

Model :Public Private partnership for fodder seed production

Background

ICAR-Krishi Vigyan Kendra at Namakkal, working under the administrative control of the Tamil Nadu Veterinary and Animal Sciences University, has introduced a Public Private Partnership (PPP) project for fodder seed production in 2011 to make green fodder seeds available to livestock farmers. Accordingly, a memorandum was signed between the farmer producers and the KVK for growing fodder for quality seed production.

KVK, Namakkal Scientists facilitating fodder seed production in farmer's



fields

The process followed

The fodder seed production was initiated at KVK in 2011 to supply seeds to the State Department of Animal Husbandry, Tamil Nadu, under State Fodder Development Scheme. To start with, the following varieties of fodder were tested initially in on-farm trials and frontline demonstrations in the district.

- Grass type fodder: CO4, CO5 and Guinea grass
- Grain type fodder: Fodder maize (African Tall), Cofs29 / Cofs31 fodder sorghum
- Legume fodder: Hedge Lucerne (Co1), fodder cowpea (Co8 / Co9)
- Tree fodder: sesbania and subabul
- Fodder for rain fed pasture land: cenchrus and stylohamata

The yield parameters were studied. Based on the results, on- and off-campus training programmes were conducted to educate farmers about cultivation of green fodder for fodder as well as seed production. The successful outcome of these programmes were shared with other farmers through different activities conducted by KVK, Namakkal.

Farmer selection

With increasing awareness about fodder seed production, many farmers got interested in it and they volunteered to initiate the activity. Based on their land availability, irrigation facilities, soil type and their interest, the KVK selected farmers who desired to grow fodder crops like multi-cut fodder sorghum Cofs 29, Cofs 31, Desmanthus, fodder cowpea, African tall maize, sesbania, cenchrus, stylo, Lucerne and subabul and grass type fodder crops like Co4 and guinea grass for seeds/setts. KVK staff also visited the farmer's fields before the farmers start cultivating fodder.

Establishment of MoU

The KVK signed a Memorandum of Understanding (MoU) with the farmers. The respective role of KVK and the farmers, area under cultivation, type of fodder to be cultivated, the quality of seeds to be given and the procurement price are mentioned in the MoU. Training programmes on green fodder cultivation and seed production were conducted for the selected farmers and foundation seeds of different fodder varieties purchased from Tamil Nadu Agriculture University were supplied to these farmers.



Agathi fodder seeds being dried in KVK premises

Regular visits

Periodical visits were made by the KVK scientists to the fodder fields to monitor plant growth, seed setting, harvesting and processing, and to offer technical guidance to seed

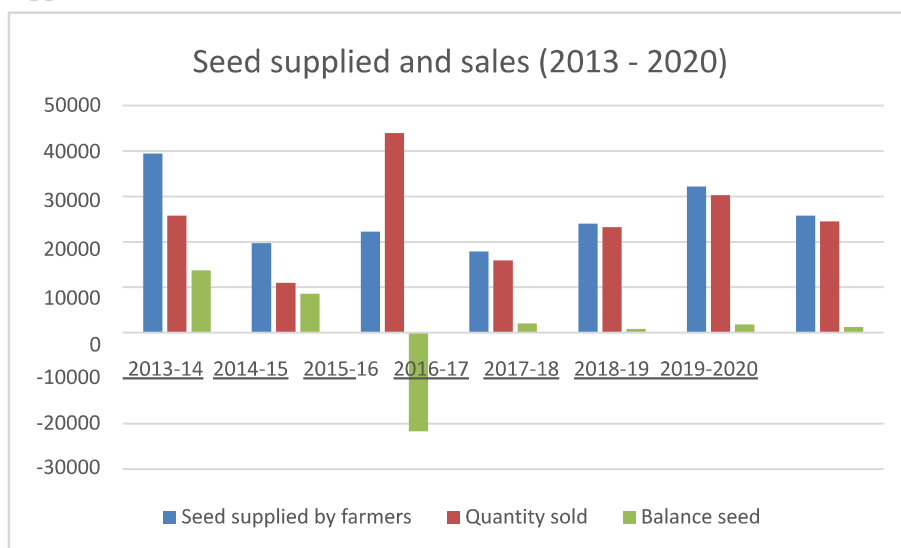
producers.

Seed Procurement and sale

As per the MoU, the harvested good quality seeds collected from the farmers were subjected to physical purity and germination tests. The seed lots with more than 80% germination were then taken for further processing. The poor quality seeds were returned to the farmers. After good quality seeds were taken, cleaning and packing was done for further dispatch to places of demand. The fodder seeds were also kept for sale at the KVK sales counter. Farmers were paid within three months from the date of germination result.

Progress of the PPP project

The farmers started to produce fodder seeds since 2011. The enrolment was low initially and the quantity supplied was only around 1500 kg (2011) and 6500 kg (2012). The scheme became more popular by 2012 when the enrolment increased and the production rose to 39 tons (Table 1). Later, the production was streamlined by allotting specific varieties to farmers and depending on the demand created by different schemes and institutions that procured the fodder seeds. On average, 20 - 25 tons of seeds in total was procured by KVK from the suppliers.



Seed Supplied and sold during (2013-2020)

Between 2011 and March 2020, about 1,86,221 kg fodder seeds were procured from 18–61 farmers every year and 1,51,248 farmers were benefitted with the supply of quality fodder seed. Of the total revenue generated, 15% has been kept as margin money to meet expenditure for packing, transport, labour charge and other contingencies in the scheme. Till date, 204 farmers were enrolled under this MoU and around 50–60 farmers supply seeds every year based on the rainfall and availability of water. Totally, 376 acres are being maintained for fodder seed production by these farmers out of a total 1199 acres. The farmers also use the fodder

to feed their animals alongside production of seeds.

Factors governing success of the PPP model

By converting the land for fodder seed production, majority of the seed producing farmers felt that the income generation through this activity is twice more than income produced in other agricultural crops. Majority of the farmers maintain multi cut variety sorghum in rainfed condition and it yields 300kg seeds approximately in one acre that fetches Rs.1,02,000 whereas in irrigated conditions the farmers get 500-600kgs and receive Rs.2,04,000 from one acre. Fodder production fetches more profit to farmers which motivates them to continue the operation. Some farmers produce all the four type of fodder seeds (grass, grain, leguminous and tree fodder). Producing seeds not only made them successful, but they became self-sustained in green fodder production, which could then be fed to their animals that results in reduced feeding and high production. Also, they created awareness among other farmers about green fodder production and the benefits of feeding these to dairy cattle and small ruminants. Apart from farmers in Namakkal, farmers from other districts including Erode, Dharmapuri, Thoothukudi, Krishnagiri, Trichy, Dindigul and Karur in Tamil Nadu have also become members of the scheme.