

## Lesson A6–3

---

# Determining the Role of International Development in Agriculture

---

**Unit A.** Agricultural Literacy

**Problem Area 6.** Determining the Role of Research and Development in Agriculture/Horticulture

**Lesson 3.** Determining the Role of International Development in Agriculture

### **New Mexico Content Standard:**

**Pathway Strand:** Agribusiness Systems

**Standard:** VI: Use sales and marketing principles to accomplish an AFNR business objective.

**Benchmark:** VI-B: Develop a marketing plan.

**Performance Standard:** 1. Identify and develop value-added products. 2. Develop public relations campaign. 3. Develop sales goals and incentive programs.

**Student Learning Objectives.** Instruction in this lesson should result in students achieving the following objectives:

1. Explain changing global needs and opportunities.
2. Explain the importance of producing for the consumer.
3. Identify the important contributions of agriculture to a country's development.
4. Explain why agricultural development in other countries is important to our own country.

**List of Resources.** The following resources may be useful in teaching this lesson:

**Recommended Resources.** One of the following resources should be selected to accompany this lesson:

Finley and Price. *International Agriculture*. Albany, New York: Delmar Publishers, 1994. (Textbook, Chapters 1 through 4 and 8)

Lee, Jasper S. and Diana L. Turner. *AgriScience*, Third Edition. Danville, Illinois: Interstate Publishers, Inc., 2003. (Textbook, Chapter 1)

**Other Resources.** The following resource may be helpful to teachers and students:

Morgan, Elizabeth M., et al. *AgriScience Explorations*, Second Edition. Danville, Illinois: Interstate Publishers, Inc., 2000. (Textbook, Chapter 4)

## List of Equipment, Tools, Supplies, and Facilities

Writing surface  
Overhead projector  
Transparencies from attached masters

**Terms.** The following terms are presented in this lesson (shown in bold italics):

Climate  
Commerce  
Custom  
Developed nation  
Developing nation  
Improved crop  
Mechanization  
Preference  
Standard of living  
Subsistence-level

**Interest Approach.** Use an interest approach that will prepare the students for the lesson. Teachers often develop approaches for their unique class and student situations. Two possible approaches are included here.

**Approach One:** *Ask students to check the amount of money they have in their pockets. Exhibit agricultural commodities and ask students what they might expect to pay for these items in the United States and abroad. Tell them the actual cost of the items and see how far their “dollars” would go. Ask them why there is a difference between the U.S. and other countries. Move from the interest approach into the objectives and anticipated problems for the lesson or move on to the second interest approach.*

**Approach Two:** Ask students what is happening in the agricultural industry today. Ask them what is happening with agriculture throughout the world. Pose the question, “Why is this occurring?” Move from the interest approach into the objectives and anticipated problems for the lesson.

## Summary of Content and Teaching Strategies

**Objective 1:** Explain changing global needs and opportunities.

**Anticipated Problem:** What are the changing global needs and opportunities?

- I. The world’s population is around 5.7 billion. In 30 years, it is expected to increase to 8 billion. The bulk of this increase will occur in the developing nations. Today’s arable land and water resources must generate present and future food and for most of the developing nations, the jobs required to supply projected employment needs. Much more productive and sustainable uses of the resource bases will be required to meet dramatically changing needs driven by increased urbanization, income, and trade liberalization.
  - A. Agriculture and rural development relationships affect global well-being.
    1. Thirty percent of the population of the world’s developing countries, or 1.1 billion people, live in absolute poverty. Over 1 billion of today’s population lives on less than 1 dollar per day. The majority of these people live in rural areas and depend on agriculture as the main source of family livelihood.
    2. During the 1980s food production failed to keep pace with growth in population in two-thirds of the developing countries. World food supplies will have to double by 2025.
      - a. The rate of growth in the yields of basic cereals is not increasing at the levels previously observed.
      - b. At current trends, income and supply pressures will require that food aid be doubled over the next decade.
      - c. Today, grain stocks are at their lowest level, and prices are rising to the highest levels in recent history.
    3. Employment generation rates in developing countries are falling behind population increase. This causes political unrest and migration to over-burdened urban centers and adjacent countries.
    4. About half of the world’s poorest live in rural areas which are characterized as environmentally fragile. Limited incomes and employment prospects force poorer families to deforest land and to expand agriculture. Currently, over 37 million acres are deforested annually.
  - B. Dynamic agricultural and rural sectors are the key to national development.
    1. History demonstrates that as agriculture becomes more productive and dynamic, broader economic, social, and political development occurs.

2. For the largest number of the impoverished, reducing real food prices is the most important initial contribution for reducing poverty.
  3. In developing countries the agriculture sector is the most important sector in terms of employment and income generation. Increased agricultural productivity unleashes a powerful engine of labor intensive growth and improved household incomes.
  4. More favorable macroeconomic policy and global trade liberalization initiatives offer increased opportunities for all countries to appropriately utilize their comparative advantages.
- C. Apart from addressing important humanitarian, political, natural resource, and economic development consequences, increased attention in support of agriculture development and the rural sector has other benefits.
1. Compared with the world's developed countries, the developing countries are increasing their trade two-fold with the United States. Presently, 50% of all agricultural exports are going to the lesser income countries.
  2. According to a recent study by the International Food Policy Research Institute, as developing countries increasingly invest in agricultural research and targeted development programs, these countries buy more goods from developed countries, including agricultural products.
  3. Agricultural research funded through these international assistance programs has brought new technologies to U.S. farmers and resulted in billions of dollars worth of improved yields.

*Many techniques can be used to help students master this objective. Students need text materials to help them understand and explain changing global needs and opportunities. Chapters 1 through 4 and 8 in International Agriculture are recommended. Use TM: A6–3A to show the location of developed and developing nations.*

**Objective 2:** Explain the importance of producing for the consumer.

**Anticipated Problem:** Why is it important to produce for the consumer?

- II. People make choices about food, fiber, and shelter. They have strong likes and dislikes, or *preferences*.
  - A. Food and fiber are produced to satisfy human needs. If a commodity is not desired, there is no reason to produce it.
  - B. Consumers have certain needs that must be met. They also have opinions that dictate what is produced.
    1. People in various regions of the world tend to have similar preferences. Major factors that influence consumer choices are:
      - a. **Climate**—the nature of the weather.

- b. **Customs**—the long established ways of doing things. What people grow up eating they often continue to prefer when they are adults.
- c. **Standard of living**— the income of people and the products available to them.

Many techniques can be used to help students master this objective. Use text materials to explain the importance of producing for the consumer. Chapter 1 in *AgriScience* is recommended.

**Objective 3:** Identify the important contributions of agriculture to a country's development.

**Anticipated Problem:** What are the important contributions of agriculture to a country's development?

- III. Nations with advanced food systems utilize science and technology. Others have very primitive agriculture. **Developed nations** (industrialized) have jobs. People can work and earn money. **Developing nations** (not industrialized) have low incomes and few jobs. There are many areas of contrast between developed and developing nations.
  - A. **Mechanization** is the use of machinery to do work.
    - 1. Developed nations use tractors, power equipment, and low levels of labor.
    - 2. Developing nations use hand labor or animal power and little mechanization.
  - B. **Improved crops** are those that have been enhanced to improve their productivity or resistance to pests.
    - 1. Developed nations use crops that have been carefully selected to produce high yields.
    - 2. Developing nations may have few improved crops.
  - C. **Commerce** is trade between two parties.
    - 1. Developed nations have systems for buying and selling food and fiber.
    - 2. Developing nations may have poor transportation, few storage facilities, and no way to easily buy and sell.
  - D. Education levels of people are important to improving standards of living.
    - 1. People in developed nations have higher levels of education and well-developed systems of agricultural education and agriscience.
    - 2. Developing nations tend to have lower levels of education and very little education in agriculture and agriscience.
  - E. Soil and climate are important factors in determining a nation's food and fiber production.
    - 1. Developed nations tend to have soils and climates that will support the production of food and fiber.
    - 2. Developing nations may have poor soils and extremely dry or wet conditions.

Many techniques can be used to help students master this objective. Students need text materials to help identify the important contributions of agriculture to a country's development. Chapter 1 in *International*

*Agriculture and Chapter 1 in AgriScience may be helpful. Use TM: A6–3A to show the world map depicting developed and developing regions.*

**Objective 4:** Explain why agricultural development in other countries is important to our own country.

**Anticipated Problem:** Why is agricultural development in other countries important to our country?

- VI. Today, less than a dozen nations produce ample food for their own people. The rest, or nearly 120 nations, are dependent on outside food sources.
  - A. Of the 120 nations, most are considered to be economically underdeveloped. For many, maintaining even a subsistence-level lifestyle is a daily concern. **Subsistence-level** refers to producing just enough to meet basic human needs.
    1. Many international and national organizations have attempted to help rural families by increasing their agricultural output. These organizations anticipate that increased agricultural productivity will enhance the nation’s overall economy. This would allow these nations to become potential customers for U.S. products.
    2. Because of the large number of these nations, it is imperative that we study their impact on global agriculture supply and demand.
    3. Developing educational and research systems geared toward people within the agriculture sector is one way in which to bolster agricultural production.

*Many techniques can be used to help students master this objective. Students need text materials to help identify the importance of agricultural development in other countries to our own country. Chapter 1 in International Agriculture and Chapter 1 in AgriScience may be helpful.*

**Review/Summary.** Because agriculture is essential to the lives of all human beings, it is important that we understand the role of international development in agriculture. Focus the review of the lesson around the student learning objectives. Ask students to explain the content associated with each objective. Use their responses as the basis for determining any areas that need reteaching.

**Application.** Have students research a developed and a developing nation. Have them compare and contrast the agricultural industries in the two nations.

**Evaluation.** Evaluation should focus on student achievement of the objectives for the lesson. Various techniques can be used, such as student performance on the application activities. A sample written test is attached.

## **Answers to Sample Test:**

### **Part One: Matching**

1=c, 2=b, 3=a

### **Part Two: Completion**

1. developing
2. Commerce
3. Mechanization
4. climate
5. food, fiber, shelter
6. 12 and 120

### **Part Three: Short Answer**

1. Mechanization, improved crops, commerce, education, and soil and climate
2. Food and fiber are produced to satisfy human needs. If a commodity is not desired, there is no reason to produce it.

---

# Test

---

## Lesson A6–3: Determining the Role of International Development in Agriculture

**Part One: Matching**

*Instructions.* Match the term with the correct response. Write the letter of the term by the definition.

- a. customs
- b. preferences
- c. standard of living

- \_\_\_\_\_ 1. Refers to the income of people and the products available to them.
- \_\_\_\_\_ 2. Opinions that dictate what is produced.
- \_\_\_\_\_ 3. Long established ways of doing things.

**Part Two: Completion**

*Instructions.* Provide the word or words to complete the following statements.

1. The world's population is expected to increase to 8 billion, and the bulk of this increase will occur in \_\_\_\_\_ nations.
2. \_\_\_\_\_ is trade between two parties.
3. \_\_\_\_\_ is the use of machinery to do work.
4. The nature of weather is referred to as \_\_\_\_\_.
5. People make choices about \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
6. Today, less than a \_\_\_\_\_ nations produce ample food for their own people. Nearly \_\_\_\_\_ nations are dependent on outside food sources.



# Developing Regions of the World

