulses	Wanchai
6	25 Sep.2013	- Major tuber and root crops, i.e. cassava, sweet potato, yam	Piya
7	02 Oct.2013	- Major industrial crops, i.e. pine apple, sugarcane	Sarawut
8	09 Oct.2013	Production and utilization of tropical field crops for feed. - Forage crops	Nop
10	30 Oct.2013	- Other field crops for feed, i.e. sorghum, maize, legume	Nop
11	06 Nov.2013	Production and utilization of tropical field crops for fuel. - Ethanol crops, i.e. cassava, sugarcane	Piya
12	13 Nov.2013	- Biodiesel crops, i.e. oil palm, physic nut	Ed
13	20 Nov.2013	- Biomass crops, i.e. *Saccharum* spp., *Pennisetum* spp.	Pitipong
14	27 Nov.2013	- Biomass crops (Cont.), i.e. *Leucaena* spp.	Sayan
15	04 Dec.2013	- Biogas crops, i.e. grasses, maize	Nop
16	11 Dec.2013	Field trip *(can be changed)*	Parichart/Nop

Students fill in online class evaluations at *https://eassess.ku.ac.th/index_en.php*

1st evaluation: Monday 30th September - Friday 11th October, 2013
2nd evaluation: Monday 25th November - Sunday 8th December, 2013

13. Lecturers

Professor Dr, Sayan Tudsri
Associate Professor Dr. Ed Sarobol
Associate Professor Dr. Wanchai Chanprasert
Associate Professor Dr. Prapa Sripichit
Assistant Professor Dr. Piya Kittipadakul
Dr. Sarawut Rungmekarat
Dr. Pitipong Tobanleuphop
Mr. Nop Tonmukayakul
Ms. Parichart Promchote

Signature..... (Parichart Promchote)
24/ July/ 2013

Signature..... (Nop Tonmukayakul)
24/ July/ 2013