

BORDER CROSSINGS

ORIGINS

BOTANY BAY LEARNING RESOURCES

Lima Beans



Left: Fresh Lima beans

https://commons.wikimedia.org/wiki/File:Lima_beans_fresh.jpg

Above: Christmas Lima beans

https://commons.wikimedia.org/wiki/File:Xmas_lima_beans.jpeg

What do Indigenous people call this plant?

In the indigenous language Nahuatl, 'exotl' is the name for green beans or Lima Beans. Lima beans were exported from Peru to the rest of the Americas and to Europe. The boxes of beans had the place of origin labelled as "Lima, Peru", and this is how the beans were named. Lima beans are also known as butter bean, sieva bean, double bean, Madagascar bean, chad bean, or wax bean.

When was this plant first documented?

The Moche people depicted lima beans in their decorated pots and vases. There are examples of art depicting lima beans with stripes and dots which some archaeologists believe was an early form of writing (or proto writing) which would reinforce the lima beans status as food for the wealthy elite in Moche society. Some other depictions of the lima beans have faces, arms and legs and are believed to be warriors or messengers.



Vessel Depicting the Assault of Bean Warriors
(The Art Inst. of Chicago) (100 BC - 500 AD)

<https://www.artic.edu/artworks/91555/vessel-depicting-the-assault-of-bean-warriors>

How many varieties of this plant are known?

It was believed that the Lima beans experienced two different domestications. The first domestication was traced back to 2000 BC, which produced the Lima type, or the large-seeded variety. The second domestication generated the Sieva type, which had the small seeds and dates back to 800 AD in Mesoamerica.

In 1943 in his book "Origin, dispersal, and variability of the Lima bean" W. W. Mackie theorised that Lima beans originated in the jungles of Guatemala and split into three separate branches: The Hopi (or Northern) branch, the Carib (or West Indies) branch and the Inca (or Southern) branch.

A more recent 2006 study (Genetic Structure of Lima Bean Landraces Grown in the Mayan Area) led by L. Camacho-Pérez found three types of Lima bean: the Andean (A) variety, Mesoamerican I (MI) variety and the Mesoamerican II (MII) variety, all of which contain wild and domesticated varieties.

Where and how was the plant originally grown and used?

Lima beans are grown from climbing plants and small bushes. The climbing plants would have been cultivated as part of the Three Sisters gardening technique. Because cleared land was not readily available, this efficient system allowed three crops to be grown together. Maize was planted in the middle of the plot, climbing beans were planted around the maize (which used the maize as support) and pumpkins (or squash) were planted around the edge. The taller maize and climbing beans offer shade to the low lying pumpkin vines. The beans fix nitrogen into the soil to feed the squash which become mulch to suppress weeds and shade the ground for the . The pumpkin vines also stop the ground from getting too dried out which means the maize crops will be larger. So, in combination, the plants can work together.

Lima beans are also grown from small bushes and would have been grown in a different way. The bushes produce beans more quickly than the climbing plants so they could be picked and used before the climbing beans were ready. Growing bushes and climbing plants simultaneously would provide a more consistent supply of beans.

How do Indigenous people relate to this plant?

The pre-Inca Moche people who lived in the north western coastal regions and valleys located in what is now known as Peru cultivated lima beans. Historians believed that lima beans were part of everyone's daily diet. However, Gail Ryser, an archaeology student studying lima beans believes that lima beans

were only consumed by the Moche ruling elite, religious leaders and high ranking military generals. It is also now believed that this was also the same in pre-Columbian Inca society.

The pottery depicting Lima beans would probably have been used by the ruling elite at ritual feasts or for display. We know from Spanish colonial documents that gourds were usually used for storage and as drinking vessels by the Indigenous peoples before colonisation. Therefore it would seem unlikely that these ornate vases were used by ordinary people.

When and how did this plant first come to Britain?

Spanish conquistadors obtained Lima beans from the Inca in the early 1500s and brought samples home to Europe. Traders also distributed them to Africa, Asia and the Philippines.

Special properties

Lima beans are a low-fat source of healthy complex carbs, fibre, and protein. Lima beans are rich in calcium, iron, magnesium, potassium, Vitamin A, Vitamin C, Vitamin K and zinc.

Fun facts

One cup or 120g of Lima beans contains roughly one quarter of your daily recommended iron. Most lima beans we see today are white or greenish, but the early Peruvian beans came in many colours, including red, purple, and brown.

The brightly coloured varieties contain more poisonous toxins than average beans and must be cooked properly.

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BOTANY BAY is a participation and learning project by Border Crossings' ORIGINS Festival, made possible with The National Lottery Heritage Fund. Thanks to National Lottery players, we have been able to engage five schools across the country with the Indigenous heritage of plants, gardens and food.



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