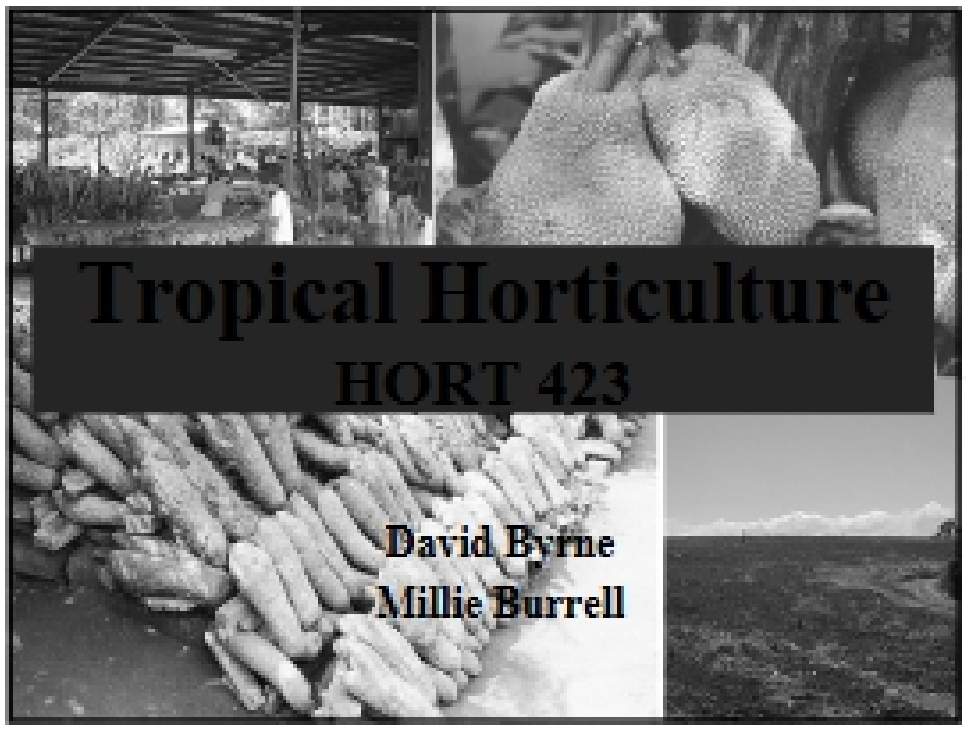
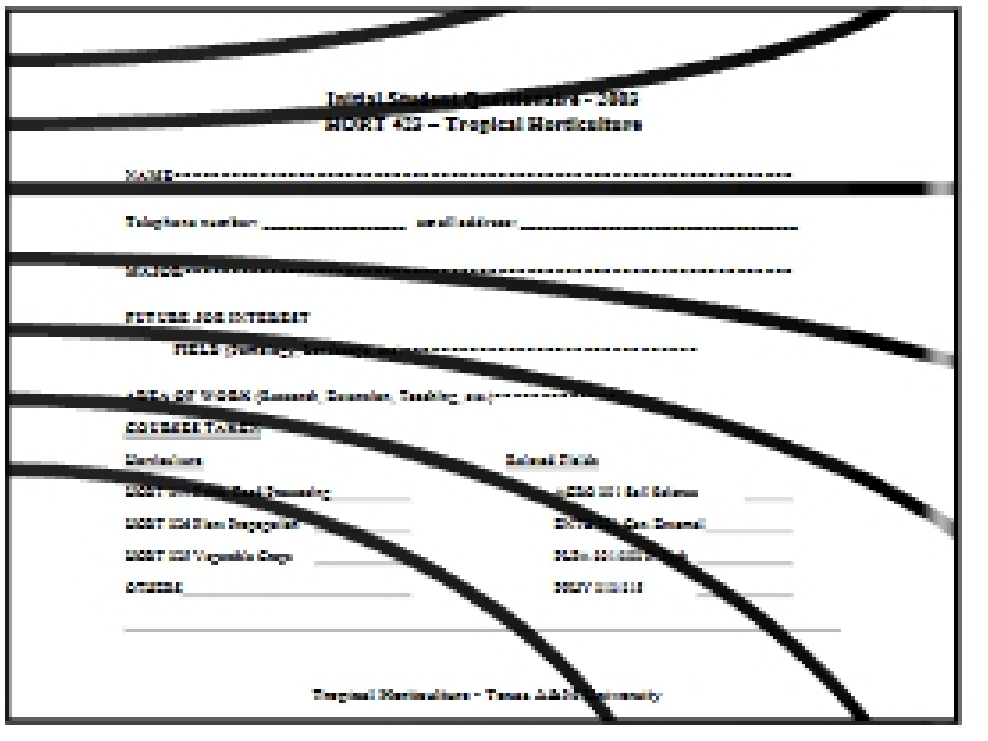


Tropical Horticulture

HORT 423

David Byrne
Millie Burrell



Initial Student Questionnaire – 2003
HORT 423 – Tropical Horticulture

NAME: _____

Telephone number: _____ e-mail address: _____

MAJOR: _____

FUTURE JOB INTEREST

FIELD (Biology, _____

AREA OF WORK (Research, Extension, Teaching, etc.): _____

COURSES TAKEN:

Horticulture

HORT _____ Fruit Processing _____

HORT 324 Plant Propagation _____

HORT 325 Vegetable Crops _____

OTHERS: _____

Related Fields

ESS 101 Soil Science _____

_____ Gen. Botany _____

_____ _____

_____ _____

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Course materials

- Reference books
  - List is being developed
- Home Page
  - Under development
  - Lecture powerpoint presentations
  - Supplemental readings
  - Links for topics/crops etc.

Tropical Horticulture - Texas A&M University

HORT 423 – Tropical Horticulture - FALL, 2003
Course Schedule

Instructor: David H. Byrne
WFSB 428, 862-3072, Email: d-byrne@tamu.edu
Teaching Assistant: Millie Burrell
WFSB 420, Email: _____
WFSB 101, MW 5:15 – 6:30 pm

Lecture #	Date	Topic
1	Sept. 1	Course Overview and Introduction to Tropics
2	Sept. 3	Tropical Climates, Soils and Agro-ecosystems
3	Sept. 8	Beverage Crops: Cocoa
4	Sept. 10	Coffee
5	Sept. 15	Tea

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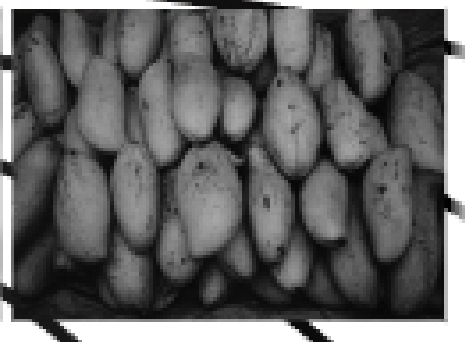
6	Sept. 17	Fruits and their importance in tropical horticulture
7	Sept. 22	Musa: Banana and plantain
8	Sept. 24	Musa: Banana and plantains
9	Sept. 29	Pineapple
10	Oct. 1	EXAM
11	Oct. 6	Papaya and Mango
12	Oct. 8	Sapodilla, Breadfruit, and Jackfruit
13	Oct. 13	Tamarind, Sapote, Guava, and Guanabana (Annona species)
14	Oct. 15	Passionfruit, Carambola, Mangosteen, and Durian



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15	Oct. 20	Nut Crops: Cashews and Brazil nuts
16	Oct. 22	Macadamia
17	Oct. 27	Palms: Dates and Coconuts
18	Oct. 29	African oil palm
19	Nov. 3	Rubber and Neem
20	Nov. 5	Root crops: Cassava
21	Nov. 10	EXAM
22	Nov. 12	Yam, Taro, and Jicama
23	Nov. 17	Vegetable Crops: Amaranth, Vegetable Soybean, Mung beans

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24	Nov. 14	Spices: Vanilla production, Cinnamon
25	Nov. 24	Pepper, All spice
26	Nov. 26	Nutmeg and Mace
		THANKSGIVING BREAK
27	Dec. 1	Legume crops: Pigeon peas
28	Dec. 3	Chick peas and black beans
		READING DAYS
29	Dec. 15	FINAL EXAM:

Grading:

A Exam	20%	200 points
B Exam	20%	200 points
Weekly homework	12 %	120 points
Class demonstration	3%	30 points
Final Exam	20%	200 points
Paper	25%	250 points
TOTAL	100%	1000 points

- Weekly Homework
  - 3 questions with answers
    - Previous week lectures
    - Multiple choice or short answer
  - 15 points each
  - 120 total points + 30 extra points
  - Graded and compiled for class

Grading:

A Exam	20%	200 points
B Exam	20%	200 points
Weekly homework	12 %	120 points
Class demonstration	3%	30 points
Final Exam	20%	200 points
Paper	25%	250 points
TOTAL	100%	1000 points

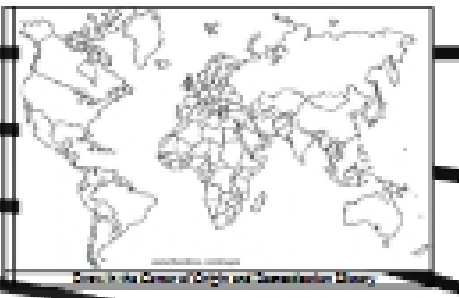
- Class Demonstration
  - Tropical
    - Plant
    - Plant part (root, tuber, stem, fruit, seed etc.)
    - Plant product
  - Need to fill out Demonstration Sheet
  - 30 points, need to schedule and get approval
  - Can do one additional one for 30 extra points

Class Demonstration Sheet

Name of the sample

Common Name _____

Use _____



Source: the Center of Origin and Domestication Library

Botanical name

Family of plant

Use

Reference

Name Date

Grading of the paper is as follows:

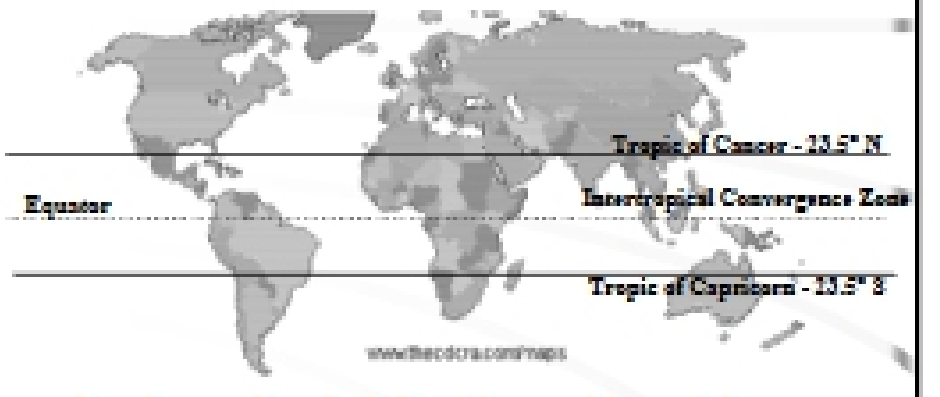
Task	Points	Due dates
Initial topic choice – typed title with short outline	10	Sept. 17
Detailed outline – with your list of references	20	Oct. 22
Powerpoint presentation – digital/printed	50	Nov. 12
Final written paper – digital/printed	170	Dec. 3
Total points	250	

- Requirements of paper
  - References
    - Minimum of 3 from internet and 3 from scientific literature
  - Length, 7-20 pages
  - Format, follow ASHS guidelines for Feature article
- Extra credit, 4-7 oral presentation of topic

Hort 400

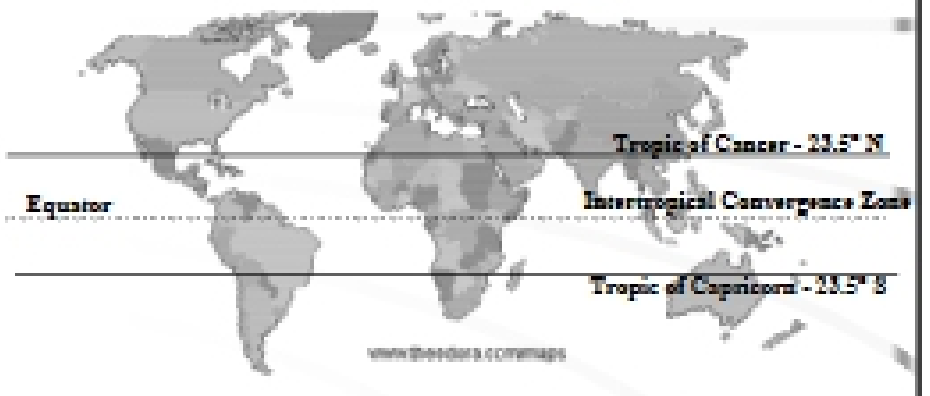
Spring Break Study Tour of Tropical Horticulture

What is the Tropics?



- Land area that is defined by position of the sun
- Highest latitude where sun is directly overhead

What is the Tropics?



- 38 % land mass is in the Tropical Zone

Land Use in the Tropics

(area in Mha)

Region	% land area	Arable crops	Perennial crops	Pasture	Woodlands
World	100	1373	102	3212	4049
Developed	42	652	22	1150	1367
Developing Not tropical	20	233	22	794	277
Tropical	38	488	58	1168	1905

Data from Webster and Wilson, 1998, Table 1.1

Land (%) Suitable for Rain-fed Agriculture

Region	Suitable land	Marginally suitable	Land cultivated
Africa (less South Africa)	27%	8%	6%
Southeast Asia	33%	25%	31%
Central America	27%	6%	14%
South America	46%	8%	5%

Data from Webster and Wilson, 1998, Table 1.1

Land Use in the Tropics

Region	% land area	Cereal yield (t/ha)	Fertilizer use (Kg/ha)	% Increase in fertilizer use
Developed world	42	3.0		
Tropical	38	1.8	27.3	(1239%)
Africa	17	1.0	2.7	(52%)
Asia	8	2.1	46.5	(2139%)
Americas	12	2.1	19.9	(404%)

Data from Webster and Wilson, 1998