



PROPOSAL
for
INTEGRATED FARMING SYSTEM
DEMONSTRATION UNIT (IFS)
at
KVK, MORENA

Submitted to
Director, ATARI, Zone-VII (ICAR)

Submitted By
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PROPOSAL OF INTEGRATED FARMING SYSTEM DEMONSTRATION UNIT

1. Introduction

KVK, Morena is carrying out mandated activities as per the specific needs of the farmers of the district in the different farming system. KVK has excelled in implementation and adoption of certain technological interventions to solve specific problem of farming community which are: Integrated farming system, crop diversification, introduction of high value crops, promotion of spices and hi-tech horticulture resource conservation technology, live stock up gradation and management; promotion of rain water conservation and irrigation management, improvement of soil fertility and promotion of bee keeping and broiler poultry farming as agri-enterprises to enhanced farm family income.

KVK, Morena may be treated as specialized KVK which is an institution where multi disciplinary team of scientist work together in convergence by using best technological interventions around felt needs of the farming community of the district. Looking to the operational land holding pattern 62.32 percent of farm families belongs to small farmers (1 to 2 ha) category in the district the income is low. If various components suited under farming systems prevailing in the majority part of the district the income of the community may be increased Hence IFS model may be proposed in specialized KVK.

2. Justification

In Morena district about 62.32%, 22.96%, 12.57% population is small, marginal and semi medium farmers respectively. Their livelihood depends on Agriculture, livestock, and vegetable cultivation. Most of the farmers are having small and marginal land holding, poor recourses, poor management of livestock. Consequently they are getting low income per capita.

Looking to the climate variations the productivity of crops is decreasing due to reliance upon a few crops in combination with a crops like Pearlmillet, sesame, Green gram, Black Gram, mustard, gram and wheat etc. along with poor livestock husbandry practices. The *Integrated Farming System components* suited for minimizing the risk increasing production and profit along with improving the utilization of organic waste and crop residue.

3. Details of Proposed IFS demonstration unit

Component of IFS Model (1.0 ha)

Field Crop + Horticultural crops +Bee keeping + Goat Farming + Broiler Poultry +Fodder +
Mushroom + Vermicomposting

S. No.	Item	Area (m ²)	No/Unit
1	RCT in Pearlmillet, clusterbean, Soybean, Pigeon pea, Black gram, Green Gram, Wheat, Gram	3000	1
2 (a)	Tomato, Chili, Cucumber, brinjal, Potato, Onion etc. (Mulching, net house, Drip system)	1000	1
2 (b)	High density Orchard – Ber. Guava, Drumstick, Aonla, lime etc.	2000	1
2 ©	Floriculture	1000	1
3	Goatery	900	1
4	Beekeeping	1400	1
5	Broiler Poultry	300	1
6	Vericomposting	200	1
7	Mushroom	200	1
	TOTAL	10000	09

3. How it will be utilized for benefit of farming community

The proposed IFS model at KVK, Morena will create awareness among the farming community & they get knowledge, ideas & skill to start systematic plan at their fields for better resource utilization resulting to get more income per Capita and sustainable agriculture. They can also minimize the risk, increasing production & profit along with improving the utilization of organic wastes & crop residues and ensure optimum utilization of resources through a combination of crop, horticulture, livestock, beekeeping etc. finally they may get a ensure livelihood security, optimum use of resources, maintained soil fertility and check degradation of soil.

4. Details of the budget requirement:

S. No.	Particulars	Specifications	No. of units	Amount required (Rs. In lakhs)
1	RCT in Pearlmillet, clusterbean, Soybean, Pigeon pea, Black gram, Green Gram, Wheat, Gram	0.3ha	01	0.25
2	High density orchards with drip irrigation	0.2 ha	01	1.0
3	Tomato, Chili, Cucumber, brinjal, Potato, Onion etc. (Mulching, net house, Drip system)	0.1ha	01	1.0
4	Floriculture	0.1ha	01	0.25
5	Goatery			
	Shed (@ Rs 600/Sq feet)	15' x 20'	01	2.0
	Goats	Barbari/Jamunapari /Sirohi	10	1.0
	Miscellaneous (Feed + Feeders + Waterers + Medicine)			0.20
6	broiler poultry unit (For 1000 birds)	20' x 50'	01	2.0
7	Bee keeping (100 bee colonies)	100 bee box with colony)	01	4.0
8	Vermicomposting	0.02ha	01	0.50
9	Renovation of existing mushroom unit	-	01	0.50
10	Miscellaneous (Implements & tools, staking material, budding & grafting materials etc.)	-	-	0.30
Total - Thirteen lakh Rupees only				13.0

5. Expected outcome (After 2 years)

Components wise production	Area/No (ha)	Gross return (Rs. In lakhs)
Agriculture produce	0.300	1.50
Horticulture produce	0.400	2.00
Goat production	0.090	4.0
Poultry birds	0.030	1.30
Bee keeping	0.140	4.00
Vermicomposting	0.020	0.60
Mushroom	0.020	0.40
TOTAL	1.000	13.80

- Secured livelihood security
- Per capita more income & yield
- Optimum utilization of resources through a combination of crops, horticulture, livestock & beekeeping
- Soil fertility Improvement
- Minimizing the risk against biotic & abiotic factors
- Promotion of Organic farming

6. Components of IFS Model

(1) Integration of cropping

Crop – Pearl millet, pigeonpea, Soybean, clusterbean, Green gram, Black gram, Wheat, Gram & mustard

(2) Integration of Horticulture

(a) Vegetable cultivation – on mulching, Drip irrigation (Tomato, Chili, Onion, Cucumber, potato etc.)

(b) Fruits – High density orchards, Plantation of apple, Ber, Drumstick, Guava, Lime, Aonla etc.

(c) Floriculture- Marigold, Gladiolus, Rose etc.

(3) Livestock

- Goatery
- Jamunapari
- Serohi
- Barbari

(4) Poultry – Commercial Broiler poultry birds

(5) Beekeeping – *Apis mellifera* (Honey production & pollination)

(6) Vermicomposting- *Eisenia foetida* (worms and compost)

(7) *Mushroom-Oster and Button*

(6) Fodder & Azola production for goatry

Senior scientist and Head

KVK, Morena

Proposed lay out & sketch of IFS model at KVK, Morena (MP)

