

Farms Made of Dust and Selling Bird Poop: Exploring Why People Move
by Jack Bueno



This is a family that migrated from Texas to California in the 1930's. A family moving with all their possessions packed in their car was a common sight during this time. What do you think caused so many people to move?

Have you ever moved? Or maybe you have a friend who has. People have been moving for a long time. Migration is the moving of people. People move from one place to another. There are many reasons why people move. Sometimes they move closer to family. Sometimes they move to get a better job. People move because there is more of something somewhere else. We say there is more opportunity when there is more of something. A place with better jobs has more opportunity. People look for opportunity when they move.

Scarcity and Musical Chairs

But what if a place has less of something? This is called scarcity. Scarcity means there is not enough. Something is not there for everyone. There may not be enough jobs. That is a scarcity of

jobs. Think about playing a game of musical chairs. There are not enough chairs for everyone. There is a scarcity of chairs. Scarcity is almost always not a good thing. A scarcity of food is not a good thing. There is not enough for everyone.



Dust Bowl Migration

The United States had a lot of scarcity

during the 1930's. The soil was dry. It blew away. There were large clouds of dust. The clouds covered the prairies of the Midwest. We call this time the Dust Bowl. Farmers could not grow food. The soil was bad. The markets sold out of food. Soon there was very little food left. There was a scarcity of food.

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Farmers had a choice to make. They wanted to stay in their homes. But they did not want to be hungry. They chose to leave. People wanted to find a place with enough food. They chose to move West. Many families made this choice in the 1930s. There were jobs in the West. There was opportunity for food in the West. People go somewhere new if there is opportunity.



Peruvian Guano Spurs Migration

Another time many people migrated happened in the 1850s. Sailors from Europe went to islands near Peru. They saw farmers on the islands. The farmers were putting bird poop in soil. The bird poop was called guano. Guano made the soil better. Crops grew better with guano. The sailors saw the people fertilizing the soil with guano. Fertilized soil is better to grow crops. This was a discovery. The guano helped to grow more crops.

Farmers all over the world began using guano. They used it to fertilize their soil. Guano became very important. It helped farmers to grow more food. Some people saw an opportunity. They wanted to have their own guano island. They wanted to

sell the guano. They wanted to sell it to farmers in the United States. Selling guano became an opportunity. Many people moved to the islands.

A Loss of Opportunity

Soon, there was less and less guano. Why? Too many people moved to the islands. They ate the bird that pooped guano. The number of birds went down. Fewer birds pooped guano. There was



The bird that produces guano is called a cormorant. Their waste was used as fertilizer before artificial fertilizers were invented. The environment of Peru's islands is special because the cold water from the arctic keeps the guano on the rocky shores. This is what allows for people to use it for fertilizer.

less guano. People had less guano to sell. There was a guano scarcity. People did not keep moving to the islands. There was no longer an opportunity with guano.

Scarcity and Opportunity Spurs Decisions

Moving to a new home can be scary. It can also be fun. New places sometimes have less scarcity. New places sometimes have more opportunity. People move because there is more opportunity. The Dust Bowl was a time when people moved. They moved because of scarcity. People also moved at other times. But they moved because of opportunity. They wanted to sell guano. They moved to an island. Migration can happen when there is not enough of something. Migration can also happen when there is a lot of something. People move for better lives.

Did you know there is a difference between soil and dirt?

The difference between soil and dirt is important to every farmer around the world. But to many of us who are not farmers, dirt and soil may sound like the same thing. When farmers grow plants for food, we call the plants crops. Think about the vegetables and fruits you eat for lunch. Corn, apples, and carrots are all crops! Since crops are plants that we eat, and we know plants grow in soil, we also know that soil is important to crops. When dirt has all the right ingredients to grow crops, we call the dirt, soil. Soil means that the dirt can grow healthy crops.

But how can soil grow healthy crops? Plants, like us, need special ingredients to live. Our ingredients to live are air, water, and food. A plant's ingredients are air, water, and soil. Instead of eating food, plants use their roots to get their ingredients from the soil. When soil has a lot of ingredients the plant needs, we say the soil is *rich*. Farmers want their soil to be rich in ingredients that the plant needs to grow. Because of this, farmers began to find ways to add ingredients to the dirt in order to make soil for crops. One of the ways to add ingredients to the soil was by adding bird poop, or guano. Adding ingredients to dirt to make it soil is called fertilizing. The ingredient that is added to the dirt is called a fertilizer. Since guano was added to the soil, guano is a fertilizer.

What happens when fertilizers are not used? Over time, crops take away the ingredients in the soil. This is what caused the Dust Bowl. After many years of farming the land with crops, the soil turned to dirt because all the ingredients were taken out of the soil. The farmers did not add enough fertilizer. Crops no longer were able to grow because there was no soil. Many farmers had to make the decision to move a place with soil and not dirt.

