The Tropic of Cancer crosses Taiwan, and the average annual temperature is around 20°C. In the coldest month, the average temperature is around 14°C. Taiwan’s climate is suited to growing crops year round. In summer, monsoon winds bring abundant rainfall to the southwestern areas and in winter to the northeastern areas. Typhoons are most common in summer and fall. The main crops on Taiwan’s plains are rice and sugarcane. Two-thirds of Taiwan’s area is mountainous, and thus this island has abundant forests. Timber trees include banyan, camphor, red cypress, Japanese cypress and fir. In the hilly areas, tea is produced, as well as a number of fruits such as oranges, bananas and pineapples.

Environment and Agriculture of Taiwan

Changes in the usage of farmland, overdependence on chemical pesticides and fertilizers and introduction of foreign species have had adverse effects on the environment and wildlife. When wild rice is ripe, the kernel readily falls to the ground, leaving only the stalk. According to Taiwanese folk legend, this was the staple food of ghosts. Today, rice has taken on a much different appearance, due to long-term selection and breeding.

In recent years, large amounts of carbonized rice kernels have been found during excavations of archaeological sites in Taiwan. Rice cultivation can be traced back more than 4,000 years. Perhaps rice cultivation was brought to the island by the Austronesian peoples or Taiwan’s prehistoric peoples domesticated wild rice that was already growing here.

Taiwan’s agricultural research institutes develop new rice varieties that are resistant to disease and pests and that have a good aroma, taste and texture. Successful rice strains include Taikeng No. 9 and Tainung No. 71.

Creating New Crop Varieties

There are a number of reasons why people look for ways to improve crops and develop new varieties. In the agricultural industry, this is referred to as “breeding.” Breeding allows crops to better adapt to environmental conditions such as lighting, temperature, moisture content, soil conditions and wind. It also allows for stable growth and consistent quality, better resistance against disease and pests and increased levels of sweetness, aroma, color and flavor.
The monistic view holds that agriculture began in a specific region. Some scholars suggest that Southeast Asia is a possible center of origin of plant cultivation and animal domestication. Agricultural activities may have spread from there to the Near East. However, others believe that these activities originated in the Fertile Crescent of Western Asia.

The pluralistic view holds that there are multiple centers of origin around the world, for example Central America, South America, the Near East, Africa, China and Southeast Asia. Agriculture in these centers developed independently, with each center producing unique crops.

Today, based on ecological science, it is thought that the production of food began in many parts of the world simultaneously. Due to a number of factors, humans began to experiment and to find ways to improve agricultural methods and to search for new types of crops and livestock.

What is Agriculture?

Agriculture is an activity essential to human survival. Ten thousand years ago, humans were mostly hunters and gatherers. However, 2000 years ago, the majority were carrying out cultivation and animal husbandry activities. The ability to produce food led to a change in the human view of nature, and to a rapid development of civilizations.

Today, the term agriculture refers to the use of land, sunshine, water, air and minerals to nurture animals, plants and microorganisms to obtain goods and materials necessary for life. In a narrow sense, agriculture is the art of cultivating plants. In a broad sense, agriculture includes farming, forestry, fishing and animal husbandry.

The Origins of Agriculture

Two theories on the origin of agriculture have been put forth: a monistic one and a pluralistic one.

1. Agricultural Environment of Northern China

The climate of northern China is very dry. The average annual temperature is between 10°C and 15°C. In winter, the average temperature is below 0°C, while in summer it is above 20°C. Annual rainfall is between 350 and 750 millimeters. There are different fallow cultivations in northern China due to the different amount of rainfall.

2. Agricultural Environment of Central China

The average annual temperature in central China is between 15°C and 20°C. Annual rainfall is between 750 and 1,500 millimeters. The warm and damp climate is suited to growing crops year round. The major crops in central China are rice, legumes and wheat.

3. Agricultural Environment of Southern China

The average annual temperature in the middle of southern China, splitting it into subtropical and tropical climate zones. The average annual temperature is above 20°C. Average annual rainfall is more than 1,500 millimeters.

Rice is the major crop in southern China. Tea, sugarcane and coconuts are important economic crops. A diversity of fruits is grown including oranges, bananas, pineapples and mangoes. Water buffalo are raised for plowing and there are rich seafood sources along the coast.

Taiwan’s Prehistoric Agriculture

In the paleolithic, men hunted and fished. Women and children gather fruit, vegetables and herbs. People moved from place to place in search of food. In the neolithic settlements replaced the nomadic lifestyle. Dogs and chickens were domesticated, and root crops, such as taro, began to be cultivated. Ramie and tree bark was used to make clothing.

Excavations at Huilai Archaeological Site

The excavation at Huilai archaeological site, located in central Taiwan, is conducted by the museum. From archaeological evidence, the people living in Huilai Site grew rice 1000 years ago. They also hunted, fished and gathered. The people of Huilai may have adopted paddy cultivation methods, they obtained iron knives and sickles for harvesting through trade.

This newly renovated gallery starts with a description of the agricultural origins in Mesopotamia, India, China, and Mid-south America to inspire the visitors to get a general idea of the development of agriculture over time. It also chronicles the agricultural history and events of China from Neolithic Age (12500 – 2000 BC) to the present day, and explores Taiwan agriculture and ecology. In addition to showcasing a life-size copper sculpture of a cowboy on a Taiwan Water Buffalo and a cart of 1960s, the gallery uses a trilingual (English, Chinese, and Taiwanese) straw man to tell the whole story of Taiwan agriculture, and how it is affected by imported crops now.