A Systems Approach to Improving Agricultural Production in a Development Setting- Learning Assessment

Multiple Choice and True/False

1. Percent of income spent on food is similar around the world.
    a. True
    b. False
2. Agroecological production _____
    a. requires lots of man power
    b. always uses large-scale agricultural machinery
    c. includes plants and animals to mimic natural cycles of rotation
    d. can only be done in very specific parts of the world
3. One of the main benefits of rotating chickens in a crop production system is _____
    a. chickens lay eggs
    b. most people eat chicken
    c. bugs and seeds are ground up as they pass through their system
    d. you can train a chicken to go where you want it to
4. Teaching agricultural principles in a developing country is different than teaching other things because _____
    a. the products of agriculture feed people directly
    b. tools for agriculture can be very simple and easy to construct
    c. in historically poor areas, there may not be outlets for trade skills like working on vehicles and in construction
    d. the resources needed to farm are all around, even in areas without access advanced technology
    e. All of the above
    f. None of the above
5. In order to prepare for a career in international agricultural development one must _____
    a. follow a particular path and become an expert in one very focused field of study
    b. gain first-hand experience through internships and jobs in agriculture and marketing
    c. keep in mind the interdisciplinary nature of working on issues in food security and development and be prepared to exercise resourcefulness in each context
    d. All of the above
    e. B and C

Open-Ended

1. How does the percentage of income spent on food affect farming in the United States?

2. What does it mean to say that Agroecology is a "systems approach to agriculture" and how is this represented by the various disciplines applied in this particular ELM example case?

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Multiple Choice

1. Percent of income spent on food is similar around the world.
    a. True
    b. False
2. Agroecological production
    a. Requires lots of man power
    b. Always uses large-scale agricultural machinery
    c. Includes plants and animals to mimic natural cycles of rotation
    d. Can only be done in very specific parts of the world
3. One of the main benefits of rotating chickens in a crop production system is _____
    a. Chickens lay eggs
    b. Most people eat chicken
    c. Bugs and seeds are ground up as they pass through their system
    d. You can train a chicken to go where you want it to
4. Teaching agricultural principles in a developing country is different than teaching other things because _____
    a. The products of agriculture feed people directly
    b. Tools for agriculture can be very simple and easy to construct
    c. In historically poor areas, there may not be outlets for trade skills like working on vehicles and in construction
    d. The resources needed to farm are all around, even in areas without access advanced technology
    e. All of the above
    f. None of the above
5. In order to prepare for a career in international agricultural development one must _____
    a. Follow a particular path and become an expert in one very focused field of study
    b. Gain first-hand experience through internships and jobs in agriculture and marketing
    c. Keep in mind the interdisciplinary nature of working on issues in food security and development and be prepared to exercise resourcefulness in each context
    d. All of the above
    e. B and C

Open-Ended

6. How does the percentage of income spent on food affect farming in the United States?

Answers will vary

Consumers in the United States are currently not accustomed to spending much of their income on food. This means that farmers must work hard to produce all the food people need to eat, but cannot expect to make much of an income and are forced to reduce costs as much as possible. This leads to more extractive forms of agriculture, where farmers try to get the most return while putting in the least amount of resources possible.

7. What does it mean to say that Agroecology is a "systems approach to agriculture" and how is this represented by the various disciplines applied in this particular ELM example case?

Answers will vary

Agroecology is a "systems approach" to agriculture because it mimics natural systems and takes into account a holistic view and the context in which the food is being grown. By identifying the plants and animals in the food production system and how they can be implemented in rotation with one another the environment, the food being produced, and the people involved all benefit. These principles can reduce time, money, labor, pesticides, fertilizers, water and other inputs, while increasing foil fertility and human and animal health and happiness. In the example provided by the ELM, animal science, entomology, soil science, crop science, horticulture, weed science, greenhouse construction and management, animal nutrition, human nutrition and agricultural education are all used just in this one development case.