



Economic Detective

Desert Flower

Problem

Frontierland is a developing country in a desert region in the Southern Hemisphere. Its economy is based primarily on a tiny desert flower that has strong medicinal properties. Frontierland also produces the juice of a certain species of cactus that grows abundantly only after heavy rains that occur once or twice annually. Use what you have learned in this chapter to answer the questions that follow.



Investigation 1

Obtaining the medicinal flowers is rather difficult. Each flower harvester learns specific techniques from an experienced harvester. These techniques include finding the plants, removing the flowers without damaging the plants, and storing the flowers to best preserve their valuable medicinal properties. Flower harvesters carry special pouches that protect each flower and retain the moisture in its delicate petals. Most of the medicinal flower harvest is traded with neighboring countries for food and other basic goods that Frontierland does not have adequate means to produce. Flower harvesters are very well paid.

Identify the factors of production for medicinal flowers:

1. Land _____
2. Labor _____
3. Capital:
 - (a) Physical _____
 - (b) Human _____



Investigation 2

After a heavy rainfall, the special cactus can be tapped for its juice for a period of about a week. The juice is highly prized for its taste, texture, and nutritional value. Some of the juice is traded with neighboring countries. During a period of juice production, the help of some of the flower harvesters is needed in order to tap as much of the available juice as possible. While juice production work does not pay well, juice for consumption is made available primarily to those who assist with the tapping.

1. What is the opportunity cost to a flower harvester of participating in the tapping of juice from the cactus? _____
2. What might a flower harvester consider in making a decision at the margin about participating in juice tapping? _____



Investigation 3

The production of juice depends entirely on the occurrence of a very occasional heavy rainfall. If modern irrigation methods could supply sufficient water to the Frontierland desert, the juice-producing cactus could be grown throughout much of the year. However, the plant that produces the medicinal flowers grows best under very dry conditions.

1. How would such a new technology affect production possibilities for Frontierland? _____
2. What would be the likely trade-off for producing more juice? (Explain your answer in terms of the factors of production.) _____