

Food and Agriculture

Chapter 10

Key Issues

- Where did agriculture originate?

Where Did Agriculture Originate?

- Invention of Agriculture
 - Prior to the advent of agriculture, all humans probably obtained needed food through hunting and gathering.
 - Perhaps 250,000 hunter-gatherers remaining today
 - Bushmen – Botswana, South Africa, Namibia
 - Origins of agriculture cannot be documented with certainty, because it began before recorded history.
 - *Agriculture* is deliberate modification of Earth's surface through cultivation of plants and rearing of animals to obtain sustenance or economic gain.

Where Did Agriculture Originate?

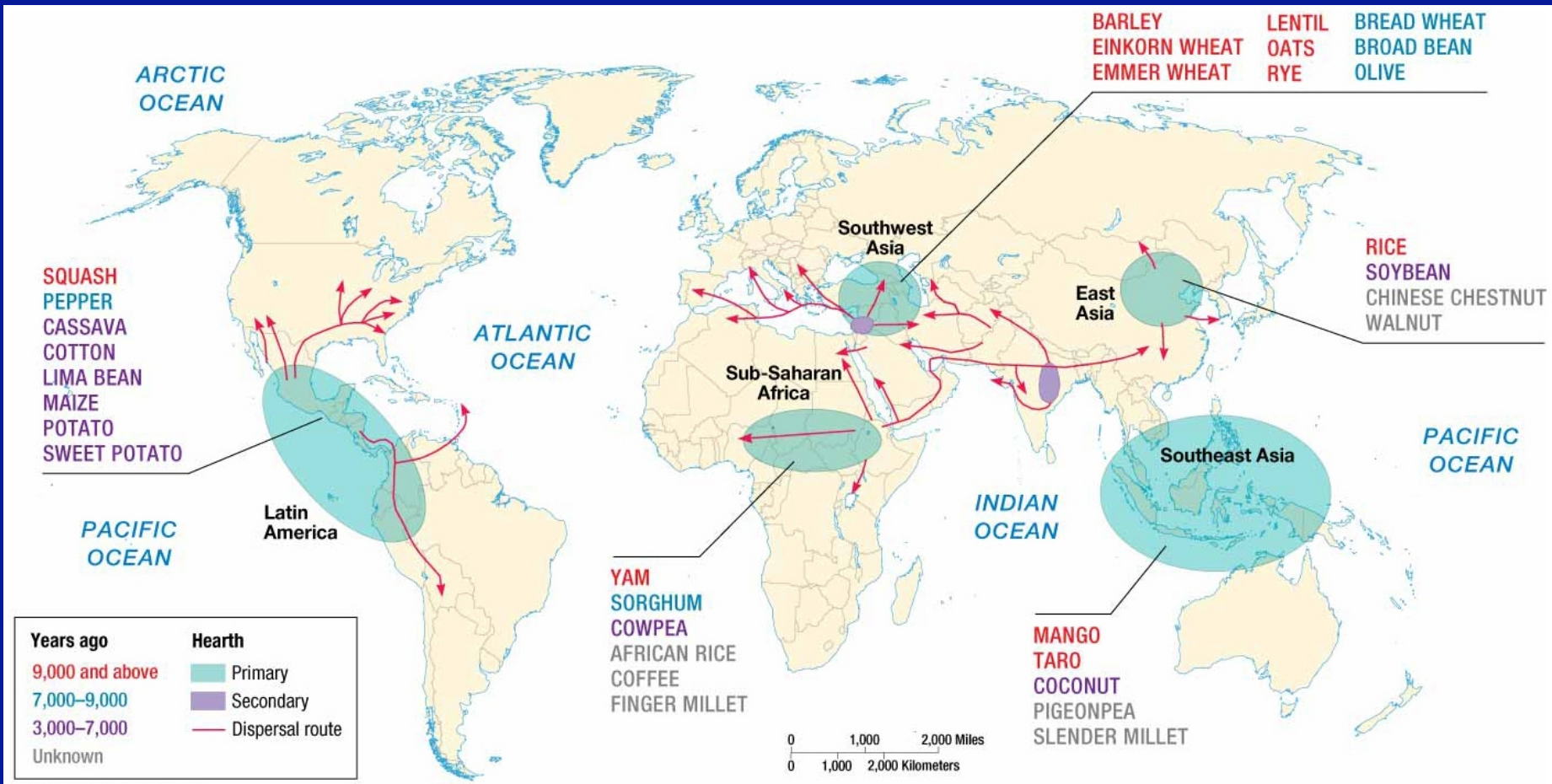
- Agricultural Revolution
 - The time when humans first domesticated plants and animals and no longer relied entirely on hunting and gathering was known as the *agricultural revolution*.
 - Agriculture originated in multiple hearths around the world:

Where Did Agriculture Originate?

- Crop Hearths:
 - Southwest Asia (Fertile Crescent):
 - » Early crops: barley, wheat, lentil, and olive.
 - East Asia:
 - » Early crops: Rice and millet.
 - Sub-Saharan Africa:
 - » Early crops: Sorghum, yams, millet, and rice.
 - Latin America:
 - » Early crops: Beans, cotton, potato, and most importantly maize (corn).

FIGURE 10-3 CROP HEARTHES

Agriculture originated in multiple hearths. Domestication of some crops can be dated back more than 10,000 years.

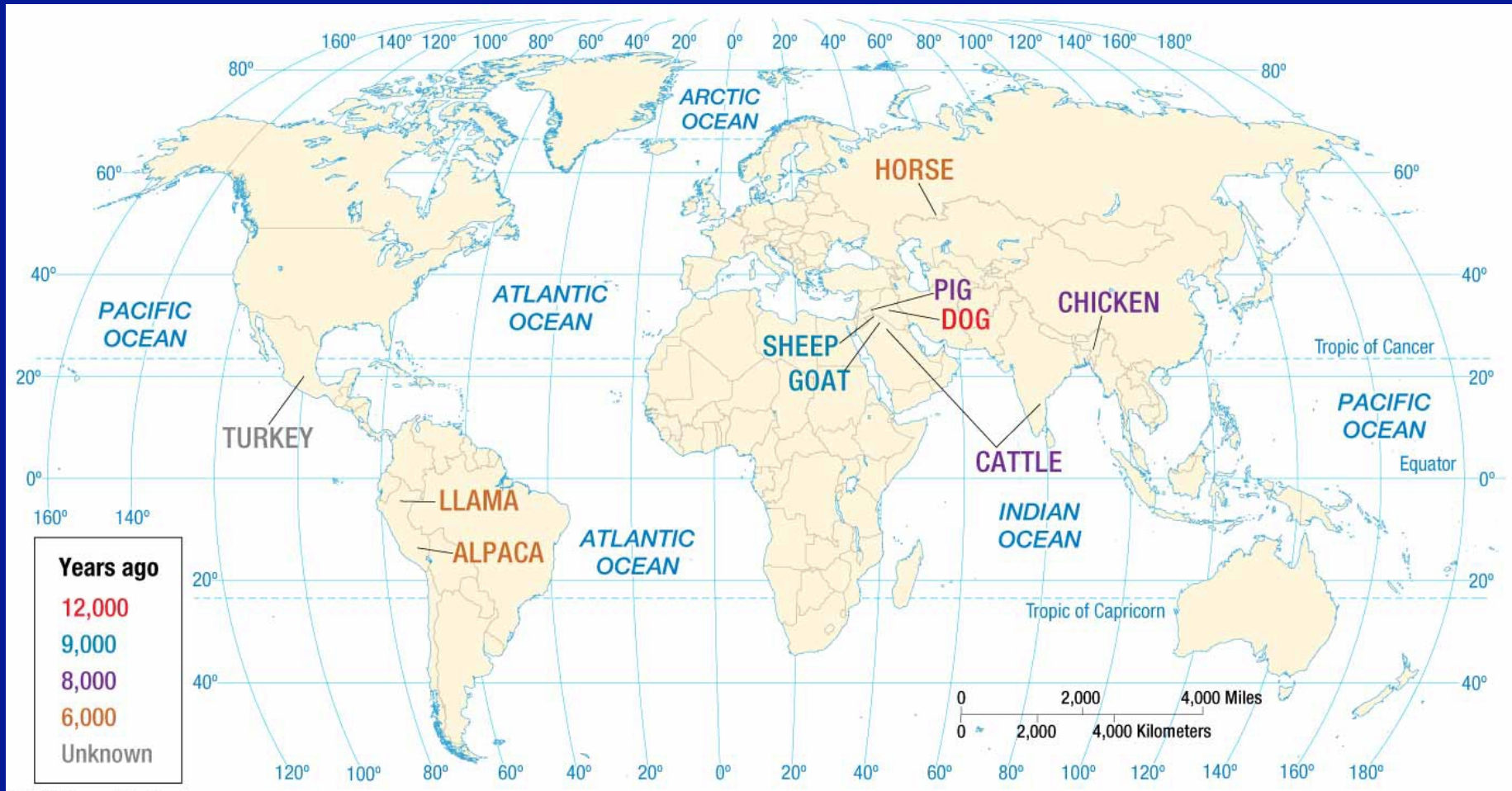


Where Did Agriculture Originate?

- Agricultural Revolution
 - Agriculture hearths around the world cont' d:
 - Animal Hearths:
 - Southwest Asia (Fertile Crescent):
 - » Early domesticated animals: Cattle, goats, pigs, sheep, and dogs.
 - Central Asia:
 - » Early domesticated animals: Horses
 - Latin America
 - » Early domesticated animals: Turkeys, llamas, alpacas

FIGURE 10-4 ANIMAL HEARTHS

Animal domestication also originated in multiple hearths.



Where Did Agriculture Originate?

- Comparing Subsistence and Commercial Agriculture
 - *Subsistence agriculture* is the production of food primarily for consumption by the farmer's family.
 - Practiced primarily in developing countries
 - *Commercial agriculture* is the production of food primarily for sale off the farm.
 - Practiced primarily in developed countries.
 - Features that distinguish itself from subsistence agriculture include: lower percentage of farmers in labor force, highly mechanized, and larger farm size.

Where Did Agriculture Originate?

- Commercial and subsistence agriculture
 - Five characteristics distinguish commercial from subsistence agriculture
 - Purpose of farming
 - Percentage of farmers in the labor force
 - Use of machinery
 - Farm size
 - Relationship of farming to other businesses

FIGURE 10-6 AGRICULTURAL WORKERS

The percentage of the workforce engaged in agriculture is higher in developing countries than in developed countries.

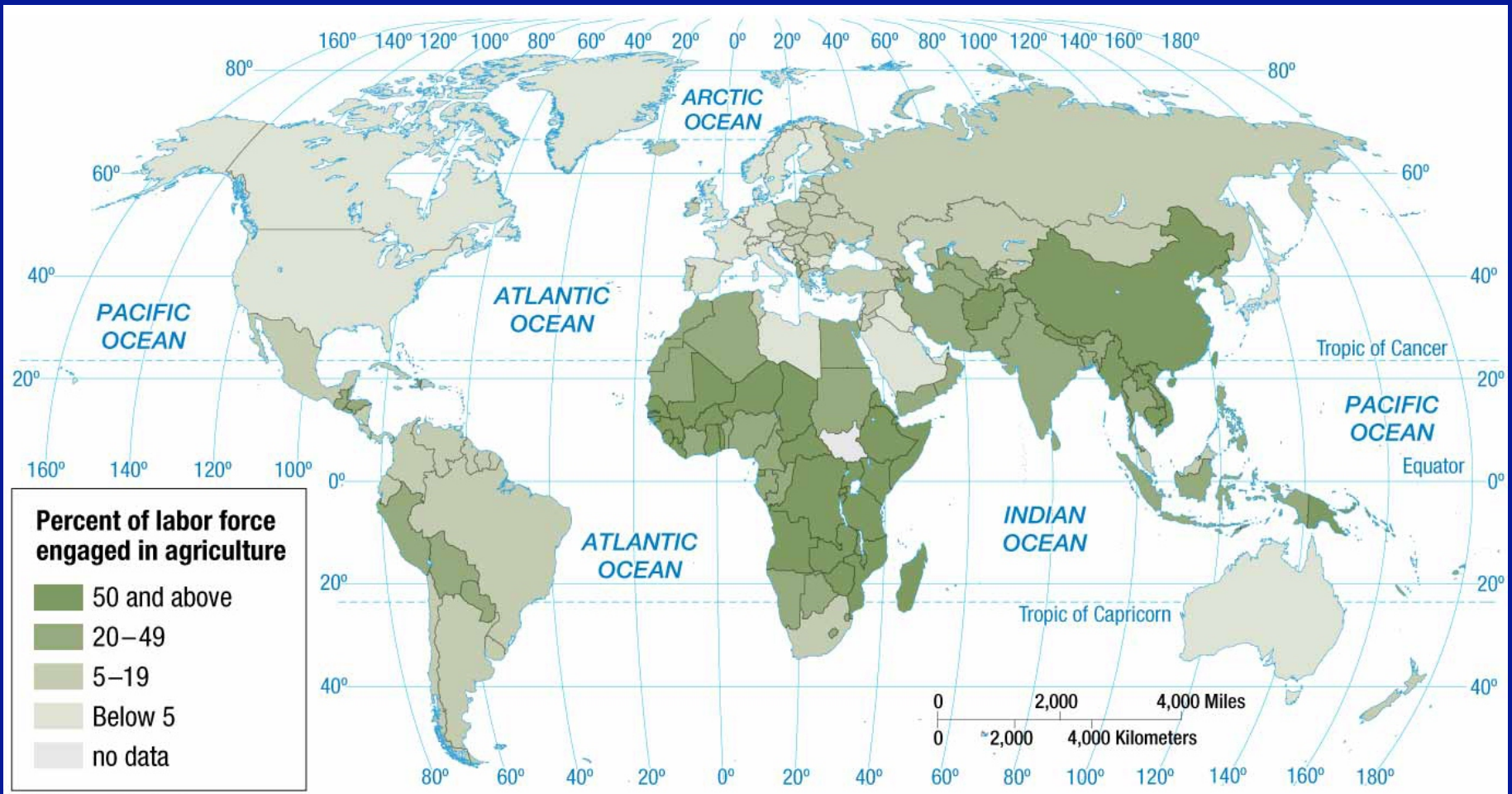


FIGURE 10-7 AREA OF FARMLAND PER TRACTOR

Farmers in developing countries have more hectares or acres of land per tractor than do farmers in developed countries. The machinery makes it possible for commercial farmers to farm extensive areas, a practice necessary to pay for the expensive machinery.

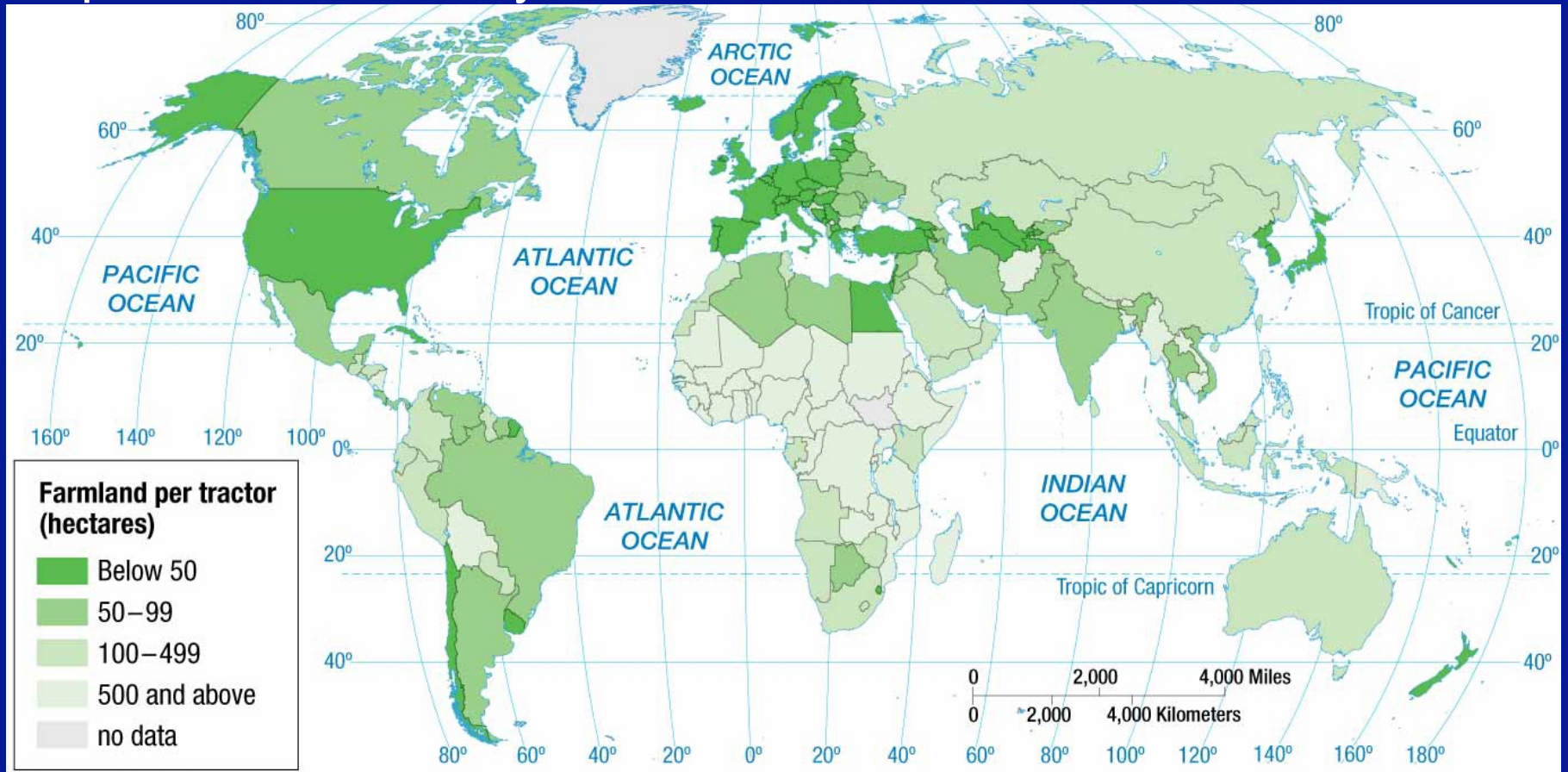


FIGURE 10-8 FARM SIZE The average size of a family farm in China is much smaller than in the United States. (left) Family farm in Anhui Province, China. (right) Family farm in West Brooklyn, Illinois.



(a)



(b)

Chapter 10 – Review Questions

1. An agricultural system whereby the family or community produces primarily for its own consumption and survival is known as what?
2. An agricultural system whereby crops are produced for the market economy, in other words, for profit is known as what?
3. Where were wheat and barley domesticated?
4. Where was corn domesticated?
5. Where was rice domesticated?
6. Where were cattle domesticated?
7. Where were llamas and alpacas domesticated?
8. Where were millet, sorghum, and yams domesticated?
9. Where was the potato domesticated?
10. Where was the horse domesticated?
11. Where were sheep and goats domesticated?
12. Where was coffee domesticated?
13. Where was cocoa/cacao domesticated?
14. Where were bananas, coconuts, mangos, and taro
15. The earliest known domesticated wheat, barley, and rice crops are thought to have originated in Asia about how long ago?
16. The first people to domesticate lentils and olives were in which region?
17. Seed agriculture probably reached Europe from where?
18. Hunting and gathering societies are found mostly in what types of areas of the world?