

Action Plan Meeting of ICAR-KVK, Haveri



Action Plan (2019-20)

On
25- 27 th, April-2019
At

DE Conference Hall,UAS,Dharwad

Presented
by

Dr. Ashoka P

**Senior Scientist & Head
Krishi Vigyan Kendra, Hanumanamatti**

Krishi Vigyan Kendra, Hanumanamatti (Haveri)

District Features

Agro-climatic zone name	Northern transitional zone (Zone-VIII) Haveri, Byadgi, Hirekerur, Ranebennur, Savanur, Shiggaon, Rattihalli Hilly zone (Zone-IX) Hangal
No. of Taluks	08
No. of Villages	698
No. of Holdings	2,60,283
Gross cropped area (Ha)	4,85,000
Area under irrigation (%)	14
Sources of irrigation	<ul style="list-style-type: none">• Tanks• Bore wells• Canals
Major Soil Types	<ul style="list-style-type: none">• Red loamy soil• Medium deep black soil• Deep Black soil• Shallow Red soil

KVK Manpower and facilities

No. of SMSs in position	05
No. of Prog. Assistants in position	03
KVK Farm details	
Total Area (Ha)	20.00
Cultivated Area (Ha)	17.80
Demo Unit details	<p>1. Dairy (HF x Deoni cross breed) : 24 Animals</p> <p>2. Fodder bank (0.40 ha) : 11 varieties (Co-4,Co-3, DHN-6,NB-21, BH-18, APBN-1, IGFRI-3, IGFRI-7, Guinea grass),COFS—29 perennial sorghum,Napier grass</p> <p>3. Millet cafeteria (Proso, Foxtail, Kodo & Little)</p> <p>4. Sheep Unit (Decani & Rambullet) : 37 No's</p>
Production Units	<p>1. Vermicompost : 2 Unit (20 pits)</p> <p>2. Dairy : 07 (Milch animals) (Average milk production: 7.5 lt/animal/day)</p> <p>3. Trichoderma : 1 Unit</p>
Laboratories details	<p>1. Soil (N,P,K, EC & pH, Micro nutrients) & water testing (EC & pH)</p> <p>2. Bio control Lab (Trichoderma)</p>

STAFF POSITION

	Sr. Scientist & Head	Scientist	Prog. Asst.	Admn.	Auxillary	Supporting	Total
Sanctioned	1	6	3	2	2	2	16
Filled	1	5	2	1	1	1	11
Vacant	0	1	1	1	1	1	05

Sl. No.	Designation	Name of the incumbent	Remarks
1	Sr. Scientist & Head	Dr. P. Ashoka	
2	Scientist (Home Science)	-	Vacant
3	Scientist (Ag. Ento.)	Dr. K. P. Gunndannavar	
4	Scientist (Horticulture)	Mr. Harish D. K	
5	Scientist (Animal Science)	Dr. Venkanna Balaganur	
6	Scientist (Agronomy)	Dr. Shivamuruty D	
7	Scientist (Soil Science)	Dr. Kumara B H	
8	Programme Assistant (Lab Tech.)	Mr. Kishna Naik L	
9	Programme Assistant (Computer)	-	Vacant
10	Farm Manager	Mr.Kallesh D T	Study leave
11	Assistant	-	Vacant
12	Jr. Stenographer	Shivappa Hanni	
13	Driver (LV)	Santosh Naik	
14	Driver (HV)	Vacant	Vacant
15	Supporting staff	K. B. Belakeri	
16	Supporting staff	-	Vacant

Agro-climatic Zones of the District

Northern transitional zone (Zone-VIII)

- Haveri
- Byadgi
- Hirekerur
- Ranebennur
- Savanur
- Shiggaon
- Rattihalli

•Rainfall : 618.4 to 1303.2 mm

•Soils :
Shallow to medium black clay soils and red sandy loamy soils in equal proportion.

•Major crops :
Maize, Bt-cotton , Redgram, Greengram, Rabi Jowar, Millets, Paddy, arecanut based mixed crops of spices & Sericulture

Agro-Climatic Zones

Hilly zone (Zone-IX)

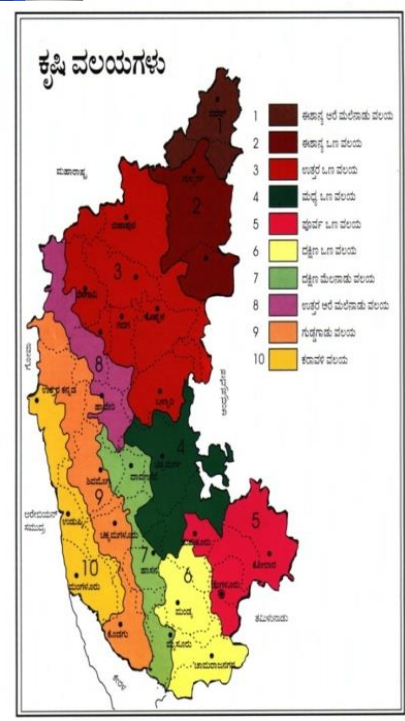
Hanagalkote

Characteristics

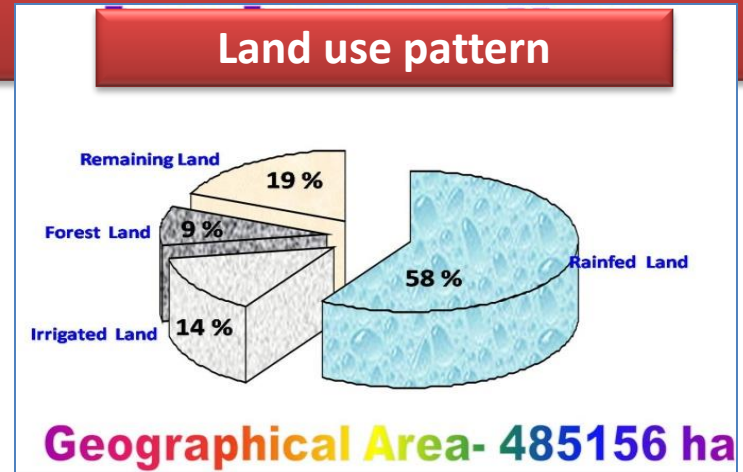
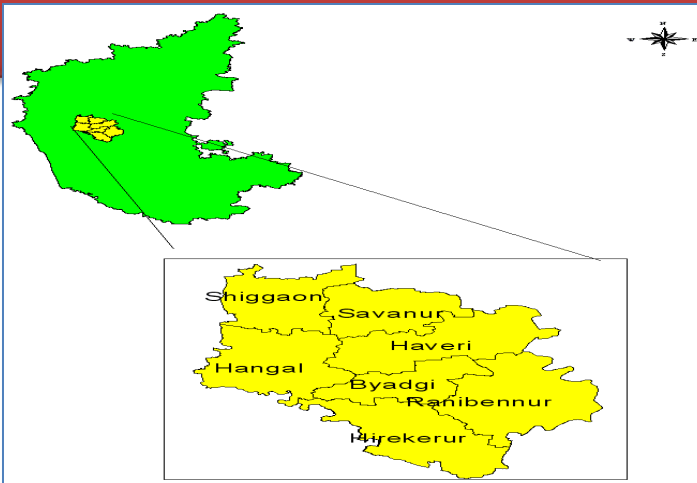
•Rainfall :
904.4 to 3695.1

•Soils :
Red clay loamy soils in major areas.

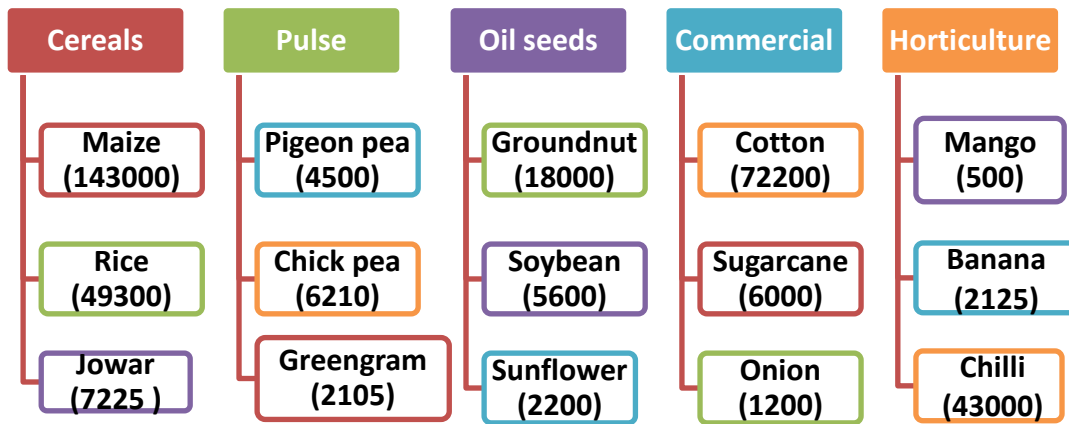
•Major crops : paddy, groundnut, pulses and arecanut & coconut based cropping system



Haveri District Agriculture Profile



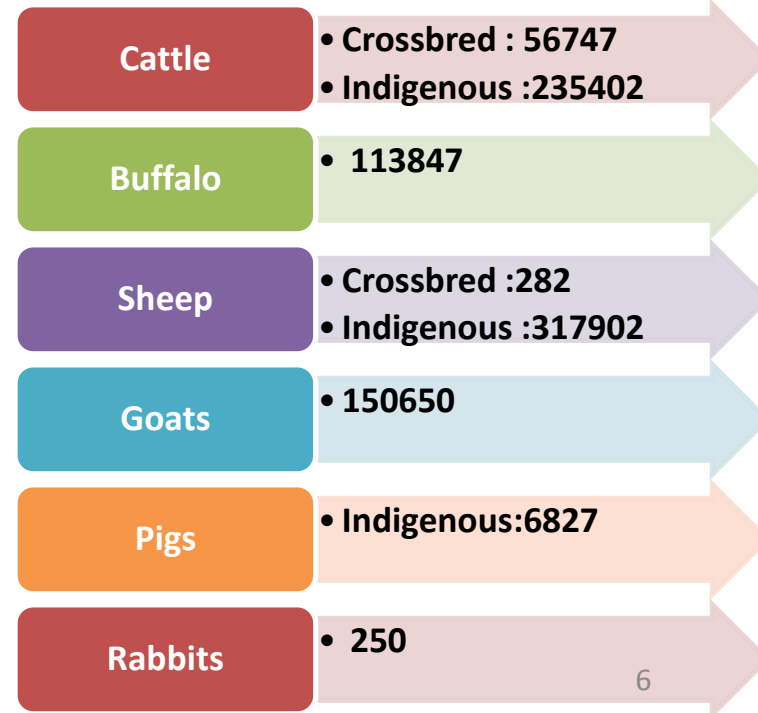
Major Crops (ha)



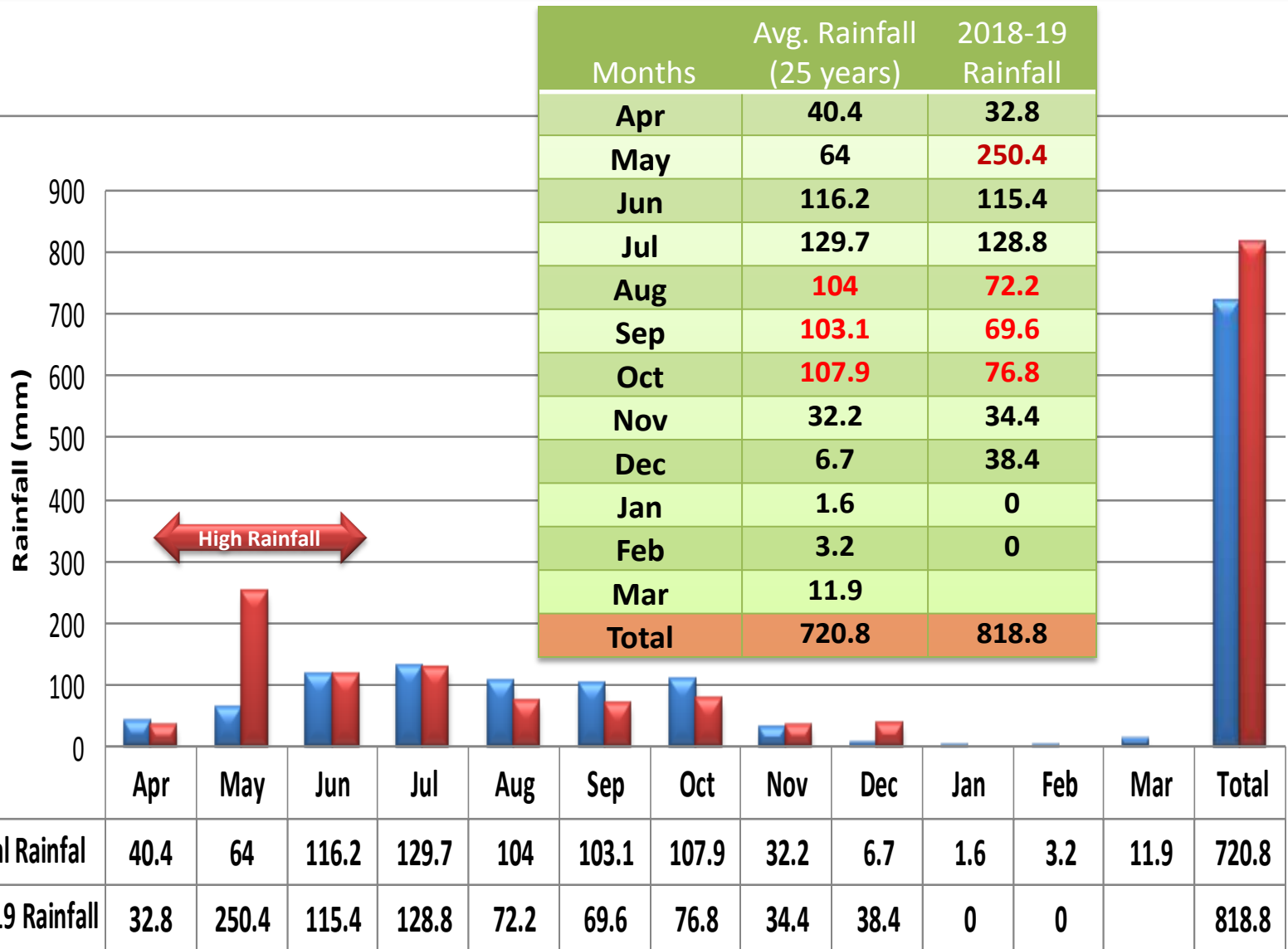
Rivers

- Tungabhadra (Ranebennur, Byadgi)
- **Kumudwati (Hirekerur)**
- Varada (Haveri)
- **Dharma (Hangal)**

No. of Population of Livestock



Rainfall details of Haveri district 2018-19



Distribution of land holdings in Haveri district

Sl. No	Description	Area (ha)	Number of land holdings
1	Marginal farmers (< 1ha)	35506	64297
2	Small farmers (1-2ha)	104261	72117
3	Medium –large farmers (>2ha)	241900	64008
Total number of farmers		381667	200422

Area, production, productivity, of major crops cultivation in Haveri district

(DAG, 2015-16)

Sl.No	Crop	Area (ha)	Production (t)	Productivity (kg/ha)
1	Maize	170696	265188	1609
2	<i>Rabi</i> sorghum	35186	26027	733
3	Cotton	84424	129473	353
4	Paddy	44968	57599	1196
5	Sugarcane	14826	372026	69 (t)
6	Groundnut	17789	13398	611
7	Horse gram	4275	951	221

Production and Productivity of Livestock and Poultry in Haveri district

Category	Population	Production	Productivity
Cattle			
Crossbred	60	53000	5.728/day
<i>Indigenous</i>	225	35000	2.335/day
Buffalo	98	42000	2.508/day
Sheep			
Crossbred			
<i>Indigenous</i>	265700	-	-
Goats	150500	-	-
Poultry birds (egg production)	515300	-	-



**Doubling the farmers income in
Haveri District-2022**

Based on area & production:

- **Field crops, Horticulture, and cash crops taken in to consideration**
- **In livestock- fodder, cattle, buffalo, poultry and fishery production is taken into consideration**

To prepare DFI documents

- **Information collected from**
 - ✓ **KVK Scientists field visits and interaction**
 - ✓ **Officials of line departments and other related institutes**
 - ✓ **Progressive farmers opinion**
 - ✓ **District statistics**
 - ✓ **NGOs**

At Cluster and village level

- **Documented major crops/ enterprise practiced**
- **Prepared list of problems related to soil to post harvest**
- **Enlisted possible solutions/ technological solution**
- **And categorized them in based on DFI themes**

- **What is to be doubled**

- Income of farmers

- Not farm incomes only, not the output or the income of the sector or the value added or GDP of agriculture sector

- **Strategies for Improving Farmers' Income-PPM**

- ❖ Production Centric

- ❖ Post-harvest Management Centric

- ❖ Marketing Related

- **Agricultural household activities**

- 1) comprise of Crop sector (field crops and horticulture)

- 2) Livestock sector (dairy, poultry, piggery, small ruminants)

- 3) Farm linked activities (mushroom, beekeeping, sericulture)

- 4) Post production activities (off-farm enterprises)



PRODUCTIVITY GAPS AND MAJOR CONSTRAINTS IN FIELD CROPS

Crop	Deficit situation		Normal situation		Constraints for below potential yield level
	Existing	Potential	Existing	Potential	
Maize	29.5 q/ha	40 q/ha	34.6 q/ha	60 q/ha	Lack of knowledge about intercropping with pulses
					Lack of knowledge about application of micronutrients
					Improper use of fertilizer
					Lack of knowledge on appropriate production technology
					Low market price
Bt-Cotton	4.5 q/ha	20 q/ha	5.16 q/ha	28 q/ha	Moisture stress in critical stages
					Incidence of leaf reddening
					Improper use of fertilizer
					Higher incidence of pest and disease.
					Lack of knowledge about seed

Crop	Deficit situation		Normal situation		Constraints for below potential yield level
	Existing	Potential	Existing	Potential	
Paddy	22.35q/ha	30 q/ha	25.13 q/ha	65 q/ha	Lack of knowledge about seed treatment
					Indiscriminate use of fertilizers and pesticides
					High incidence of weeds
					Use of local variety
<i>Rabi</i> Sorghum	8.8 q/ha	12 q/ha	9.83 q/ha	25 q/ha	Use of local varieties
					Moisture stress
					Imbalanced Nutrient Management
					Use of local variety
					Lack of knowledge about seed treatment with bio-fertilizers

Current productivity and increase in productivity of existing crops by next three years in Haveri District

1. Cereals

Crops	Existing Productivity (q/ha)	Productivity after 3 years (q/ha)
Maize	65 (I) and 40 (RF)	68-70(I) and 42-44 (RF)
Jowar	<i>Kharif</i> : 22 (RF), 10.5 0 (I) <i>Rabi</i> : 41 q (I)	<i>Kharif</i> 27-29 (RF), 13-15 (I) <i>Rabi</i> : 50 :q (I)
Paddy(I)	52	63-65

2. Millets

Crops	Existing Productivity (q/ha)	Productivity after 3 years (q/ha)
Foxtail millet	16	20 -21
Little millet	15	19-20
Finger millet	16	21-22

* RF: Rainfed, I: Irrigated

3. Pulses

Crops	Existing Productivity (q/ha)	Productivity after 3 years (q/ha)
Redgram	10.50	12-13
Horse gram	7.50	10 -12
Green gram	6.50	9-11
Cowpea	7.50	10-11
Chickpea	7.00	9-10

4. Oilseeds

Crops	Existing Productivity (q/ha)	Productivity after 3 years (q/ha)
Ground nut	21 q	23-25 q
Sunflower	16 q	20 -21q
Safflower	8 q	11-13
Soybean	16.75 q (RF)	25-26 q (I), 20-22 q (RF)

5. Commercial crops

Crops	Existing Productivity (ha)	Productivity after 3 years (ha)
Bt-Cotton	21 q	24-26 q
Sugarcane	170 t	200 -210 t

DFI Vision-**Strategy** :

- ❖ Irrigation- “Per Drop, More Crop”
- ❖ **Quality seeds**-Improving seed replacement rate • Soil test based nutrient management- Distribution of soil health cards
- ❖ **Post-harvest crop losses**- Large investments in warehousing and cold chains
- ❖ **Value addition to farmers**
- ❖ Creation of a national agricultural market, removing distortions and e-platform across markets.
- ❖ **New crop insurance scheme** – Pradhan Mantri Fasal Bima Yojana, Minimum Premium and Maximum Security.
- ❖ **Promotion of ancillary activities**- poultry, sericulture, beekeeping and fisheries

PRA activities in different Cluster



ವ್ಯಕ್ತ ಸಹವಾಗಿರುವುದು, ಪ್ರಾಮಾಣ್ಯತೆ, ಒಪ್ಪಂದ

ಸ್ಥಳ: ಬೆಂಗಳೂರು

ಕ್ರಮ: ಸಂವಯಮಪಟ್ಟಿ ಸಮಗ್ರವಾಗಿ

- * ಬೆಳಗ್ಗೆ ಬಗ್ಗೆ ಮಾಹಿತಿ ಇರುವುದು,
- * ಯಾವುದೇ ಸಂದರ್ಭದಲ್ಲಿ ಮಾಹಿತಿ ಇರುವುದು,
- * ಸಂವಯಮ ಕ್ರಮ ಬಗ್ಗೆ ಮಾಹಿತಿ ಇರುವುದು,
- * ರಾಜ್ಯದ ಬಗ್ಗೆ ಸಂವಯಮ ಮಾಹಿತಿ ಇರುವುದು,
- * ಸಂವಯಮ ಕ್ರಮ ಬಗ್ಗೆ ಮಾಹಿತಿ ಇರುವುದು,
- * ಜಿಲ್ಲಾ ಬಗ್ಗೆ ಮಾಹಿತಿ ಇರುವುದು,
- * ಸಂವಯಮ ಕ್ರಮ ಬಗ್ಗೆ ಮಾಹಿತಿ ಇರುವುದು,
- * ಯಾವುದೇ ಸಂದರ್ಭದಲ್ಲಿ ಮಾಹಿತಿ ಇರುವುದು,
- * ಬೆಳಗ್ಗೆ ಬಗ್ಗೆ ಮಾಹಿತಿ ಇರುವುದು,
- * ಯಾವುದೇ ಸಂದರ್ಭದಲ್ಲಿ ಮಾಹಿತಿ ಇರುವುದು,
- * ಸಂವಯಮ ಕ್ರಮ ಬಗ್ಗೆ ಮಾಹಿತಿ ಇರುವುದು,
- * ಯಾವುದೇ ಸಂದರ್ಭದಲ್ಲಿ ಮಾಹಿತಿ ಇರುವುದು,

PRA –Problems assessed

- **Low yield in Cereals, Pulses, Oil seeds, Cash crops and Lack of good varieties/ seed availability**
- **Micro nutrient deficiency in maize (40%), paddy (25%) and sugarcane(16%).**
- **Lack of availability of good quality seeds in onion & millets**
- **Wilt incidence in Betelvine (10-15 %)**
- **Leaf curl in chilli (40-50%)**
- **Low yield (40%) due to flower and fruit dropping in mango**
- **Lack of knowledge on fodder crops / grasses**
- **Imbalanced feed formulation for dairying**
- **Lack of knowledge on value addition in millets and Processing of seeds.**
- **Lack of awareness regarding Terrace gardening and compost making at house hold level**

Thrust areas

- INM in Maize and paddy
- ICM in Paddy, Rabi sorghum, Sugarcane and Bt-Cotton
- ICM in Redgram, Bengalgram, Black gram
- IPDM in Mango, Onion, Betelvine
- Animal nutrition management
- Drudgery reduction
- Food security through Terrace garden

Army worm incidence on maize in Haveri district



- Incidence of army worm has been noticed on maize in different Talukas of Haveri dist.
- Incidence range from 40-80 %



Complete defoliation by Army worm

Congregation of Army worm on cob after defoliation



Method Demonstration on preparation of poison bait for the management of army worm

Application of poison bait for the affected field

ಲುದಯವಾಣಿ

ಕೀಟ ನಿಯಂತ್ರಣಕ್ಕೆ ವಿಷಪ್ರಾಷನ ಪ್ರಾತ್ಯಕ್ಷಿಕೆ

ಬ್ಯಾರಣ್: ತೆಲಕೇರಿ ತಿಲದದಲ್ಲಿ ಸೈನಿಕ ಹುಲಿಗಳ ನಿಯಂತ್ರಣಕ್ಕಾಗಿ ವಿಷಪ್ರಾಷನ ತಯಾರಿಕಾ ವಿಧಾನದ ಪ್ರಾತ್ಯಕ್ಷಿಕೆ ಜರುಗಿತು.

ಬ್ಯಾರಣ್: ತಂತ್ರಜ್ಞರಲ್ಲಿ ಹಿಂದೆ ಬಂದಿದ್ದ ಕೃಷಿಯಲ್ಲಿ, ಲಾಭದ ಮೊದಲು ಸಾಧ್ಯವಿಲ್ಲ. ಈ ಸಂದರ್ಭದಲ್ಲಿ ಸೈನಿಕ ಹುಲಿಗಳ ನಿಯಂತ್ರಣಕ್ಕೆ ಸಾಮಾನ್ಯವಾಗಿ ವಿಷಪ್ರಾಷನವನ್ನು ಸುಲಭ ಮಾರ್ಗಗಳಾದ್ದು ಎಂದು ಹುಲಿ ಕೃಷಿ ನಿರ್ದೇಶಕ ಸಹಾಯಕ ಅಧ್ಯಕ್ಷರು ವ್ಯಕ್ತಪಡಿಸಿದರು.

ತಾಲೂಕಿನ ಮೋಟೇನಗರದ ಗ್ರಾಮದ ಗುಡ್ಡು ನೆಲಮಂಡಲದ ಸಮುದಾಯ ಭವನದಲ್ಲಿ ವಿಷಪ್ರಾಷನ ತೆಲಕೇರಿ ತಿಲದವನ್ನು ಪ್ರದರ್ಶಿಸಿ ಮಾಹಿತಿ ನೀಡಲಾಯಿತು. ಗೋವಿನಾಡಿನಲ್ಲಿ ಬೆಳೆಯುವ ಈಗಿನ ಸೈನಿಕ ಹುಲಿಗಳ ಬಾಧೆ ತಿಲದವನ್ನು ತಯಾರಿಸುವುದಾದ್ದು ಈ ಸಂದರ್ಭದಲ್ಲಿ ಮಾಹಿತಿ ನೀಡಲಾಯಿತು. ಸೈನಿಕ ಹುಲಿಯಾದ್ದು ತಿಲದವನ್ನು ತಯಾರಿಸುವುದು ಅಗತ್ಯವಾಗಿದೆ ಎಂದು ಹೇಳಿದರು.

ಯಾವುದೇ ಸಮಸ್ಯೆ ಎದುರಾದರೆ ಸೂಕ್ತ ಮಾರ್ಗದ ಕಂಡುಹಿಡಿಯುವ ಸುತ್ತಲಿ ಕೃಷಿ ಸಂಘದ ಮುಂದಾಳುಗಳು. ಪ್ರಾಥಮಿಕ ಹಂತದಲ್ಲಿ ದೀನಗ ಪಟ್ಟಣದ ಸುತ್ತಲಿನ ಸುಲಭವಾಗಿ ಉಪಯೋಗಿಸಬಹುದಾಗಿದೆ ಎಂದು ಹೇಳಿದರು.

ಹಸಿಮನೆಮಟ್ಟ ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರದ ವಿಜ್ಞಾನಿ ಗುಂಡರಾಜುಪ್ಪ ಸೈನಿಕ ಹುಲಿಯ ಬಾಧೆ ನಿಯಂತ್ರಣಕ್ಕೆ ಲಭಿಸುವ ಸಾಧನಗಳಿಗಾಗಿ ಈಗಿನಿಂದಲೂ ಅಧ್ಯಯನ, ವಿಷಪ್ರಾಷನ ತಯಾರಿಕಾ ವಿಧಾನ, ಕೀಟಗಳನ್ನು ನಾಶಪಡಿಸುವ ವಿಷಪ್ರಾಷನಕ್ಕೆ ಬೆಲೆ ಕೊಡುವುದು, ಲಾಭದ ಮೊದಲು ಸಾಧ್ಯವಿಲ್ಲ ಎಂದು ಹೇಳಿದರು. ಈ ಸಂದರ್ಭದಲ್ಲಿ, ಇವು ಎಂಬ ಉದಾಹರಣೆ ಕೀಟನಿರ್ಮಲ, ಯಾವುದೇ ಕಾರಣಕ್ಕೂ ಕಷ್ಟವಾಗುವ ಸಾಮಾನ್ಯ ವಿಷಪ್ರಾಷನ ಮಾಹಿತಿ ಹಂಚಿಕೆ ನಡೆಯಿತು.

ಕೃಷಿ ಸಂಘದ ಮುಖಂಡರ ಮಲ್ಟಿಪಾರ್ಸಿಂಗ್ ಲ್ಯಾಬ್, ಸೈನಿಕ ಹುಲಿಯ ಬಾಧೆಗೆ ಲಕ್ಷ ಸಮುದಾಯ ಸಮಗಮ, ಮೊದಲೇ ಸಾಲದ ತೆಲದಲ್ಲಿ ಸಿಲುಕಿದರೆ ಅವರಿಗೆ ಪುನಃ ವಿಷ ಪ್ರಾಷನವು ಬೆಲೆ ಬರುವಂತಹ ಸುತ್ತಲಿ ಇನ್ನೂ ಬಿಡುವುದಿಲ್ಲ. ಕೂಡಲೇ ಕೃಷಿ ತೆಲದ ಸೈನಿಕ ಹುಲಿಯ ಬಾಧೆ ಪತ್ತೆ ಹಚ್ಚುವುದು ಸೇರಿದಂತೆ ಅಧಿಕಾರಿಗಳ ನಿಯಂತ್ರಣಕ್ಕೆ ತೆಗೆದುಕೊಳ್ಳಬೇಕಾದ ಕ್ರಮಗಳ ಮಾಹಿತಿ ನೀಡಲು ಮುಖ್ಯ ಮೆಲುವುಗಳಾದ ಸರಕಾರಿ ಪತ್ತೆಹಚ್ಚುವಾಗ ಅಧಿಕಾರಿಗಳನ್ನು ನೇಮಕ ಮಾಡಬೇಕು. ಇನ್ನೂ ಹೋರಾಡುತ್ತಿರುವ ಮುಖಂಡರು ಬೆಲೆ ಬರುವಂತಹ ಸುತ್ತಲಿ ಸಾಕುವುದು ಸುತ್ತಲಿ ಎಂದು ಹೇಳಿದರು.

ಈ ಸಂದರ್ಭದಲ್ಲಿ, ಅಧಿಕಾರಿ, ಕೃಷಿ ಸಂಘದ ಮುಖಂಡರ ಅಂತರವು, ತೆಲಕೇರಿ ತಿಲದವನ್ನು ತಯಾರಿಸುವ ವಿಷಪ್ರಾಷನವನ್ನು ನಿಯಂತ್ರಿಸುವುದು, ಸಮಯಕ್ಕೆ ಕೃಷಿ ನಿರ್ದೇಶಕರು, ಅಧ್ಯಕ್ಷರು, ಅಧಿಕಾರಿಗಳಿಂದ ಸಹಾಯವಾಗುವುದು ಎಂದು ಹೇಳಿದರು.

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We taken FLD on this year

Based on DFI objective

- To identify technologies for **Enhancement of productivity** for major Agricultural and Horticultural crops and allied sectors of the district
- To identify different technologies for **Reducing the cost of cultivation** of major crops and allied enterprises.
- To assess the cropping pattern in order to decide on essence of **Crop diversification** to enhance the farm income.
- To create awareness for Value chain development and market linkage for increase in the livelihood security in the rural areas.

No. of Taluka **07**

No. of Cluster **04**

Activities calendar for cluster villages

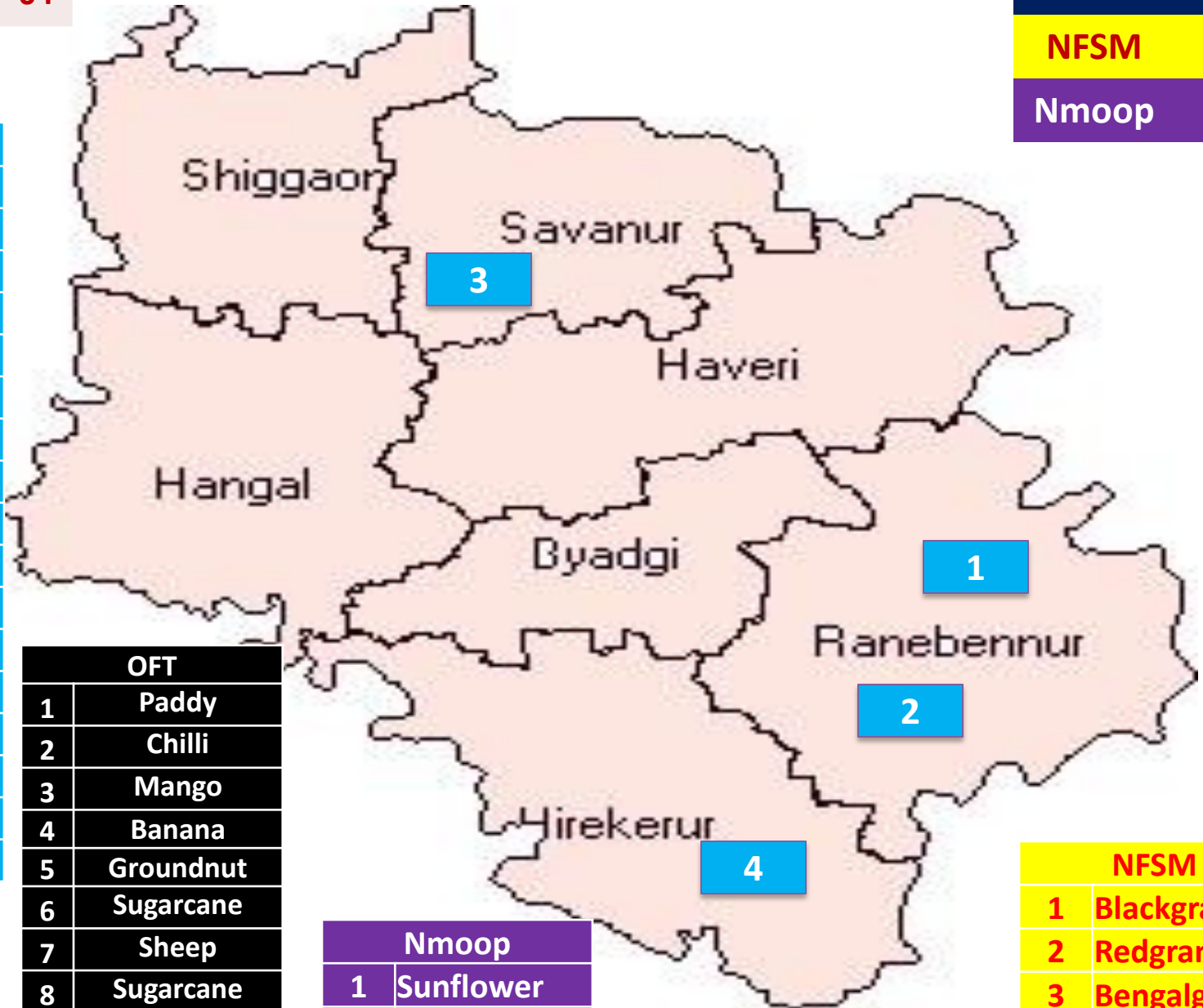
FLD 17

OFT 09

NFSM 03

Nmoop 02

FLD	
1	Foxtail millet
2	Maize
3	Sugarcane
4	Dairy
5	Fish
6	Betel vine
7	Green gram
8	Soybean
9	Little millet
10	Fodder
11	Maize
12	Banana
13	Onion
14	Rabi Sorghum
15	Tomato
16	Groundnut
17	Bt-Cotton



OFT	
1	Paddy
2	Chilli
3	Mango
4	Banana
5	Groundnut
6	Sugarcane
7	Sheep
8	Sugarcane
9	Foxtail mille

Nmoop	
1	Sunflower
2	Groundnut

NFSM	
1	Blackgram
2	Redgram
3	Bengalgram

CLUSTER A : Hanumapur

Major Crops / Enterprises	Prioritized Problems in these crops/enterprises	Extent of area(ha/no) affected by the problem	Proposed Intervention
Foxtail millets	Low yield Lack of awareness on new varieties	600 ha	FLD : Demonstration of foxtail millet variety DHft-109-3 for higher yield and income Trainings, FV and Field Day
Little millets	Lack of awareness on new varieties Low yield	250 ha	FLD: Demonstration of foxtail millet variety DHLm-36-6 for higher yield and income
Rabi Sorghum	Low yield due to use of local variety Lodging and poor fodder quality	800 ha	FLD: Demonstration of Rabi sorghum variety SPV-2217

Major Crops / Enterprises	Prioritized Problems in these crops/enterprises	Extent of area(ha/no) affected by the problem	Proposed Intervention
Betelvine	Low yield (10-15 lakhs leaves/ha) Incidence of Wilt (15-20%)	30 ha	FLD: ICM in Betel vine
Onion	Micronutrient deficiency Poor quality of fruits Low yield	500 ha	FLD : Micronutrient Management in Onion using vegetable special
Sheep	High cost of feeding balanced growth ration to Lambs Poor growth	1500 No	OFT : Assessment of Detoxified karanja cake as protein source on growth of lambs

CLUSTER B : Chikkeri – Hosalli

Major Crops / Enterprises	Prioritized Problems in these crops/enterprises	Extent of area(ha/no) affected by the problem	Proposed Intervention
Sugarcane	Poor nutrient management Improper pest and disease management	850 ha	FLD : ICM in Sugarcane
Chilli	Lack of knowledge about improved cultural practices Poor soil fertility Lack of knowledge on improved varieties Incidence of pest and diseases	150 ha	OFT: Assessment of chilli hybrids for yield potential, disease & pest resistance
Tomato	Micronutrient deficiency Poor quality of fruits Low yield	90 ha	FLD: Micronutrient Management in Tomato using vegetable special

Major Crops / Enterprises	Prioritized Problems in these crops/enterprises	Extent of area(ha/no) affected by the problem	Proposed Intervention
Mango	Incidence of leaf hopper and powdery mildew Low yield	200 ha	OFT : Management of Leaf hopper and powdery mildew in Mango
Fish	Lack of fish cultivation in farm ponds	-	FLD : Composite fish cultivation
Fodder cafeteria	Low productivity of milk due to scarcity of green fodder	20 ha	FLD: Demonstration on Fodder Cafeteria

CLUSTER C : Baradur

Major Crops / Enterprises	Prioritized Problems in these crops/enterprises	Extent of area(ha/no) affected by the problem	Proposed Intervention
Dairy	Low milk yield Low milk fat Low Solids Not Fat(SNF)	-	FLD : Energy and non-protein nitrogen source supplementation through UMMB as lic. Trainings, FV and Field Day
Groundnut	Non availability short duration varieties in kharif Susceptibility to pest and disease	800 ha	OFT : Assessment of groundnut varieties for short duration and higher productivity. Trainings, FV and Field Day
Soybean	Use of local variety No seed treatment Poor nutrient management Lack of knowledge pest and disease management	800 ha	FLD: ICM in Soybean. Trainings. FV and Field Day

Major Crops / Enterprises	Prioritized Problems in these crops/enterprises	Extent of area(ha/no) affected by the problem	Proposed Intervention
Greengram	<p>Low yield due to local varieties</p> <p>Non availability of high yielding varieties</p> <p>Susceptibility to Yellow Mosaic</p> <p>Imbalanced application of fertilizers</p>	100 ha	<p>OFT: Assessment of Greengram Varieties KKM-3 for higher yield.</p> <p>Trainings, FV and Field Day</p>

CLUSTER D : Yadagodi

Major Crops / Enterprises	Prioritized Problems in these crops/enterprises	Extent of area(ha/no) affected by the problem	Proposed Intervention
Banana	Incidence of disease Low yield Poor quality	180 ha	OFT: Effective control of ponama wilt by using stem injection method to enhance yield in Banana. Trainings, FV and Field Day
Maize	Low in grain filling Micronutrient deficiency symptoms	500 ha	FLD: Demonstration of MAIZE MAXIM in Maize
Banana	Micronutrient deficiency Imbalanced fertilizer application Low yield	180 ha	FLD : Micronutrient Management in Banana using Banana special . Trainings, FV and Field Day

CLUSTER E : Choudadanapur

Major Crops / Enterprises	Prioritized Problems in these crops/enterprises	Extent of area(ha/no) affected by the problem	Proposed Intervention
Maize	Low Yield (18-20 q/ac) Micro nutrient deficiency Pest incidence	1000 ha	FLD: Integrated crop management in Maize
Sugarcane	High cost on fertilizers Low organic matter due to burning of trash/residues (50-70%) Current yield : 75-100 t/ha and Potential yield: 200-250 t/ha Reasons for yield gap:	150 ha	OFT: Assessment of compost culture for the management of Sugarcane trash

Abstract of OFT & FLDs

Name	Designation	No. of OFT	No. of FLD
Dr. Ashoka P	Sr. Scientist & Head	01	01
Dr. K. P. Gundannavar	Scientist (Ag. Ento.)	01	03
Mr. Harish D. K	Scientist (Horticulture)	02	03
Dr. Venkanna Balaganur	Scientist (Animal Science)	01	03
Dr. Shivamurthy D	Scientist (Agronomy)	02	02
Dr. Kumara B H	Scientist (Soil Science)	02	04
	Total	09	16

FLD/OFT/Cluster FLD	No. of demo.	Amount (Rs.)
OFT	09	90,150/-
FLD	16	2,76,470/-
Total	26	3,66,620/-

ABSTRACT OF OFTs PROPOSED DURING 2019-20

Sl. No.	Crop/ enterprise	Title of intervention	Continued / New	Total cost involved (Rs.)
1	Paddy	Demonstration of Silicon application in rice	Continued	3,000/-
2.	Ground nut	Assessment of groundnut varieties for short duration and higher productivity	Continued	13,500/-
3	chilli	Assessment of chilli hybrids for yield potential, disease & pest resistance	Continued	11,100/-
4	Sugarcane	Demonstration of micronutrient application in early crop growth stages of Sugarcane	Continued	1,650/-
5	Mango	Management of Leaf hopper and powdery mildew in Mango	Continued	12,000/-
6	Banana	Effective control of ponama wilt by using stem injection method to enhance yield in Banana	Continued	27,900/-
7	Green gram	Demonstration of Greengram variety KKM-3 for higher yield	New	3,000/-
8	Sugarcane	1.Assessment of compost culture for the management of Sugarcane trash	New	3,000/-
9	Sheep	Assessment of Detoxified karanja cake as protein source on growth of lambs	Continued	15,000/-
			Total	90,150/-

ABSTRACT OF FRONT LINE DEMONSTRATIONS - 2019-20

Sl.No.	Category/ Crop or enterprise	Title of Technology	Continued / New	Total cost involved (Rs.)
01	Maize	Integrated crop management in Maize	Continued	42,250/-
02	Rabi Sorghum	Demonstration of Rabi sorghum variety SPV-2217	Continued	12,220/-
03	Foxtail millet	Demonstration of foxtail millet variety DHFt-109-3 for higher yield and income	Continued	3,050/-
04	Little millet	Demonstration of foxtail millet variety DHLm-36-6 for higher yield and income	Continued	3,050/-
05	Soybean	ICM in Soybean	Continued	26,600/-
06	Groundnut	Demonstration of GROUNDNUT RICH in groundnut	New	11,800/-
07	Maize	Demonstration of MAIZE MAXIM in Maize	New	21,800/-
08	Sugarcane	ICM in Sugarcane	New	45,000/-
09	Bt-Cotton	Demonstration of COTTON PLUS in cotton	New	13,800/-

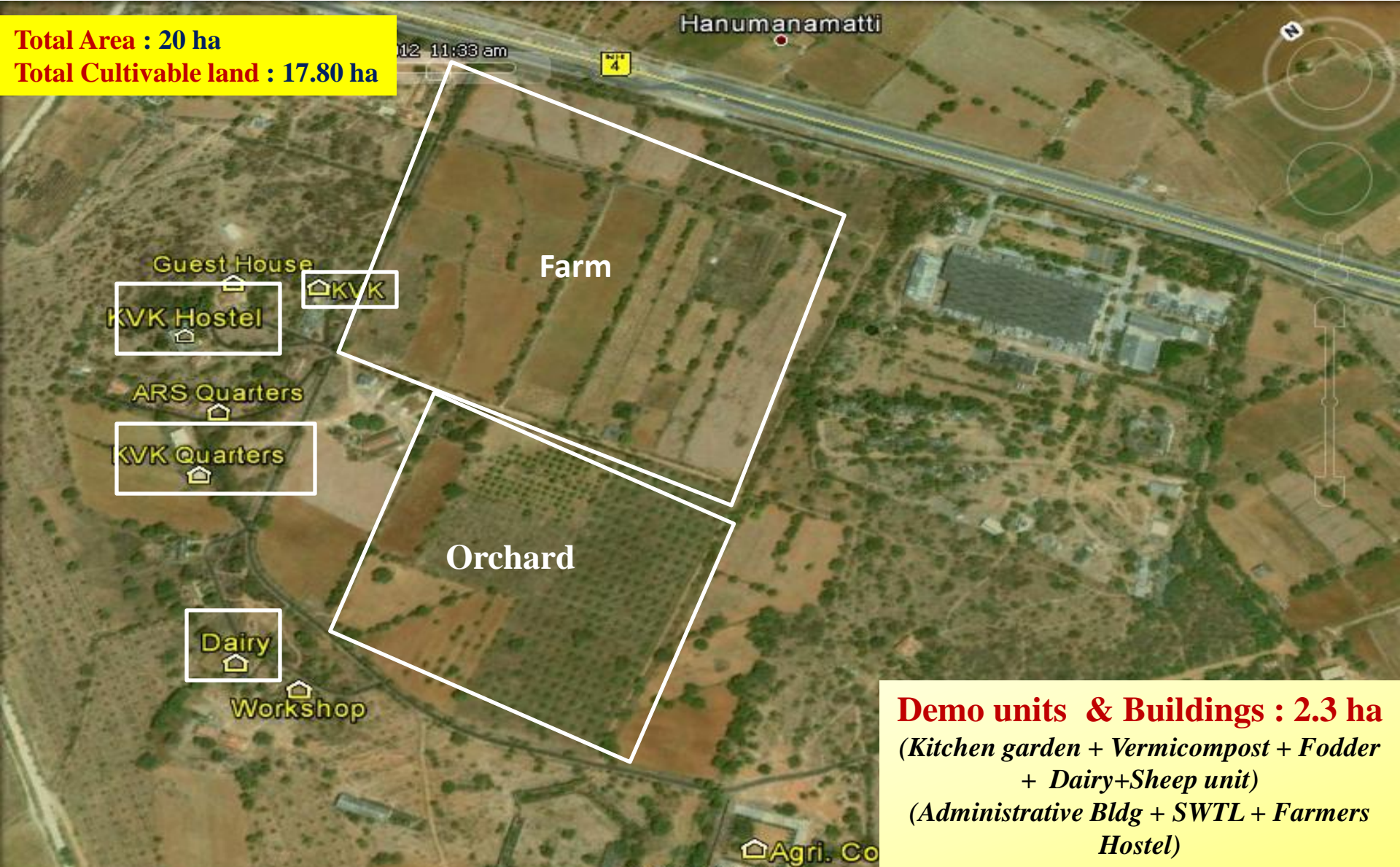
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Sl.No.	Category/ Crop or enterprise	Title of Technology	Continued / New	Total cost involved (Rs.)
10	Betelvine	ICM in Betelvine	Continued	22,000/-
11	Tomato	Micronutrient Management in Tomato using vegetable special	Continued	9,800/-
12	Onion	Micronutrient Management in Onion using vegetable special	New	9,800/-
13	Banana	Integrated Management in Banana	Continued	11,300/-
14	Fodder	Demonstration on Fodder Cafeteria	Continued	15,000/-
15	Dairy	Energy and non-protein nitrogen source supplementation throught UMMB as lic	Continued	14,000/-
16	Fish	Composite fish cultivation	New	15,000/-
			Total	2,76,470/-

Activity calendar for KVK Farm

Arial view KVK, Haveri

Total Area : 20 ha
Total Cultivable land : 17.80 ha



Demo units & Buildings : 2.3 ha
(Kitchen garden + Vermicompost + Fodder + Dairy+Sheep unit)
(Administrative Bldg + SWTL + Farmers Hostel)

Instructional Farm area: 13.3 ha
Minor millets

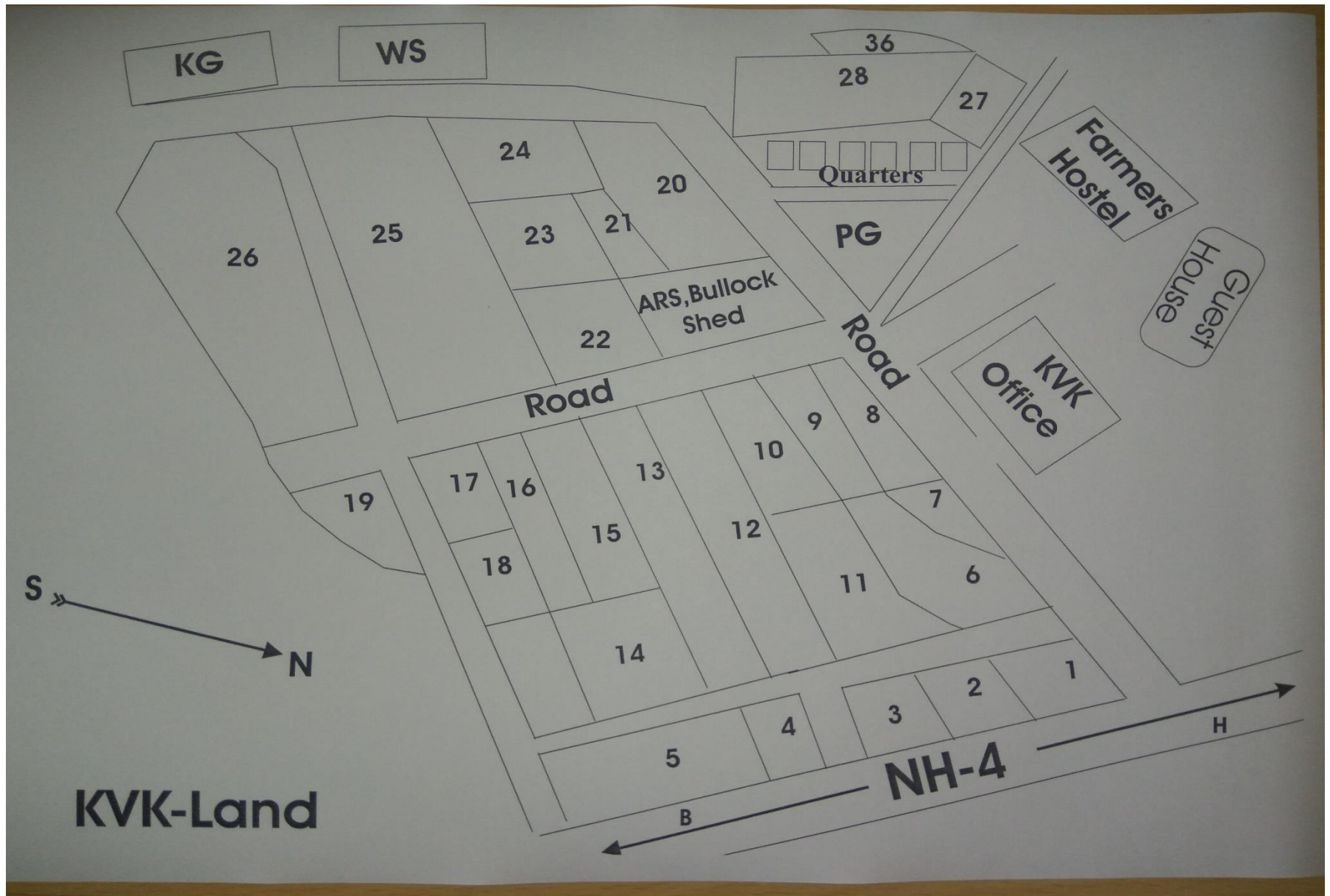
© 2012 Google
Image © 2012 DigitalGlobe
2.27° N 75°33'38.69" E ele

Orchard : 4.40 ha
(Sapota + Guava + Tamarind+ Coconut)

Monthly Rainfall (mm) recorded at Krishi Vigyan Kendra, Hanumanamatti for 2015,2016 ,2017,2018 and 2019 compared with average of 21 years

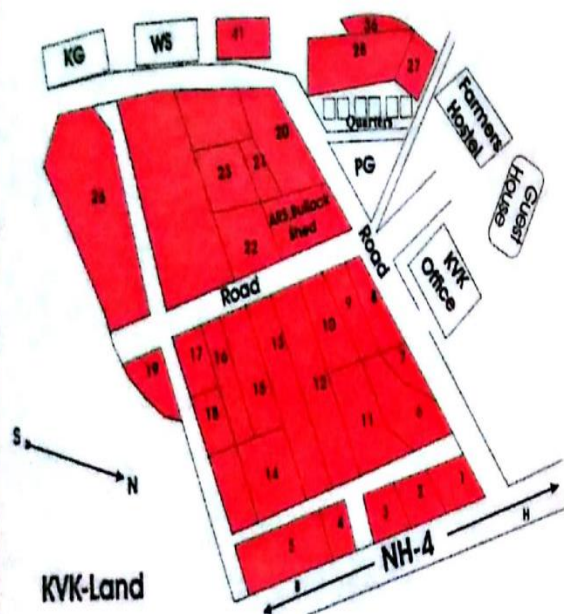
Month	Mean of 21 Years (1990-2011)	2015	2016	2017	2018	2019
January	1.15	0.0	0.0	0.0	0.0	0.0
February	1.50	0.0	0.0	0.0	0.0	0.0
March	4.33	0.2	0.0	0.0	40.0	
April	26.11	5.4	1.8	41.6	72.8	
May	34.21	92.4	50.4	85.4	93.6	
June	35.84	146.8	76.5	9.0	78.9	
July	46.10	57.0	39.8	79.6	80.4	
August	38.13	54.1	22.4	21.0	97.5	
September	35.28	73.7	43.8	115.4	84.6	
October	55.60	144.6	2.2	214.6	93.4	
November	28.80	0.0	4.6	0.0	15.2	
December	1.90	0.0	0.0	0.0	0.0	
Total	308.95	574.2	241.5	566.6	656.4	

KVK Land utilization Map

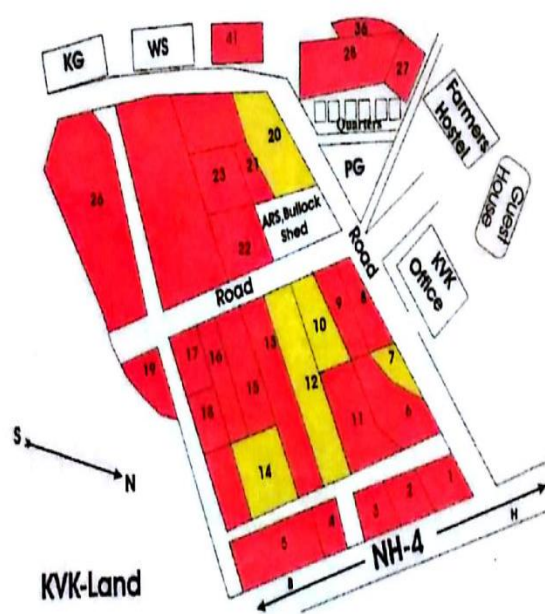


Nutrients status of Soil of KVK, Hanumanamatti

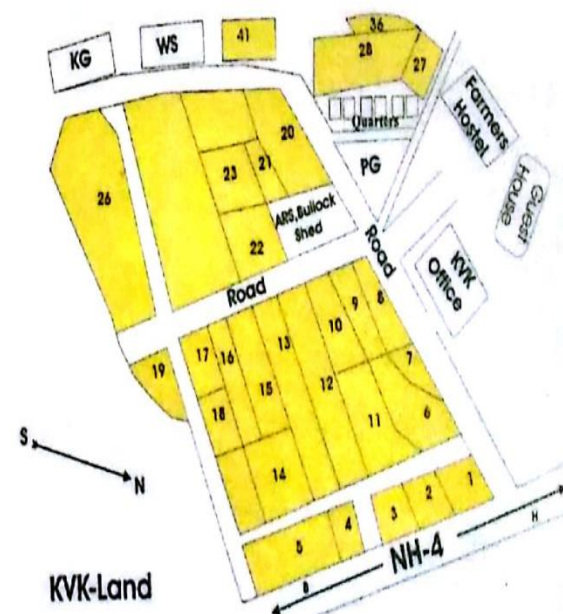
Nutrient Status of Soils of KVK, Hanumanamatti



Available Nitrogen




Available Phosphorus



Available Potassium

Technological products

Seed Production units in the Farm	Crop/ activity in Kharif	Quantity (Q) Number planned to be produced during 2019-20 (q)	Crop/ activity in Rabi/ Summer	Quantity (Q) Number planned to be produced during 2019-20 (q)	Names of the team members involved
Seed Production	Finger millet (DHFM-78-3)	15	--		Farm manager & Senior Scientist & Head
	Redgram (BSMR-736)	20	Rabi Sorghum (SPV-2217)	25	Farm manager & Senior Scientist & Head
	Fodder Maize (AT)	10			Farm manager & Senior Scientist & Head
	Castor (GC-3)	15	Perennial Sorghum Fodder	05	Farm manager & Senior Scientist & Head
	Sun hemp (Local)	25	--		Farm manager & Senior Scientist & Head
	CoFS-31	0.5			
	Fodder cowpea	0.5			Contd. 

Seed Production units in the Farm	Crop/ activity in Kharif	Quantity (Q) Number planned to be produced during 2019-20 (q)	Crop/ activity in Rabi/ Summer	Quantity (Q) Number planned to be produced during 2019-20 (q)	Names of the team members involved
Seed Production	Foxtail millet (Dhft-109-3)	25	Horse gram (GPM-6)	30	Farm manager & Senior Scientist & Head
	Little millet (Dhlm-36-3)	15			Farm manager & Senior Scientist & Head
	Proso millet (DHPM-2769)	15			Farm manager & Senior Scientist & Head
	Barnyard millet (DHBM-93-2)	25	--	Farm manager & Senior Scientist & Head	
	Finger millet (DHFM-78-3)	15	--	Farm manager & Senior Scientist & Head	
	Sesam	05	--		Farm manager & Senior Scientist & Head
	Madki	05	--		Farm manager & Senior Scientist & Head

Contd.. 

Demo/ production Units/labs	Crop/ Enterprise (ha)	Quantity (Q) Number planned to be produced during 2019-20 (q)	Members of KVK Team involved
Nursery. Unit	Curry leaf (Suvasini)	5000	Farm manager, Horticulture & Senior Scientist & Head
Seedlings	Guava (L-49)	2000	Farm manager, Horticulture & Senior Scientist & Head
	Sapota (DHS-1 & 2)	6000	Farm manager, Horticulture & Senior Scientist & Head
	Lime (Local)	1500	Farm manager, Horticulture & Senior Scientist & Head
	Tamarind (DTS-1)	2000	Farm manager, Horticulture & Senior Scientist & Head
	Mango (alphonso)	2000	Farm manager, Horticulture & Senior Scientist & Head
Bio-products	Trichoderma	2.0 qtl	Entomologist , Farm manager & Senior Scientist & Head
Demo. Unit	Vermicompost production unit	01	Farm manager, Animal Scientist & Senior Scientist & Head
	Azolla unit	01	Animal Scientist, Farm manager & Senior Scientist & Head
	Poultry rearing unit	01	Animal Scientist, Farm manager & Senior Scientist & Head
	Apiculture	01	Entomologist , Farm manager & Senior Scientist & Head
	Goat rearing unit	20 No's	Animal Scientist, Farm manager & Senior Scientist & Head

Activities proposed as knowledge and resource centre during 2019-20

Category	Details of technologies	Area (ha)/ Number/kg	Names of the team members involved
Technology park/ crop cafeteria	Millet crop cafeteria	1.0	<ul style="list-style-type: none"> • Farm manager & Senior Scientist & Head
	Fodder cafeteria	1.0	<ul style="list-style-type: none"> • Farm manager & Senior Scientist & Head
	Sapota garden	2.0	<ul style="list-style-type: none"> • Horticulture, Farm Manager, Sr. Scientist
	Multiple cropping system (Sapota+Millets+Fodder crops)	2.0	<ul style="list-style-type: none"> • Farm manager & Senior Scientist & Head
	Drumstick unit	0.5	<ul style="list-style-type: none"> • Farm manager & Senior Scientist & Head
	Horticulture Nursery Unit	0.20	<ul style="list-style-type: none"> • Horticulturist , Farm manager & Senior Scientist & Head
	Cashew nut	0.5	<ul style="list-style-type: none"> • Horticulturist , Farm manager & Senior Scientist & Head
	Horticulture mother orchard	1.0	<ul style="list-style-type: none"> • Horticulturist , Farm manager & Senior Scientist & Head
	Custard apple	0.5	<ul style="list-style-type: none"> • Horticulturist , Farm manager & Senior Scientist & Head

Plan of activities under revolving fund 2019-20

Proposed activities	Expected output	Anticipated income (Rs.)	Names of the team members involved
Seeds production	100 (qt)	2,80,000/-	Farm Manager & Senior Scientist & Head
Production of planting materials (Nos.)	4000 (No)	2,00,000/-	Horticulture, Farm manager & Senior Scientist & Head
Production of Vermicompost (q)	25(qt)	15000/-	Farm Manager & Senior Scientist & Head
Trichoderma	1.0 (qtl)	1,30,000/-	Entomologist , Farm manager & Senior Scientist & Head
Soil and Water	3000	3,00,000/-	Soil Scientist, Prog. Asst & Senior Scientist & Head
Pseudomonas	50 (kg)	75,000/-	Entomologist , Farm manager & Senior Scientist & Head
Dairy (Milk production)	20000 (Liter)	6,00,000/-	Animal Science, Farm manager & Senior Scientist & Head
Total		16,00,000/-	

Status of Revolving Fund 2018-19

Opening balance as on 01.04.2018 (Rs.in Lakh)	Expenditure incurred during 2018-19 (Rs.in Lakh) Upto 31.03.2019	Receipts during 2018-19 (Rs.in Lakh)	Closing balance as on 31.03.2019 (Rs.in Lakh) (Including value of material in stock)
3.61	12.27	11.74	5.28

KVK, Farm Seed Production Activities



Redgram Var : BSMR-736



Horse gram Var: GPM-6



Fodder sorghum COFS - 29



Hybrid Napier Var: DHN-6



Sapota Var: Kalipati + Sunhemp Var :
Local



Castor Var : GC-3



Sapota mother plant orchard



Sun hemp : Local



Threshing yard



Transplanted Redgram : BSMR-736

Sapota DHS-1 & DHS-2 Grafting



Guava L- 49 Air Layering





Trichoderma preparation



Soil sample preparation



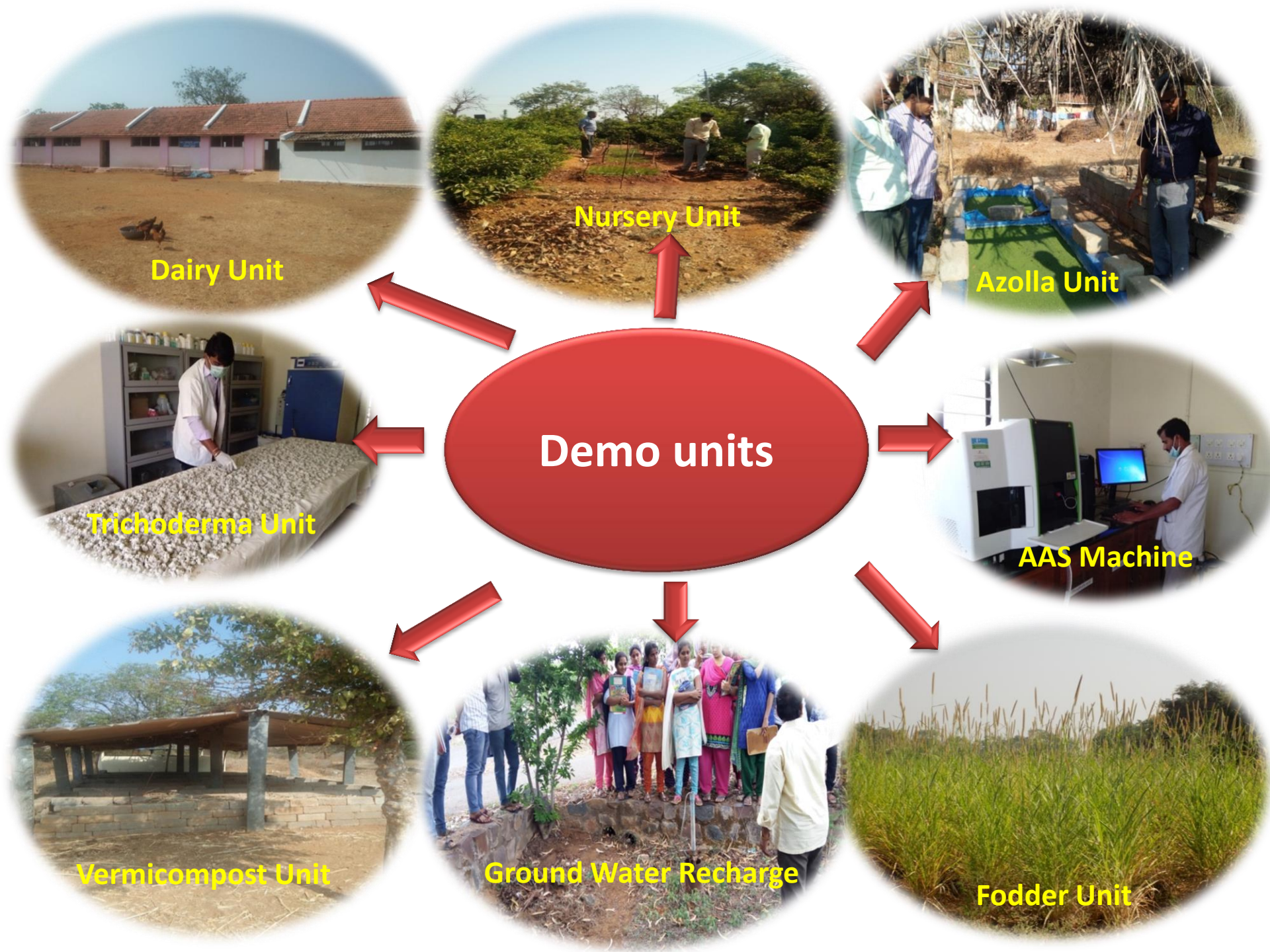
Soil testing and
Trichoderma
production Lab



D.E , UASD, visited to soil lab



Hon'ble MLA, Byadagi, visited to soil lab



Activity calendar of Prog. Asst(Lab) for the year 2019-20

Name of Laboratory	Target for no. of samples for testing/ analysis*	Members associated
Soil & Water Testing Lab	5000	•, Prog. Asst ,Soil Scientist Senior Scientist & Head

Facilities available for soil analysis at KVK, H.matti:

- Equipments for Conventional method : Soil pH, EC, Av.N,P,K,S, Av.Zn,Fe,Cu,Mn (micro nutrients)
- AAS Machine for micro nutrients analysis
- Soil health Cards as per Central Govt. format analysis carried out in collaboration with JDA. (12 nutrients)
- Training programmes are organized for students and farmers.

Trainings for farmers/farm woman during 2019-20

Thematic area	Major problem	Training course title	No. of courses	Expected no. of participants	Members associated
Soil health & fertility	Lack of awareness about soil testing and application of fertilizers	Soil health management practices	02	300	<ul style="list-style-type: none"> • Soil Scientist • Prog. Asst. (Lab) • Senior scientist & head

Vacational Trainings during 2019-20

Thematic area	Training course title	No. of courses	Types of clients	Expected no. of participants	Members associated
Soil health & fertility	Soil health management practices	02(2 days)	Rural youth and students	100	<ul style="list-style-type: none"> • Soil Scientist • Prog. Asst. (Lab) • Senior scientist & head



**Budget
Utilization & Estimation**

Utilization of KVK funds during the year 2018-19 (as on 31.03.19)

Sl.No.	Particulars	Sanctioned	Released	Expenditure
21.1	(A). REVENUE (Recurring Contingencies)	0	0	0
21.1.1	Pay & Allowances	92.08	92.08	60.66
21.1.2	Traveling allowances	1.50	1.50	1.05
21.1.3	Contingencies	0	0	0
21.1.3.a	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter	2.30	2.30	2.01
21.1.3.b	POL, repair of vehicles, tractor and equipments	2.20	2.20	2.01
21.1.3.c	Food/refreshment for farmers/extension personnel @ Rs.150/person/day	0.75	0.75	0.67
21.1.3.d	Training material (need based materials and equipments for conducting the training)	1.00	1.00	0.91
21.1.3.e	Frontline demonstrations	2.75	2.75	2.58
21.1.3.f	On farm testing (OFTs)/Technology Assessment	0.45	0.45	0.35
21.1.3.g	Integrated Farming System (IFS) (Min. 5 Units)	0	0	0
21.1.3.h	Training of extension functionaries	0.15	0.15	0.06
21.1.3.i	Extension activities/services	0.50	0.50	0.49
21.1.3.j	Farmers' Field School	0	0	0
21.1.3.k	EDP (2 Nos.) / Innovative activities	0.30	0.30	0.29
21.1.3.l	Soil & water testing & issue of soil health cards	0.10	0.10	0.04
21.1.3.m	Maintenance of building	0.50	0.50	0.50
21.1.3.n	Farmers Conclave, KVK Conference	0	0	0
21.1.3.o	Video production	0	0	0
21.1.3.p	Library (Purchase of Journals, Periodicals, News Papers& Magazines)	0	0	0
	Total Recurring	0	0	0
21.2	(B). CAPITAL (Non-Recurring Contingencies)	0	0	0
21.2.1	Equipments& Furniture	0	0	0
21.2.2	Works	0	0	0
21.2.3	Vehicle	0	0	0
21.2.3 a	Four wheeler (replacement)	0	0	0
21.2.4	Library	0	0	0
	TotalNon Recurring	0	0	0
21.3	(C). REVOLVING FUND	0	0	0
	GRAND TOTAL (A+B+C)	104.58	104.58	71.62

Details of Budget Estimate based on proposed action plan(2019-20)

Sl. No	Particulars	BE 2019-20 proposed (Rs.) in lakhs
22.1	(A). REVENUE (Recurring Contingencies)	
22.1.1	Pay & Allowances	90.00
22.1.2	Traveling allowances	2.00
22.1.3	Contingencies	
22.1.3.a	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter	2.75
22.1.3.b	POL, repair of vehicles, tractor and equipments	3.00
22.1.3.c	Food/refreshment for farmers / extension personnel @ Rs.150/person/day	1.00
22.1.3.d	Training material (need based materials and equipments for conducting the training)	0.75
22.1.3.e	Frontline demonstrations	3.50
22.1.3.f	On farm testing (OFTs)/Technology Assessment	0.75
22.1.3.g	Integrated Farming System (IFS) (Min. 5 Units)	0.30
22.1.3.h	Training of extension functionaries	0.75
22.1.3.i	Extension activities/services	1.00
22.1.3.j	Farmers' Field School	0.30
22.1.3.k	EDP (2 Nos.) / innovative activities	0.40
22.1.3.l	Soil & water testing & issue of soil health cards	1.00
22.1.3.m	Maintenance of building	1.00
22.1.3.n	Library (Purchase of Journals, Periodicals, News Papers& Magazines)	0.40
22.1.3.o	Others, pl. specify	
	Total Recurring (A)	
22.2	(B). CAPITAL (Non-Recurring Contingencies)	
22.2.1	Furniture & Fixtures	5.00
22.2.2	Works	
22.2.3	Vehicle	
22.2.3.a	Four wheeler (replacement)	
22.2.4	Library	1.00
	Total Non Recurring (B)	
	Grand Total (A + B)	114.90

Extension activities



Extension activities during 2019-20

Sl. No.	Extension activity	No. of activities	Targeted number of participants	Names of the team members involved
1	Advisory services	600	600	KVK Team
2	Diagnostic visits	25	100	KVK Team
3	Field days	14	750	KVK Team
4	Group discussions	12	120	KVK Team
5	Kisan gosthies	02	200	KVK Team
6	Film shows	01	200	KVK Team
7	Self -Help Groups (SHGs) meetings	8	120	KVK Team
8	Kisan Melas	05	1,00,000	KVK Team
9	Exhibitions	06	50000	KVK Team
10	Scientists' visit to farmers fields	100	600	KVK Team
11	Plant/soil health/animal health camps	01	50	KVK Team
12	Farm science club meetings	01	50	KVK Team
13	Ex-trainees sammelans (Meetings)	01	30	KVK Team
14	Farmers' seminars/workshops	02	100	KVK Team
15	Method demonstrations	15	250	KVK Team
16	Celebration of important days	08	550	KVK Team
17	Special day celebrations	06	600	KVK Team
18	Exposure visits	01	30	KVK Team
19	Technology week celebration	01	150	KVK Team
20	Farmers Field School (FFS)	01	30	KVK Team
21	Farm innovators meet	01	20	KVK Team
22	Awareness programmes	03	300	KVK Team
23	Pre-kharif campaign	02	100	KVK Team
24	Pre-rabi/summer campaign	02	100	KVK Team

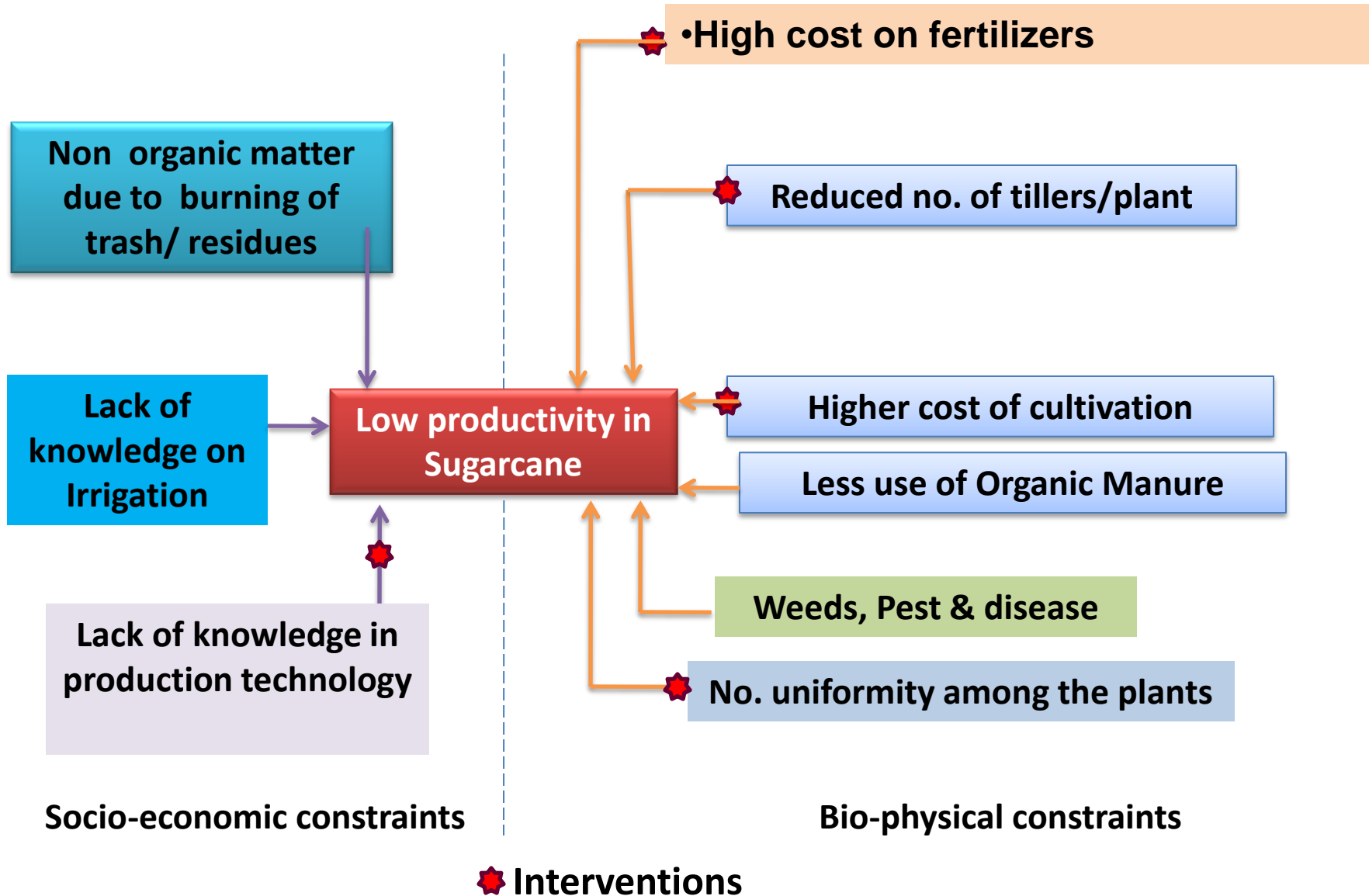
**Technical Programmes
for 2019-20**

Sr. Scientist and Head

Sl. No	Crop/enterprise	Title of intervention	Continued / New	Total cost involved (Rs.)
1	Sugarcane	Assessment of compost culture for the management of Sugarcane trash	New	3,000/-
2.	Foxtail millet	Assessment of Foxtail millet varieties for higher yield under rainfed situation	New	996/-
FLD				
1	<i>Rabi Sorghum</i>	Demonstration of <i>Rabi sorghum</i> variety SPV-2217	Continued	12,220/-

PROBLEM-CAUSE TREE FOR LOW PRODUCTIVITY IN SUGARCANE CROP

1. Assessment of compost culture for management of sugarcane trash (R)



Dist. area (ha)	14826	Production (t)	372062	Productivity (t/ha)	69.0
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1. Assessment of compost culture for management of sugarcane trash (R)

Cluster Village-Choudadanapur

OFT-1

Crop/ enterprise	Problems	Availability of Technologies and the Sources	Nature /mode of intervention
Sugarcane	<ul style="list-style-type: none"> •Low organic matter due to burning of trash/residues (50-70%) •High cost on fertilizers •Reduced no. of tillers/plant •Lack of knowledge in production technology 	TO 1: Burning of trash/residue (Farmers Practice)	<ul style="list-style-type: none"> ➤ On Farm Testing ➤ Training –On/ Off campus ➤ Method demonstration (<i>in situ</i> vermiculturing) ➤ Result demonstration (% conversion of trash to compost, Yield & economics)
		TO 2: Retention of residue & appln. of compost culture @ 6 kg /Ac. Source : UAS,Dharwad	
TO 3: Retention of residue + appln. of Bio char@ 8kg/Ac Source : TNAU			
Area (ha)	No. of demos.		
1.2	3		

Implementing Scientist :
Sr. Scientist & Head, Agril Ent & Soil Science

- Parameters (At harvest)**
- ☛ Initial and after harvest of nutrient status in soil
 - ☛ Plant height (cm) at harvest
 - ☛ no. of tillers/plant
 - ☛ Root length (cm)
 - ☛ Yield (t/ha)
 - ☛ Economics

Critical input	Qty / Demo (0.4 ha)	Cost /Demo (Rs)	No. of Demo	Total cost (Rs.)
Compost culture	6 kg	360	3	3000/-
Bio char	8 g	640		
Cost / Demo		1000		

OFT-2

Village Productivity

620 kg/ha

Cluster Village-Hanumapur

Season : Kharif

New

Assessment of Foxtail millet varieties for higher yield under rainfed situation

Technology options		Source of Technology
TO ₁	Farmer practices	-
TO ₂	DHft-109-3	UAS, Dharwad
TO ₃	H N-46	UAS, Raichur

Critical input	Qty / Demo (0.4 ha)	Cost / Demo	No. of Demo	Total cost (Rs.)
T 2-Seeds	3 kg/ac	150	03	996
<i>Azospirillum</i>	200 g	16		
T 3-Seeds	3 kg/ac	150	03	996
<i>Azospirillum</i>	200 g	16		



Problems

- Low yield (8 q/ha), & Poor management practice

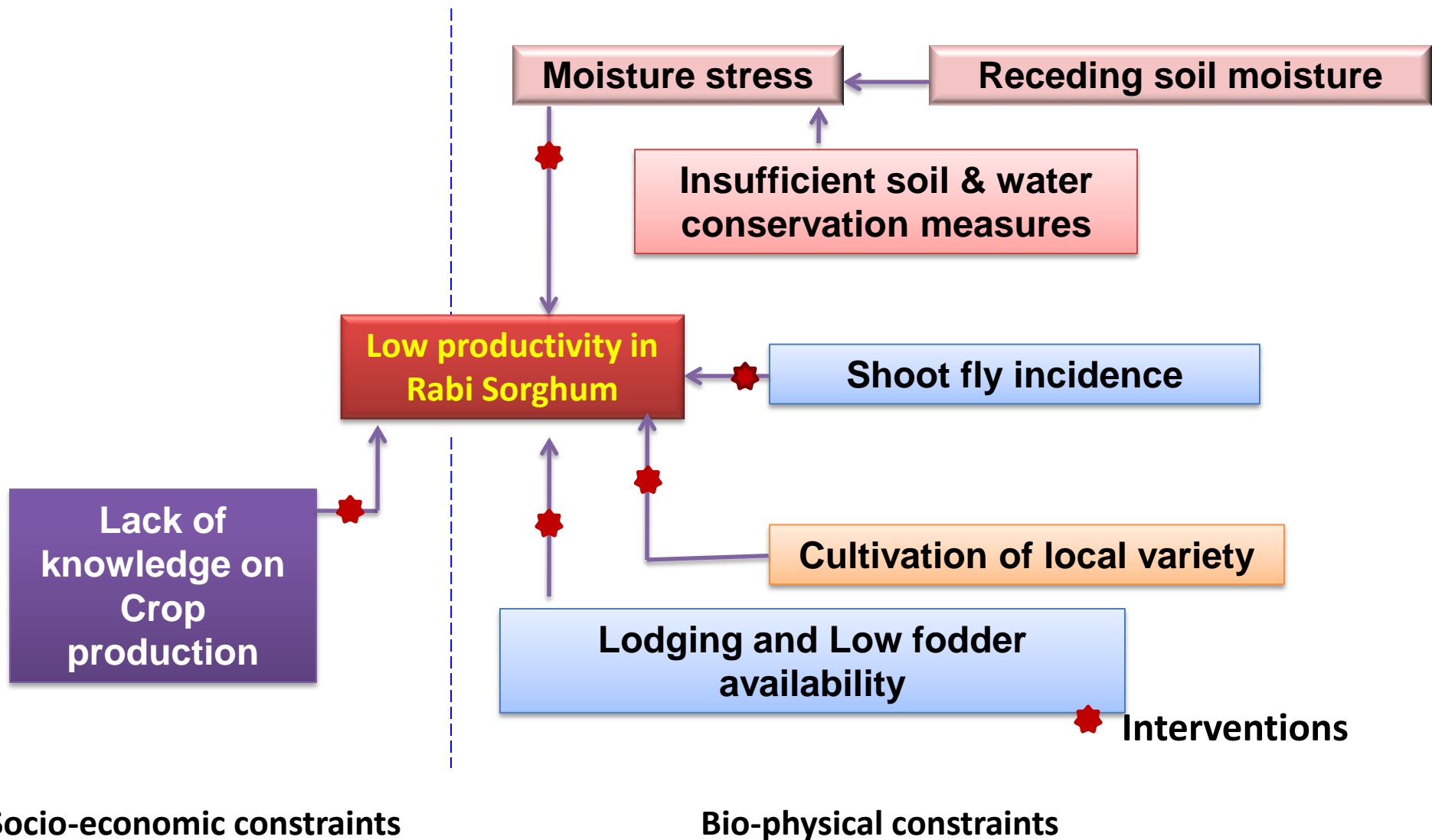
Parameters

- Grain yield (q/ha)
- Fodder yield (t/ha)
- Economics



Team members
Sr. Sci. & Head
Ag. Entomology

Problem-cause tree for low productivity in Rabi Sorghum



Cluster Village-Hanumapur

Farming situation	Rainfed
No. of demo.	10
Area (ha)	04
Villages	Ukkunda
Taluka	Ranebennur

Team members

Sr. Sci. & Head
Ag. Entomology
Animal Science

Problems identified

- Low yield due to use of local variety
- Lodging and low fodder availability

Technology demonstrated

- ☞ **SPV-2217 Variety (Lodging resistant, stay green & high fodder yield)**
- ☞ **Seed treatment with Trichoderma, Azospirillum**
- ☞ **Soil application with ZnSO₄ before sowing**
- ☞ **Whorl application of Carbofuran at the time of shoot weevil incidence (Farmers contribution)**

Critical input	Qty / Demo (0.4 ha)	Cost /Demo (Rs.)	No. of Demo	Total cost (Rs.)
Seeds	3 kg	200	10	12220
Carbofuran	3 kg	330		
Trichoderma	200 g	16		
Azospirillum	200 g	16		
ZnSO ₄	6 kg	660		
Cost / Demo		1222		

Parameters (At harvest)

- ☞ Plant height (cm)
- ☞ Lodging (%)
- ☞ Shoot fly incidence (%)
- ☞ Yield (q/ha)
- ☞ Economics

If you ate today thank a farmer

“ My grandfather used to say that once in your life you need a doctor, a lawyer, a policeman and a preacher but every day, three times a day, you need a farmer.”

Brenda Schoepp

THANK YOU....

AGRONOMY

Assessment of Groundnut Varieties for Short duration and Higher productivity

Dist. area (ha)	17789	Production (t)	13398.0	Productivity (q/ha)	6.11
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Cluster village	:	Baradur
Major crops/enterprises of the village	:	Groundnut, Greengram, Little millet , maize, Cotton



Crop/enterprise	Problem	Availability of Technologies and the Sources	Nature /mode of intervention
Groundnut	<ul style="list-style-type: none"> •Non availability of short duration variety •Pest and disease susceptibility •Use of local variety 	TO1: Farmers Practices TO2: G-2-52 TO3: JL-1085	<ul style="list-style-type: none"> ➤ Training – On & Off campus ➤ Group Discussion ➤OFT ➤ Field days

Technology options and budget required

Technology options		Source of Technology	Name of Critical inputs	Qty / trial (0.5 ac)	Cost / trial	No. of trials	Total cost (Rs.)
TO ₁	Farmers practices	-	-	-	-	03	13,500/-
TO ₂	G2-52	UAS, Dharwad	Seed	30.0 kg	2250/-		
TO ₃	JL – 1085	MPKV, Rahuri	Seed	30.0 kg	2250/-		
					Total	4500	

Parameter

- Plant height (cm)
- No. of Pods/ Plant
- Days to maturity
- Pest incidence (%)
- Yield (q/ha)
- Economics

Team members

Agronomy

Agriculture Entomology and

Sr. Sci. & Head

Dist. area (ha)	2616 ha	Production (t)	633 t	Productivity (q/ha)	3.62
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Cluster village	:	Baradur
Major crops/enterprises of the village	:	Groundnut, Greengram, Maize, Bt. Cotton



Crop/enterprise	Problem	Availability of Technologies and the Sources	Nature /mode of intervention
Greengram	<ul style="list-style-type: none"> •Low yield due to local varieties •Non availability of high yielding varieties •Susceptibility to Yellow Mosaic 	<p>TO1: Farmers Practices</p> <p>TO2: KKM -3</p> <p>TO3: DGGV – 2</p>	<ul style="list-style-type: none"> ➤ Training – On & Off campus ➤ Group Discussion ➤ OFT ➤ Field days

Technology options and budget required

Technology options		Source of Technology	Name of Critical inputs	Qty / trial (0.5 ac)	Cost / trial	No. of trials	Total cost (Rs.)
TO ₁	Farmers practices	-	-	-	-	03	3000.00
TO ₂	KKM – 3	UAHS, Shivamogga	Seed	5.0	500/-		
TO ₃	DGGV – 2	UAS, Dharwad	Seed	5.0	500/-		
					Total	1000/-	

Parameter

- No. of Pods/ Plant
- Days to maturity
- Pest incidence (%)
- Yield (q/ha)
- Economics

Team members

Agronomy

Agriculture Entomology and

Sr. Sci. & Head

Dist. area (ha)	1143	Production (t)	2236 t	Productivity (q/ha)	4.12
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Name of the Variety	DHFt-109-3
Source of Technology	UAS, Dhawad
Cluster Village	Hanumapura



Problems indentified

- Low yield (10-12 q/ha), Poor management practice
- Lack of awareness on new varieties
- Lack of awareness on processing & value addition

Technology intervention

- ☛ Seed treatment with *Azospirillum*
- ☛ DHFt-109-3 variety (Yield 15-20 q/ha)
- ☛ Processing and value addition

Budget required

Critical input	Qty / Demo (0.4 ha)	Cost / Demo	No. of Demo	Total cost (Rs.)
Seeds	3 kg/ac	210/-	10	3350/-
Azospirillum	250 g	25/-		
Product demonstration	-	100/-		
Total (Rs.)		335/-		

Parameters

- Grain yield (q/ha)
- Fodder yield (t/ha)
- Pest & disease (%)
- Economics

Team members

Agronomy
Ag. Entomology
Sr. Sci. & Head

Result-
2018-19

Demonstration of foxtail millet variety DHFt-109-3 for higher yield and income

Farming situation	Rainfed
No. of demo.	15
Area (ha)	6
Village	Attigeri
Taluka	Shiggaon



Technology Demonstrated	Grain yield (q/ha)	Fodder yield (t/ha)	% Increase in Yield
Demo. (DHFt-109-3)	17.12	3.70	37.0%
Check (Local)	12.45	2.98	

Economics (Rs./ha.)

* Rs. 3000/q produced price

	Gross cost	Gross return *	Net return	B:C
Demo. (DHFt-109-3)	15598/-	51350	35752	3.29
Check (Local)	14550	37350	22800	2.57

Farmers' Feedback

The new variety performed better with good crop stand and higher yield

Conclusion

New variety DHFt-109-3 performed better with respect to crop stand, grain and fodder yield

Demonstration of Little millet variety DHLm-36-3 for higher yield and income

Dist. area (ha)	912	Production (t)	1531.0	Productivity (q/ha)	3.05
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Name of the Variety	DHLM-36-3
Source of Technology	UAS, Dharwad
Cluster Village	Hanumapur



Problems

- Low yield (8-10 q/ha) due poor management practice
- Lack of awareness on new varieties
- Lack of awareness on processing & value addition

Technology Intervention

- DHLM-36-3 variety gives high yield of 15-20 q/ha with good fodder yield.
- Processing and value addition

Budget required

Critical input	Qty / Demo (0.4 ha)	Cost /Demo	No. of Demo	Total cost (Rs.)
Seeds	3 kg/ac	210	10	3350/-
Azospirillum	250 g	25		
Product demonstration	-	100		
Total (Rs.)		335/-		

Parameters

- Grain yield (q/ha)
- Fodder yield (t/ha)
- Pest & disease (%)
- Economics

Team members

Agronomy
Ag, Ento
Soil scientist
Sr. Sci. & Head

Farming situation	Rainfed
No. of demo.	10
Area (ha)	4.0
Village	S Somapur



Conclusion

New variety of DHLM-36-3 performed better with respect to crop stand , grain and fodder yield

Technology Demonstrated	Grain yield (q/ha)	Fodder yield (t/ha)	% Increase in Yield
Demo. (DHLM-36-3)	15.85	6.81	18.7%
Check (Local)	13.35	5.21	

Economics (Rs./ha.)

* Rs. 2800/q produced price

	Gross Cost	Gross return *	Net return	B:C
Demo. (DHLM-36-3)	15648/-	44380	28732	2.84
Check (Local)	14550/-	37380	22830	2.57

Farmers' Feedback

The new variety performed better with good crop stand and higher yield

Activities calendar of Scientists

Activities calendar of Scientist (Agronomy)

Village	Crop	Activity as leader	Other members of the team	Budget Proposed	Remarks
TECHNOLOGY ASSESSMENT					
Baradur	Groundnut	Assessment of Groundnut Varieties for Short duration and Higher productivity	Ag. Entomolgy Soil Science	13500/-	New
Baradur	Green gram	Assessment of Greengram variety KKM-3 for higher yield	•Ag. Entomolgy •Soil Science	3000/-	New
FRONTLINE DEMONSTRATION					
Hanumapur	Foxtail millet	Demonstration of foxtail millet variety DHFt-109-3 for higher yield and income	•Ag. Entomolgy •Soil Science	3350/-	Cont.
Baradur	Little millets	Demonstration of foxtail millet variety DHLm-36-6 for higher yield and income	•Ag. Entomolgy •Soil Science	3350/-	Cont.

Scientist (Agronomy)-Training programmes

Crop/ Enterprise	Activity as leader	Other members
FARMERS/ FARM WOMEN		
Groundnut	ICM in Groundnut	Ag Entomology Soil Science
Foxtail millet	ICM in Foxtail millet	
Little millet	ICM in Little millet	
Green gram	ICM in Greengram	
RURAL YOUTH		
Vermicomposting	Vermicomposting	Ag Entomology Soil Science
EXTENSION PERSONNEL		
<i>Crop production</i>	ICM in different <i>kharif</i> and <i>Rabi</i> crops	Ag Entomology Soil Science
VOCATIONAL TRAINING		
Organic farming		
Millets	Cultivation of millets under organic farming	Ag Entomology Soil Science
Sponsored trainings		
Crop production	Crop production activity in <i>kharif</i> & <i>Rabi</i> crops	Ag Entomology Soil Science

SOIL SCIENCE

Demonstration of vegetable special in tomato (Conti,..)

Area (ha):	4474	Production (t)	134225	Productivity (t/ha)	30
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Cluster village

Dhupadahalli (2018-19)

Hedegodu (2019-20)



Demonstration of vegetable special in tomato (Conti,..)

Crop/ enterprise	Problem	Availability of Technologies and the Sources	Nature /mode of intervention
Tomato/ Micronutrient Mixture	<ul style="list-style-type: none"> •High level of flowers shedding •Less in uniform size of fruits •Low marketability of fruits 	<p>TO1: Farmers Practices TO2: Application of vegetable special (5g/ltr) (Critical input: Vegetable Special) Source: IIHR, Bengaluru</p>	<ul style="list-style-type: none"> ➤ <u>Front line demonstration</u> ➤ Training – On & Off campus ➤ Method demonstration (Foliar Spray) ➤ Result demonstration (yield and economics) ➤ Field day
<p>Package of Practices:</p> <ol style="list-style-type: none"> 1. FYM-5t/acre/Vermicompost-1 t/acre 2. N:P:K= 100:100:100 kg/ha 3. Seedling treatment – Vitavex powder @ 2 g/l 4. Trap crop- Marigold 5. Barrier crop- Maize 			

Effect of Vegetable Special on growth and yield of tomato

Parameter	Farmers' practice	Vegetable Special	% Increase
1. Days to 50 % flowering	33.3	31.3	-6.0
2. Plant height (cm)	122.9	127.1	3.5
3. No. of branches/plant	4.4	5.4	22.5
4. Days to first picking of fruits	87.5	83.9	-4.1
5. Days to last picking of fruits	146.4	142.3	-2.8
6. No. of fruits/plant	26.1	30.1	15.3
7. Fruit weight (g)	35.3	42.9	19.8
8. Fruit yield (t/ha)	23.9	26.8	12.6
9. Cost of cultivation (Rs.)	54100	51000	-5.7
10. Gross Return (Rs.)	237800	267800	12.6
11. Net return (Rs.)	183700	216800	18.0
12. B:C ratio	4.4	5.3	19.5

Price: Rs. 10/kg

	Av. N (kg/ha)	Av. P (kg/ha)	Av. K (kg/ha)
Initial stage	299	11.8	227.5
After harvest	334	15.6	295.0

	EC (dS/m)	OC (%)	Zn (ppm)	Fe (ppm)	Cu (ppm)	Mn (ppm)	B (ppm)	Si (%)
Initial stage	0.39	0.66	0.41	0.48	0.33	0.63	0.41	0.39
After harvest	0.46	0.71	0.52	0.54	0.40	0.68	0.47	0.46

Vegetable special

Without Vegetable special



Cluster village	:	Chaudayya Dhanapura
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No. Of Demos: 3

Variety: MTU-1010

Availability of Technologies and the Sources (2018-19)

TO1: Farmers Practices

TO2: Silicon spray @ 2 ml/L, 2 sprays at 25 and 40 days after planting

TO3: Silicon spray @ 2 ml/L, 3 sprays at 25, 40 and 55 days after planting

Source : UAS, Bengaluru

Availability of Technologies and the Sources (2019-20)

TO1: Farmers Practices

TO2: Silicon spray @ 2 ml/L, 2 sprays at 25 and 40 days after planting

Source : UAS, Bengaluru

SOIL MAP OF HAVERI DISTRICT





Parameter	Farmers' practice	Si @ 2ml in 25 & 40 DAP (T1)	Si @ 2ml in 25, 40 & 55 DAP (T2)	% increase (T1)	% increase (T2)
1. Plant height (cm)	84.5	82.7	81.1	-2.1	-4.2
2. No. of productive tillers	11.2	12.1	13.5	7.2	16.8
3. No. of grains/panicle	124.1	125.5	130.6	1.1	5.0
4. Test weight (g)	23.7	24.4	25.0	2.9	5.1
5. Grain yield (kg/ha)	6429.7	6619.3	6819.3	2.9	5.7
6. Straw yield (kg/ha)	8091.9	8305.1	8431.8	2.6	4.0
7. Cost of cultivation (Rs.)	45600.0	35340.0	35600.0	-29.0	-28.1
8. Gross Return (Rs.)	135023.0	139006.0	143206.0	2.9	5.7
9. Net return (Rs.)	89423.0	103666.0	107606.0	13.7	16.9
10. B:C ratio	3.0	3.9	4.0	24.7	26.4

Price: Rs. 2100/q

	Av. N (kg/ha)	Av. P (kg/ha)	Av. K (kg/ha)
Initial stage	290.8	12.67	222.5
After harvest	315.0	15.00	272.5

	EC (dS/m)	OC (%)	Zn (ppm)	Fe (ppm)	Cu (ppm)	Mn (ppm)	B (ppm)	Si (%)
Initial stage	0.290	0.527	0.469	0.351	0.386	0.414	0.437	1.160
After harvest	0.390	0.660	0.508	0.485	0.477	0.544	0.455	1.370



● ○ REDMI NOTE 5 PRO
MI DUAL CAMERA



TO2 TO1 FP

● ○ REDMI NOTE 5 PRO
MI DUAL CAMERA

FLD-1 Demonstration of micronutrient application in early crop growth stages of Sugarcane (OFT to FLD)

Cluster villages : Chaudayya
Dhanapura

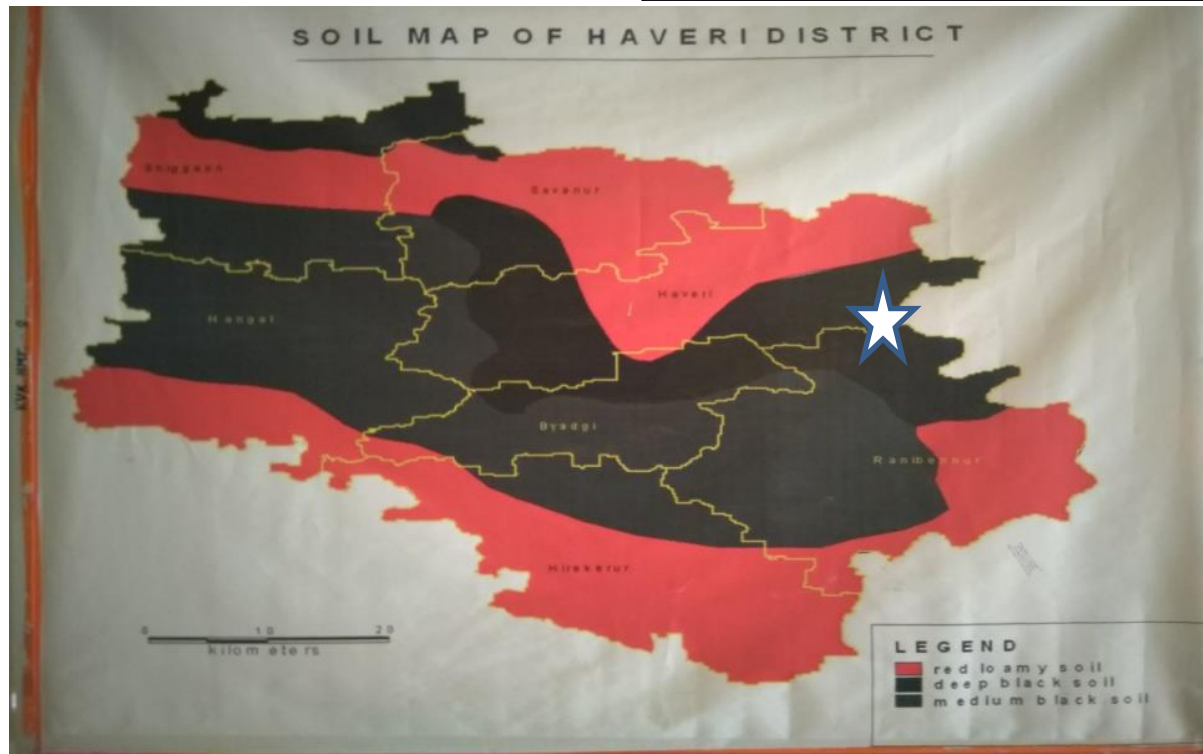
No. Of Demos: 10
Variety: Co-80166

Availability of Technologies and the Sources

TO1: Micronutrient through RDF

TO2: Foliar Spray of 2.5 kg FeSO₄ + 2.5 Kg of ZnSO₄ alongwith 2.5 kg of Urea in 250 litre of water at 50 & 100 DAP

Source : TNAU, Tamil Nadu



OFT-2

Effect of micronutrient application in early crop growth stages on growth and yield of Sugarcane

	FP	TO	% Increase
Plant height (cm)	260.5	267.6	2.6
Cane length (cm)	223.0	226.0	1.3
Internodal length (cm)	12.0	12.9	7.5
Internodes (Nos.)	17.8	17.9	0.4
Yield (t/ha)	92.5	103.5	10.6
Cost of cultivation (Rs.)	68500.0	61000.0	-12.3
Gross Return (Rs.)	231250	258750	10.6
Net return (Rs.)	162750.0	197750.0	17.7
B:C	3.4	4.2	20.4

Price: Rs. 2500/t

Micronutrients through FDF: Soil application of 20 kg/ha $ZnSO_4$
+20 kg/ha $FeSO_4$

TO: Foliar spray of 2.5 kg $FeSO_4$ + 2.5 kg of $ZnSO_4$ along with 2.5 kg of Urea in 250 litre of water at 50 and 100 DAP

	Av. N (kg/ha)	Av. P (kg/ha)	Av. K (kg/ha)
Initial stage	291.8	12.6	222.5
After harvest	310.0	13.00	242.5

	EC (dS/m)	OC (%)	Zn (ppm)	Fe (ppm)	Cu (ppm)	Mn (ppm)	B (ppm)	Si (%)
Initial stage	0.290	0.527	0.469	0.351	0.386	0.414	0.437	1.160
After harvest	0.390	0.660	0.508	0.485	0.477	0.544	0.455	1.370





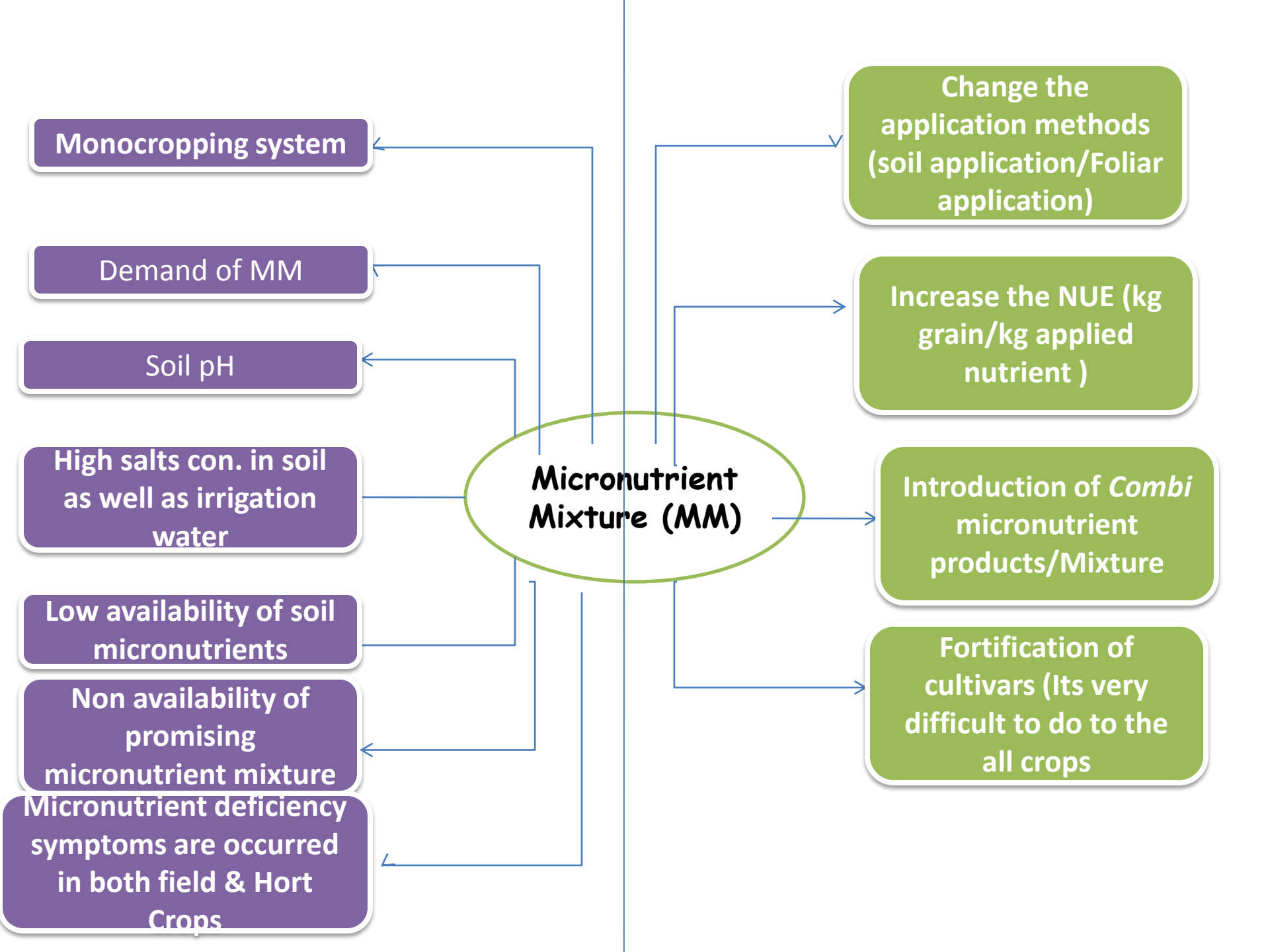
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MM	Benefits	Source
Groundnut Rich	Decreases flower shedding Increases pod number and size Increases yield up to 20 per cent Increases drought tolerance	TNAU, Coimbatore
Cotton Plus	Reduces flower and square shedding Improves boll bursting Increases seed cotton yield up to 18 per cent Increases drought tolerance	
Maize Maxim	Improves grain filling Increases grain yield up to 20 per cent Improves drought tolerance	
Sugarcane Booster	Increases internodal length Increases internode number Increases sugar content Increases yield up to 20 per cent	
Pulse Wonder	Decreases flower shedding Increases yield up to 20 per cent Increases drought tolerance	
Banana Special	Increases finger/bunch Fruit weight Increases yield up to 15-20 per cent	
Vegetable Special	Increases yield up to 20 per cent	
Citrus Special		

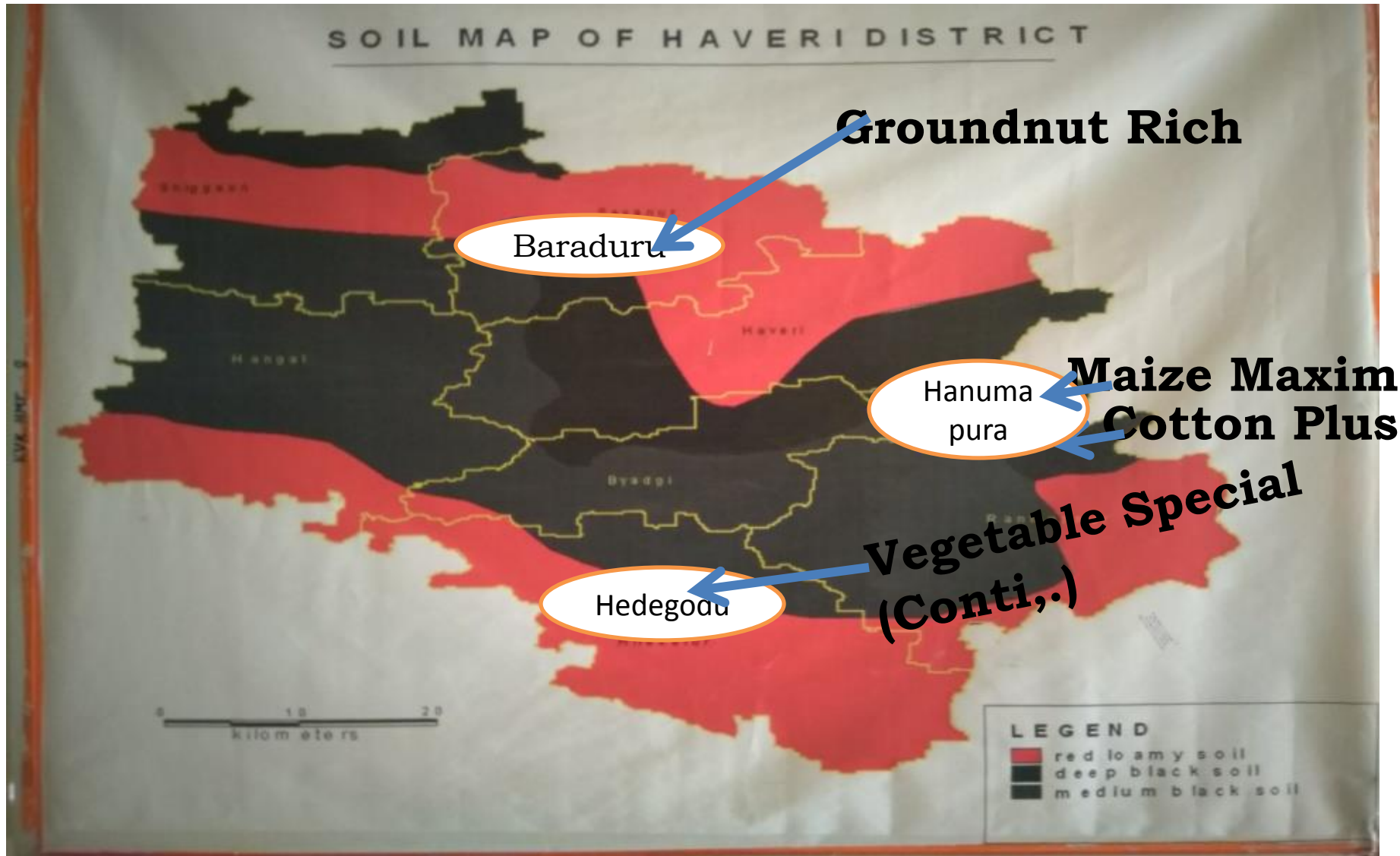
Selected crops of Haveri	Area (ha)	Production (t)	Productivity (kg/ha)	Increased yield due to micronutrient mixture (%)	Gap in production (t) due to MM	Gap in productivity (kg/ha) due to MM
Cotton	74900	200975	368	18	36175.5	66
Maize	189485	513005	3442	20	10201	688
Groundnut	20939	32759	1560	20	6551.8	312
Tomato	4474	134225	30000	20	26845	6000



Micronutrient	Category
Zn	Low
Fe	Low
Mn	Medium
Cu	Medium
B	Low
Mo	Low

Micronutrient Mixture	Concentration	Source of technology
Groundnut Rich	Zn- 2.0 % Fe- 2.0 % Mn-1.0 % B- 0.3 %	TNAU, Coimbatore
Cotton Plus	Zn- 2.5 % Fe- 2.5 % Mn-1.0 % B- 0.3 %	
Maize Maxim	Zn- 3.0 % Fe- 2.5 % Mn-1.0 % B- 0.5%	
Sugarcane Booster		
Pulse Wonder		
Banana Special		IIHR, Bengaluru
Vegetable Special	Zn- 3.0 % Fe- 2.5 % Mn-1.0 % B- 0.5%	
Citrus Special		

Demonstrations of COTTON PLUS (Cotton crop), Maize Maxim (Maize crop) and Groundnut Rich (for Groundnut crop) for 2019-20



Area (ha):	74900	Production (t)	200975	Productivity (Kg/ha)	368
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Cluster village	:	Hanumapura
Major crops/enterprises of the village	:	Onion, Vegetables, Maize

Crop/ enterprise	Problem	Availability of Technologies and the Sources	Nature /mode of intervention
Cotton/ Micronutrient Mixture	<ul style="list-style-type: none"> •High level of flower & square shedding •Boll Bursting 	<ul style="list-style-type: none"> •Farmers Practices •Spray @ 2.5 kg of Cotton Plus/acre with 200 litre of water at flowering and boll formation stages <p style="color: red; margin-top: 10px;">(Critical input: Cotton Plus)</p> <p style="color: red; margin-top: 5px;">Source : TNAU, Coimbatore</p>	<ul style="list-style-type: none"> ➤ Front line demonstration ➤ Training – On & Off campus ➤ Method demonstration (Foliar Spray) ➤ Result demonstration (yield and economics) ➤ Field day

Package of Practices:

1. FYM-5t/acre/Vermicompost-1 t/acre

2. N:P:K=80:40:40 kg/ha

3. 3. When reddening is occurs in leaves- application of 5 % MgSO₄ + 1 % Urea + 0.1 % ZnSO₄ as foliar spray on 50 & 80th DAS

4. Use of bhendi as trap crop

5. Need based application of Fipronil at 1 ml/l of water for management of sucking pests

6. Setting up of pheromone traps @ 12/acre for management of PBW

7. Spraying of profenophos @ 2ml/l at 70 DAS

Area (acre)	No. of demos.	Cost/demo(Rs.)	Budget (Rs.)
10	10	1380	10380

2

Area (ha)	189485	Production (t)	513005	Productivity (Kg/ha)	3442
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Cluster villages	:	Hanumapura
Major crops/enterprises of the village	:	Onion, Vegetables, Cotton

Crop/enterprise	Problem	Availability of Technologies and the Sources	Nature /mode of intervention
Maize/ Micronutrient Mixture	<ul style="list-style-type: none"> •Low in grain filling •Micronutrient deficiency symptoms •Low in drought resistance 	<ul style="list-style-type: none"> • Farmers Practices •Spray @ 3.0 kg of Maize Maxim/acre with 200 litre of water at Tassel initiation and grain filling stages <p>(Critical input: Maize Maxim) Source : TNAU, Coimbatore</p>	<ul style="list-style-type: none"> ➤ <u>Front line demonstration</u> ➤ Training – On & Off campus ➤ Method demonstration (Foliar Spray) ➤ Result demonstration (yield and economics) ➤ Field day

Package of Practices:

1. FYM- 5 t/acre
2. Seed treatment – Azospirillum at 600 g/acre
3. N:P:K = 60:30:30 kg/ha

Area (acre)	No. of demos.	Cost/demo (Rs.)	Budget (Rs.)
10	10	2180	21800

Area (ha)	20939	Production (t)	32759	Productivity (Kg/ha)	1560
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Cluster villages	:	Baradur
Major crops/enterprises of the village	:	Onion, Vegetables, Cotton

Crop/enterprise	Problem	Availability of Technologies and the Sources	Nature /mode of intervention
Groundnut/ Micronutrient Mixture	<ul style="list-style-type: none"> • Higher in flower shedding • Micronutrient deficiency of soil • Low in quality of groundnut seed 	<ul style="list-style-type: none"> • Farmers Practices • Spray @ 2.0 kg of Groundnut Rich/acre with 200 litre of water at flower initiation and pod filling stages <p>(Critical input: Maize Maxim) Source : TNAU, Coimbatore</p>	<ul style="list-style-type: none"> ➤ Front line demonstration ➤ Training – On & Off campus ➤ Method demonstration (Foliar Spray) ➤ Result demonstration (yield and economics) ➤ Field day

Package of Practices:

1. FYM- 5 t/acre
2. N:P:K=25:50:75 kg/ha (N & K apply in three splits viz., 50 %N & K as basal +25 % N & K @ 20 DAS + 25 % N & K @ 45 DAS)
3. Seed treatment – Trichoderma viride @ 4 g/kg seeds
4. Gypsum- 400 kg/ha @ 45 DAS

Area (acre)	No. of demos.	Cost/demo(Rs.)	Budget (Rs.)
10	10	1180	11800

Scientist (Soil Science)-Training programmes

Crop/ Enterprise	Activity as leader	Other members
FARMERS/ FARM WOMEN		
SHM	Soil Health Management in vegetable crops	Horticulture Ag Entomology Agronomy
SHM	Soil Health Management in plantation crops	
SHM	Soil Health Management in flower crops	
Kharif	Mannu Aarogya Abhiyana	
Rabi	Mannu Aarogya Abhiyana	
Kharif	Soil Health & Biofertilizers	
Rabi	Soil Health & Biofertilizers	
RURAL YOUTH		
Biofertilizers	Importance of Biofertilizers and its use	Horticulture Ag Entomology Agronomy
SHM	Importance of Soil Health Card and Soil Health Management	
EXTENSION PERSONNEL		
SHM	Soil Health Management for Major crops of Haveri	Horticulture Ag Entomology Agronomy
SHM	Soil Health Management for Major horticultural crops of Haveri	
VOCATIONAL TRAINING		
Green Manuring	Soil sample collection and Uses of green manuring crops	Horticulture Ag Entomology Agronomy

HORTICULTURE

Abstract of OFTs and FLDs

FLD/OFT/Cluster FLD	No. of demo.	Amount (Rs.)
OFT	02	37800
FLD	03	43100
Total	05	80900

Name	Designation	No. of OFT	No. of FLD
Mr. Harish D K	Scientist (Horticulture)	02	03

Dist. area (ha)	8284	Production (t)	98663.6	Productivity (q/ha)	11.91
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OFT-1

Assessment of chilli hybrids for yield potential, disease & pest resistance

Contd..

- Problems**
- Poor soil fertility
 - Lack of knowledge on improved varieties
 - Incidence of pest and diseases

Village	Chikkeri-Hosalli
Taluka	Hanagal
No. of demo	03
Area (ha)	0.6
Source of technology	IIHR & UAS, B

KBCH-1

Arka Megana



Assessment of chilli hybrids for yield potential, pest and disease resistance

OFT-1

contd

Technology option	Source of Technology
TO ₁ Farmer practices	-
TO ₂ KBCH-1	UAS, Bengaluru
TO ₃ Arka Meghana	IIHR, Bengaluru

Critical Inputs Provided & Total Amount (DBT)

	Inputs	Qty	Cost/trial
T ₁	Farmer practices	-	-
T ₂	KBCH-1	60 gm	1500
T ₃	Arka Meghana	60 gm	2200
	Amount/ Trial		3700
	Total Amount for 3 trials		11100

Parameters

- No. Fruits / plant
- Disease incidence (%)
- Yield (q/ha)
- Economics

Implementing Scientist :
Scientist (Horticulture)

Effect of chilli hybrids on yield potential, pest and disease resistance and economics

Parameter	Farmers' practice (TO ₁)	KBCH-1 (TO ₂)	Arka Meghana (TO ₃)	% Increase (TO ₂)	% Increase (TO ₃)
Number of fruits/plant	153	322	212	52.4	27.8
Disease incidence (%)	18.4	13.5	8.6	-36.7	-114.0
Yield (q/ha)	240	320	330	25.0	27.3
Cost of Cultivation (Rs.)	71000.0	79666	78333	11	9
Gross return (Rs.)	360000.0	480000	495000	25	27
Net return (Rs.)	289000.0	400333	416666	28	31
B:C ratio	5.1	6.0	6.3	15	19



**Farmers'
Feedback**

**The new variety arka meghana
performed better respect to disease,
good crop stand and higher yield**

Effective control of Panama wilt by using stem injection method in Banana

OFT-2

New

Dist. area (ha)	4302	Production (t)	124311	Productivity (q/ha)	28.90
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Problems

- Lack of knowledge about improved cultural practices
- Poor soil fertility
- Lack of knowledge on improved varieties
- Incidence of pest and diseases

Village	Yadagoda
Area (ha)	1.20 ha
No. of Demo	03
Taluka	Hirekerur
Source of technology	UHS, B & UAS, D



ಪನಾಮ ರೋಗ ನಿರೂಪಣೆ ಹಸುಮನಮಟ್ಟಿಯ ಕೃಷಿ ವಿಜ್ಞಾನಿ ಪ್ರಯೋಗ

ಬಾಳೆ ಗಿಡಕ್ಕೂ ಬಂತು ಚುಚ್ಚುಮದ್ದು!

• ಪನಾಮ ರೋಗ ನಿರೂಪಣೆ ಹಸುಮನಮಟ್ಟಿಯ ಕೃಷಿ ವಿಜ್ಞಾನಿ ಪ್ರಯೋಗ

ತರಹೇವಾರಿ ಉತ್ಪನ್ನ

• ಪನಾಮ ರೋಗ ನಿರೂಪಣೆ ಹಸುಮನಮಟ್ಟಿಯ ಕೃಷಿ ವಿಜ್ಞಾನಿ ಪ್ರಯೋಗ

ತಮಿಳುನಾಡಿನ ನಿರೀಕ್ಷೆ

• ಪನಾಮ ರೋಗ ನಿರೂಪಣೆ ಹಸುಮನಮಟ್ಟಿಯ ಕೃಷಿ ವಿಜ್ಞಾನಿ ಪ್ರಯೋಗ

ಪನಾಮ ರೋಗ ನಿರೂಪಣೆ ಹಸುಮನಮಟ್ಟಿಯ ಕೃಷಿ ವಿಜ್ಞಾನಿ ಪ್ರಯೋಗ

• ಪನಾಮ ರೋಗ ನಿರೂಪಣೆ ಹಸುಮನಮಟ್ಟಿಯ ಕೃಷಿ ವಿಜ್ಞಾನಿ ಪ್ರಯೋಗ

Technology options

Source of Technology

TO ₁	Farmer practices	-
TO ₂	Drenching with copper oxychloride @ 3 gm/ liter of water	UHS, Bagalkot
TO ₃	Stem injection with 3 gm of carbendazim + 3 gm of copper oxychloride + 3 gm of boric acid per liter of water	UAS , Dharwad



Critical Inputs Provided & Total Amount

Inputs	Qty	Cost/trial
Farmer practices	-	-
Copper oxy chloride	15.5 kg	8800
carbendazim	500 gm	250
Boric acid	500 gm	250
Amount/ Trial		9300
Total Amount for 3 trials		27900

Implementing Scientist :
Scientist (Horticulture)

Dist. area (ha)	2033	Production (Lakhs)	172997.2	Productivity (Lakhs/ha)	8.5
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Village	Hanumapur
Area (ha)	2.0 ha
No. of trials	05
Taluka	Ranebennur
Source of technology	TNAU/ JNKVV, MP

Problems

- Low yield (10-15 lakhs leaves/ha)
- Incidence of Wilt (15-20%)

Technology to be demonstrated

- ☞ Trichoderma, Pseudomonas enriched FYM during month of June & July
- ☞ Neem cake application during June & July (200 g/vine)
- ☞ Lowering of vine in the month of December
- ☞ Carboxin (0.2 %) drenching during lowering

Parameters

- Yield/plant
- Yield (No./ha)
- Disease incidence (%)
- Economics

Critical input	Qty / Demo (0.5 ac)	Cost / Demo	No. of Demo	Total cost(Rs.)
Pseudomonas	10 kg	1500	05	22000
Trichoderma	10 kg	1500		
Carboxin	1kg	1400		
Total (Rs.)		4400		

Implementing
Scientist :
Scientist
(Horticulture)



Off campus training
on ICM in Betelvine



Input implementation

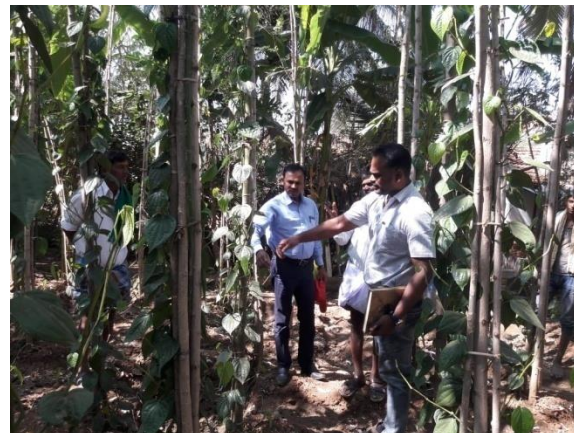


Treatment imposition

Result -2018-19 -Under progress



Treatment imposition



Observation from farmers



Observation from farmers

Micronutrient Management in Onion using vegetable special

Dist. Area (ha)	6807.35	Production (t)	141039	Productivity (t/ha)	20.72
Village	Hanumapur				
Area (ha)	4.0 ha				
No. of Demo	10				
Taluka	Ranebennur				
Source of technology	IIHR, Hesarughatta				
Crop/enterprise	Problems	Availability of Technologies and the Sources	Nature /mode of intervention		
Onion	<ul style="list-style-type: none"> •Micronutrient deficiency •Imbalance nutrition •Low yields 	<p>Check: FP Demo: Application of vegetable special (5g/ltr)</p> <ul style="list-style-type: none"> ➤Growing maize crop as barrier crop all along the border ➤Application of FYM pre mixed with <i>Trichoderma viride</i> before planting ➤Application of pre emergent herbicide pendimethalin @0.2% ➤Application of Azospirillum and PSB at 5kg/ha ➤Application of 75:40:40:20 kg NPKS/ha (Full of PKS and 1/3 of N need to be applied at the time of transplanting and remaining 2/3 of N in two equal splits at 30 and 45 DAT) <p>Source: IIHR, Bangalore & DOGR</p>	<ul style="list-style-type: none"> ➤Front Line Demonstration ➤Soil analysis before and after the crop ➤Yield 		

Area (acre)	No. of demos	Cost/Demo	Budget (Rs.)
10	10	980	9800

Name of critical input	Qty Per trial	Cost per Trial (Rs.)	No. of trials	Total cost for the Intervention (Rs.)
Application of vegetable special	(5g/ltr) 150/kg	980	10	9800
Soil analysis before and After the crop	380			

Implementing Scientist :
Scientist (Horticulture)

Dist. Area (ha)	4302	Production (t)	124311	Productivity (t/ha)	28.90
Village	Yadagoda				
Area (ha)	4.0 ha				
No. of Demo	10				
Taluka	Hirekerur				
Source of technology	IIHR				

Crop/enterprise	Problem	Availability of Technologies and the Sources	Nature/mode of intervention
Banana	<ul style="list-style-type: none"> •Micronutrient deficiency •Imbalanced fertilizer application •Low yields due poor management 	<p>Check: FP</p> <ul style="list-style-type: none"> ➤Demo: Tissue culture -G9 ➤Growing <i>sesbenia grandiflora</i> as an wind breaker all along the border ➤Enrichment of FYM with Trichoderma, pseudomonas and PSB before the planting ➤Application of Banana special (5g/ltr) ➤Bunch feeding with urea and SOP @7.5 gm/bunch <p>Source: IIHR, Bangalore, UAS(B)</p>	<ul style="list-style-type: none"> ➤Front Line Demonstration ➤Soil analysis before and after the crop ➤Yield

Area (acre)	No. of demos	Cost/Demo	Budget (Rs.)
10	10	1130	11300

Name of critical input	Qty Per trial	Cost per Trial (Rs.)	No. of trials	Total cost for the Intervention (Rs.)
Application of banana special	(5g/ltr) 150/kg	1130	10	11300
Soil nutrient analysis before and After the crop	380			

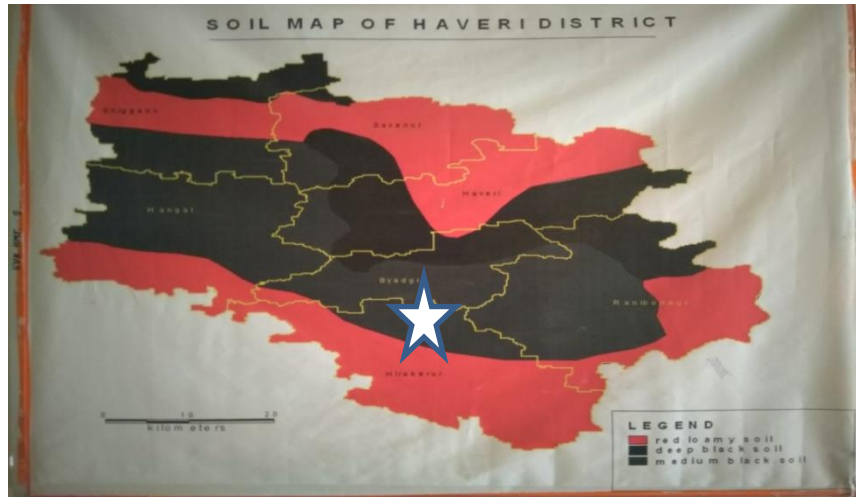
Implementing Scientist :
Scientist (Horticulture)

FLD-4 Demonstration of micronutrients in Banana using Banana special (Conti,..)

Cluster villages : Rettihalli, Yadagodu

Availability of Technologies and the Sources

Check: FP
Demo: Application of banana special (5g/ltr)
Source: IIHR, Bengaluru



Parameter	Farmer practice	Banana Special	% Increase
1.Pseudo stem girth (cm)	72.9	76.68	5.5
2. Pseudo stem height (m)	2.2	2.604	18.1
3. No. Of leaves/plant	13.9	16.9	21.6
4. No. Of hands/bunch	12.3	14.3	16.3
5. No. Of fingers/bunch	17.6	18.58	5.7
6. Finger weight (g)	121.5	129.4	6.5
7. Yield (t/ha)	42.4	44.7	5.5
8. Cost of cultivation (Rs.)	74100	68000	-8.2
9. Gross Return (Rs.)	423640	446760	5.5
10.Net return (Rs.)	349540	378760	8.4
11.B:C ratio	5.7	6.6	14.9



AGRIL. ENTOMOLOGY

Dist. area (ha)

1200

Production (t)

45672

Productivity (q/ha)

4.2 tha

Contd.

Management of Leaf hopper and powdery mildew in Mango

Farming situation	Rainfed
No. of Trials	03
Area (ha)	01
Village	Chikkeri - Hosalli
Taluka	Hanagal

Problems Identified

Incidence of leaf hopper and powdery mildew and low fruit yield

Affected area : 35-40%

Technology Options		Source of Technology
TO ₁	Farmers' practice	-
TO ₂	Application of Imidacloprid @ 0.25 ml + Hexaconazole 1 ml/L @ flower initiation stage and @ fruit setting stage	UHS Bagalkote
TO ₃	Application of Lambdacyhalothrin @ 0.5 ml + Difenconazole 1 ml/L @ flower initiation stage and @ fruit setting stage	IIIHR Bengalore

Critical Inputs			
	Inputs	Qty	Cost/trial
TO ₁	-	-	-
TO ₂	Imidacloprid	100 ml	500
	Hexaconazole	500 ml	650
TO ₃	Lambda cyhalothrin	500 ml	350
	Difenconazole	500 ml	2500
Amount/trial			4000
Total Amount for 3 trials			12000

Management of Leaf hopper and powdery mildew in Mango- 2018-19

Farming situation	Rainfed
No. of Trials	03
Area (ha)	0.6
Village	Alalageri
Taluka	Byadagi

Problems Identified

- Incidence of leaf hopper and powdery mildew
- Low fruit yield



Technology Options		Source of Technology
TO ₁	Farmers' practice	-
TO ₂	Application of Imidacloprid @ 0.25 ml + Hexaconazole 1 ml/L @ flower initiation stage and @ fruit setting stage	UHS Bagalkote
TO ₃	Application of Lambdacyhalothrin @ 0.5 ml + Difenconazole 1 ml/L @ flower initiation stage and @ fruit setting stage	IIIHR Bengalore

Result Under Progress



Dist. area (ha)	170696	Production (t)	265188	Productivity (q/ha)	16.09
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Contd.

Integrated Crop Management in Maize-Contd...

Village	Choudadanapur
Taluk	Ranebennur
No. of Demo.	10
Area (ha)	04
Name of the Variety	Private Hybrid

Problems Identified

- Low Yield
- Pest incidence
- Micro nutrient deficiency

Affected area : 40-50%

Technology to be demonstrated

- ☞ Seed treatment with bio-fertilizer and bio pesticides
- ☞ Soil application of FeSO_4 & ZnSO_4 @ 25 kg/ha along with 50 kg Vermicompost at the time of sowing
- ☞ Setting up Pheromone traps @ 12 / ac for Mass trapping fall army worm
- ☞ Application of *Nomuraea rileyii* @ 2 g/L of water
- ☞ Need based application of Ema. Benz.@ 0.25g/l

Critical input	Qty / Demo	Cost /Demo
<i>Trichoderma</i>	500 g	65
<i>Azospirillum</i>	500 g	50
ZnSO_4	10 kg	1200
FeSO_4	10 kg	1250
<i>Nomuraea</i>	1 kg	250
Pheromone traps with Lure	12 No's	960
Emamectin Benzote	100 g	450
Total Rs./ Demo.		4225/-
Total Rs. for 10 Demo,.		42250/-



Parameters

- Plant height (cm)
- Yield (q/ha)
- FAM incidence
- Economics

Team members

Ag. Ento.
Soil Science
Agronomy
Sr. Sci. & Head

Village	Kamadoda
Taluk	Ranebennur
No. of Demo.	10
Area (ha)	04
Name of the Variety	CP-818
Date of Sowing	June – 2018
Date of Harvest	October - 2018



Results

Technology Demonstrated	FAM Larva(No/pl)	Yield (q/ha)	Yield increase(%)
Demo.	0.75	53.88	9.97
Farmers Practice	1.38	49.00	



Economics

Technology Demonstrated	Cost of cultn.(Rs/ha)	Gross Return(Rs/ha)	Net Return(Rs)	B:C ratio
Demo.	23396/-	83511/-	60115/-	3.57
Farmers Practice	26556/-	75955/-	49398/-	2.86



Group discussion



Field Visit

Farmers' Feedback

Application of $ZnSO_4$ and $FeSO_4$ and proper management of Fall armyworm resulted in better growth and yields

Conclusion

Enhanced yield can be obtained by adopting ICM technologies in maize

Dist. area (ha)	7450	Production (t)	2366	Productivity (q/ha)	4.12
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Contd.

Integrated Crop Management in Soybean

Village	Baradur
Taluk	Savanur
No. of Demo.	10
Area (ha)	04
Name of the Variety	DSb-23

Problems Identified

- Use of local variety
- Poor nutrient management
- Incidence of Defoliator

Affected area : 30-35%

Technology to be demonstrated

- ☞ Use of HYV DSb-23
- ☞ Seed treatment with vitavax, bio-fertilizer and bio pesticides
- ☞ Management of defoliators

Critical input	Qty / Demo	Cost /Demo
Seeds	25 kg	1800
Trichoderma	250 g	35
PSB	250 g	25
Rhizobium	250 g	1200
Nomuraea	1 kg	250
Vitavax power	250 gm	525
Total Rs./ Demo.		2660
Total Rs. for 10 Demo.,.		26600/-

Parameters

- Yield (q/ha)
- Defoliator incidence
- Economics

Team members

Ag. Ento.
Agronomy
Sr. Sci. & Head

Village	Arelakamapur
Taluk	Ranebennur
No. of Demo.	10
Area (ha)	04
Name of the Variety	JS-335
Date of Sowing	June – 2018
Date of Harvest	October - 2018

Technology demonstrated

- ☞ Use of HYV JS-335
- ☞ Seed treatment with bio-fertilizer and bio pesticides
- ☞ Management of leaf eating caterpillars



Results

Technology Demonstrated	LEC Larva (No/mt row)	Yield (q/ha)	Yield increase(%)
Demo.	1.12	22.67	9.09
Farmers Practice	1.74	20.78	



Economics

Technology Demonstrated	Cost of cultn.(Rs/ha)	Gross Return(Rs/ha)	Net Return(Rs)	B:C ratio
Demo.	20250/-	67998/-	47748/-	3.36
Farmers Practice	19500/-	62331/-	42831/-	3.20



Farmers' Feedback

Obtained better yield and profit by following ICM



Conclusion

Enhanced yield can be obtained by adopting ICM technologies in soybean

Dist. area (ha)	14826	Production (t)	372062	Productivity (t/ha)	69.0
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New

Integrated Crop Management in Sugarcane

Village	Chikkeri-Hosalli
Taluk	Ranebennur
No. of Demo.	10
Area (ha)	04
Name of the Variety	Co-86032

Problems Identified

Low yield
 Poor nutrient management
 Poor pest and disease management

Affected area : 40-45%

Technology to be demonstrated

- Application of FYM fortified with *Azospirillum* and PSB (4 kg each for 10t FYM)
- Soil application of FeSO₄ & ZnSO₄ @ 25 kg/ha along with 50 kg vermicompost at the time of sowing
- Management of Rootgrub by *Metarhizium anisoplaea*
- Release of *Micromus igorotus* predator against sugarcane woolly aphid (if incidence of pest noticed)

Parameters

- No. of tiller/hill
- Pest and disease incidence
- Yield (q/ha)
- Economics

Team members

Ag. Ento.
 Agronomy
 Soil scientist
 Sr. Sci. & Head

Critical input	Qty / Demo	Cost /Demo
<i>Azospirillum</i>	4 kg	400
PSB	4 kg	400
<i>Metarhizium</i>	5 kg	1250
ZnSO ₄	10 kg	1200
FeSO ₄	10 kg	1250
Total Rs./ Demo.		4500
Total Rs. for 10 Demo,.		45000/-

Activities calendar of Scientists

Activities calendar of Scientist (Ag. Entomology)

Village	Crop	Activity as leader	Other members of the team	Budget Proposed	Remarks
TECHNOLOGY ASSESSMENT					
Chikkeri Hosalli	Mango	Management of Leaf hopper and powdery mildew in Mango	Horticulture Sr. Sci. & Head	12000/-	Cont.
FRONTLINE DEMONSTRATION					
Choudadanapur	Maize	ICM in Maize	Soil Science Agronomy Sr. Sci. & Head	42250/-	Cont.
Baradur	Soybean	ICM in Soybean	Soil Science Agronomy Sr. Sci. & Head	26600/-	Cont.
Chikkeri Hosalli	Sugarcane	ICM in Sugarcane	Soil Science Agronomy Sr. Sci. & Head	45000/-	New

Revolving Fund utilization by the SMS (Ag. Entomology)

Production Units	Enterprise	Physical Target for the year	Approximate Expenditure (Rs.)	Approximate Revenue (Rs.)
<i>Trichoderma</i>	Bio control Lab	10q	25000/-	1,05,000/-

Scientist (Ag. Entomology)-Training programmes

Crop Enterprise	Activity as leader	Other members
FARMERS/ FARM WOMEN		
Mango	Management of Leaf hopper and powdery mildew in Mango -02	Agronomy Soil Science Horticulture
Maize	ICM in Maize -02	
Soybean	ICM in Soybean -02	
Sugarcane	ICM in Sugarcane -02	
Chilli	Management of leaf curl complex	
Cabbage	Management of DBM and Blackrot	
RURAL YOUTH		
Apiculture	Bee keeping	Agronomy Horticulture
Sericulture	Silkworm rearing	Agronomy Soil Science
EXTENSION PERSONNEL		
<i>Kharif</i> crops	ICM in different crops	Agronomy Horticulture
VOCATIONAL TRAINING		
<i>Trichoderma</i>	Production of <i>Trichoderma</i>	Agronomy
SPONSORED TRAINING		
Major Crops	Pest and disease management in major crops of Haveri district	Agronomy
Vegetables	Use of bio rationales for the management of Vegetable pests	Horticulture

Animal Science

Problems

**High cost of feeding
balanced growth ration
to Lambs and poor
growth**

Cluster Village	Hanumapur
No. of Trial	02
Unit size (Nos)	10



Karanja Seeds



Detoxified Karanja Cake



Relevant information of Detoxified Karanja Cake

- Protein is an important macro- nutrient and an expensive constituent of animal diet
- Price escalation of protein source such as GNC, SBC will have bearing on profitability of farm
- Detoxified karanja cake is nonconventional protein source containing high amount of crude protein
- As such karanja cake contain anti nutritional factor such as karanjin and pongamol
- These anti nutritional factor detoxified by 1-2% NaOH treatment for 24 hrs
- The Detoxified protein can be used to replace upto 50% of conventional protein source in concentrates
- This is technology of NIANP, Bengaluru

Technology options	Source of Tech.
TO ₁ Farmers' practice:	-
TO ₂ Maize + GNC + Detoxified Karanja cake (10 % of GNC)	NINP, Bangaluru

Critical Inputs Provided & Total Amount			
	Inputs	Qty	Cost/ trial
T ₁	-	-	-
T ₂	Maize	120 kg	2000
	Mineral mixture	2 kg	700
	GNC	35 kg	1500
	Detoxified karanja cake	10 kg	1500
	Deworming	2 L	1800
	Total/ trial		7500
Total Amount for 2 trial			15,000

- Parameter**
- Body weight (kg)
 - Body length(cm)
 - Chest girth(cm)
 - Body height(cm)
 - Economics

Team members : Animal Sci., Horticulture, Soil sci.

Assessment of Detoxified karanja cake as protein source on growth of lambs



Results of Assessment of Detoxified karanja cake as protein source on growth of lambs (2018-19)

Observation	Mean Body weight of T1 (Farmers Practice) (n=20)	Mean Body weight of T2 (Maize + GNC + 10% Detoxified Karanja cake) (n=20)
6 week age	7.5 kg	7.5 kg
10 week age	10.8kg	16kg
14 week	14kg	22kg
Market price	4000 /- each (20 no.)	5400/- each (20 no.)
Expenditure	8000	13000
Gross profit	80000/-	108000/-
Net profit	72000	95000

Farmers' Feedback

Feeding of concentrate feed prepared by replacing 50% protein source with un-convention protein and de-worming increase lamb growth and lambs fetch more market price than the lambs only feed with maize.

Technology to be demonstrated: Fodder cafeteria containing single and multicut varieties of cereal and leguminous fodder supplying green fodder. The cereal and leguminous fodder grow and fed to animals in the ratio of 2:1

Cluster Village	Chikkeri , Hosahalli
No. of Demo.	5
Source of Technology	TNAU



Critical Inputs Provided & Total Amount

Critical input	Qty / Demo	Cost / Demo
Multicut Jowar (COFS-31)	1.5 kg	800
Hedge Lucerne	2 kg	1200
African Tall Maize	4 kg	600
Cow pea (C-8)	2 kg	400
Total Rs./ Demo.		3000
Total Rs. For 10 Demo,.		15000

Problem Identified

- Scarcity of green fodder
- Low milk yield

Parameters

- Fodder yield (q/ha)
- Milk yield per lactation(kg)

Team members: Animal Sci., Ag. Entomology, Agronomy.

Results of 2018-19: Fodder Cafeteria

	Mean Milk yield (litres /day)	Milk yield /lactation (l)	Income	Expenditure	Net profit	BCR
Demo	7.5	2287.5	59475	29500	29975	2.00
Check	6.0	1830	47580	30000	17580	1.60

Sl.no.	Fodder	Green Fodder Yield (Ton/ha)
1.	COFS-31	140
2.	African tall maize	40
3.	C-8 fodder cowpea	16

Farmers' Feedback

Fodder cafeteria provides more amount of green fodder to cattles. Green fodder fed to cattle in the ratio of 2:1 of cereals and legumes increase milk yield.

Multicult Sorghum (COFS-31)



Fodder Cowpea C-31



African tall maize

Technology to be demonstrated

Urea molasses mineral block as source of Energy , Protein and minerals

Cluster Village	Baradur
No. of Demo.	10
Source of Technology	KMF

Composition of UMMB

Ingradients	%
Molasses	30-50
Urea	5-10
Salt	5-7
Bran	15-25
Cement or Quick lime	10

Critical Inputs Provided & Total Amount

Critical input	Qty / Demo	Cost / Demo
UMMB blocks	10 Nos.	400
Deworming	500 ml	800
Sodium bicarbonate	2 kg	200
Total Rs./ Demo.		1400
Total Rs. for 10 Demo.,		14,000

Problem Identified	<ul style="list-style-type: none"> •Low milk yield •Low fat
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Parameters

- Milk yield (L)
- Fat (%)

Team members: Animal Sci., Horticulture, Soil Sci.

Results of 2018-19:

Energy and non-protein nitrogen source supplementation Through Urea molasses mineral block (UMMB) as licks

	Mean Milk yield (litres /day)	Milk yield /lactation (l)	Income	Expenditure	Net profit	BCR
Demo	8.5	2590	67340	30800	36540	2.18
Check	6.5	1982	51530	30000	21530	1.74

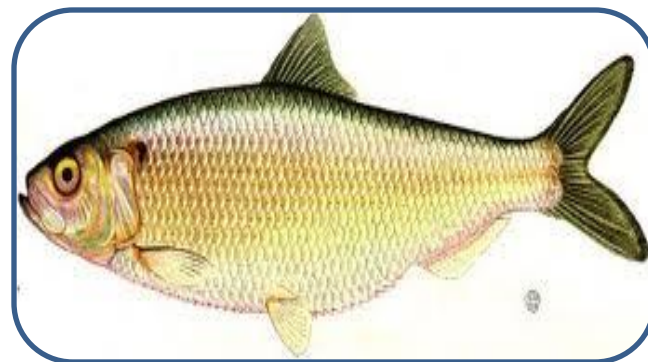


Farmers'
Feedback

Supplementing UMMB to dairy animals increase milk yield, animals dry fodder intake increases, animals skin become more shiny and healthy.

Technology to be demonstrated : Fish culture in farm ponds

Cluster Village	Chikkeri Hosahalli
No. of Demo.	05
Variety	Composite fish culture (Common carp, Rohu, Catla)
Source of Technology	KVAFSU



Critical Inputs Provided & Total Amount

Fingerlings (1/Sq meter) depending on pond size	1000	1500
Fish feed	20kg	1500
Total cost /demo		3000
Total Rs for 5 demos		15000

Problem Identified

Underutilization of farm ponds

- Weight gain
- length

Team members: Animal Sci., Agronomy, Entomology

Activities calendar of Scientist (Animal Science)

Village	Crop	Activity as leader	Other members of the team	Budget Proposed	Remark
TECHNOLOGY ASSESSMENT					
Hanumapur	Sheep & Goat	Assessment of Detoxified karanja cake as protein source on growth of lambs	Horticulture Agronomy Soil science Entomology	15000	Conti ...
FRONTLINE DEMONSTRATION					
Chikkeri , Hosahalli	Fodder	Demonstration on Fodder Cafeteria	Horticulture Agronomy Soil science Entomology	15000	Cont..
Baradur	Dairy	UMMB as Energy, protein and minerals source	Horticulture Agronomy Soil science Entomology	14000	Cont..
Chikkeri , Hosahalli	Fish	Fish culture in farm ponds	Horticulture Agronomy Soil science Entomology	15000	New

Scientist (Animal Science)- Training programmes

Crop	Activity as leader	Other members
FARMERS/ FARM WOMEN		
Sheep & Goat	Creep feeding of lambs	Agronomy, Soil Science, Entomology, Horticulture,
Fodder	Fodder production and Nuturitive vale of fodders	
Dairy	Nutritional management of dairy animals	
RURAL YOUTH		
Dairy	Scientific dairy farming	Agronomy, Soil Science, Entomology, Horticulture,
Sheep & Goat	Scientific Sheep & goat farming	
VOCATIONAL		
Fodder	Fodder production and management	Agronomy, Soil Science, Entomology, Horticulture,
Sheep & Goat	Sheep and Goat rearing	Agronomy, Soil Science, Entomology, Horticulture

THANK YOU