

Encyclopedic Entry

domestication

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Domestication is the **process** of adapting **wild** plants and animals for human use. Domestic species are raised for food, work, clothing, medicine, and many other uses. Domesticated plants and animals must be raised and cared for by humans. Domesticated species are not wild.

Plant Domestication

People first domesticated plants about 10,000 years ago, between the Tigris and Euphrates rivers in **Mesopotamia** (which includes the modern countries of Iran, Iraq, Turkey, and Syria). People collected and planted the seeds of wild plants. They made sure the plants had as much water as they needed to grow, and planted them in areas with the right amount of sun. Weeks or months later, when the plants blossomed, people harvested the food crops.

The first domesticated plants in Mesopotamia were **wheat**, **barley**, lentils, and types of peas. People in other parts of the world, including eastern Asia, parts of Africa, and parts of North and South America, also domesticated plants. Other plants that were cultivated by early civilizations included **rice** (in Asia) and potatoes (in South America).

Plants have not only been domesticated for food. **Cotton** plants were domesticated for **fiber**, which is used in cloth. Some flowers, such as tulips, were domesticated for **ornamental**, or decorative, reasons.

Animal Domestication

About the same time they domesticated plants, people in Mesopotamia began to **tame** animals for meat, milk, and hides. Hides, or the skins of animals, were used for clothing, **storage**, and to build tent shelters.

Goats were probably the first animals to be domesticated, followed closely by **sheep**. In Southeast Asia, chickens also were domesticated about 10,000 years ago. Later, people began domesticating larger animals, such as oxen or horses, for plowing and **transportation**. These are known as beasts of burden.

Domesticating animals can be difficult work. The easiest animals to domesticate are herbivores that **graze** on vegetation, because they are easiest to feed: They do not need humans to kill other animals to feed them, or to grow special crops. Cows, for instance, are easily domesticated. Herbivores that eat grains are more difficult to domesticate than herbivores that graze because grains are valuable and also need to be domesticated. Chickens are herbivores that eat seeds and **grain**.

Some animals domesticated for one purpose no longer serve that purpose. Some dogs were domesticated to assist people in hunting, for instance. There are hundreds of domestic **dog** species today. Many of them are still excellent hunters, but most are pets.

Throughout history, people have bred domesticated animals to promote certain traits. Domestic animals are chosen for their ability to **breed** in captivity and for their calm **temperament**. Their ability to **resist** disease and survive in difficult climates is also valuable.

Over time, these traits make domestic animals different from their wild ancestors. Dogs were probably domesticated from gray wolves. Today, dogs are a distinct species from gray wolves.

Domesticated animals can look very different from their wild ancestors. For example, early wild chickens weighed about two pounds. But over thousands of years of domestication, they have been bred to be larger. Larger chickens yield more meat. Today, domestic chickens weigh as much as 17 pounds. Wild chickens only hatched a small number of eggs once a year, while domestic chickens commonly lay 200 or more eggs each year.

Effects on Humans

Domesticating plants marked a major turning point for humans: the beginning of an agricultural way of life and more **permanent** civilizations. Humans no longer had to wander to **hunt** animals and gather plants for their food supplies.

Agriculture—the cultivating of domestic plants—allowed fewer people to provide more food. The stability that came with regular, **predictable** food production led to increased **population density**. People were able to do more than hunt for each day's food—they could **travel**, **trade**, and **communicate**. The world's first villages and cities were built near fields of domesticated plants.

Plant domestication also led to advances in **tool** production. The earliest farming tools were hand tools made from stone. People later developed **metal** farming tools, and eventually used plows pulled by domesticated animals to work fields.

VOCABULARY

Term	Part of Speech	Definition
adapt	<i>verb</i>	to adjust to new surroundings or a new situation.
agriculture	<i>noun</i>	the art and science of cultivating the land for growing crops (farming) or raising livestock (ranching).
ancestor	<i>noun</i>	organism from whom one is descended.
animal	<i>noun</i>	organisms that have a well-defined shape and limited growth, can move voluntarily, acquire food and digest it internally, and can respond rapidly to stimuli.
barley	<i>noun</i>	grass cultivated as a grain.
beast of burden	<i>noun</i>	animal used for carrying or pulling heavy loads.
break	<i>verb</i>	to tame a horse, or make it comfortable with a saddle and rider.
breed	<i>verb</i>	to produce offspring.
chicken	<i>noun</i>	domestic bird cultivated for meat, eggs, and feathers.
city	<i>noun</i>	large settlement with a high population density.
civilization	<i>noun</i>	complex way of life that developed as humans began to develop urban settlements.

climate	<i>noun</i>	all weather conditions for a given location over a period of time.
communicate	<i>verb</i>	to exchange knowledge, thoughts, or feelings.
cotton	<i>noun</i>	cloth made from fibers of the cotton plant.
cow	<i>noun</i>	large, domesticated mammal used for milk and meat.
cowboy	<i>noun</i>	person who herds cattle on a ranch, usually on a horse.
crop	<i>noun</i>	agricultural produce.
dog	<i>noun</i>	domestic animal related to the wolf.
domestication	<i>noun</i>	the process of adapting wild plants or animals for human use.
enormous	<i>adjective</i>	very large.
fiber	<i>noun</i>	long, thin, threadlike material produced by plants that aids digestive motion when consumed.
goat	<i>noun</i>	hoofed mammal domesticated for its milk, coat, and flesh.
grain	<i>noun</i>	harvested seed of such grasses as wheat, oats, and rice.
graze	<i>verb</i>	to feed on grass, usually over a wide pasture.
grey wolf	<i>noun</i>	mammal related to the dog.
harvest	<i>noun</i>	the gathering and collection of crops, including both plants and animals.
herbivore	<i>noun</i>	organism that eats mainly plants.
hide	<i>noun</i>	leather skin of an animal.
horse	<i>noun</i>	type of domesticated mammal used for riding and hauling.
hunt	<i>verb</i>	to pursue and kill an animal, usually for food.
lentil	<i>noun</i>	plant with small, flat seeds, native to Asia.
Mesopotamia	<i>noun</i>	area between the Tigris and Euphrates River in Iraq.
metal	<i>noun</i>	category of elements that are usually solid and shiny at room temperature.
ornamental	<i>adjective</i>	decorative or presented for beauty.
patience	<i>noun</i>	ability to deal with pain, misfortune, or annoyance without complaint.
pea	<i>noun</i>	plant with a pod bearing small, round seeds.
permanent	<i>adjective</i>	constant or lasting forever.
plant	<i>noun</i>	organism that produces its own food through photosynthesis and whose cells have walls.
plow	<i>noun, verb</i>	tool used for cutting, lifting, and turning the soil in preparation for planting.
population density	<i>noun</i>	the number of people living in a set area, such as a square mile.
potato	<i>noun</i>	plant native to the Americas.
predictable	<i>adjective</i>	regular or able to be forecasted.
process	<i>noun</i>	natural or human actions that create and change the Earth's features.

ranch	<i>noun</i>	large farm on which livestock are raised.
resist	<i>verb</i>	to oppose or confront.
rice	<i>noun</i>	grass cultivated for its seeds.
saddle	<i>noun</i>	seat for a rider on a horse.
seed	<i>noun</i>	part of a plant from which a new plant grows.
sheep	<i>noun</i>	type of mammal with thick, strong wool used for cloth.
shelter	<i>noun</i>	structure that protects people or other organisms from weather and other dangers.
stable	<i>adjective</i>	steady and reliable.
stable	<i>noun</i>	building where horses or other animals are kept.
storage	<i>noun</i>	space for keeping materials for use at a later time.
tame	<i>verb</i>	to domesticate or make useful for humans.
temperament	<i>noun</i>	traits or personality of an individual.
tool	<i>noun</i>	instrument used to help in the performance of a task.
trade	<i>noun</i>	buying, selling, or exchanging of goods and services.
trait	<i>noun</i>	characteristic or aspect.
transportation	<i>noun</i>	movement of people or goods from one place to another.
travel	<i>noun</i>	movement from one place to another.
tulip	<i>noun</i>	colorful, cup-shaped flower native to Asia.
village	<i>noun</i>	small human settlement usually found in a rural setting.
wheat	<i>noun</i>	most widely grown cereal in the world.
wild	<i>adjective</i>	living in nature, not tame.

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