



ANCIENT EGYPTIAN AGRICULTURE (FARMING)

WHAT IS IRRIGATION?

Irrigation is the watering of land to make it ready for farming on. Irrigation is the **artificial** supply of water to **agricultural land**. It is a method used by more than half of the farmers in the world because they need more water for their crops than is available from rainfall.

ANCIENT EGYPTIANS AND IRRIGATION

Most of Egypt is a desert. To make the desert ready for growing crops or raising animals on, the Ancient Egyptians needed to prepare the land. They did this through irrigating the desert by using water from the river Nile. Without the Nile, there probably would not have been the ancient Egypt we learn about today.

Each year, the Nile would flood, spilling over with water flowing down from the mountains to the south. Flood waters could raise the Nile River 45 feet over normal heights. As the waters receded, the flood waters left behind rich soil. This soil allowed the ancient Egyptian to grow crops.

The crops needed water to grow. The ancient Egyptians invented a system of canals that they dug to irrigate their crops. They also built gates into these canals so that they could control the flow of water. They built reservoirs to hold water supplies in case of drought.



SHADUFS (SHADOOFS)

A shadoof was simply a counterweight system, a long pole with a bucket on one end and a weight on the other. Buckets were dropped into the Nile, filled with water, and raised with water wheels. Then **oxen** swung the pole so that the water could be emptied into narrow canals or waterways that were used to irrigate the crops. It was a clever system, and it worked very well.



NILOMETERS

A nilometer was used to predict flood levels. This instrument was a method of marking the height of the Nile over the years. Nilometers were spaced along the Nile River. They acted as an early warning system, alerting these early people that waters were not as high as usual, so they could prepare for a drought or for unusually high flood waters. As the flooding of the Nile was so important to the ancient Egyptians, nilometers were permanent structures and well-built so that any prediction of flooding, or lack of it, would be as accurate as possible.



ANCIENT EGYPTIAN IRRIGATION FACTS

- The earliest and most famous reference to irrigation in Egyptian archaeology has been found on the mace head of the Scorpion King, which has been roughly dated to about 3100 BC.
- According to Herodotus, an ancient Greek historian, Egyptians "get their harvests with less labour than anyone else in the world."
- Egyptians were creative in their use of plants, using them for medicine, as part of their religious practices and in the making of clothing.



Ceremonial mace-head of King Scorpion



- Papyrus was a popular crop that was farmed by the ancient Egyptians. The roots of the plant were eaten as food. The stem was used to make boats, mats and paper.

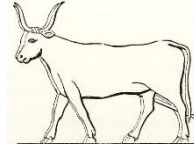
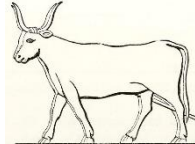


GLOSSARY

Artificial – made by humans

Agricultural land – land which is used by farmers for growing crops or raising farm animals.

Oxen – more than one ox



FIND OUT MORE...

What is Irrigation?

<https://www.youtube.com/watch?v=amrCMakolKA>

Ancient Egyptian Irrigation

<https://www.youtube.com/watch?v=ZEXE5eEaQAc>

Watch this silent movie to see Egyptian Irrigation in practise...

<https://www.youtube.com/watch?v=ZgCy2k41j28>

The Shaduf

https://www.youtube.com/watch?v=i5X_jwnb-Ok&pbjreload=10

<https://www.youtube.com/watch?v=VifY3Uj1jxo>

Challenge

Can you make a Shaduf? Watch this video and improve on Mr Robinson's design.

EXAMPLE QUESTIONS:

1. What was a nilometer?
2. What was a shaduf?
3. What is irrigation?
4. Which river did the ancient Egyptians use in their irrigation?
5. How often would the Nile River flood?
6. By up to how many feet could the Nile River flood by?
7. What would the ancient Egyptians use their plants for? Name three things.
8. Why did the ancient Egyptians have to irrigate their land?
9. As the Nile's water receded after a flood, what was left behind?
10. where could you find a nilometer?