


Tropical Horticulture: Lecture 1

Lecture 1
Introduction to Tropical Horticulture



The slide features a blue background. On the left is a portrait of a man with glasses, wearing a dark suit, white shirt, and patterned tie. On the right is a photograph of a waterfall cascading into a pool of water, with a large yellow flower in the foreground.

There are dramatically apposing attitudes towards the tropics, both anti- and pro-tropic sentiments:



The slide has a blue background. It contains two side-by-side photographs. The left photo shows a tropical beach with white sand, clear blue water, and several colorful sailboats. The right photo shows a dirt road winding through a lush, green tropical forest, with people and animals (possibly horses or mules) on the road.

Salubrious and Balmy **Hot and Steamy**

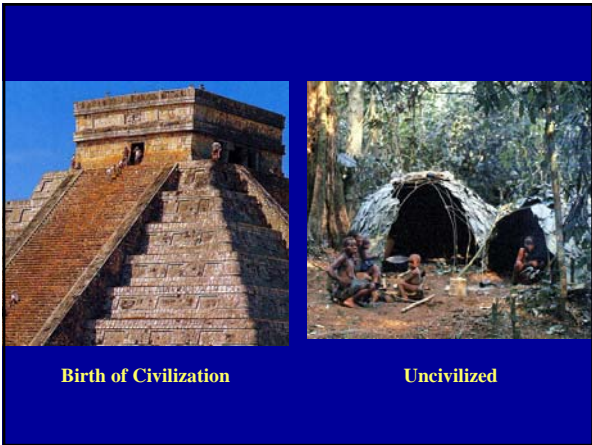


The slide has a blue background and contains four photographs arranged in a 2x2 grid. Top-left: A tropical beach with palm trees and a white boat. Top-right: A person in a white shirt holding a large snake. Bottom-left: A white cruise ship on the water with a palm tree in the foreground. Bottom-right: A person in a white shirt lying on a log next to a crocodile.

Cruise Ships, Waving Palms **Poisonous Snakes & Crocs**

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Reality Check

It turns out that all of the above views are true. This course will attempt to present a balanced picture of the tropics.

It is true, however, that the tropical world tends to be underdeveloped.

This course will try to develop answers to the following questions:

- Why are the tropics poor?
- Why is hunger endemic in the tropics?
- What is the agricultural potential for the tropics?
- What is the horticultural potential of the tropics?

The Tropics

Narrowly defined the tropics are those areas on the earth's surface between the Tropic of Cancer (23.5°N) and the Tropic of Capricorn (23.5°S).

- The tropics represent:
- 36% of the earth's surface
 - 20% of the land surface
 - 43% of ocean surface



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Tropical Climates

1. The tropics are winterless climates where the temperature differences between night and day are small but exceed by several times the difference between the warmest and coolest months.
Night is the winter of the tropics!
2. Abundant rainfall
Distributed either equally throughout the year (tropical rain forest)
Extremely high in one period (monsoon)
Divided into a wet and dry seasons (tropical savanna)
3. Daylength is close to 12 hours throughout the year (continual short days)

These conditions have a tremendous effect on the type of natural vegetation and influence the type of horticulture.

Characteristics of Tropical Plants

- Short day plants
- Colorful flowers attracting insects
- Perennial (some grown as annuals in temperate climates)
- Frost sensitive, some cold sensitive
- Enormous plant diversity

Agricultural Problems of the Tropics

- No break in the growing cycle;
pests and diseases more intense
- Leached soils common
- Excessive rain in Tropical Rainy and Monsoon climate
- Dry season in Savanna climates requires irrigation
- Short days and cloud cover restrict light
- High night temperatures increase respiration

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Tropical and Subtropical Crops

Tropical agriculture involves important well-known crops. Major crops covered in this course will include:

- Beverage Crops
- Fruits
- Starchy Root Crops
- Industrial Crops
- Grasses (rice & sugar)
- Spices
- Ornamentals

Beverage Crops



Cacao



Coffee



Tea

Fruits



Avocado



Citrus



Banana & Plantain



Date

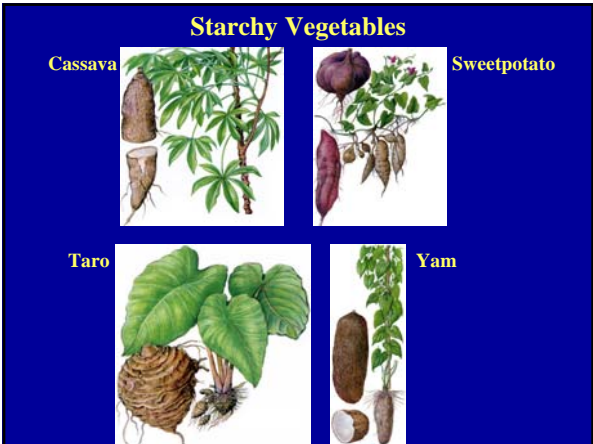


Papaya

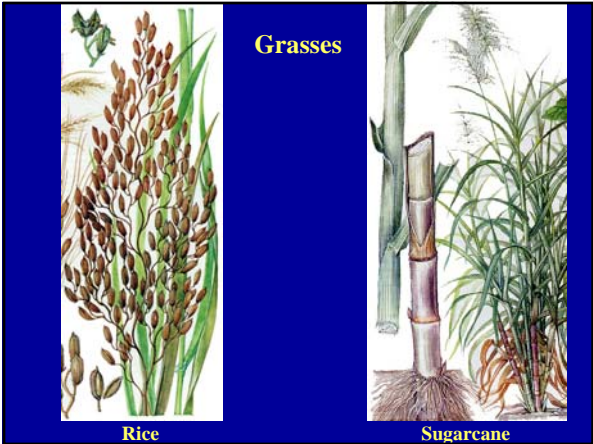


Pineapple

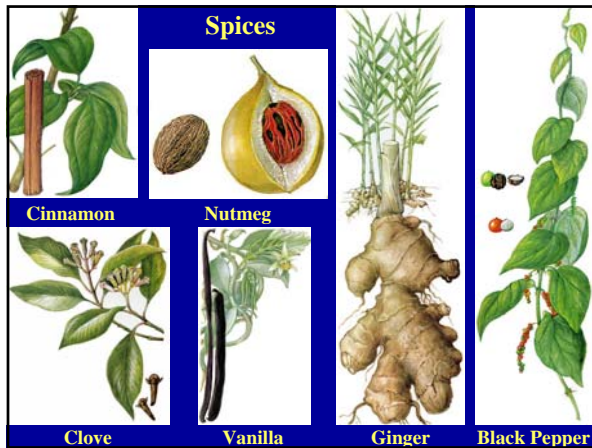
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Africa (46 countries)			
Country	Capital	Country	Capital
Algeria	Algiers	Angola	Luanda
Benin	Porto-Novo	Botswana	Gaborone
Burundi	Bujumbura	Cameroon	Yaounde
Central African Empire	Bangui	Chad	N'Djamena
Congo Republic	Moroni	Djibouti	Djibouti
Egypt	Cairo	Equatorial Guinea	Malabo
Eritrea	Massawa	Ethiopia	Addis Ababa
Gabon	Libreville	Gambia	Banjul
Ghana	Accra	Guinea	Conakry
Guinea-Bissau	Bissau	Ivory Coast	Abidjan
Kenya	Nairobi	Liberia	Monrovia
Libya	Tripoli	Madagascar	Antananarive

Africa			
Country	Capital	Country	Capital
Malawi	Lilongwe	Mali	Bamako
Mauritania	Nouakchott	Morocco	Rabat
Mozambique	Maputo	Namibia	Windhoek
Niger	Niamey	Nigeria	Lagos
Rhodesia (Zimbabwe)	Salisbury	Rwanda	Kigali
Sao Tomé e Príncipe	Sao Tomé	Senegal	Dakar
Sierra Leone	Freetown	Somalia	Mogadishu
South Africa	Cape Town, Pretoria	Sudan	Khartoum
Tanzania	Dar es Salaam	Togo	Lomé
Uganda	Kampala	Upper Volta	Ouagadougou
Zaire	Kinshasa	Zambia	Lusaka

North America		South America (12 countries)	
Country	Capital	Country	Capital
United States (Hawaii)	Washington, DC	Argentina	Buenos Aires
		Brazil	Brasilia
		Colombia	Bogota
Central America (8 countries)		French Guiana	Cayenne
Country	Capital	Paraguay	Asunción
Belize	Bemopan	Surinam	Paramaribo
El Salvador	San Salvador	Bolivia	La Paz
Honduras	Tegucigalpa	Chile	Santiago
Nicaragua	Managua	Equador	Quito
Costa Rica	San Jose	Guyana	Georgetown
Guatemala	Guatemala	Peru	Lima
Mexico	Mexico City	Venezuela	Caracas
Panama	Panama		

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West Indies (12 countries)	
Country	Capital
Antigua	St. John's
Bermuda	Hamilton
Dominica	Roseau
Guadeloupe	Bassa-Terre
Haiti	Port-au Prince
Puerto Rico	San Juan
Barbados	Bridgetown
Cuba	Havana
Dominican Republic	Santo Domingo
Grenada	St. George's
Jamaica	Kingston
Virgin Islands	St. Thomas

Asia (21 countries)			
Country	Capital	Country	Capital
Bangladesh	Dacca	Brunei	Bandar Seri Begawan
Burma	Rangoon	Cambodia	Phnom-Penh
Indonesia	Djakarta	India	New Delhi
Malaysia	Kuala Lumpur	Laos	Vientiane
New Guinea	Port Moresby	Oman	Muscat
China	Peking	Yemen	Aden
Singapore	Singapore	Philippines	Manila
Taiwan	T'aipei	Saudia Arabia	Mecca, Rujadh
United Arab Emirates	Abu Dhabi	Thailand	Bangkok
Yemem Arab Republic	San'a	Vietnam	Hanoi

Oceania (18 countries)			
Country	Capital	Country	Capital
Australia	Canberra	American Samoa	Pago Pago
Caroline Islands	Ponape	Fiji	Suva
French Polynesia	Papeete	Gilbert Islands	Bairiki
Guam	Agana	Hawaiian Islands (US)	Honolulu
Nauru	Yaren	New Hebrides	Vila
Niue	Alofi	Pitcairn Islands	Adamstown
Solomon Islands	Homaro	Tokelau	Fenuafala
Tonga	Nuku alofa	Tuvalu	Tongafale
Wallis and Futuna	Matautu	Western Samoa	Apia
