



Name:

Date:

Saving Guano

The use of fertilizers to help crops grow is necessary for agriculture. One of the most effective organic fertilizers in the world is known as “guano.” This means the droppings of birds and bats. These droppings are full of nitrogen and other chemicals that help plants grow. Huge amounts of guano left by seabirds used to be common in various parts of the world, but especially on islands off the coast of Peru in South America.

Although the value of guano as a fertilizer was known to local people in Peru, it was not until the 19th century that it began to be used in other countries. As people realized how effective guano was, a huge trade grew up. Hundreds of workers went to the islands and collected the guano, loading it into boats that then took it abroad to be sold. Soon, guano became the main export of Peru. However, after cheaper artificial fertilizers were developed by chemists in Europe in the 1900s, guano became less popular.

In recent years, though, guano and other organic fertilizers have started to grow in popularity again. One reason for this rise in demand is that many artificial fertilizers have risen in price, which has made guano more economical for farming. Another reason is the increasing demand for organic food in wealthy countries, because the chemicals that are used in man-made fertilizers can be harmful to human health. Moreover, such fertilizers often damage the environment. Guano, however, is completely organic.

Unfortunately, just as the guano industry has begun to improve, a new threat to it has appeared. The seabirds that produce guano mainly eat a small kind of fish called anchoveta that used to be much more common in the sea off Peru. Anchoveta, though, are also often used to feed animals that are being raised for meat. As the consumption of meat has increased around the world, the demand for anchoveta has also grown, and now fishing boats from many countries come to the area to catch them. Both the fish and the birds might disappear from the area if the fishing is not controlled, and Peru is working hard to get countries to agree to limit the number they catch.



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1. The fertilizer known as guano
 - a. is created when seabird droppings combine with things in the soil.
 - b. is good for crops grown on farms but not for other kinds of plants.
 - c. used to be found only on the islands off the coast of South America.
 - d. contains a lot of chemicals which are good for plant growth.

2. Why did the use of guano go down in the 20th century?
 - a. It was difficult to find workers who were willing to dig it up.
 - b. It became harder to transport because fewer boats were being built.
 - c. People began to doubt how effective fertilizers were for growing food.
 - d. Scientists began to create new types of fertilizers that were less expensive.

3. What is one reason that guano has increased in popularity recently?
 - a. More people in wealthy countries want to buy organic food.
 - b. Companies can grow more vegetables when using natural fertilizers.
 - c. Food grown with guano has a better flavor than other food.
 - d. Artificial fertilizers have been made illegal in many places.

4. What is one new threat to the seabirds that produce guano?
 - a. The number of boats coming to Peru to hunt them has risen recently.
 - b. Fishermen are destroying the places where the seabirds live.
 - c. Many of the fish they eat are being caught for the meat industry.
 - d. Some of them are being killed by farmers to feed their animals.

5. Which of the following statements is true?
 - a. The price of guano is so high that local people in Peru can no longer buy it.
 - b. Peru must protect both anchoveta and the seabirds to save the guano industry.
 - c. The trade that developed around guano caused other industries in Peru to lose money.
 - d. Traditional guano collecting in Peru is more harmful to human health than first thought.