


Tropical Horticulture: Lecture 9

Lecture 9
Plantation Agriculture

Historical
Extension of temperate technology to tropical world.



Originated in tropics in 16th century beginning with European incursion in the New World.
Major advances occurred in tropical America, then moved to Asia and then Africa.
Began as large-scale growing of tropical crops for export to temperate world.

Plantation Agriculture

British term is “Estate Agriculture”
Modern equivalent is Corporate Agriculture
Characteristics
Commercial production
Large scale (relatively), usually considered larger than 80 hectares (200 acres).
Central management (usually alien Europeans) now shifting toward indigenous ownership, but often still managed by Europeans.
Capital intensive—often including processing, transportation, and shipping.
Hired labor

Labor intensive—but changing with agricultural revolution, especially machine harvest and herbicides.
Combination of agricultural-industrial enterprise.
Tendency toward monoculture.
Continuous year round production.
Plantation economy tied to industrial economy of the world.

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Origins of Plantation System

The plantation system originated in the Americas primarily with Portuguese settlements of Brazil.

The earliest major plantations were in the Northeast (Recife) and then spread south, north to the islands of the Caribbean, and finally to the American South.

It then spread to Central America.



The Portuguese first came to Recife in the 16th century.

Their main interest was Africa and Asia, not the Americas.

Large land grants were made (*Capitanias* or *Captaincies*) which were established along the coast 150 miles wide and as far West as could be controlled.

The grantee had power over the inhabitants.

However there was no easy way inland as there were few rivers from the interior to the coasts.

Although gold was always the goal, there was no gold or minerals to exploit.

Thus tropical crops were the only profitable endeavor.

Sugar was familiar to the Portuguese who were cultivating it in the Azores, Madeira, and Capo Verde, all islands West of Africa which were discovered by the Portuguese in the 15th Century.

Sugar had been introduced in the Crusades from the Middle East and the Portuguese had learned to cultivate it. Original source was India and Asia.

The crop was well suited to the lowland tropical coast (*Af* climate along the coasts) although the crop does best with a drier season and has now moved almost completely to savanna climates.

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**By the third decade of the 1500s,
sugar was well established**

The advantages of the crop were:

- 1. Unlimited land**
- 2. Good climate**
- 3. Growing demand**

The main disadvantages were lack of labor.

The native “Indians” did not make good laborers.

The solution was African slaves already used in the sugar industry of Madeira and available from trading stations operated along the West Coast of Africa.



Thus the original plantation system was based on the European incursion into the Americas (colonial system), unlimited land, slave labor, and export to Europe.

The main crop was sugar which had a spectacular boom period.

Other crops which were attempted under the plantation system included cacao, cotton, tobacco, rubber, and coffee; rubber was never a true plantation crop as it was gathered rather than planted. When rubber moved to Malaysia, cultivation systems were developed and the crop was grown in a plantation system.

The Colonial plantation system reached its highest development in the West Indies.

The saying “as rich as Croesus” was changed to “as rich as a West Indian planter.”

It was a time of great fortunes and extravagant debt (planters lived on credit from London merchants).

The collapse of the system was a combination of great debt, the collapse of the slave system, and overproduction.

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In 1500 the islands of the Caribbean belonged to Spain with no interest in plantation agriculture.

They were interested in gold or cattle ranching.

All the islands were occupied and the Indians killed off and were essentially turned into cattle ranches (Indians were replaced by cattle).

In the lesser Antilles, land was left unoccupied because the Indians were fiercer and no indication of gold.

The islands, with tropical rainforest climate occupied by the Carib Indians, were small and had no appeal to the Spanish but did appeal to the Dutch, French British, at first because they were Spanish but later as part of a wealthy plantation empire.

These include St. Kitts, Barbados, Nevis, Martinique, and Guadeloupe.

They became very valuable after sugarcane was established.

In 1763 the French were forced to relinquish all of Canada to the British and essentially traded French Canada for Martinique.

The islands of the Caribbean were long considered the most valuable of British possessions.

[The West Indies provide the subplot for the novels of Charlotte Bronte (*Jane Eyre*) and Jane Austen (*Mansfield Park*).]



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The original idea was to occupy the island with Europeans with labor provided by indentured servants.

But it was quickly realized that this wouldn't work. Some profitable product was needed for sale to England.

As on the coast of Brazil, there were no minerals so a tropical crop was the answer.

Tobacco was started after the Virginia experience but Virginia had the advantage and the price dropped so they turned to sugarcane.

Knowledge came from Brazil where the Dutch had taken over and who soon migrated to the Guineas and the West Indies (Aruba).

The Caribbean islands were well suited for sugarcane. They were frost free, with enough of a dry period to mature the crop.

The Islands of the West Indies became the Sugar Islands.

Tobacco requires a steady labor supply and much skill on the part of the farmer to grow and process the crop.

However very little capital investment is required and tobacco never really dominated the plantation system.

Sugar production requires an enormous amount of capital for livestock, machinery, vats, buildings for storage, and large gangs of unskilled labor for planting and harvesting.

It was the perfect plantation crop.

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Sugarcane replaced tobacco and small holdings that had been established for tobacco were bought up and consolidated.

African slaves were found to be more economical than peasant labor.

By the 18th century, society was made up of white owners, largely in debt, and a large black slave population.

In 1655 when Jamaica was taken from the Spanish by the British there were 3,000 black slaves.

In 1800 there were 300,000 black slaves.

Most of the increase was due to imports as the rate of natural increase was low, not even enough to maintain the population until emancipation.

The economy of the plantation system was based on trade between Europe, Africa, North America and the sugar islands. Slaves were imported from Africa, food from the American Northeast, and manufactured goods from England while rum and sugar were exported.

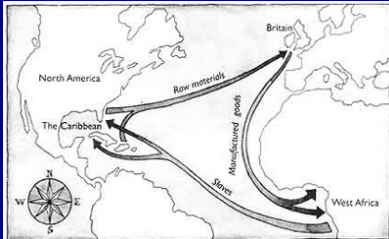


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Tripartite Trade

Slave trade source of great wealth for Britain and New England
Slave ships would pick up slaves in Africa and sell them in the Americas

On the return voyage they would return with sugar or rum
All manufactured goods came from England and were transported in British ships



The sugar industry in Cuba had different origins because the Spanish were more interested in cattle.

In 1900 when Cuba became independent as a result of the Spanish–American War the sugar industry was established with American capital and developed in a more modern fashion.

Sugar was the only product of the West Indies.

Despite the fact that the islands were all agricultural it was more profitable to import food than to grow it!

Grain was supplied from North America and fish from Canada.

Despite an abundance of calories produced in the islands, hunger still existed when the sugar economies collapsed.

The great exports were sugar and rum.

Some molasses was exported to North America and the dish of “Boston baked beans” is a remnant of this trade.

Rum was an established ration on all British ships.

Note: France kept out imports of rum to prevent competition with their brandy; the English climate is too cool to support viticulture.

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The colonial plantation system reached its greatest development in Jamaica with sugar.

It required large capital investment, a large labor force (African slaves), and resulted in very large enterprises to grow and process the crop.

Small scale European farmers lost out and the social structure consisted of a small class of landed aristocracy and a large landless worker (slave) class.

This system spread to all the islands of the Caribbean including Hispaniola (now Haiti and Santo Domingo), the Greater and Lesser Antilles.

The Spanish Islands remained as large cattle ranches.

The system collapsed in the 1800s (followed by 200 years of depression).

The 1700s still talked of as the Golden Age (with nostalgia).

The Islanders feel cheated, things could have been better, were better and the decline was long thought to have been caused by some "outside evil agent."

At the present main industries are still sugar (which is in trouble), some aluminum mining, and tourism.

Banking and ship registration has become important for some economies (Bahamas) as drug and organized crime money is laundered through offshore banks.

The Collapse Came from Many Causes

1. Slave uprisings.

This was successful in Santo Domingo and the first black nation Haiti was established. However due to years of war, devastation of agriculture, nonexistent formal commerce, the consequences were disastrous. Haiti continues to be one of the poorest nations in the world.



François-Dominique Toussaint Louverture, leader of the Haitian Revolution

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2. The end of the slave trade in the early 1800s and emancipation in 1830 (30 years before emancipation in the United States).

This effected the plantation system.

Where there was excess land (as in the mountainous areas of Haiti) the slaves left for subsistence agriculture as wages were kept very low on the plantation.

3. End to mercantile protection.

This was tied in with the development of sugar beet associated with Napoleonic wars, encouraged by the English blockade.

4. The inherent inefficiency of the colonial plantation system.

English colonials did not want to live on the plantation and the system was run by managers. (The French were somewhat different.)

As a result there were poor practices, yields were low, costs were high, the soil became run down and eroded.

5. Low sugar prices due to overproduction and competition from sugar beet.

When prices fell the whole system collapsed.

Many economies never recovered.

In Barbados (1700 square miles with very dense population where all the land can be used for sugar, and there were no mountainous areas for slaves to retreat, the slaves were trapped), sugar is still grown as the main crop.

In Jamaica, a peasant agriculture (rural proletariat) became the bulk of the population.

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Other crops were started with frequent failures. Citrus (orange and lime), banana, cacao, West Indian arrow root.

None of these crops could compete with large plantations that were set up in Central America, and poverty resulted.

The Trinidad Imperial College of agriculture has provided plantation technology but has not come up with the golden crop to restore agricultural riches.

The sugar economy is poor largely because the US subsidizes sugar beets in the West and protects cane sugar production in Florida and Louisiana.

The US restricts sugar imports by doling out allotments.

Land tenure is now a mixture of small estates and peasant holdings.

These islands in the sun were long impoverished, overpopulated and largely made up of the descendants of slaves.

Food is still imported.

The traditional diet consists of dried fish from Canada, flour from the US.