

Duck Penning in Harvested Rice Fields Benefits the Farmers

D Udhaya Nandhini* and S Venkatesan

Centre of Excellence in Sustaining Soil Health, Anbil Dharmalingam Agriculture College and Research Institute, Trichy-27, Tamil Nadu Agricultural University, India

***Corresponding Author:** D Udhaya Nandhini, Centre of Excellence in Sustaining Soil Health, Anbil Dharmalingam Agriculture College and Research Institute, Trichy-27, Tamil Nadu Agricultural University, India.

Received: October 01, 2022; **Published:** October 06, 2022

Duck farming is one of the ITK practices for enhancing soil fertility. Duck penning is a fascinating cooperative effort between duck herders and farmers. Duck penning is usually done between March and May and can be adopted in the harvested paddy fields. Penning is a most significant traditional that is used at least once in two years by more than 57% of farmers. Ducks are camped out on the harvested fields for days at a time during this practise. Although the Great Poet “Thiruvalluvar” originally mentioned the usage of animal manure in his poem “Thirukkural” in 70 BC along with green manuring and sheep penning. The herders pen their flock in the field during day time. The farmer’s land is covered in the flock’s faeces and urine. By using a blade harrow, cultivator, or cultivator, rich manure is incorporated into the surface of the soil.

Case study of the Cauvery delta region of Tamil Nadu, India

Farmers are showing interest towards the duck penning in their harvested rice fields. In the Cauvery deltaic regions, land is left fallow for three months from March to June following the harvest of Kuruvai (in July), Samba (in August), and Thaladi (in September) rice.

By that time migratory duck owners of Vellore district prefer to camp in the Cauvery deltaic regions. Ducks were brought to the Cauvery delta region from Vellore district of Tamil Nadu in specially adapted vehicles, nomadic families transport their duck herds from one area to another, along roadways that are easily accessible and comfortable. They construct a shed out of a fishnet, poles, twigs, and ropes. The same materials were reused in several locations and at various times. To safeguard their ducks from predators and thievery, the nomads halt with the ducks at night by erecting temporary shelters made of tarpaulin, gunny sacks, coconut or palm leaves.

Farmers commonly count the number of ducks in a flock in dozen units. The typical unit size is 12 dozens, with a range of five to 25 dozens, with a drake-to-duck ratio of 1:40 and reared by well-trained farmers using a range management system. A flock of 800 - 1500 ducks can be spotted in the areas occasionally. The number of drakes ranges from 40 to 50. During penning, dogs protect the duck at night. When the ducks graze in the fields, these dogs patrol a one-kilometer radius. Since the beginning, the dogs have lived with the duck. Ducks will be allowed to graze in the fields for 10 - 20 days.

Penning ducks are fed after-harvest paddy rice fields that have a radius of three to five kilometres and are available for grazing throughout the day for seven to eight hours. The adult ducks were mostly fed on the harvested rice fields for foraging grains, larvae of insects, weeds, herbs and grasses. The ducks are not supplemented with concentrate throughout the penning stage. Adult ducks rely on ponds and water canals to catch snails and small fish.

Most duck herders enter into a goodwill contract with local village heads, agreeing that no new flocks will be permitted to enter for grazing and penning in that village. This contract existed for many years. The duck herders in-turn sponsored some programs associated

with village temple festivals. It is customary to pay the shepherds during the penning in cash, kind, or a combination of both. The farmer whose field is being used for penning would provide food twice daily. Shepherds prepare their own meals.

Benefits

- It preys on the pests, insects and weeds, through this the population of harmful insects are reduced and the loss due to this pest are declined in the coming season.
- It maintains the genetic purity by picking the fallen paddy seeds between the seasons.
- Ducks waste adds manure to the field.



Figure 1: Duck camping the rice fields that are ready for field operations.



Figure 2: Duck penning in post harvested rice fields.

Volume 7 Issue 11 November 2022

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