

6. AGRICULTURE IN THE SANGAM LITERATURE OF TAMIL NADU

During the Sangam period (200 BC to 100 AC), the main profession of the population of the Tamil region (now Tamil Nadu) was agriculture. The region extended from Cape Comorin in the South to Tirupati (in Andhra Pradesh) in the North, parts of present Kerala and Karnataka in the West. The methods of cultivation practised during this ancient period were revealed by several proverbs, village songs and literature of the period which are available even today. It is rather surprising that the people had good knowledge about agriculture (seed varieties, seed selection, seed storage, ploughing, manuring, irrigation, weeding, crop protection, pests, and botanical pesticides).

The Sangam period literature covers wide aspects of the people's life, such as epics, ethics, social life, and religion. Several poems composed during this period have been passed on from generation to generation through memorizing and chanting and later through manuscripts written on palmyra leaves. With the advent of paper and printing machinery, Shri Swaminatha Iyer who is popularly called "Tamill grandfather" painstakingly collected them and brought them out as printed books. Two poems of the Sangam period, viz., Tholkappiyam and Thirukural, gives us a vivid picture of agricultural practices in that period.

Tholkappiyam

The poem Tholkappiyam was written by the poet Tholkappier during 200 BC. It give descriptions of various agricultural aspects and these are enumerated below.

Land classification

Land was classified into four groups, viz., mullai (forest), Kurinji (hills), marudham (cultivable lands), and neithal (coastal areas).

Seasons

Six seasons are mentioned: early spring, late spring, cloudy, rainy, early winter, and late winter.

Cultivated crops

There are references to rice, millets, sugarcane, banana, cardamom, pepper, cotton, sesame, coconut, and nut. Farmers were aware that rice could be grown as rainfed crops. Banana and sugarcane were ratooned. Plants were considered as living beings and endowed with sensitivity. Tholkappier mentions about monocots and dicots 2700 years ago.

Importance of agriculture

Kings considered agricultural development as their primary duty. They felt that soil fertility and irrigation facilities should be the country's assets. Increased agricultural production was considered a yardstick of prosperity of the country. The stability of a kingdom was ensured not by army but by agriculture and sufficient crop production. Failure of monsoon rains and reduction in grain yield were attributed to the king's sins.

Irrigation

Kings dug tanks at locations where water flow from rains was plentiful. Semicircular bunds were raised adjacent to small hillocks and water reservoirs akin to present day dams were raised and constructed. Thus indicates awareness of water harvesting. The king Karikal Cholan brought 1000 slaves from a conquered country and raised the bunds of river Cauvery. The stone dam constructed across the river Cauvery centuries ago is considered a master piece of engineering even today. River water was diverted to tanks through channels. It is mentioned that irrigation should be given either in early morning or late evening and not during hot mid-day.

Agricultural implements

Buffaloes were used for ploughing with a wooden plough. Deep ploughing was considered superior to shallow ploughing. A labour saving tool called parambu was used for levelling paddy

fields. Tools such as amiry, keilar, and yettam were used to lift water from wells, tanks, and rivers. Tools called thattai and kavan were used for scaring birds in millet fields. Traps were used to catch wild boars in millet fields.

Seeds

Seed was selected from those earheads that first matured. The selected seed was stored for sowing only and never used as food grain. It was believed that such a diversion would destroy the family.

Crop rotation

Crop rotation was practised by raising black gram (urd) after rice. This indicates that farmers were aware of the benefits to the following rice crop which we now know is due to the nitrogen fixation in the root nodules of urd. They also practised mixed cropping; e.g., foxtail millet with lablab or cotton. Today we know that a balanced diet should have starch (supplied by rice and millets) and protein (supplied by lablab). In coconut and jack fruit plantations, ginger and turmeric were grown as intercrops

Threshing

A tool called senyam was used for harvesting rice. Threshing of rice was done by hand with the help of a buffalo (and in large holdings by elephants). Hand winnowing was done to remove chaff. One sixth of the produce was paid as tax to the king. Farm labourers were paid in kind.

The land was immediately ploughed after harvest or water was allowed to the field to facilitate rooting of stubbles. These agronomic practices are recommended even today based on scientific principles. Operations requiring hard work such as ploughing were done by men while women attended to light work such as transplanting, weeding, bird scaring, harvesting, and winnowing.

In Kandapuranam, it is mentioned that Valli, daughter of a king, was sent for bird scaring in millet fields where Lord Muruga (son of Lord Shiva) courted her and married.

Marketing

Products were exchanged by weight. In Madurai (the headquarters of Sangam poets), there was a food grain bazaar where 18 kinds of cereals, millets, and pulses were sold. Each shop had a banner hoisted high so that it could be seen from a distance indicating that the grains are sold here. What a novel method instead of neon signals and name boards! Customs duty was collected on imports and exports.

Thirukural

The poem was composed by a gifted poet named Thiruvalluvar during 70 BC. It consists of 1330 couplets (133 topics each having 10 couplets). It is the pride of Sangam Tamil literature and its greatness can be realized from the fact that it has been translated into English and several other languages. It devotes one topic (10 couplets) for agriculture under the chapter politics. This clearly reveals the recognition that the prime duty of a king is to ensure agricultural production. Even today we know that Government fall when people are starved. The French revolution 200 years ago can be traced to food shortage leading to the fall of Louis XVI. One of the causes of defeat of Germany in World War I was potato shortage due to the late blight disease of potato. When the available copper was diverted to meet the army's requirements, production of copper sulphate, lime and water) preparation was affected and late blight could not be controlled. The available potato was sent to soldiers fighting in the front. Hence, potato was not available to families of soldiers. This severely affected the morale of German soldiers. Horsfall and Cooling jocularly mention the story in the following lines:

For want of a nail, the shoe was lost.

For want of shoe, the horse was lost.

For want of horse, the soldier was lost.

For want of soldier, the war was lost.

In India also, several state governments have fallen when they failed to ensure adequate supply of food grains through public distribution system.

The importance of agriculture and related aspects are indicated in the following couplets and descriptions.

Importance of agriculture

“World spins around many industries. All such industries spin around agriculture.”

“Farmers alone live an independent life; others worship them and are second to them.”

“If farmers stop cultivation, even rishis (sages) cannot survive.”

Ploughing

“If land is ploughed deep and soil allowed to dry to one fourth weight, even manuring is not necessary.”

Manuring

“Manuring is more important than ploughing: crop protection is more important than irrigation.” Green leaf manuring, farmyard manure, and sheep penning were in vogue though farmers were not aware that they supplied nitrogen to the crop. One is amazed at the depth of agricultural knowledge our ancestors possessed.

Irrigation

Bed method was followed as an efficient method of water management.

Weeding

“Just like the farmer pulls out weeds with the root system, so the king should eliminate rowdies from society.”

Care of crops

“If the farmer does not regularly visit his field, the crop will not grow.”

The foregoing account of agriculture from ancient Tamil literature clearly indicates the agricultural knowledge of our forefathers. By following their footsteps, the present generation of agricultural scientists have used the advanced technologies and have tried to stabilize agricultural production in our country to meet our food requirements.