

LIVELIHOOD PROMOTION OF TRIBAL FAMILY THROUGH GROUP APPROACH

An Innovative Approach by Myrada KVK in Establishment of Small Orchard Development and Beans as Intercropping

The CMRCs in MYRADA KVK, Erode are actively promotes the cultivation of French Beans as inter crop with small orchard for tribal families and also for small and marginal farmers. The crop has been chosen based on the technical advice from KVK for three reasons;

1. Short duration crop
2. Highly remunerative
3. Leguminous crop (fixing nitrogen from atmosphere)

The year 2012-13, during Kharif and Rabi season, the quality seeds (Arka anoop and Arka sharth) have been procured through CMRCs and supplied to 540 farmers with the help of CBOs. The following table indicates CMRC wise seed procurement.

Sl.No.	Name of the CMRC	No. of Kgs Procured
1	Gnanodaya CMRC, Arepalayam	800 kg
2	Sarvodaya CMRC, Germalam	2200 kg
3	Sandhanathendral CMRC, Kadambur	6200 kg
4	Kurinji CMRC, Bargur	1600 kg
	Total	10,800 kg

Last year alone around 11 tons of seeds procured by farmers through CMRC.

Rainfed condition: It was recorded that an average yield was 2112.50 kg/acre from rainfed condition and per acre (Gross income sum of Rs.58,093 - Gross expenditure sum of Rs.20,940) therefore, Rs.39,153 is realized as Net income.

Irrigated condition: It was recorded that an average yield was 3507kg/acre from irrigated condition and per acre (Gross income sum of Rs.1,05,210 – Gross expenditure sum of Rs.28,000) therefore, Rs.77,210 is realized as Net income.

The CMRC wise break up on cultivation of beans crop is given as under;

Beans cultivation promoted by CMRCs in Erode District

Rainfed Beans

No. of Acres : 40

Arepalayam

No. of farmers: 40

Yield range from 2 - 3 picking	No. of Farmers	Average yield(Kg)	Rate/Kg (Rs)	Gross income (Rs)	Total expenditure (Rs)	Net income (Rs)	Total income (Rs)	Total yield (Kg)
1600-1800	11	1700	30.00	51000.00	20380.00	30620.00	336820.00	18700
1800-2000	25	1900	30.00	57000.00	20380.00	36620.00	915500.00	47500
2000-2200	4	2100	30.00	63000.00	20380.00	42620.00	170480.00	8400
							1422800.00	74600

Irrigated Beans

Kadambur

No. of Acres : 310

No. of Farmers: 310

Yield range from 3 - 4 picking	No. of Farmers	Average yield(Kg)	Rate/Kg (Rs)	Gross income (Rs)	Total expenditure (Rs)	Net income (Rs)	Total income (Rs)	Total yield (Kg)
3700-3900	65	3800	30.00	114000.00	27500.00	86500.00	951500.00	247000
3900-4100	195	4000	30.00	120000.00	27500.00	92500.00	2312500.00	780000
4100-4300	50	4200	30.00	126000.00	27500.00	98500.00	394000.00	210000
							3658000.00	1237000

Irrigated Beans

Germalam

No. of Acres : 110

No of farmers : 110

Yield range from 3 - 4 picking	No. of Farmers	Average yield(Kg)	Rate/Kg (Rs)	Gross income (Rs)	Total expenditure (Rs)	Net income (Rs)	Total income (Rs)	Total yield (Kg)
1500-2000	55	1750	30.00	52500.00	22500.00	30000.00	330000.00	96250
2100-3100	40	2600	30.00	78000.00	22500.00	55500.00	1387500.00	104000
3100-4100	10	3600	30.00	108000.00	22500.00	85500.00	342000.00	36000
							2059500.00	236250

Rainfed Beans

Bargur

No. of Acres : 80

No of farmers : 80

Yield range from 2 - 3 picking	No. of Farmers	Average yield(Kg)	Rate/Kg (Rs)	Gross income (Rs)	Total expenditure (Rs)	Net income (Rs)	Total income (Rs)	Total yield (Kg)
1500-1750	45	1625	25.00	40625.00	21500.00	19125.00	210375.00	73125
1750-2000	27	1875	25.00	46875.00	21500.00	25375.00	634375.00	50625
2000- 2250	8	2125	25.00	53125.00	21500.00	31625.00	126500.00	17000
							971250.00	140750



Dr.K.D.Kokate, DDG (Agrl.Extension) ICAR, New Delhi visits field and interact with tribal group

Package of practices for cultivation of Beans Crop

French bean (*Phaseolus vulgaris* L) Fabaceae

Varieties: YCD 1, Ooty 1, Ooty (FB) 2, Arka Komal (Sel.9), Premier, Arka Bold, Arka Sampoorna and Arka Karthik are popular varieties.

Plains: Arka Komal, Premier, (Sel.9), Arka Suvidha, Arka Anoop, Arka Samrudhi, Arka Suman are under cultivation.

Soil: A well drained loamy soil with pH range of 5.5-6.0 with cool climate is suited for French bean cultivation.

Season

Hills: February –March

Plains: October- November

Seed rate: About 80 kg/ha for hills and 50 kg/ha for plains are required

Seed treatment: Treat the seeds with Trichoderma 4 g/kg or Thiram or Carbandazim @ 2 g/kg of seed 24 hours before sowing to control fungal diseases. If the crop is raised for the first time it should be treated with Rhizobium as in cluster beans.

Preparation of field:

Hills: Dig the soil thoroughly and incorporate FYM and form beds of convenient size.

Plains: After two ploughing, form ridges and furrows.

Sowing: In hills, sow the seeds (2 seeds/hill) in lines or in beds at a spacing of 30 x 15 cm. In plains, sow the seeds (2 seeds/hill) in the sides of the ridges at a spacing of 45 x 30 cm.

Irrigation: Irrigation is done immediately after sowing and again on third day and thereafter once in a week.

Application of fertilizers: Apply FYM 25 t/ha during last ploughing. 90 kg of N and P 125 kg of P/ha should be applied on one side of the ridges. For rainfed conditions of Shevaroy hills, apply as a basal dose of 62.5 kg/ha of Phosphorous as super phosphate and with another half of 62.5 kg/ha Phosphorous as FYM enriched super phosphate.

After cultivation: Weeding should be given 20 – 25 days and 40 – 45 days after sowing. The crop should be earthed up after each weeding.

Plant protection

Pests

- **Aphids and thrips:** Spray Methyl demeton 25 EC or Dimethoate 30 EC each at 1 ml/lit. In hills, glass house white fly occurs during May – August. Place 20 yellow sticky traps coated with castor oil in polythene sheet to attract the white flies.
- **Pod borer:** Pod borer can be controlled by spraying Carbaryl 50 WP thrice at fortnightly intervals at the rate of 2 g/lit. Dust with Carbaryl 10 D at the rate of 2.5 kg/ha
- **Ash weevil:** Spray phosalone 35 EC @ 1.5 ml/lit.
- **Whitefly:** Place 20 yellow sticky traps coated with castor oil in polythene sheet to attract the white flies.

Diseases:

- **Powdery mildew:** Powdery mildew can be controlled by spraying Wettable sulphur at 2 g/lit or dust Sulphur at 25 kg/ha.
- **Rust:** Rust can be controlled by dusting Sulphur at 25 kg/ha.
- **Anthracoze:** Anthracnose can be controlled by spraying Mancozeb at 2 g/lit or Carbendazim 1 g/lit or Chlorothalonil 2 g/lit.
- **Leaf spot:** Leaf spot can be controlled by spraying Mancozeb 2 g/lit.
- **Root rot:** Root rot can be controlled by drenching with Carbendazim 1 g/lit in the root zone.

Yield:

8 - 10 t/ha of green pods in 90 - 100 days.
