ACTION PLAN

(April-2019 to March-2020)

TO BE PRESENTED AT ANNUAL ACTION PLAN WORKSHOP OF KVKs OF GUJARAT

ORGANIZED BY

DIRECTOR, ATARI ZONE-VIII, ICAR, PUNE

HELD AT

NAVSARI AGRICULTURAL UNIVERSITY,

NAVSARI

During MARCH 1-2, 2019

PREPARED/COMPILED By Dr. K. P. Baraiya, Senior Scientist & Head Smt. A. K. Baraiya, Scientist



KRISHI VIGYAN KENDRA JUNAGADH AGRICULTURAL UNIVERSITY JAMNAGAR - 361 006 GUJARAT



CONTENT

| Sr. No. | PARTICULARS | | | | |
|------------|-----------------------------------|---|----|--|--|
| 1. | GENERAL INFORMATION ABOUT THE KVK | | | | |
| | 1.1 | Name and address of KVK with phone, fax and e-mail | 1 | | |
| | 1.2 | Name and address of host organization with phone, fax and e-mail | 1 | | |
| | 1.3 | Name of the Senior Scientist & Head with phone & mobile No | 1 | | |
| | 1.4 | Year of sanction | 1 | | |
| | 1.5 | Staff Position (as on 31 st March 2017) | 1 | | |
| | 1.6 | Total land with KVK (in ha) | 2 | | |
| | 1.7 | Infrastructural Development | 2 | | |
| | 1.8 | A). Details SAC meeting conducted in the year | 4 | | |
| 2. | DETAIL | S OF DISTRICT | 5 | | |
| | 2.1 | Major farming systems/enterprises (based on the analysis made by the KVK) | 6 | | |
| | 2.2 | Description of Agro-climatic Zone & major agro ecological situations | 7 | | |
| | 2.3 | Soil type | 8 | | |
| | 2.4 | Area, Production and Productivity of major crops cultivated in the district | 10 | | |
| | 2.5 | Weather data | 12 | | |
| | 2.6 | Production and productivity of livestock, Poultry, Fisheries etc. in the district | 13 | | |
| | 2.7 | Details of Operational area / Villages | 13 | | |
| | 2.8 | Priority thrust areas | 14 | | |
| 3. | TECHN | ICAL PROGRAMME | 14 | | |
| | 3.A | Details of target and achievements of mandatory activities by KVK | 14 | | |
| | 3.1 | Operational Areas details | 14 | | |
| | 3.2 | Technology Assessment and refinement | 15 | | |
| | Α | Abstract on Technology Assessment & Refinement | 16 | | |
| | В | Details of On Farm Trial / Technology assessment | 16 | | |
| | С | Details of On Farm Trial / Technology refinement | 21 | | |
| | 3.3 | FRONTLINE DEMONSTRATION | 23 | | |
| | a. | Details of FLDs to be organized | 23 | | |
| | b. | Extension and training activity under FLD | 24 | | |
| | С | Detail of FLD on enterprise | 25 | | |
| | 3.4 | Training programme | 25 | | |
| | 3.5 | Extension activities | 39 | | |
| | 3.6 | Target for Production and supply of technological products | 40 | | |
| 4 | | ure Developed/publication | 41 | | |
| 5 | | e specific training need analysis tools/methodology followed for | 42 | | |
| 6 | Linkage | | 43 | | |
| 7 | _ | gence with other agencies and departments | 45 | | |
| 8 | | tor farmer's meet | 45 | | |
| 9 | | rs Field School | 45 | | |
| 10 | Technical feedback | | | | |
| 10 | Utilization of hostel facilities | | | | |
| 12 | | plan of infrastructure in KVK | 45 | | |
| 17 | Annex | | 40 | | |
| AN | NI | TRAINING PROGRAMMES | 47 | | |
| | NII | New technical programme | 51 | | |
| | NIII | Details of budget utilization & Details of Budget Estimate | 53 | | |

ANNUAL ACTION PLAN (April-2019 to March- 2020) KRISHI VIGYAN KENDRA JUNAGADH AGRICULTURAL UNIVERSITY, JAMNAGAR

1. GENERALINFORMATIONABOUT THE KVK

1.1 Name and address of KVK with phone, fax and e-mail

| Address | Telephone | | E mail | Website address & | |
|---------------------------------|-----------|------------|-----------------------|------------------------|--|
| Address | Office | Office FAX | | No. of visitors (hits) | |
| KrishiVigyan Kendra | | | | | |
| Millet Research Station, JAU | (0288) | (0288) | kvkjamnagar@jau.in | www.jau.in | |
| Airforce Road, Opp. Digjam Mill | 2710165 | 2710165 | kvkjamnagar@gmail.com | 7827712 | |
| Jamnagar- 361 006 | | | | | |

* ICT lab was established centrally at University Headquarter, JunagadhAgricultrual University, Junagadh. As a part of ICT on KVK is also established.

1.2. Name and address of host organization with phone, fax and e-mail

| Address | Teleph | one | E-mail | Mah address | |
|--|----------------|----------------|------------|-------------|--|
| Address | Office | FAX | E-mail | Web address | |
| JunagadhAgricultural University, Junagadh – 362 001 (Gujarat) | PBX 2672080-90 | (0285) 2672653 | dee@jau.in | www.jau.in | |

1.3. Name of the Senior Scientist & Head with phone & mobile No

| | Telepho | | |
|-------------------|--|------------|---|
| Name | Residence | Mobile | Email |
| Dr. K. P. BARAIYA | Senior Scientist & Head KrishiVigyan Kendra JunagadhAgricultural University, Airforce Road, Opp. Digjam Mill Jamnagar- 361 006 | 9427980032 | kvkjamnagar@gmail.com kvkjamnagar@jau.in |

1.4. Year of sanction:

ZARS (KVK) 2001, LetterNo.F.No. 18(4)/99-NATP Dated October 31st, 2001

ICAR (KVK) 2004, LetterNo.F.No. 8(1)/2002-AE-II(Pt.) Dated February 5th, 2004

1.5. Staff Position (as on 31stMarch, 2019)

| SI. No. | Sanctioned Name of the post incumbent | | Discipline | Discipline If Permanent, Pleasindicate | | | If Temporary, pl. indicate the |
|------------|---------------------------------------|-----------------------|------------------------|--|-------------------------|------------|--|
| | - | | | Current Pay Band | Current Grade Pay | joining | consolidated amount paid (Rs./month) |
| 1 | Senior Scientist & Head | Dr. K.P. Baraiya | Plant Protection | 37400-67000 | 9000 | 17.08.2006 | |
| 2 | Scientist | Shri S. H. Lakhani | Crop Production | 15600-39100 | 6000 | 30.03.2015 | |
| 3 | Scientist | Vacant | Plant Protection | 15600-39100 | 6000 | | |
| 4 | Scientist | Vacant | Horti./ Ag. Engg | 15600-39100 | 6000 | | |
| 5 | Scientist | Vacant | ExtensionEducation | 15600-39100 | 6000 | | |
| 6 | Scientist | Dr. J. N. Thaker | Fisheries | 15600-39100 | 8000 | 31.08.2006 | |
| 7 | Scientist | Smt. A. K. Baraiya | Home Science | 15600-39100 | 8000 | 17.08.2006 | |
| 8 | Farm Manager | Shri H. S. Godhani | Agril. Ent. | 39900- 126600 | - | 19.09.2015 | 38090/- |

| 9 | ProgrammeAss istant | Shri A. B. Parmar | Agril. | 39900- 126600 | - | 17.10.2018 | 38090/- |
|----|------------------------|-------------------|-------------|------------------|---|------------|---------|
| 10 | Computer | Shri C. P. | Computer | 39900- | - | 29.12.2008 | |
| | Programmer | Padhiyar | Operator | 126600 | | | |
| 11 | Accountant / | Shri B. H. Joshi | Adm. | 39900- | - | 11.6.2008 | |
| | Superintenden | | | 126600 | | | |
| | t | | | | | | |
| 12 | Stenographer | Vacant | Adm. | 19900-63200 | | - | |
| 13 | Driver | Vacant | Supt. | 19900-63200 | | - | |
| 14 | Driver | Shri. D.M. | Supt. (Fix) | 19900-63200 | | 9.10.2007 | |
| | | Chauhan | | | | | |
| 15 | Supporting | Shri B. V. | Supt. | 14800-47100 | | 01.11.2014 | |
| | staff | Bamaniya | - | | | | |
| 16 | Supporting | Shri P. S. Damor | Supt. | 14800-47100 | | 1.09.2006 | |
| | staff | | - | | | | |

1.6. Total land with KVK (in ha) :20.44 ha

| SI. No. | Item | Area in hectare(s)* |
|---------|-------------------------------|---------------------|
| 1 | Under Building and Road | 2.00 |
| 2 | Under Demonstration units | 0.70 |
| 3 | Under crops | 12.00 |
| 4 | Orchard | 3.50 |
| 5 | Agro-forestry | 0.24 |
| 6 | Others (Farm Pond & Channels) | 2.00 |
| | Total | 20.44 |

1.7. Infrastructural Development:

A) Buildings

| | | | Stage | | | | | | |
|------------|-------------------------------------|---------------|--------------------|--|---------------------------|-----------------------|--------------------------|--------------------------------|--|
| SI. | | Sourceof | Complete | | | | Incomplete | | |
| 31. No. | Name of building | funding | Completion Date | Plinth area (Sq.m) | Expen- diture (Rs.) | Star- ting Date | Plinth area (Sq.m) | Status of const- ruction | |
| 1. | Administrative Building | кvк | 15-8-11 | 550 | 5500000 | | | | |
| 2. | Farmers Hostel | KVK | 15-8-11 | 305 | 3000000 | | | | |
| 3. | StaffQuarters (6) | KVK | 15-8-11 | 400 | 4000000 | | | | |
| 4. | Demonstration Units of vegetable | KVK + ATMA | 31-3-07 | - | - | - | - | - | |
| 5 | Poly House | RKVY | 31-3-09 | 320 | 281602 | - | - | - | |
| 6 | Net House | RKVY | 31-3-09 | 150 | 64498 | - | - | - | |
| 7 | Training Hall | RKVY | 20-2-10 | 190.99 | 1395800 | - | - | - | |
| 8 | Process Plant | RKVY | 20-2-10 | 197.31 | 1536400 | I | - | | |
| 9 | Implement shed | RKVY | 11-2-10 | 77.33 | 297800 | - | - | - | |
| 10 | Rain Water harvestingsystem | KVK | 31-3-2007 | 26m×26m (2Ponds)60m×60m (1 Pond) | 999000 | - | - | - | |
| 11 | Fencing | - | Not | Available | - | - | - | - | |
| 12 | Threshing floor | - | Not | Available | - | - | - | - | |
| 13 | Farm godown | - | Not | Available | - | - | - | - | |
| 14 | ICT lab | - | Not | Available | - | - | - | - | |
| 15 | Other | - | Not | Available | - | - | - | - | |

B) Vehicles

| Type of vehicle | Year of purchase | Cost (Rs.) | Totalkms. Run | Presentstatus |
|---|---------------------|------------|---------------|--|
| Toyota Quallis (GJ-10G 433) | 2004-05 | 490200 | 482935 | Working (it is required to be rightoff) |
| Hero Hondasplender(bike) GJ-10 BB-1634 | 2010-11 | 46475 | 20989 | Working |

C) Equipments& AV aids

| Name of the equipment | Year of purchase | Cost (Rs.) | Presentstatus |
|-------------------------------------|------------------|------------|---------------|
| Captain Mini Tractor | 2001-02 | 166125 | Working |
| Telephoneline | 2001-02 | 19850 | Working |
| Multi tool carrier complete set | 2001-02 | 6500 | Working |
| Photocopier | 2001-02 | 125000 | Working |
| Over headprojector | 2001-02 | 17600 | Working |
| Computer | 2002-03 | 29500 | Working |
| HP Laser printer | 2002-03 | 20390 | Working |
| U.P.S. (3 KVA) | 2002-03 | 38000 | Working |
| Spectrophotometer | 2005-06 | 89160 | Working |
| Flame photometer | 2005-06 | | Working |
| Physicalbalance | 2005-06 | 10640 | Working |
| Chemicalbalance | 2005-06 | 100000 | Working |
| Water distillation still | 2005-06 | 96118 | Working |
| Kieldahi digestion and distillation | 2005-06 | 49644 | Working |
| Shaker | 2005-06 | 00000 | Working |
| Grinder | 2005-06 | 80080 | Working |
| Refrigerator | 2005-06 | 16772 | Working |
| Oven | 2005-06 | | Working |
| Hot plate | 2005-06 | 30550 | Working |
| Aspee tractor mounted sprayer | 2006-07 | 32000 | Working |
| Air assisted blower type sprayer | 2009 | 98750 | Working |
| Laptop computer (HCL) | 2009 | 47500 | Working |
| Digital camera (Nikon)P-90 12.1 | 2009 | 24300 | Working |
| Cotton stalk shredder | 2008-09 | 121000 | Working |
| Groundnut digger-tractor operated | 2009 | 78500 | Working |
| Cultivator cum rotavator | 2009 | 90000 | Working |
| Groundnut decorticator | 2009 | 95850 | Working |
| Multi crop thresher | 2009 | 114000 | Working |
| Processing Unit | 2009 | 1685000 | Working |
| Plantar-tractor operator | 2009 | 44000 | Working |
| EPBX System | 2012 | 44000 | Working |
| Vertical Autoclave | 2012 | 78190 | Working |
| Laminar Airflow | 2012 | 127440 | Working |
| Electronic Balance (200 gm) | 2012 | 12600 | Working |
| EC/ Conductivity meter | 2012 | 6300 | Working |
| Portable pH Meter | 2012 | 6300 | Working |
| Compound microscope | 2012 | 4410 | Working |
| Trinocular microscope | 2012 | 112000 | Working |
| Digital temperature & humidity | | | Working |
| indicator cum controller | 2012 | 34750 | 5 |
| Digital TDS meter | 2012 | 3985 | Working |

3

| Research centrifuse with accesaries | 2012 | 42480 | Working |
|-------------------------------------|------|-------|---------|
| Stabilizer | 2012 | 10440 | Working |
| Hot air oven | 2012 | 41580 | Working |
| BOD incubator | 2012 | 46305 | Working |
| Digital camera SLR (Canon) | 2012 | 44750 | Working |
| AC 1.5 tonn | 2012 | 45990 | Working |

1.8. A). Details SAC meeting conducted in the year

| SI.No. | Date | Number of Participants | Salient Recommendations | Action taken |
|--------|------------|------------------------|-------------------------|--------------|
| 1. | 01-10-2005 | 21 | - | - |
| 2. | 07-10-2006 | 30 | - | - |
| 3. | 02-11-2007 | 31 | - | - |
| 4. | 17-10-2008 | 30 | - | - |
| 5. | 14-09-2009 | 33 | - | - |
| 6. | 29-4-2010 | 35 | - | - |
| 7. | 07.04.2011 | 37 | - | - |
| 8. | 10.04.2012 | 32 | - | - |
| 9. | 02.04.2013 | 37 | - | - |
| 10. | 27.12.2013 | 26 | - | - |
| 11. | 21.02.2015 | 25 | - | - |
| 12. | 29.01.2016 | 22 | - | - |
| 13. | 25.10.2016 | 27 | - | - |
| 14. | 12.04.2018 | | As below | As below |

Suggestions made by committee members during presentation of 14th SAC is as under:

 Dr. A. R. Pathak, Hon'ble Vice Chancellor, Junagadh Agricultural University, Junagadh& Chairman of the SAC suggested following points.

- Study the economics and required area for FLD on *raft* culture preparation.
- > Arrange FLD on sea weed liquid for pomegranate cultivation.
- > Emphasis on doubling the farmers income during training thought out the year.
- > Emphasis on value addition in pomegranate and groundnut.
- > Arrange FLD on Matting disrupter technique for pink ball worm in cotton crop.
- > Arrange FLD on *Metarhizium* for the management of whitegrub groundnut crop.
- Train the pomegranate farmers for "bahar" management, removal of water shoots and canopy management.
- > Prepare list of organic certified farmers.
- > Detail study on sea weed production technology and present it.
- > Arrange field day on pen culture technique.

2.

- Dr. V. P. Chovatiya, Director of Research, JAU, Junagadh pointed out
- Arrange training on value addition of Ajwain, Chikori and other spice crop.
- > Action taken report should quantify and give details.
- > Arrange training on stem borer infestation inwheat.
- Give information about weather and technical suggestion on precaution measures through SMS.

| | > Arrange training on <i>kharif</i> crop production technology, IPM and IDM during second | nd |
|----|---|-----------------|
| | quarter instead of first quarter. | |
| | > Arrange training on organic farming and bio-fertilizer and recycling of farm waste dur | ing |
| | first quarter instead of second quarter. | |
| | Arrange FLD in clusters in ATIC scheme. | |
| | Arrange cluster FLD on groundnut variety GJG-22 instead of GG-20. | |
| 3. | Dr. A. M. Parakhia, Director of Extension Education, JAU, Junagadh advice that | |
| | Analyze maximum soil and water sample at KVK Soil Testing Laboratory. | |
| | Arrange demonstration at KVK farm for production and use of <i>Jivamrut</i> . | |
| 4. | Dr. M. D. Khanpara, Research Scientist (Pearl Millet), Pearl Millet Research Stati | on, |
| | JAU, Jamnagar suggested to arrange OFT on cotton picking kit. | |
| 5. | Shri C. O. Lashkari, Deputy Director of Horticulture, Jamnagar & DevbhumiDwa | ⁻ ka |
| | suggested for arrange training on pomegranate in collaboration with Horticult | ıre |
| | Department. | |

2. DETAILS OF DISTRICT

The district of Jamnagar is lies in North Saurashtra Agro climatic zone(VI) with an area of 35.02 lakh hectare land. The total geographical area of entire district (21.8 – 22 ON, 69.0 – 70.7 E) occupies 14125 km² i.e. 14.125 lakh ha area in the west of Gujarat state. The climate is arid (80%) and semi arid (20%) with a meanmoistureindex of 67.5. About 95 to 98% of annual rainfall comes during the monsoon month of June to October, July and August being the rainiest months. The co-efficient of variation ranges between 50 and 82%. The annual potentialevapo-transpiration ranges between 1500 and 1650mm, three times the precipitation, resulting in no flow in the ephemeral channels for the most of the year. The district is a water scarcity area droughts are common in this region draughts of moderate to severe intensity occur once in 2 to 3 years. Although the integrateddrainagesystemfrom the story/rocky/gravelly surfaces and torrential nature of precipitation generate 40 to 60% of rainfall as runoff, steeper slopes and absence of checks allow the water to quickly flow to the sea. Being is hard rock terrain, the groundwater potential is very low, is already over exploited and mined, resulting in either the saline water ingress in the costal aquifers, or drying up of the ground water up to a depth of 100m. Consequently a need for holistic approach to water resourcedevelopmentin the district. Wind velocity prevailing in the district is higher order (14.1 km) ha on an annual averagebasisdue to sea coast area.

According tophysiographically, majorportion of the area in the district have an altitude ranging between 25 to 150 meters, which consists ten taluka having gentle slope to moderate slope. The district is marked by radicaldrainage pattern. Deccantrap basalt occupies a major part of the district. The Quaternary formations includemilliolite, limestone, alluvium and Geolian sediments. The dominantland forms are colluvial plains and rocky uplands. Low hills occur in the southern part of district and are dissected by numerous large and small seasonal streams, most of which drain towards north and form potential drainage basins. The district is characterized by shallow, black soil and coastal alluvial soils with large variations in depth, texture, structure salinity, and water erosion. Nearly two third area of the district is under cultivation. The major factors of land degradationareaccelerated water erosion and Salinization.

5

| Sr. No. | Details | JAMNAGAR | | DEVBHUN | 1I DWARKA | |
|------------|-------------------------|-------------------|-------|---------------------|-----------|--|
| 1 | Total geographical area | 6.075 lakh ha. | | 4.07509 lakh ha | э. | |
| 2 | Totalcultivablearea | 4.32 lakh ha. | | 2.52 lakh ha. | | |
| 3 | Netcultivatedarea | 3.53 lakh ha. | | 2.38 lakh ha | | |
| 4 | Totalareaunder forest | 0.43 lakh ha. | | 0.1736 lakh ha | | |
| 5 | Totalirrigatedarea | 0.939 lakh ha. | | 0.23092 lakh ha | Э. | |
| 6 | Number of holdings | 1.44 lakh | | 1.17 lakh | | |
| 7 | Averageannual rainfall | 550 mm. | | 550 mm. | | |
| 8 | Soiltype | Medium black | | Medium black | | |
| 9 | Totalnumber of villages | 419 (8 city) | | 280 (8 city) | | |
| | Totalpopulation | 13.89 lakh (2011) | | 7.48 lakh (2011) | | |
| 10 | (a) Male | 7.18lakh . | | 3.84lakh . | | |
| | (b) Female | 6.71 lakh | | 3.64lakh . | | |
| 11 | Literacypercentage | Rural | Urban | Rural | Urban | |
| 11 | a. Male | 86.95 | 79.55 | 76.14 | 80.74 | |
| | b. Female | 76.22 | 62.18 | 55.41 | 61.36 | |
| | | 6 (Six), | | 4 (Four) | | |
| | | Jamnagar | | Jamkhambhalia | | |
| 12 | Number of talukas | Dhrol | | Jamkalyanpur | | |
| 12 | Number of talukas | Jodiya | | OkhaMandal (Dwarka) | | |
| | | Kalavad | | Bhanvad | | |
| | | Lalpur | | | | |
| | | Jamjodhpur | | | | |

Basicinformation of operational district, Jamnagar and DevbhumiDwarka:

2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

| S. No | | | | Farming system/enterprise |
|-------|---------|---------------------|---|---|
| 1 | Crops | Cereals | : | Pearl millet, Sorghum, Wheat, Maize |
| | | Pulses | : | Greengram, Blackgram, Chickpea, pigeonpea |
| | | Oilseeds | : | Groundnut, Sesamum, Castor, Mustard, |
| | | Cash crops | : | Cotton, |
| | | Spices and | | Cumin, Fennel, Coriander, ajwan, Ishabgul |
| | | condiments | • | Cullini, i enner, conander, ajwan, isnabgui |
| | | Vegetables | | Onion, garlic, potato, chilli, binjal, tomato, cauliflower, |
| | | Vegetables | • | Cowpea, cabbage, okra, peach, cucurbits etc |
| | | | | Chiku, pomegranate, lemon (Citrus), Jamun, Aonla, guava, |
| | | Horticulture | : | custard apple, papaya, coconut, ber, Almond, Banana, Dragon |
| | | | | fruit, Drum stick |
| | | Floriculture | : | Rose, merry gold, vevanti, etc |
| | | Other Crops | : | Chikori, Fenugreek, Mulberi neem |
| 2 | Live | Bullocks and cows | | |
| | stock | Buffaloes | | |
| | | Sheep | | |
| | | Goats | | |
| | | Horse and camel | | |
| | | Poultry | | |
| | | Others animals | | |
| 3. | Fishery | 340 km coastal belt | | 4832 tonnes fish production |

2.2 Description of Agro-climatic Zone&major agro ecological situations (based on soil and topography) a) Soil type

| S. No | Agro- climatic Zone | Characteristics |
|-------|---------------------------|--|
| Zone– | | The influence area of North SaurashtraAgroclimatic Zone is spread among five districts |
| VI | Saurashtra | viz., Amreli (7 taluukas out of 10), Bhavnagar (7 talukas out of 14), Jamnagar (all the 10 |
| | | talukas), Rajkot (9 talukas of 13) and Surendranagar (6 talukas out of 9) covering 39 |
| | | talukas in all. The influence area of the zone lies between 21°-02' to 23°-16' North |
| | | Latitude and 68°-56' to 72°-12' East Longitude. It is founded in the north by the Gulf of |
| | | Kutch and parts of Rajkot as well as Surendranagar districts, in the East by the |
| | | Ahmedabad district and ncoastal part of Bhavnagar district, on the South by the Junagadh |
| | | district and parts of Amreli as well as Rajkot district, to the west by Arebian sea. |
| | | The North Saurashtra region which comprises the peninsular part of Gujarat has low to |
| | | medium rainfall and shallow to medium black soils and also coastal saline alluvial soils. In |
| | | this Agro-climatic zone, cotton (Bt), groundnut, pearlmillet, wheat are the major crops |
| | | which contribute considerably to the economy of the state. In Saurashtra, among this |
| | | zone taking in to consideration the rainfall pattern, the topography, soil characteristics, |
| | | the climate and the cropping pattern have been identified in Gujarat. The North |
| | | Saurashtra zone have five main / sub station cum testing centre of University like Dry |
| | | Farming Research Station with KVK, Targhadia (Rajkot District), Main Millet Research |
| | | Station with KVK, Jamnagar, Oilseeds Research Station (Sesamum, Mustard, Sunflower) |
| | | with KVK, Amreli, Dry Farming Research Station, Nanakandhasar, (Surendranagar District) |
| | | and Dry Farming Research Station, Jamkhambhalia (Jamnagar District). |

b) Topography

Agro – Ecological situation in the District

The advent of southwest monsoon greatly influences seasonal patterns of rainfall distribution in the district. Thus, meanannual rainfall provides useful comparison of agriculturalpotential of a given situation in the district. The mean rainfall in the district 539.17mm

The physiography of entireregion of district is more or less flat. However, the region is undulating with slopes having little hillyareasfrom 25 to150 metersPhysicalfeatures of the area vary from flat landto150 meters above meansea level. Most of the area falls in the range of 25m to 150m above mean sea level.

Based on the soilsurveyinformation of the zone, the soils of the district hence been broadly classified in tofine categories Available information about the properties of these soils and their textures has been considered. The types of soils categories are as under: -

Shallow black soils Medium black soils Saline alkali soils Costal alluvial soils Hilly soils

7

While delineating the zoneintodistrict agro ecological situations, there major factors including varioussoil types, altitude and the rainfall patterns have primarily been considered. The district can be delineated into five agro ecological situations.

Although, each of the situations has rainfed and irrigated condition, but irrigationhas not been considered in identification of the agro ecological situations. While deciding the major crops, cropping patterns and constraints in production, mention has been made of both these conditions one or the other agro ecological situation occurs in the influencearea of the district. The fact that this does not preclude the existence of more than one agro ecological situations within the same area.

| SI. No. | Agro EcologicalSitu ation | Soilte xture | Altitude | Principal crops | Specialfeatu res | Approximate area (000ha) | Taluka included | Characteristi cs |
|------------|---|---------------------------------------|----------|--|--|-----------------------------|--|--|
| AES- 1 | Shallow Black soils with 500-600 mm Rainfall | Sandy clay loam to clayey | 75 – 150 | , wheat, sorghum, | Well drained soils with rapid permeability | 124 | Kalawad, Jamjodhpur, Bhanvad, Okha | Moisturestre ss, temperatures tress |
| AES- 2 | Shallow Black soils with 600-700 mm Rainfall | Clayey | 75 – 150 | Groundnut , wheat, sorghum, pearlmillet | Slightly well drained soils with rapid permeability | 180 | Part of Kalyanpur, Jamnagar, Jamkhambhalia, Lalpur, Dhrol, Jodia | Moisturestre ss, temperature stress |
| AES- 3 | Coastal Alluvial soils with 300-400 mm Rainfall | Clayey loam to clayey | 50 | Groundnut , pearlmillet, sorghum, chickpea | Low nitrogen and phosphus | 181 | Jodia, part of Okha, Jamkhambhalia, Kalyanpur& Jamnagar | Salt affected salinity |
| AES- 4 | Coastal Alluvial soils with 500-700 mm Rainfall | Silt clay | 25-50 | Groundnut , pearlmillet, sorghum, chickpea | Low nitrogen and phosphorus | 299 | Kalyanpur, Jodia& Jamnagar, Khambhadia, Lalpur, Dwarka | Salt affected salinity |
| AES- 5 | Coastal Alluvialshallo w black soils with 300-400 mm Rainfall | Sandy Ioam toclay Ioam | 0-25 | Sorghum, Pearlmillet, Groundnut , Sesamum | Aridclimate | 31 | Okha | Known salinityforgen us ephedra seacoast very rich in Alghlflor and fanner of economic importance. |

2.3 Soil type

As the geographical formation of Saurashtra is to volcanic origin, the soils are generally desired from basaltic rock known as Daccan trap. This is the commonest rock in India and due to its extensive occurrence in south is called "Daccan Traps". In many parts, they6 have flat top features and hence, are also known as plateau basalt. The trap rocks, which occupy a large part of western cost of India, is also covering North Saurashtra zone. The most common colour of the trap rock in the region is dark grey. On weathering, trap rock form a ferruginous gravelly material known as murrum, which under lie-soil

8

formed in situ. Soils, thus derived are either brown red in colour or regular, the black soil. In district black or brown colour is predominant. The soils are shallow to moderately deep. The detailed soil survey information for the soils of Jamnagardistrict are as under.

| | Soiltype | or the soils of Jamhagardistrict are as under. Characteristics | Area in ha |
|----|----------|--|-----------------|
| - | Shallow | These soils have developed from basaltic trap especially from granite and | 124000 ha |
| | black | gneiss parent materials. They light grey in colour. Taxonomically, they are | (Kalawad, |
| | soils | classified as <i>Ustorthents</i> and <i>Ustochrepts</i> . Soils depth varies for cm to 45 cm. | Jamjodhpur, |
| | | They are gravelly but mainly they are sandy clay loam to clayey in texture. The | Bhanvad, |
| | | clay on tent in surface soil varies from 20% to 77.49% and calcium carbonate | Okha) |
| | | content varies from 3.76 to 26.71 per cent. The soil structure is weak, mainly | |
| | | sub angular blocky and occasionally crumb. Since these soils lack district | |
| | | profile layering and are shallow, capacity to retain moisture is not sufficient. | |
| | | The soils are neutral to alkaline in reaction p^{H} ranges from 7.3 – 8.4) and | |
| | | from fertility point of view, these are medium in available nitrogen, low to | |
| | | medium in available phosphorus and adequate in availability of potash. | |
| 2. | Medium | | 180000 ha |
| | black | Jamnagar, major part of Lalpur, Dhrol, Jodiataluka is covered under medium | (Part of |
| | soils | black soils. These residual soils have basaltic trap parent materials. These | Kalyanpur, |
| | | soils vary in depth from 30 to 60 cm or more at few places. They are | Jamnagar, |
| | | calcareous in nature. A layer of murrum (Unconsolidated material of | Jamkham- |
| | | decomposed trap and limestone) is generally found in sub soil layer. The | bhalia, Lalpur, |
| | | drainage does not pose any problem, because of porous sub soil layer. | Dhrol, Jodia) |
| | | Morphologically, the profile of these soils has A-C horizon characteristics, | |
| | | having moderate sub angular blocky structure. They are plastic and sticky and | |
| | | hard in consistency on drying. The colour of these soils varies from very dark | |
| | | brown to light grey. Taxonomically, these soils are classified as Ustochrepts in | |
| | | Inceptisol order. The soils are dominated by smectite group of clay minerals | |
| | | which give to mild cracking in dry season, due to which these are further | |
| | | classified as Vertic – Ustochrepts at sub group level. | |
| | | The soils are clay loam to clayey in texture. The souls are highly retentive of | |
| | | moisture because higher percentage of clay content. The percentage of clay | |
| | | content in the surface varies from 31.79 to 73.27 per cent, while no definite | |
| | | trend of clay content in different horizon of the profile is observed. | |
| | | The chemical composition of these soils is neutral to alkaline reaction ($p^H7.4$ | |
| | | to 8.9). Calcium is the dominant exchangeable cation followed by magnesium. | |
| | | The soils are generally low to medium in available nitrogen, phosphorus and | |
| | | adequately supplied with potassium. The calcium carbonate contents various | |
| | | from 5.26 to 20.36 per cent in these soils. | |
| 3. | Saline | Saline alkali souls are extensively distributed on the coastal are3a as well as | 181000 ha |
| | | inlands. These soils are located in the districts of Jamnagar (Jodia, part of | |
| | ls | Okhamandal, Kalyanpur, Jamkhambhaliya and jamnagartalukas). These soils | Okha, |
| | | are originated as a result of higher water table, low rainfall and high | |
| | | evaporation losses during summer months resulting into upward movement of | |
| | | salts, poor drainage, use of saline ground water and ingress of sea water (in | Jamnagar) |
| | | coastal areas). The souls are classified as <i>Fluvaquents, Halaquents,</i> | |
| | | and <i>Haplaquents</i> (Entisol): <i>Haplaquents</i> and <i>Haptaquepts</i> in order – <i>Inceptisol</i> . | |
| | | Texturally these soils vary from sandy loam to clay. The degree of salinity and | |
| | | alkalinity is also highly variable. | |

| | | In Jamnagar district, the saline and alkaly soils are widely distributed mainly termed as coastal soil. The soils are sandy loam to clay loam in texture. The EC varies from 1.54 to 38.6 m.mhos/cm and ESP ranges from 9.2 to 74.64% in surface soil. The p ^H varies from 7.6 to 9.00 in surface soils and normally calcareous in nature. Most of these soils are low to medium in available nitrogen and phosphorus and high in available potash. | |
|----|-----------------------------|--|--|
| 4. | Costal alluvials oils | these soils are located in the district of Jamnagar consisting Kalyanpur, Jodia and Jamnagar, Jamkhambhadia, Lalpur, Dwarka (OkhaMandal) and Dhrol, talukas. These soils are sandy clay loam to clay in texture. These soils are also affected with salts and are saline sodic in nature. The surface soil varies from 1.54 to 38.6 m.mhos/cm in Electrical conductivity, and from 9.2 to 74.64 in Exchangeable sodium percentage. The soil reaction varies with situation ranging from moderately alkaline or highly alkaline (p ^H 7.6 to 9.0). The souls are normally medium in fertility. Taxonomically, these souls are classified as <i>Halaquents</i> and <i>Haplaquents</i> – Entisol and <i>Helaquepts</i> and <i>Hapdaquents</i> in Inceptisol order. | 299000 ha (Kalyanpur, Jodia& Jamnagar, Khambhadia, Lalpur, Dwarka) |
| 5. | Hilly soils | These soils occur in some parts Bhanvad and Jamjodhpurtalukas of Jamnagar district. Because of the steep slope and erosion, the profile is not developed. These soils are developed because of weathering of parent materials existing basaltic trap limestone and sand stone. These soils are shallow to moderately deep and are coarse to find in their texture. The texture varies from loamy sand to clay loam to clay. They have under composed rock fragments and are low in fertility status. These soils are placed in to <i>Ustorthents</i> and those near foothills and valley are comparatively deeper can be placed under <i>Ustochrepts</i> and can be classified under estisol and <i>Inceptisol</i> orders respectively. | (Some part of Bhanvad and |

2.4. Area, Production and Productivity of major crops cultivated in the district

| S. No | Сгор | Area (ha) | Production (Qtl) | Productivity (Qtl /ha) |
|-------|-------------------|-----------|------------------|------------------------|
| | Oilseeds | | | |
| 1 | Groundnut | 378335 | 5675025 | 15 |
| 2 | Sesamum | 6280 | 22608 | 3.6 |
| 3 | Castor | 7375 | 192487.5 | 26.1 |
| 4 | Soybean | 8 | 140 | 17.5 |
| | Total Oilseeds | 391998 | | |
| | Cash Crops | | | |
| 5 | Cotton | 180440 | 4150120 | 23 |
| 6 | sugarcane | 150 | 7500 | 50 |
| | Total Cash Crops | 180590 | | |
| | Food Grain | | | |
| 7 | Wheat | 58600 | 1881060 | 32.1 |
| 8 | Pearlmillet | 3520 | 46112 | 13.1 |
| 9 | Sorghum | 8100 | 85050 | 10.5 |
| 10 | Maize | 2850 | 20520 | 7.2 |
| | Total Food Grains | 73070 | | |
| | Pulse Crops | | | |
| 11 | Greengram | 4185 | 23436 | 5.6 |
| 12 | Blackgram | 2910 | 17867.4 | 6.14 |
| 13 | Cowpea | 285 | 1071.6 | 3.76 |
| 14 | Pigeon pea | 175 | 1925 | 11 |

| 15 | Moothbean | 360 | 1512 | 4.2 |
|-----|-----------------------|-------|---------|-------|
| 16 | Chickpea | 31300 | 350560 | 11.2 |
| 17 | Cluster bean | 75 | 1406.25 | 18.75 |
| 18 | Other pulses | 15 | 0 | |
| | Total Pulses | 39305 | | |
| | SPICES AND CONDIMENTS | | | |
| 19 | Cumin | 4300 | 36550 | 8.5 |
| 20 | Fenugreek | 90 | 1410 | 15.7 |
| 21 | Coriander | 2300 | 33350 | 14.5 |
| 22 | Ajwan | 5015 | 42630 | 8.5 |
| 24 | Chilli | 1550 | 29450 | 11.9 |
| 25 | Garlic | 600 | 47700 | 79.5 |
| | Total spices | 13855 | 191090 | |
| | VEGETABLE | | 0 | |
| 27 | Onion | 200 | 40800 | 204.0 |
| 28 | Potato | 100 | 14650 | 146.5 |
| 29 | Brinjal | 1755 | 324680 | 185.0 |
| 30 | Tomato | 2355 | 701790 | 298.0 |
| 31 | Cauliflower | 97 | 14250 | 146.9 |
| 32 | Cowpea | 788 | 58940 | 74.8 |
| 33 | Cabbage | 811 | 136570 | 168.4 |
| 34 | Okra | 2790 | 200880 | 72.0 |
| 37 | Cucurbits | 1445 | 236110 | 163.4 |
| 38 | Cluster bean | 4524 | 436570 | 96.5 |
| 39 | Other vegetable | 160 | 17680 | 110.5 |
| 55 | Total Vegetable | 15025 | 2182920 | 110.5 |
| | FRUIT CROPS | 15025 | 0 | |
| 40 | Chiku | 249 | 28810 | 115.7 |
| 41 | Pomegranate | 565 | 50290 | 89.0 |
| 42 | Citrus | 257 | 19040 | 74.1 |
| 44 | Aonla | 35 | 2100 | 60.0 |
| 45 | Guava | 12 | 520 | 43.3 |
| 46 | Custard apple | 65 | 4910 | 75.5 |
| 40 | Papaya | 483 | 301880 | 62.5 |
| 47 | - · · | 505 | 42470 | 84.1 |
| | Coconut | | | |
| 49 | Ber Kharok | 351 | 33270 | 94.8 |
| 50 | Kharek | 91 | 4550 | 50 |
| 51 | Banana | 44 | 19360 | 440.0 |
| 52 | Mango | 470 | 28670 | 61.0 |
| 53 | Cashew nut | 4 | 40.0 | 10.0 |
| 54 | Other fruits | 177 | 13890 | 78.5 |
| 55 | Total Fruits | 3308 | 549800 | |
| 56 | FLOWERS | | 0 | |
| 57 | Rose | 66 | 6150 | 93.2 |
| 58 | Merry gold | 140 | 11450 | 81.8 |
| 60 | Jasmine | 3 | 260 | 86.7 |
| 62 | Lilly | 2 | 170 | 85.0 |
| 63 | Other flowers | 165 | 14650 | 88.8 |
| | Total flowers | 376 | 32680 | |
| | OTHER CORPS | | 0 | |
| 64 | Chikori | 50 | 4325 | 86.5 |
| 65 | Palma Rosa | 43 | 5375 | 125 |
| | Total Other crops | 93 | | |
| | Fodder crops | | | |
| 67 | Lucern | 1105 | 132600 | 120 |
| ~~~ | Sorghum | 16660 | 2499000 | 150 |
| 68 | Serginam | | | |

20675

Total Fodder crops

* Source : DAO, &Dy.Dir.Hort., Jamnagar

2.5. Weather data (January-18 to March-19)

| | Weekly mean Weather data-at JAU,Jamnagar during-2018 | | | | | | | | | |
|------------|--|--------------|----------|----------|--------------|------------|------------|------------|-------|--|
| Week No | Tem | np. °c | | R.H.% | ws | BSS | Eo | Rain | Rainy | |
| | Max | Min | I | 11 | (kmph) | (hrs) | (mm) | (mm) | Days | |
| 1-J | 25.9 | 10.9 | 80 | 27 | 3.8 | 9.1 | 3.1 | | | |
| 2 | 26.7 | 15.1 | 70 | 35 | 5.7 | 6.4 | 3.7 | | | |
| 3 | 28.7 | 13.9 | 86 | 34 | 4.5 | 9.1 | 3.4 | | | |
| 4 | 26.6 | 12.5 | 90 | 26 | 4.3 | 9.1 | 3.3 | | | |
| 5 | 28.2 | 13.3 | 86 | 29 | 4.2 | 9.1 | 3.6 | | | |
| 6-F | 27.6 | 14.9 | 80 | 31 | 4.3 | 7.6 | 3.8 | | | |
| 7 | 29.2 | 15.5 | 72 | 26 | 6.4 | 9.1 | 4.3 | | | |
| 8 | 31.3 | 17.9 | 95 | 29 | 5.4 | 8.9 | 4.5 | | | |
| 9 | 34.0 | 18.8 | 71 | 25 | 21.7 | 32.6 | 5.8 | | | |
| 10-M | 33.0 | 18.2 | 85 | 24 | 6.9 | 10.0 | 6.4 | | | |
| 11 | 32.2 | 17.8 | 90 | 32 | 8.2 | 10.0 | 6.3 | | | |
| 12 | 32.7 | 21.0 | 80 | 28 | 9.1 | 9.7 | 7.0 | | | |
| 13 | 38.6 | 21.9 | 78 | 18 | 8.5 | 10.0 | 9.4 | | | |
| 14-A | 34.7 | 21.9 | 88 | 35 | 9.3 | 9.5 | 9.1 | | | |
| 15 | 35.7 | 24.2 | 88 | 46 | 9.8 | 9.5 | 9.2 | | | |
| 16 | 36.3 | 24.0 | 80 | 31 | 9.8 | 10.6 | 9.3 | | | |
| 17 | 37.1 | 23.6 | 74 | 30 | 9.8 | 10.6 | 9.3 | | | |
| 18 | 36.6 | 25.9 | 78 | 37 | 13.2 | 10.3 | 9.6 | | | |
| 19-M | 35.7 | 26.0 | 85 | 48 | 11.8 | 10.5 | 8.7 | | | |
| 20 | 36.5 | 26.7 | 84 | 46 | 14.8 | 10.2 | 9.3 | | | |
| 21 | 37.3 | 27.3 | 81 | 44 | 13.3 | 11.1 | 9.4 | | | |
| 22 | 35.6 | 28.2 | 82 | 45 | 14.4 | 11.0 | 9.0 | | | |
| 23-J | 35.6 | 29.2 | 77 | 51 | 16.9 | 10.6 | 9.2 | | | |
| 24 | 36.0 | 29.3 | 77 | 49 | 18.9 | 10.6 | 9.2 | | | |
| 25 | 35.1 | 28.3 | 78 | 56 | 15.8 | 10.6 | 8.8 | 22.0 | 2 | |
| 26 27-J | 35.7 | 27.8 | 81 79 | 55 59 | 12.5 | 5.0 | 7.0 | 22.0 | 2 | |
| | 35.2 | 27.6 | 84 | | 14.7 12.7 | 6.4 1.1 | 6.5 5.2 | 3.0 3.0 | 1 | |
| 28 29 | 33.8 31.1 | 27.5 26.2 | 93 | 65 78 | 12.7 | 0.4 | 4.3 | 251.0 | 1 4 | |
| 30 | 31.1 | 26.2 | 86 | 63 | 12.4 | 2.0 | 4.3 | 251.0 | 4 | |
| 31 | 33.2 | 26.9 | 85 | 61 | 15.7 | 2.0 | 4.7 | | | |
| 32-A | 31.8 | 26.1 | 87 | 67 | 12.7 | 2.9 | 4.9 | 7.5 | 1 | |
| 33 | 31.1 | 26.1 | 90 | 78 | 11.6 | 0.7 | 4.7 | 31.0 | 2 | |
| 34 | 30.4 | 24.8 | 93 | 78 | 9.2 | 2.4 | 3.6 | 32.5 | 2 | |
| 35 | 30.4 | 24.3 | 91 | 75 | 8.4 | 2.4 | 3.8 | 9.5 | 2 | |
| 36-S | 30.3 | 23.5 | 89 | 61 | 8.9 | 6.4 | 4.3 | 10.5 | 1 | |
| 37 | 30.3 | 23.5 | 87 | 59 | 7.2 | 6.9 | 4.5 | 10.5 | | |
| 38 | 31.6 | 24.4 | 85 | 53 | 8.5 | 9.2 | 4.9 | | | |
| 39 | 34.1 | 22.5 | 93 | 42 | 6.2 | 8.5 | 4.8 | | | |
| 40-0 | 37.3 | 23.6 | 86 | 30 | 3.9 | 9.4 | 5.5 | | | |
| 41 | 37.4 | 23.5 | 81 | 26 | 3.4 | 8.2 | 5.8 | | | |
| 42 | 36.0 | 21.6 | 90 | 25 | 3.7 | 9.1 | 5.3 | | | |
| 43 | - | - | | 1 | | | 1 | 1 | | |
| 44 | | | 1 | | | | | 1 | | |
| 45-N | | | 1 | | | | | 1 | | |
| 46 | | | | | | | | | | |
| 47 | | | | | | | | | | |
| 48 | | | | | | | | | | |
| 49-D | | | | | | | | | | |
| 50 | | | | | | | | 1 | | |
| 51 | | | | | | | | 1 | | |
| 52 | | | | | | | | | | |
| Mean | 33.1 | 22.7 | 84 | 44 | 10.0 | 8.3 | 6.2 | 370.0 | 15 | |
| Highest | 38.6 | 29.3 | 95 | 79.29 | 21.7 | 32.6 | 9.6 | | | |

| Lowest | 25.9 | 10.9 | 70 | 18 | 3.4 | 0.4 | 3.1 | | |
|----------------|--|------|----|----|-----|-----|-----|--|--|
| * Courses Mate | Courses Matagenelagies above stary Millet Desearch Station 1011 Jampager | | | | | | | | |

* Source: Meteorological observatory, Millet Research Station, JAU, Jamnagar

2.6. Production and productivity of livestock, Poultry, Fisheriesetc.in the district

| Category | Population | Production | Productivity |
|------------|------------|------------------------|---------------|
| Cattle | 349229 | 2475.2 qtl. total milk | |
| Crossbred | | | 8.585 lit/day |
| Indigenous | | | 3.375 lit/day |
| Buffalo | 209616 | | 4.451 lit/ha |
| Sheep | 232530 | 295.16 lakh kg wool | |
| Crossbred | | | |
| Indigenous | | | |
| Goats | 173022 | | 0.274 lit/ha |
| Pigs | | 290097.9 Qtl meat | |
| Crossbred | | | |
| Indigenous | | | |
| Poultry | 38041 | 12.77 lakh eggs | |
| Hens | | | |
| Desi | | | |
| Improved | | | |
| Horse & | 410 | | |
| Camels | 2260 | | |
| Donkey | 2577 | | |
| Total Milk | | | |
| Total egg | | | |
| Total wool | | | |

| Category | Area | Production | Productivity |
|----------|------|------------|--------------|
| Fish | | | |
| Marine | | | |
| Inland | | | |
| Prawn | | | |
| Scampi | | | |
| Shrimp | | | |

Source: Assistant Directorate of Fishries, Jamnagar

2.7 Details of Operational area/ Villages (2018-19 to 2020-21)

| SI No | Taluka | Name of the village | Major crops & enterprises | Major problem identified | Identified thrust area |
|----------|-----------|---|---|---|---|
| 1 | Jamnagar | Chandragadh, Khojaberaja, Lothiya, NaniBanugar, Suryapara | Cotton, groundnut, sesamum, castor, greengram, wheat, Gram, | Heavy infestation of sucking pest in cotton, stem rot disease&whitegrub in Groundnut, Root rot | ICM in major crops of the district Organic crop production Introudction of new crop Recycling of farm waste |
| 2 | Kalyanpur | Gadhka, Patelka, Haripar, Juvanpur, Jampar | Vegetable, Soyabean, flowers, live | in castor, Less area under horticulture crops, Blight in cumin, salinity, pink bollworm in cotton | Populirization of MIS Motivation of fishries cultivation Soil Reclamation Farm women empowerment Farm mechanization |

2.8 Priority thrust areas

| SI. No | Crop/ Enterprise | Thrustarea |
|--------|---|---|
| 1. | Cotton, groundnut, castor, cumin, coriander, wheat, vegetables, fruits, etc. | Integrated Crop Management in major crops IPM & IDM in major field crops Whitegrub management in Groundnut Wireworm management in garlic & Onion Micronutriet management in wheat |
| 2. | Organic farming | Enhancement of organic farming through improved technologies |
| 3. | Farm waste/ organic matter | Recycling of farm waste through composting, vermicompost, green manuring, etc. |
| 4. | Micro irrigation | Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques |
| 5. | Soil | Reclamation of saline & alkaline soils |
| 6. | Farm Women | Farm women empowerment by training in value addition, handi crafts, and small scale enterprises |
| 7. | Fisheries | Fish Farming |
| 8. | Improved Implements | Popularization of the mechanized technological know how |
| 9. | Plant protection | Pinkboll worm in cotton and white grub in groundnut, |
| 10 | Horticultural area | Enhancement of pomegranate, datepalm, draganfruit, |
| 11. | Storage facility | Requirement of storage techniques and value addition in farm produce |
| 12. | Water conservation & use of Micro irrigation | Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques |

3. TECHNICAL PROGRAMME

| 0 | FT | FLD | | | | |
|----------------|-------------------|-----------|-------------------|--|--|--|
| () | 1) | (2) | | | | |
| Number of OFTs | Number of Farmers | Area (ha) | Number of Farmers | | | |
| 7 | 22 | 174 | 448 | | | |

| Trai | ning | Extension Activities | | | | |
|-------------------|------------------------|----------------------|------------------------|--|--|--|
| (| 3) | (4) | | | | |
| Number of Courses | Number of Participants | Number of activities | Number of participants | | | |
| 47 | 1225 | 358 | 39632 | | | |

| Seed Production (Qtl.) | Planting material (Nos.) | Fish seed prod. (Nos) | Soil Samples |
|------------------------|--------------------------|-----------------------|--------------|
| (5) | (6) | (7) | (8) |
| 264 | 500 | 500 | 550 |

3.1. B. Operational areas details proposed during 2019-20

| S.No. | Major crops & | Prioritized problems in these | Extent of area | Names of Cluster | Proposed |
|-------|------------------|-------------------------------|-----------------|-------------------------|--------------------|
| | enterprises | crops/ enterprise | (Ha/No.) | Villages identified for | Intervention |
| | being | | affected by the | intervention | (OFT, FLD, |
| | practiced in | | problem in the | | Training, |
| | cluster villages | | district | | extension activity |
| | | | | | etc.)* |

| 1 | Groundnut | Lower yield, replacement of old | 300000 ha. | Chandragadh, | OFT, FLD and |
|----|----------------|--|-------------|----------------------|------------------|
| T | Groundhut | variety | 500000 Ha. | Khojaberaja, | Training |
| | | valiety | | Lothiya,NaniBanugar, | irannig |
| | | | | Suryapara, Gadhka, | |
| | | | | Patelka, Haripar, | |
| | | | | Juvanpur, Jampar | |
| 2 | Chilli | Thrips, Curling of leaves, nutritional | 1500 ha | | OFT and Training |
| 2 | Clinin | deficiency | 1500 11a | | |
| | | denciency | | | |
| 3 | Garlic | Puple blotch, wireworm, yellowing, | 600 ha | _ " _ | OFT and Training |
| - | | tip burning | | | |
| 4 | Sesame | Leaf webber, mite, blight, stem rot, | 12000 ha. | - " - | OFT, FLD and |
| - | 0000000 | root rot, yellowing, replacement of | | | Training |
| | | old variety | | | |
| 5 | Wheat | Fall army worm, Stem borer, | 58000 ha | - " - | OFT, FLD and |
| | | Termite, nutritional deficiency, | | | Training |
| 6 | Vegetabe | Drudgery reduction, cut & wounds, | 2790 ha | _ " _ | FLD and Training |
| | mittens (Okra, | skin hardness, blisters and | | | |
| | Brinjal) | abrasions, | | | |
| 7 | Animal | Due to inadequate nutrients in the | Majority | - " - | FLD and Training |
| | Husbandry | daily ration, the % fat in milk and | farmers | | |
| | | productivity of the animal | (350000) | | |
| | | decreased hence, financial loss. | | | |
| 8 | Fishereis | Direct stocking of Spawn, Mortality | In Majority | Nana Khadba | FLD |
| | | rate is higher during spawn to | reservoir | NaviPipar | |
| | | fingerling stage rearing and | | NaviVeraval | |
| | | uncertain in production | | | |
| 9 | Fishereis | Stocking of single species, total | In Majority | Nana Khadba | FLD |
| | | production is reduce | reservoir | NaviPipar | |
| | | | | NaviVeraval | |
| 10 | Cotton | Pink bollworm, redding& yellowing | 180440 | | FLD and Training |
| | | of leaves, sucking pests, weevil, | | | |
| 11 | Chicory | ICM | 50 | | FLD and Training |
| 12 | Cumin | IPM, IDM, INM, variety | 4300 | | FLD and Training |
| | Ajwain | IDM, Variety | 5015 | | FLD and Training |
| 14 | Coriander | IDM, IPM, Variety | 2300 | | FLD and Training |
| 15 | Pearl millet | Variety, IPM, IDM | 3520 | | FLD and Training |
| 16 | Chick pea | IPM, Variety | 31300 | | FLD and Training |
| 17 | Kitchen | Nutritional balance | Majority | | FLD and Training |
| | gardening | | farmers | | |
| 18 | Fisheries | Inadequate use of natural resources | - | Rasulnagar | FLD and Training |

* Support with problem-cause and interventions diagram

3.2. Technologies to be assessed and refined

A.1 Abstract on the number of technologies to be assessed in respect of **crops**

| Thematic areas | Cereals | Oil seeds | Pulses | Commercial Crops | Vegetables | Fruits | Flower | Plantation crops | Tuber Crops | TOTAL |
|--------------------------------|---------|--------------|--------|---------------------|------------|--------|--------|---------------------|----------------|-------|
| Varietal Evaluation | | 2 | | | | | | | | 2 |
| Seed / Plant production | | | | | | | | | | |
| Weed Management | | | | | | | | | | |
| Integrated Crop Management | | | | | | | | | | |
| Integrated Nutrient Management | | | | | | | | | | |
| Integrated Farming System | | | | | | | | | | |
| Mushroom cultivation | | | | | | | | | | |
| Drudgery reduction | | | | | 1 | | | | | 1 |
| Farm machineries | | | | | | | | | | |
| Value addition | | | | | | | | | | |
| Integrated Pest Management | | 1 | | | | | | | | 1 |
| Integrated Disease Management | | | | | | | | | | |

| Resource conservation technology | | | | | | |
|----------------------------------|---|--|---|--|--|---|
| Small Scale income generating | | | | | | |
| enterprises | | | | | | |
| TOTAL | 3 | | 1 | | | 4 |

A.2. Abstract on the number of technologies to be refined in respect of crops

| Thematic areas | Cereals | Oilseeds | Pulses | Commercial Crops | Vegetables | Fruits | Flower | Kitchen garden | Tuber Crops | TOTAL |
|----------------------------|---------|----------|--------|---------------------|------------|--------|--------|-------------------|----------------|-------|
| Varietal Evaluation | | | | | | | | | | |
| Seed / Plant production | | | | | | | | | | |
| Weed Management | | | | | | | | | | |
| Integrated Crop Management | | | | | | | | | | |
| Integrated Nutrient | | | | | | | | | | |
| Management | | | | | | | | | | |
| Integrated Farming System | | | | | | | | | | |
| Mushroom cultivation | | | | | | | | | | |
| Drudgery reduction | | | | | | | | | | |
| Farm machineries | | | | | | | | | | |
| Post Harvest Technology | | | | | | | | | | |
| Integrated Pest Management | | | | | 1 | | | | | 1 |
| Integrated Disease | | | | | 1 | | | | | 1 |
| Management | | | | | | | | | | |
| Resource conservation | | | | | | | | | | |
| technology | | | | | | | | | | |
| Small Scale income | | | | | | | | | | |
| generating enterprises | | | | | | | | | | |
| TOTAL | | | | | 2 | | | | | 2 |

A.3. Abstract on the number of technologies to be assessed in respect of livestock / enterprises

| Thematic areas | Cattle | Poultry | Sheep | Goat | Piggery | Vermi culture | Fisheries | TOTAL |
|---------------------------|--------|---------|-------|------|---------|---------------|-----------|-------|
| Evaluation of Breeds | | | | | | | | |
| Nutrition Management | 1 | | | | | | | 1 |
| Disease of Management | | | | | | | | |
| Value Addition | | | | | | | | |
| Production and Management | | | | | | | 1 | 1 |
| Feed and Fodder | | | | | | | | |
| Small Scale income | | | | | | | | |
| generating enterprises | | | | | | | | |
| TOTAL | 1 | | | | | | 1 | 2 |

A.4. Abstract on the number of technologies to be refined in respect of livestock / enterprises

| Thematic areas | Cattle | Poultry | Sheep | Goat | Piggery | Rabbitary | Fisheries | TOTAL |
|---------------------------|--------|---------|-------|------|---------|-----------|-----------|-------|
| Evaluation of Breeds | | | | | | | | |
| Nutrition Management | | | | | | | | |
| Disease of Management | | | | | | | | |
| Value Addition | | | | | | | | |
| Production and Management | | | | | | | | |
| Feed and Fodder | | | | | | | | |
| Small Scale income | | | | | | | | |
| generating enterprises | | | | | | | | |
| TOTAL | | | | | | | | |

B. Details of On Farm Trial / Technology Assessment during 2019-20

| S. No | Crop/ enterpris e | Prioritized problem | Title of OFT | Technology o | | Source of Techn ology | Name of critical input | per | Cost per trial | of | Total cost for the OFT (Rs.) | Parameters to be studied | memb |
|----------|-------------------------|------------------------|--------------|-----------------|----------|--------------------------------|------------------------------|-----|----------------------|----|--|-----------------------------|-------|
| 1 | Sesame | To manage | Management | 1. Injudicious | use of | | | | | | 3600 | No. of larvae | KVK |
| | | the lea | of sesame | insecticides. | (Spray | | | | | | | per 1 meter, | Staff |
| | | webber | leaf webber | insecticides at | weekly | | | | | | | yield | |
| | | infestation | | interval) | (Farmers | | | | | | | | |

Annual Action Plan (2019-20)

| | | in sesame | | practices) | | | | | | | | |
|---|--------------|----------------------|----------------|------------------------------|-------------|-------------|----------|------|---|------|-------------------------|----------|
| | | in sesurie | | 2. Recommended | SAU | Cartap | 500 | 1200 | 3 | | | |
| | | | | practices Application o | | hydrochlori | | | - | | | |
| | | | | the insecticide will be star | | de, | Б | | | | | |
| | | | | at pest infestation | | ас, | | | | | | |
| | | | | occurred. Cartar | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | hydrochloride 50% S.P. @ | | | | | | | | |
| | | | | 10g/10 Liter of water a | | | | | | | | |
| | | | | the time o | | | | | | | | |
| | | | | infestation. (Recommenda | | | | | | | | |
| | | | | ion) | | | | | | | | |
| | Fish | | | 1.Farmer's practices:- | Farmer | | | | 3 | | Average body | |
| | | the farming | | 0 0 1 | s own | | | | | | 0 | Staff |
| | | cost by using | | <i>Catlacatla</i> into | practic | | | | | | IMC and | |
| | | use | (Macrobrach | ponds/reservoir. | es I; | | | | | | Prawn at the | |
| | | maximum | umrosenberg | | | | | | | | time of | |
| | | natural | ii) with IMC | | | | | | | | harvesting | |
| | | resources | fingerlings in | | | | | | | | Total | |
| | | (Food, water | village | | | | | | | | production | |
| | | body etc.) | pond/Reserv | | | | | | | | of fish and | |
| | | To increase | oir | | | | | | | | prawn (in | |
| | | total yield | | | | | | | | | KG.) at the | |
| | | and Income. | | | | | | | | | time of | |
| | | | | | | | | | | | harvesting | |
| | | | | | | | | | | | from village | |
| | | | | | | | | | | | pond/reserve | _ |
| | | | | | | | | | | | ir | |
| | | | | | | | | | | | " Total Net | |
| | | | | | | | | | | | | |
| | 6 | | | | | | | 500 | 2 | 4500 | income | <u> </u> |
| | Sesame | Low Yield, | Assessment | | JAU, | Seed | 1 kg | 500 | 3 | 1500 | | Shri. |
| | | Introducti | | 2 G. Til 3 | Juna | | seed | | | | (Kg/ha), | S. H. |
| | | on of new | performanc | 3. G. Til. 5 | gadh | | of | | | | Plant | Lakh |
| | | high | e of high | | | | both | | | | Height | ani |
| | | yielding | yielding | | | | vari | | | | (cm) <i>,</i> | Scier |
| | | variety, | Sesame | | | | ety | | | | Capsule per | tist |
| | | | varieties in | | | | | | | | plant, 1000 | (Agro |
| | | | summer | | | | | | | | seed | nom |
| | | | irrigated | | | | | | | | weight (g), | y) |
| | | | condition | | | | | | | | Maturity | |
| | | | for | | | | | | | | days, | |
| | | | Jamnagar | | | | | | | | Economics | |
| | | | District | | | | | | | | | |
| 4 | Ground | Low yield | Assessment | 1 GG-20 | JAU, | Seed | 30 | 810 | 3 | 2430 | Pod & Haulm | Shri. |
| | nut | in existing | | 2 GJG-22 | Juna | | kg | 0 | - | 0 | yield (kg/ha), | S. H. |
| | | variety, | | | gadh | | seed | _ | | - | Plant Height | Lakh |
| | | Enhancing | yielding | 3 GJG-32 | 8 | | of | | | | (cm), No. Of | ani |
| | | productivit | | | | | both | | | | branches per | Scier |
| | | y | Variety in | | | | vari | | | | plant , No. of | tist |
| | | у | kharif | | | | ety | | | | pods per | (Agro |
| | | | season for | | | | ety | | | | plant , 100 | |
| | | | | | | | | | | | pods weight (g), 100 | nom |
| | | | Jamnagar | | | | | | | | kernel | y) |
| | | | District | | | | | | | | weight (g), | |
| | | | | | | | | | | | Economics | |
| | Solar | Time, fuel & | Comparison | Preparation by | Depart | Solar | 1 | 1600 | 5 | 1600 | Time | A.K. |
| | | drudgery | of solar | | - | cooker | | | - | | consumption | |
| | Sooner | reduction | cooker with | traditional method | of | | | | | | Fuel | Saran |
| | | Cuuction | traditional | Preparation by | oi Renew | | | | | | consumption | |
| | | | cooking | roasting | able | | | | | | Movement | |
| | | | - | Preparation by solar | aule | | | | | | Organo | |
| | | | system | | energy | | | | | | laptic test | |
| | CI. : | | | cooker | | | | | | 2000 | | 10.02 |
| | Chilli | | | 1. Farmer's Practices : | 1 | | | | | | Record thrip | |
| | | | of thrips in | - | | | | | | | | Staff |
| | | incidence ir | | insecticides. [use o | | | | | | | from five | ŧ |
| | | chilli. To reduce | 1 | chlorpyriphos, quinalphos | | | | | | | randomly | |
| | | | | flubendiamide, | i i | | | | | | selected | |

| | | | | | | | -0/ | | _ |
|---|----------------------------------|--|--|--|------------------------------------|---|------|---|---|
| injudicious use o chemical pesticide. To minimizo residual effect o chemical | | imidacloprid, Fipronil Thiamethoxamcypermethr in, lamdacyhalothrin after infestation of thrips af weekly interval without follow ETL] | | | | | | plants from each plot at 7 days after spray 2. Record yield at every picking | |
| | | 2. Recommendation : Seed treatment with imidacloprid 70 WS (7.5) g/kg seed) and dipping o g/kg seed) and dipping o seedling before before transplanting for two hours in solution o o imidacloprid 17.8 SL (10) ml/10 litre water) o thiamethoxam 25 WG (10) g/10 litre water). Spraying of spinosad 45 SC (3) ml/10) litre water) 3. Refinement:- Spray o | Imidaclopri d 17.8% SL, Thiamethox amSpinosac | gm, 100 ml, 100 gm, 100 ml | 120, 220, 210, 450 300 | 3 | | | |
| | | Bearuveriabassiana @ 5 g/lit of water at 15 days interval | assiana | 2 Ng | 500 | 5 | | | |
| Garlic To minimize the infestation of purple blotch o garlic. To increase production. To reduce yield loss o garlic | of purple blotch of garlic | Farmer's Practices : Injudicious use or fungicide (Spray insecticides at weekly interval), spray fungicide after initiation/heavy infestation of diseases | | | | | 7800 | Record thripsKVI population Sta from five randomly selected plants from each plot at 7 days after spray 2. Record yield at every picking | |
| | | 2. Recommendation : Foliar sprays of Mancozet @0.25%, Tricyclazole @ 0.1% and Hexaconazole @0.1% at 30, 45 and 60 days respectively after transplanting helps ir checking disease incidence | Mancozeb, Tricyclazole Hexaconazo le | ml, 1 | 300, 200, 300 | 3 | | | |
| | | 3. Refinement: Application or Trichoderma @ 5 kg/ha along with FYM @ 1 tonne/ha by broadcasting method + Foliar sprays or Hexaconazole @ 0.1% and Tebuconazole @ 0.1% at 40 and 60 days respectively after transplanting helps ir checking disease incidence | Tebuconazo | ml, | 300, 1500 | 3 | | | |

OFT-1 Sesame (Assessment)

Title: Management of sesame leaf webber

Objective: To manage the leaf webber infestation in sesame **Problem definition:** attack of leaf webber is increase

- Heavy infestation of leaf webber was found
- Improper cultivation practices
- > Lack of knowledge about pest outbreaks and its management

Problem diagram :-

| Improper cultivation practices | | Irregular irrigation |
|-----------------------------------|---------------|------------------------------|
| improper cultivation practices | | |
| Mono-cropping system | | Lack irrigation facilities |
| No adoption of recommended | Management of | Lack of knowledge about pest |
| practices | sesame leaf | outbreaks and its management |
| Crop failure due to water | | In judicious use of chemical |
| logging condition in rainy season | webber | pesticide |
| Farmer follows instruction given | | Heavy incidence of pest and |
| by the local pesticides retailer | | disease attack |

Treatments:

- 1. Injudicious use of insecticides. (Spray insecticides at weekly interval) (Farmers practices).
- 2. Recommended practices Application of the insecticide will be start at pest infestation occurred. Cartap hydrochloride 50% S.P. @ 10 g/10 Litre of water at the time of infestation.(Recommendation)

No. of Replication: 3 (Farmers)

Source of Technology :- Junagadh Agricultural University, Junagadh

Observations:

- 1. Record no. of larvae per plant/1 meter row length.
- 2. Yield data.

OFT: 2 (Assessment)

Title: Stocking of Freshwater prawn (*Macrobrachiumrosenbergii*) with IMC fingerlings in village pond/Reservoir

Objectives: 1. To reduce the farming

cost by using use maximum natural resources (Food, water body etc.)

2. To increase total yield and Income.

Experimental Animal: IMC fingerlings (Catlacatla) and M. rosenbergii

Problem diagram :-

| Over stocking of seeds | Stocking of Freshwater prawn | Minimun usage of natural |
|-------------------------|---------------------------------|---------------------------|
| Over stocking of seeds | (Macrobrachiumrosenbergii) | resources |
| Single Species stocking | with IMC fingerlings in village | Total production decrease |
| Lack of knowledge | pond/Reservoir | Low income |

Treatment: 1. Farmer's practices:- stocking a single species Catlacatla into ponds/reservoir.

2. Assessment:- stocking of *M. rosenbergii* with *Catlacatla* fingerlings into ponds/reservoir **No of Replications**: 3 farmers

Source of Technology:-Central Inland Fisheries Research Institute, Barrakpore, Calcutta.

Thematic area: Production and management

Observations:

- 1. Average body weight of IMC and Prawn at the time of harvesting
- 2. Total production of fish and prawn (in KG.) at the time of harvesting from village pond/reservoir
- 3. Total Net income

OFT :-3 Sesame

Title :Assessment of the performance of high yielding Sesame varieties in summer irrigated condition for Jamnagar District

Objective : To find out suitable high yielding sesame variety for summer irrigated condition **Problem definition:**

- 1. Low yield.
- 2. Threat to the sustainability of crop production
- 3. High cost of production
- 4. Shortage of irrigation water

Problem diagram :-

| Improper cultivation practices | Assessment of the | Multi season cropping system |
|-----------------------------------|------------------------------|--|
| Low yielding variety | performance of high | Irregular irrigation/ irregular rainfall |
| Lack of knowledge about balance | yielding Sesame varieties in | Lack of knowledge about pest |
| use of nutritional recommendation | summer irrigated condition | outbreaks and its management |
| High Wind velocity | for Jamnagar District | In judicious use of chemical fertilizer |

Treatments :

- 1. T₁ :- G. Til 2 (Farmers Practices)
- 2. T₂ :- G. Til 3
- 3. T₃ :- G. Til 5

No. of Replication :- 3 (Farmers)

Source of Technology: - Junagadh Agricultural University, Junagadh **Thematic area:** Varietal evaluation

Observations :-

- 1. Yield (Kg/ha),
- 2. Plant Height (cm),
- 3. Capsule per plant,
- 4. 1000 seed weight (g),
- 5. Maturity days,
- 6. Economics

OFT: 4 Groundnut

1. Title : Assessment of suitable high yielding Groundnut Variety in kharif season for Jamnagar District

2. Objective:: To find out suitable high yielding groundnut variety for kharif season

Problem definition:

- 1. Low yield.
- 2. Threat to the sustainability of crop production
- 3. High cost of production
- 4. Lack of well distributed rainfall & low rainfall

Problem diagram :-

| Improper cultivation practices | | Multi season cropping system | | |
|-------------------------------------|----------------------|--|--|--|
| Low yielding variety | Assessment of | Mono-cropping system | | |
| Irregular rainfall | suitable high | Lack of knowledge about nutrient | | |
| inegular failliai | yielding | management | | |
| Heavy incidence of pest and disease | Groundnut Variety | In judicious use of chemical fertilizer | | |
| attack | in kharif season for | In Judicious use of chemical fel tilizer | | |
| In judicious use of posticide | Jamnagar District | Heavy infestation of white grub was | | |
| In judicious use of pesticide | | found | | |

Treatments:

- 1. T₁:- GG-20 (Farmers Practices)
- **2. T**₂:- GJG-22
- **3. T**₃:- GJG-32

No. of Replication :- 3 (Farmers)

Source of Technology: - Junagadh Agricultural University, Junagadh

Thematic area: Varietal evaluation

Observation:

- 1. Pod & Haulm yield (kg/ha),
- 2. Plant Height (cm) at harvest time,
- 3. No. of branches per plant,
- 4. No. of pods per plant ,
- 5. 100 pods weight (g),
- 6. 100 kernel weight (g),
- 7. Economics

OFT-5 Solar cooker

Title :- Comparison of solar cooker with traditional cooking system ltems:-

- 1. Murbba,
- 2. sweet potato,
- 3. sweet corn,
- 4. Salted -Roasted groundnut

Objective:-

- 1. To improve quality of Prepared items
- 2. To reduce drudgery of farm women
- 3. To reduce time and fuel consumption

Treatment: - Item no. 1

- 1. Preparation by traditional method
- 2. preparation by sunlight heat
- 3. preparation by solar cooker

Treatment: - Item no. 2-4

- 1. Preparation by traditional method
- 2. Preparation by roasting
- 3. Preparation by solar cooker

No. of Replications: - 4

Source of Technology :- Department of reneuable energy

Observations:-

- 1. Time consumption
- 2. Fuel consumption
- 3. Movement
- 4. Organo laptic test
 - a. Colour
 - b. Texture,
 - c. Test
 - d. Overall acceptance
- 5. Self life

OFT-6

Title: Management of thrips in chilli.

Objective: To minimize the thrips incidence in chilli. To reduce injudicious use of chemical pesticide. To minimize residual effect of chemical

Problem definition:

- 1. Heavy infestation of Thrips was found
- 2. Lack of seed treatment and improper cultivation practices
- 3. Lack of knowledge about pest outbreaks and its management
- 4. Injudicious use of nitrogenous fertilizer

Problem diagram :-

| 0 | | | | |
|------------------------|----------------------|--|--|--|
| Resurgence of thrips | Management | Multi season cropping system | | |
| Mono-cropping system | of thrips in | Lack of knowledge about pest outbreaks and its management | | |
| Lack of seed treatment | chilli | Lack of improper cultivation practices | | |
| | Mono-cropping system | Mono-cropping system Of thrips in | | |

| In judicious use of pesticide | In judicious use of chemical fertilizer |
|-------------------------------|---|
| Irregular irrigation | Improper use of FYM (without decomposition) |

Treatments:

- 1. **Farmer's Practices**:-Injudicious use of insecticides. [use of chlorpyriphos, quinalphos, flubendiamide, imidacloprid, Fipronil, Thiamethoxamcypermethrin, lamdacyhalothrin after infestation of thrips at weekly interval without follow ETL]
- Recommendation :-Seed treatment with imidacloprid 70 WS (7.5 g/kg seed) and dipping of seedling before transplanting for two hours in solution of imidacloprid 17.8 SL (10 ml/10 litre water) or thiamethoxam 25 WG (10 g/10 litre water). Spraying of spinosad 45 SC (3 ml/10 litre water)
- 3. **Refinement:-** Spray of *Bearuveria bassiana* @ 5 g/lit of water at 15 days interval
- No. of Replication: 3 (Farmers)

Source of Technology: - Junagadh Agricultural University

Thematic area: IPM

Observations:

- 1. Record thrips population from five randomly selected plants from each plot at 7 days after spray
- 2. Record yield at every picking.

OFT-7 Garlic

Title: Management of purple blotch of garlic.

Objective: To minimize the infestation of purple blotch of garlic. To increase production. To reduce yield loss of garlic

Problem definition: Incidence of Thrips is increase

- 1. Heavy infestation of Thrips and purple blotch was found
- 2. Lack of seed treatment and improper cultivation practices
- 3. Lack of knowledge about pest, diseases outbreaks and its management
- 4. Injudicious use of nitrogenous fertilizer
- 5. Lack of fungicides use as preventive measure

Problem diagram :-

| Improper cultivation practices | | Multi season cropping system |
|--------------------------------|------------------|------------------------------------|
| | | Heavy infestation of purple blotch |
| Mono-cropping system | | was found |
| | Management of | Lack of knowledge about diseases |
| Lack of seed treatment | purple blotch of | outbreaks and its management |
| In judicious use of | garlic | In judicious use of chemical |
| pesticide/fungicide | ganne | fertilizer |
| Innegular invigation | | Improper use of FYM (without |
| Irregular irrigation | | decomposition) |

Treatments:

- 1. **Farmer's Practices** :-Injudicious use of fungicide (Spray insecticides at weekly interval), spray fungicide after initiation/heavy infestation of diseases.
- Recommendation :-Foliar sprays of Mancozeb @0.25%, Tricyclazole @ 0.1% and Hexaconazole @0.1% at 30, 45 and 60 days respectively after transplanting helps in checking disease incidence. (Junagadh Agricultural University;Director of Onion & Garlic Research Station, ICAR)
- 3. **Refinement:-** Application of Trichoderma @ 5 kg/ha along with FYM @ 1 tonne/ha by broadcasting method + Foliar sprays of Hexaconazole @ 0.1% and Tebuconazole @0.1% at 40 and 60 days respectively after transplanting helps in checking disease incidence.

No. of Replication: 3 (Farmers)

Source of Technology: - Junagadh Agricultural University; Director of Onion & Garlic Research Station, ICAR **Thematic area:** IDM

Observations:

- 1. Record no. of infected plant per 1 meter row length
- 2. Yield data

C. Details of On Farm Trial / Technology Refinement during 2019-20

3.3 FRONTLINE DEMONSTRATIONS

A. Details of FLDs to be organized –

| Sr. | Name of | Name of | Thematic | Technology | Critical Inputs | Season | Area | No. of | Parameters |
|-----|-----------|-------------|--------------|----------------|-------------------------|-------------------|-------|---------|----------------|
| No. | | Variety | area | demonstrated | = | and year | (ha.) | farmers | identified |
| | • • | Enterprises | | | | | . , | /Demo. | |
| 1 | Cotton | Bt. Cotton | IPM/INM | Insecticide, | Azadirechtin, | Kh-19 | 10 | 25 | Pest |
| | cotton | | | | Profenophos., MDP, SNPV | | | | population, |
| | | | | · | Beauveriabassiana | | | | yield |
| 2 | Chicory | | ICM | Bio pesticide | Beauveriabassiana | Kh-19 | 2 | 5 | Yield |
| | enneer, | | | Bio fertilizer | Azotobacter, PSB | 0 | _ | | |
| 3 | Wheat | GW-463 | Varietal | Variety | seed | Rabi-19 | 4 | 10 | Yield |
| 4 | Cumin | GC-4 | IPM/IDM | Bio pesticide | Trichoderma, | Rabi-19 | 4 | 10 | Yield, % Plant |
| | | | | Bio fertilizer | Beauveriabassiana | | | | damage |
| | | | | | Azotobacter, PSB | | | | |
| 5 | Ajwain | Gujarat | IPM/IDM | Bio pesticide | Trichoderma, | Rabi-19 | 4 | 10 | Yield, % Plant |
| | , | Ajwain-2 | | Bio fertilizer | Beauveriabassiana | Beauveriabassiana | | | damage |
| | | | | | Azotobacter, PSB | | | | |
| 6 | Coriander | GC-2 | IPM/IDM | Bio pesticide | Trichoderma, | Rabi-19 | 8 | 20 | Yield |
| | | | | Bio fertilizer | Beauveriabassiana | | | | |
| | | | | | Azotobacter, PSB | | | | |
| 7 | Pearl | GHB-732 | Varietal | Variety | Seed (GHB-732) | Sum- 19- | 4 | 10 | Yield |
| | Millet | | | | 1.5 kg | 20 | | | |
| Oth | er Scheme | | | | | | | | |
| 11 | NFSM- | GG-5 | Improved | Improved | Seed(GG-5), Beauveria | Rabi-19- | 20 | 50 | Yield, % pod |
| | Chickpea | | Variety with | Variety, Bio | bassiana, | 20 | | | damage |
| | | | ICM | pesticide, | Trichoderma, | | | | |
| | | | | Bio fungicide, | PSB, Rhizobium | | | | |
| | | | | Bio fertilizer | | | | | |
| 12 | NMOOP- | GJG-22/ | Improved | Improved | Seed (GJG-22/GJG-9) | KH-19 | 30 | 75 | Yield, % pod |
| | Groundnut | GJG 9 | Variety | Variety | | | | | damage |
| | | | | | | | | | |
| 13 | NMOOP- | GTil -3/5 | Improved | Improved | Seed(GTil-3/5), | Sum-19- | 20 | 50 | Yield, % pod |
| | Sesame | | Variety with | | Beauveria bassian, | 20 | | | damage |
| | | | ICM | with ICM | Trichoderma, | | | | |
| | | | | | Pendimethalin, | | | | |
| | | | | | PSB, Azotobacter and | | | | |
| | | | | | Micro nutrient | | | | |
| 14 | ATIC | BT cotton | ICM | Bio pesticide | Beauveriabassiana, | Kh-19 | 20 | 50 | Yield |
| | Cotton | | | Bio fertilizer | SNPV, MDP, | | | | |
| | | | | | PSB and Azatobector | | | | |
| 15 | ATIC | GG-20 | ICM | Bio pesticide | | Kh-19 | 20 | 50 | Yield |
| 12 | G'Nut | GG-20 | ICIVI | Bio fertilizer | Beauveriabassiana, | KU-19 | 20 | 50 | riela |
| | Ginut | | | BIO TEI UIIZEI | PSB and Rhizobium, | | | | |
| | | | | | Trichoderma | | | | |
| 16 | ATIC | GC-4 | ICM | - | Beauveriabassiana, PSB, | Rabi-19 | 10 | 25 | Yield |
| | Cumin | | | Bio fertilizer | Azotobector | | | | |
| | | | 1011 | | Trichoderma | B 1 1 1 5 | | | |
| 17 | ATIC | GC-2 | ICM | Bio pesticide | PSB, Azotobector, | Rabi-19 | 10 | 25 | Yield |
| | Coriander | | | Bio fertilizer | Beauveriabassiana, | | | | |
| | | | | | Trichoderma | | | | |

| | | Total | 174 | 435 | |
|--|--|-------|-----|-----|--|

Sponsored Demonstration

| Сгор | Area (ha) | No. of farmers |
|------|-----------|----------------|
| - | - | - |

B. Extension and Training activities under FLDs

| S. No. | Activity | No. of activities | Month | Number of participants |
|--------|--------------------------------------|----------------------|--------------|------------------------|
| | Cotton | | | |
| 1 | Field days | 1 | August | 20 |
| 2 | Farmers Training | 1 | June | 25 |
| 3 | Media coverage | 1 | April | |
| 4 | Training for extension functionaries | 1 | | |
| | Chikori | | | |
| 1 | Field days | 1 | July | 20 |
| 2 | Farmers Training | 1 | May | 25 |
| 3 | Media coverage | 1 | May | |
| 4 | Training for extension functionaries | 1 | | |
| | Wheat | | | |
| 1 | Field days | 1 | November | 20 |
| | Farmers Training | 1 | October | 25 |
| 3 | Media coverage | 1 | October | |
| 4 | Training for extension functionaries | 1 | | |
| | Cumin/Ajwain | | | |
| 1 | Field days | 1 | November | 20 |
| | Farmers Training | 1 | October | 25 |
| | Media coverage | 1 | October | |
| 4 | Training for extension functionaries | 1 | | |
| | Coriander | | | |
| 1 | Field days | 1 | November | 20 |
| | Farmers Training | 1 | October | 25 |
| | Media coverage | 1 | October | |
| | Training for extension functionaries | 1 | | |
| | Pearl Millet | | | |
| 1 | Field days | 1 | March | 20 |
| | Farmers Training | 1 | February | 25 |
| | Media coverage | 1 | February | |
| | Training for extension functionaries | 1 | , | |
| | Chickpea | | | |
| 1 | Field days | 2 | January | 50 |
| | Farmers Training | 1 | November | 25 |
| | Media coverage | 1 | November | |
| | Training for extension functionaries | 1 | October | 30 |
| | Groundnut | | | |
| 1 | Field days | 2 | Sep | 50 |
| | Farmers Training | 2 | July, August | 50 |
| | Media coverage | 1 | August | |
| | Training for extension functionaries | 1 | June | 30 |
| - | Sesamum | | | |
| 1 | Field days | 2 | April, May | 50 |
| | Farmers Training | 1 | Feb | 25 |

| 3 | Media coverage | 1 | Feb | |
|---|--------------------------------------|---|-----------|----|
| 4 | Training for extension functionaries | 1 | Jan | 30 |
| | Kitchen gardening | | | |
| 1 | Field days | 2 | July, Sep | 40 |
| 2 | Farmers Training | 1 | June | 30 |
| 3 | Media coverage | 1 | May | |
| 4 | Training for extension functionaries | | | |

C. Details of FLD on Enterprises

a. Farm Implements

| Name of the implement | Crop | Season and year | No. of farmers | Area (ha) | Critical inputs | Performance parameters / indicators |
|-----------------------|------|--------------------|-------------------|-----------|--------------------|--|
| | | | | | | |

b. Livestock Enterprises

| Enterprise | Breed | No. of farmers | No. of animals, poultry birds/ha. etc. | Critical inputs | Performance parameters / indicators |
|----------------------|-------|----------------|---|-----------------|--|
| Animial Husbandry | Gir | 3 | 3 | Bypass Fat | % of Fat increase Total Production increase |

c. FLD on Other enterprises

| Enterprise | Name of the technology demonstrated | No. of farmers | No. of units | Critical inputs | Performance parameters / indicators |
|-------------------|---|-------------------|-----------------|------------------|---|
| Kitchen gardening | Nutritional gardening | 50 | 50 | Vegetable seeds | Yield |
| Okra Mittent | Vegetable mitten | 5 | 5 | Vegetable mitten | Picking efficiency, effect on skin, |
| Apron | Cotton picking apron | 5 | 5 | Apron | Picking efficiency |

3.4TRAINING (INCLUDING THE SPONSORED AND FLD TRAINING PROGRAMMES):

A. ON CAMPUS

| Thematic Area | No. of | No. of participant | | | | | | | | |
|------------------------------------|---------|--------------------|--------|-------|-------|--------|-------|-------|--|--|
| I nematic Area | NO. OF | Others | | | SC/ST | | | Grand | | |
| | Courses | Male | Female | Total | Male | Female | Total | Total | | |
| (A) Farmers & Farm Women | | | | | | | | | | |
| I Crop Production | | | | | | | | | | |
| Weed Management | | | | 0 | | | 0 | 0 | | |
| Resource Conservation Technologies | | | | 0 | | | 0 | 0 | | |
| Cropping Systems | | | | 0 | | | 0 | 0 | | |
| Crop Diversification | | | | 0 | | | 0 | 0 | | |
| Integrated Farming | | | | 0 | | | 0 | 0 | | |
| Water management | | | | 0 | | | 0 | 0 | | |
| Seed production | 1 | 21 | 2 | 23 | 2 | | 2 | 25 | | |
| Nursery management | | | | 0 | | | 0 | 0 | | |
| Integrated Crop Management | 1 | 24 | 0 | 24 | 1 | 0 | 1 | 25 | | |
| Fodder production | | | | 0 | | | 0 | 0 | | |
| Production of organic inputs | 1 | 24 | 0 | 24 | 1 | 0 | 1 | 25 | | |

| Total | 3 | 69 | 2 | 71 | 4 | 0 | 4 | 75 |
|---|---|----|---|----|---|---|---|----|
| II Horticulture | | | | 0 | | | 0 | 0 |
| a) Vegetable Crops | | | | 0 | | | 0 | 0 |
| Production of low volume and high value | | | | 0 | | | 0 | 0 |
| crops | | | | | | | | |
| Off-season vegetables | | | | 0 | | | 0 | 0 |
| Nursery raising | | | | 0 | | | 0 | 0 |
| Exotic vegetables like Broccoli | | | | 0 | | | 0 | 0 |
| Export potential vegetables | | | | 0 | | | 0 | 0 |
| Grading and standardization | | | | 0 | | | 0 | 0 |
| Protective cultivation (Green Houses, Shade | | | | 0 | | | 0 | 0 |
| Net etc.) | | | | | | | | |
| b) Fruits | | | | 0 | | | 0 | 0 |
| Training and Pruning | | | | 0 | | | 0 | 0 |
| Layout and Management of Orchards | | | | 0 | | | 0 | 0 |
| Cultivation of Fruit | | | | 0 | | | 0 | 0 |
| Management of young plants/orchards | | İ | | 0 | | | 0 | 0 |
| Rejuvenation of old orchards | | 1 | | 0 | | | 0 | 0 |
| Export potential fruits | | İ | | 0 | | | 0 | 0 |
| Micro irrigation systems of orchards | | | | 0 | | | 0 | 0 |
| Plant propagation techniques | | | | 0 | | | 0 | 0 |
| c) Ornamental Plants | | | | 0 | | | 0 | 0 |
| Nursery Management | | | | 0 | | | 0 | 0 |
| Management of potted plants | | | | 0 | | | 0 | 0 |
| Export potential of ornamental plants | | | | 0 | | | 0 | 0 |
| Propagation techniques of Ornamental Plants | | | | 0 | | | 0 | 0 |
| d) Plantation crops | | | | 0 | | | 0 | 0 |
| Production and Management technology | | | | 0 | | | 0 | 0 |
| Processing and value addition | | | | 0 | | | 0 | 0 |
| e) Tuber crops | | | | 0 | | | 0 | 0 |
| Production and Management technology | | | | 0 | | | 0 | 0 |
| Processing and value addition | | | | 0 | | | 0 | 0 |
| f) Spices | | | | 0 | | | 0 | 0 |
| Production and Management technology | | | | 0 | | | 0 | 0 |
| Processing and value addition | | | | 0 | | | 0 | 0 |
| g) Medicinal and Aromatic Plants | | | | 0 | | | 0 | 0 |
| Nursery management | | | | 0 | | | 0 | 0 |
| Production and management technology | | | | 0 | | | 0 | 0 |
| Post harvest technology and value addition | | | | 0 | | | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| III Soil Health and Fertility Management | | | | 0 | | | 0 | 0 |
| Soil fertility management | | | | 0 | | | 0 | 0 |
| Soil and Water Conservation | | 1 | | 0 | | | 0 | 0 |
| Integrated Nutrient Management | | | | 0 | | | 0 | 0 |
| Production and use of organic inputs | | | | 0 | | | 0 | 0 |
| Management of Problematic soils | | | | 0 | | | 0 | 0 |
| Micro nutrient deficiency in crops | 1 | 18 | 5 | 23 | 1 | 1 | 2 | 25 |
| Nutrient Use Efficiency | | | | 0 | | | 0 | 0 |
| Soil and Water Testing | | | | 0 | | | 0 | 0 |
| Total | 1 | 18 | 5 | 23 | 1 | 1 | 2 | 25 |
| IV Livestock Production and Management | | | | 0 | | | 0 | 0 |
| 0 | | | | | | | | |

| Dairy Management | 1 | 0 | 20 | 20 | 0 | 10 | 10 | 30 |
|--|---|----|----|---------|---|----|---------------|-----------|
| Poultry Management | | | | 0 | | | 0 | 0 |
| Piggery Management | | | | 0 | | | 0 | 0 |
| Rabbit Management/goat | | | | 0 | | | 0 | 0 |
| Disease Management | | | | 0 | | | 0 | 0 |
| Feed management | 1 | 25 | 0 | 25 | 5 | 0 | 5 | 30 |
| Production of quality animal products | | | | 0 | | | 0 | 0 |
| Total | 2 | 25 | 20 | 45 | 5 | 10 | 15 | 60 |
| V Home Science/Women empowerment | | | | 0 | | | 0 | 0 |
| Household food security by kitchen gardening | | | | 0 | | | 0 | 0 |
| and nutrition gardening | | | | | | | | |
| Design and development of low/minimum | | | | 0 | | | 0 | 0 |
| cost diet | | | | | | | | |
| Designing and development for high nutrient | | | | 0 | | | 0 | 0 |
| efficiency diet | 4 | _ | 10 | 10 | | | C | 25 |
| Minimization of nutrient loss in processing | 1 | 0 | 19 | 19 | 0 | 6 | 6 | 25 |
| Gender mainstreaming through SHGs | | | | 0 | | | 0 | 0 |
| Storage loss minimization techniques | | 0 | 25 | 0 | | | 0 | 0 |
| Value addition | 1 | 0 | 25 | 25 | 0 | 0 | 0 | 25 |
| Income generation activities for | 1 | 0 | 22 | 22 | 0 | 3 | 3 | 25 |
| empowerment of rural Women | | | | 0 | | | 0 | 0 |
| Location specific drudgery reduction | | | | 0 | | | 0 | 0 |
| technologies | | | | 0 | | | 0 | 0 |
| Rural Crafts | | | | 0 | | | 0 | 0 |
| Women and child care | 2 | 0 | 66 | - | 0 | 0 | 0 | 75 |
| Total | 3 | 0 | 66 | 66 0 | 0 | 9 | 9 0 | 0 |
| VI Agril. Engineering Installation and maintenance of micro | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| irrigation systems | T | 23 | 0 | 25 | 0 | 0 | 0 | 25 |
| Use of Plastics in farming practices | | | | 0 | | | 0 | 0 |
| Production of small tools and implements | | | | 0 | | | 0 | 0 |
| Repair and maintenance of farm machinery | | | | 0 | | | 0 | 0 |
| and implements | | | | U | | | 0 | U |
| Small scale processing and value addition | | | | 0 | | | 0 | 0 |
| Post Harvest Technology | | | | 0 | | | 0 | 0 |
| Total | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| VII Plant Protection | - | | | 0 | Ŭ | | 0 | 0 |
| Integrated Pest Management | 1 | 22 | 0 | 22 | 3 | 0 | 3 | 25 |
| Integrated Disease Management | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| Bio-control of pests and diseases | 1 | 25 | 0 | 25 | - | | 0 | 25 |
| Production of bio control agents and bio | - | | | 0 | | | 0 | 0 |
| pesticides | | | | Ŭ | | | | Ŭ |
| Total | 3 | 72 | 0 | 72 | 3 | 0 | 3 | 75 |
| VIII Fisheries | | | - | 0 | - | - | 0 | 0 |
| Integrated fish farming | 1 | 0 | 0 | 0 | 0 | 30 | 30 | 30 |
| Carp breeding and hatchery management | | | - | 0 | ~ | | 0 | 0 |
| Carp fry and fingerling rearing | ļ | | | 0 | | | 0 | 0 |
| Composite fish culture | ļ | | | 0 | | | 0 | 0 |
| Hatchery management and culture of | ļ | | | 0 | | | 0 | 0 |
| freshwater prawn | | | | | | | | |
| Breeding and culture of ornamental fishes | ļ | | | 0 | | | 0 | 0 |
| Portable plastic carp hatchery | | | | 0 | | | 0 | 0 |
| i ortable plastic carp natchery | | 1 | | 0 | | | U | 0 |

| | | | | • | | | • | - |
|---|-------|----------|----|-----|----|----|----|-----|
| Pen culture of fish and prawn | | <u> </u> | | 0 | | | 0 | 0 |
| Shrimp farming | 1 | 30 | 0 | 30 | | | 0 | 30 |
| Edible oyster farming | | | | 0 | | | 0 | 0 |
| Pearl culture | | | | 0 | | | 0 | 0 |
| Fish processing and value addition | | | | 0 | | | 0 | 0 |
| Tota | 2 | 30 | 0 | 30 | 0 | 30 | 30 | 60 |
| IX Production of Inputs at site | | | | 0 | | | 0 | 0 |
| Seed Production | | | | 0 | | | 0 | 0 |
| Planting material production | | | | 0 | | | 0 | 0 |
| Bio-agents production | | | | 0 | | | 0 | 0 |
| Bio-pesticides production | | | | 0 | | | 0 | 0 |
| Bio-fertilizer production | | | | 0 | | | 0 | 0 |
| Vermi-compost production | 1 | 23 | 0 | 23 | 2 | 0 | 2 | 25 |
| Organic manures production | | | | 0 | | | 0 | 0 |
| Production of fry and fingerlings | | | | 0 | | | 0 | 0 |
| Production of Bee-colonies and wax sheets | | | | 0 | | | 0 | 0 |
| Small tools and implements | | | | 0 | | | 0 | 0 |
| Production of livestock feed and fodder | | | | 0 | | | 0 | 0 |
| Production of Fish feed | | | | 0 | | | 0 | 0 |
| Tota | 1 | 23 | 0 | 23 | 2 | 0 | 2 | 25 |
| X Capacity Building and Group Dynamics | | | | 0 | | | 0 | 0 |
| Leadership development | | | | 0 | | | 0 | 0 |
| Group dynamics | | | | 0 | | | 0 | 0 |
| Formation and Management of SHGs | | | | 0 | | | 0 | 0 |
| Mobilization of social capital | | | | 0 | | | 0 | 0 |
| Entrepreneurial development of | | | | 0 | | | 0 | 0 |
| farmers/youths | | | | | | | | |
| WTO and IPR issues | | | | 0 | | | 0 | 0 |
| Tota | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| XI Agro-forestry | | | | 0 | | | 0 | 0 |
| Production technologies | | | | 0 | | | 0 | 0 |
| Nursery management | | | | 0 | | | 0 | 0 |
| Integrated Farming Systems | | | | 0 | | | 0 | 0 |
| Tota | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| XII Others (Pl. Specify) | · · · | | | 0 | - | | 0 | 0 |
| TOTAL | 16 | 262 | 93 | 355 | 15 | 50 | 65 | 420 |
| (B) RURAL YOUTH | | | | 0 | | | 0 | 0 |
| Mushroom Production | | | | 0 | | | 0 | 0 |
| Bee-keeping | | | | 0 | | | 0 | 0 |
| Integrated farming | 1 | 16 | 0 | 16 | 9 | 0 | 9 | 25 |
| Seed production | | | - | 0 | - | - | 0 | 0 |
| Production of organic inputs | 1 | 20 | 0 | 20 | 5 | 0 | 5 | 25 |
| Integrated Farming (Medicinal) | | | | 0 | | | 0 | 0 |
| Planting material production | | + | | 0 | | | 0 | 0 |
| Vermi-culture | | | | 0 | | | 0 | 0 |
| Sericulture | | - | | 0 | | | 0 | 0 |
| | | + | | 0 | | | 0 | 0 |
| Protected cultivation of vegetable crops | | - | | | | | - | |
| Commercial fruit production | | - | | 0 | | | 0 | 0 |
| Repair and maintenance of farm machinery | | 1 | | 0 | | | 0 | 0 |
| and implements | | - | | 0 | | | 0 | 0 |
| Nursery Management of Horticulture crops | | 1 | | 0 | | | 0 | 0 |

| Training and pruning of orchards | | | | 0 | | | 0 | 0 |
|--|---|----|---|----|----|---|----|----|
| Value addition | | | | 0 | | | 0 | 0 |
| Production of quality animal products | | | | 0 | | | 0 | 0 |
| Dairying | | | | 0 | | | 0 | 0 |
| Sheep and goat rearing | | | | 0 | | | 0 | 0 |
| Quail farming | | | | 0 | | | 0 | 0 |
| Piggery | | | | 0 | | | 0 | 0 |
| Rabbit farming | | | | 0 | | | 0 | 0 |
| Poultry production | | | | 0 | | | 0 | 0 |
| Ornamental fisheries | | | | 0 | | | 0 | 0 |
| Para vets | | | | 0 | | | 0 | 0 |
| Para extension workers | | | | 0 | | | 0 | 0 |
| Composite fish culture | | | | 0 | | | 0 | 0 |
| Freshwater prawn culture | | | | 0 | | | 0 | 0 |
| Shrimp farming | | | | 0 | | | 0 | 0 |
| Pearl culture | | | | 0 | | | 0 | 0 |
| Cold water fisheries | | | | 0 | | | 0 | 0 |
| Fish harvest and processing technology | | | | 0 | | | 0 | 0 |
| Fry and fingerling rearing | | | | 0 | | | 0 | 0 |
| Small scale processing | | | | 0 | | | 0 | 0 |
| Post Harvest Technology | | | | 0 | | | 0 | 0 |
| Tailoring and Stitching | | | | 0 | | | 0 | 0 |
| Rural Crafts | | | | 0 | | | 0 | 0 |
| TOTAL | 2 | 36 | 0 | 36 | 14 | 0 | 14 | 50 |
| (C) Extension Personnel | | | | 0 | | | 0 | 0 |
| Productivity enhancement in field crops | 2 | 40 | 0 | 40 | 10 | 0 | 10 | 50 |
| Integrated Pest Management | | | | 0 | | | 0 | 0 |
| Integrated Nutrient management | | | | 0 | | | 0 | 0 |
| Rejuvenation of old orchards | | | | 0 | | | 0 | 0 |
| Protected cultivation technology | | | | 0 | | | 0 | 0 |
| Formation and Management of SHGs | | | | 0 | | | 0 | 0 |
| Group Dynamics and farmers organization | | | | 0 | | | 0 | 0 |
| Information networking among farmers | | | | 0 | | | 0 | 0 |
| Capacity building for ICT application | | | | 0 | | | 0 | 0 |
| Care and maintenance of farm machinery and | | | | 0 | | | 0 | 0 |
| implements | | | | | | | | |
| WTO and IPR issues | | | | 0 | | | 0 | 0 |
| Management in farm animals | | | | 0 | | | 0 | 0 |
| Livestock feed and fodder production | | | | 0 | | | 0 | 0 |
| Household food security | | | | 0 | | | 0 | 0 |
| Women and Child care | | | | 0 | | | 0 | 0 |
| Low cost and nutrient efficient diet designing | | | | 0 | | | 0 | 0 |
| Production and use of organic inputs | | | | 0 | | | 0 | 0 |
| Gender mainstreaming through SHGs | | | | 0 | | | 0 | 0 |
| Any other (Pl. Specify) | | | | 0 | | | 0 | 0 |
| | | | | | | | | |
| TOTAL | 2 | 40 | 0 | 40 | 10 | 0 | 10 | 50 |

B. OFF Campus

| | Thematic Area | No. of | No. of participant |
|--|---------------|--------|--------------------|
|--|---------------|--------|--------------------|

| | Courses | s es Others SC/ST | | | | | | Grand | |
|---|---------|--------------------------|---------|-------|------|----------|-------|-------|--|
| | courses | Male | Female | Total | Male | Female | Total | Total | |
| (A) Farmers & Farm Women | | inaic | . emaie | rotai | mare | i cinaic | lotai | | |
| I Crop Production | | | | | | | | | |
| Weed Management | 2 | 41 | 9 | 50 | 3 | 2 | 5 | 55 | |
| Resource Conservation Technologies | | | _ | 0 | | | 0 | 0 | |
| Cropping Systems | | | | 0 | | | 0 | 0 | |
| Crop Diversification | | | | 0 | | | 0 | 0 | |
| Integrated Farming | | | | 0 | | | 0 | 0 | |
| Water management | | | | 0 | | | 0 | 0 | |
| Seed production | | | | 0 | | | 0 | 0 | |
| Nursery management | | | | 0 | | | 0 | 0 | |
| Integrated Crop Management | 1 | 23 | 2 | 25 | 0 | 0 | 0 | 25 | |
| Fodder production | - | 25 | 2 | 0 | 0 | Ū | 0 | 0 | |
| Production of organic inputs | | | | 0 | | | 0 | 0 | |
| Total | 3 | 64 | 11 | 75 | 3 | 2 | 5 | 80 | |
| Il Horticulture | 5 | 04 | | 0 | 5 | 2 | 0 | 0 | |
| a) Vegetable Crops | | | | 0 | | | 0 | 0 | |
| Production of low volume and high value | | | | 0 | | | 0 | 0 | |
| crops | | | | 0 | | | 0 | Ŭ | |
| Off-season vegetables | | | | 0 | | | 0 | 0 | |
| Nursery raising | | | | 0 | | | 0 | 0 | |
| | | | | 0 | | | 0 | 0 | |
| Exotic vegetables like Broccoli | | | | 0 | | | 0 | 0 | |
| Export potential vegetables | | | | 0 | | | 0 | 0 | |
| Grading and standardization | | | | 0 | | | 0 | 0 | |
| Protective cultivation (Green Houses, Shade Net etc.) | | | | 0 | | | 0 | U | |
| b) Fruits | | | | 0 | | | 0 | 0 | |
| Training and Pruning | | | | 0 | | | 0 | 0 | |
| · · · | | | | 0 | | | 0 | 0 | |
| Layout and Management of Orchards Cultivation of Fruit | | | | 0 | | | 0 | 0 | |
| | | | | | | | - | | |
| Management of young plants/orchards | | | | 0 | | | 0 | 0 | |
| Rejuvenation of old orchards | | | | 0 | | | 0 | 0 | |
| Export potential fruits | | | | 0 | | | 0 | 0 | |
| Micro irrigation systems of orchards | | | | 0 | | | 0 | 0 | |
| Plant propagation techniques | | | | 0 | | | 0 | 0 | |
| c) Ornamental Plants | | | | 0 | | | 0 | 0 | |
| Nursery Management | | | | 0 | | | 0 | 0 | |
| Management of potted plants | | | | 0 | | | 0 | 0 | |
| Export potential of ornamental plants | | | | 0 | | | 0 | 0 | |
| Propagation techniques of Ornamental Plants | | | | 0 | | | 0 | 0 | |
| d) Plantation crops | | | | 0 | | | 0 | 0 | |
| Production and Management technology | | | | 0 | | | 0 | 0 | |
| Processing and value addition | | | | 0 | | | 0 | 0 | |
| e) Tuber crops | | | | 0 | | | 0 | 0 | |
| Production and Management technology | | | | 0 | | | 0 | 0 | |
| Processing and value addition | | | | 0 | | | 0 | 0 | |
| f) Spices | | | | 0 | | | 0 | 0 | |
| Production and Management technology | | | | 0 | | | 0 | 0 | |
| Processing and value addition | 1 | 0 | 25 | 25 | 0 | 0 | 0 | 25 | |
| g) Medicinal and Aromatic Plants | | - | - | 0 | - | | 0 | (| |

| Nursery management | | | | 0 | | | 0 | 0 |
|--|---|----|-----|-----|----|----|----|-----|
| Production and management technology | | | | 0 | | | 0 | 0 |
| Post harvest technology and value addition | | | | 0 | | | 0 | 0 |
| Total | 1 | 0 | 25 | 25 | 0 | 0 | 0 | 25 |
| III Soil Health and Fertility Management | | | | 0 | | | 0 | 0 |
| Soil fertility management | | | | 0 | | | 0 | 0 |
| Soil and Water Conservation | | | | 0 | | | 0 | 0 |
| Integrated Nutrient Management | 2 | 41 | 13 | 54 | 1 | 0 | 1 | 55 |
| Production and use of organic inputs | 1 | 28 | | 28 | 2 | | 2 | 30 |
| Management of Problematic soils | | | | 0 | | | 0 | 0 |
| Micro nutrient deficiency in crops | | | | 0 | | | 0 | 0 |
| Nutrient Use Efficiency | | | | 0 | | | 0 | 0 |
| Soil and Water Testing | 1 | 20 | 8 | 28 | 2 | 0 | 2 | 30 |
| Total | 4 | 89 | 21 | 110 | 5 | 0 | 5 | 115 |
| IV Livestock Production and Management | | | | 0 | | | 0 | 0 |
| Dairy Management | 1 | 25 | 0 | 25 | 5 | 0 | 5 | 30 |
| Poultry Management | | | | 0 | | | 0 | 0 |
| Piggery Management | | | | 0 | | | 0 | 0 |
| Rabbit Management/goat | | | | 0 | | | 0 | 0 |
| Disease Management | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| Feed management | 1 | 20 | 0 | 20 | 10 | 0 | 10 | 30 |
| Production of quality animal products | | | | 0 | | | 0 | 0 |
| Total | 3 | 70 | 0 | 70 | 15 | 0 | 15 | 85 |
| V Home Science/Women empowerment | | | | 0 | | | 0 | 0 |
| Household food security by kitchen gardening | 1 | 0 | 19 | 19 | 0 | 6 | 6 | 25 |
| and nutrition gardening | | | | | | | | |
| Design and development of low/minimum | | | | 0 | | | 0 | 0 |
| cost diet | | | | | | | | |
| Designing and development for high nutrient | | | | 0 | | | 0 | 0 |
| efficiency diet | | | | | | | | |
| Minimization of nutrient loss in processing | | | | 0 | | | 0 | 0 |
| Gender mainstreaming through SHGs | | | | 0 | | | 0 | 0 |
| Storage loss minimization techniques | | | | 0 | | | 0 | 0 |
| Value addition | 1 | 0 | 25 | 25 | 0 | 0 | 0 | 25 |
| Income generation activities for | 1 | 0 | 20 | 20 | 0 | 5 | 5 | 25 |
| empowerment of rural Women | | | | | | | | |
| Location specific drudgery reduction | 1 | 0 | 19 | 19 | 0 | 6 | 6 | 25 |
| technologies | | | | | | | | |
| Rural Crafts | | | | 0 | | | 0 | 0 |
| Women and child care | 1 | 0 | 25 | 25 | 0 | 0 | 0 | 25 |
| Total | 5 | 0 | 108 | 108 | 0 | 17 | 17 | 125 |
| VI Agril. Engineering | | | | 0 | | | 0 | 0 |
| Installation and maintenance of micro | | | | 0 | | | 0 | 0 |
| irrigation systems | | | | | | | | |
| Use of Plastics in farming practices | | | | 0 | | | 0 | 0 |
| Production of small tools and implements | | ļ | | 0 | | | 0 | 0 |
| Repair and maintenance of farm machinery | | | | 0 | | | 0 | 0 |
| and implements | | | | | | | | - |
| Small scale processing and value addition | | | | 0 | | | 0 | 0 |
| Post Harvest Technology | _ | | | 0 | | | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VII Plant Protection | | | | 0 | | | 0 | 0 |

KVK, JAU, JAMNAGAR

| Integrated Pest Management | 3 | 65 | 0 | 65 | 10 | 0 | 10 | 75 |
|--|----------|-----|-----|-----|----|----|----------|----------------|
| Integrated Disease Management | 2 | 40 | 0 | 40 | 10 | 0 | 10 | 50 |
| Bio-control of pests and diseases | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| Production of bio control agents and bio | | | | 0 | | | 0 | 0 |
| pesticides | | | | | | | | |
| Tota | l 6 | 130 | 0 | 130 | 20 | 0 | 20 | 150 |
| VIII Fisheries | | | | 0 | | | 0 | 0 |
| Integrated fish farming | | | | 0 | | | 0 | 0 |
| Carp breeding and hatchery management | | | | 0 | | | 0 | 0 |
| Carp fry and fingerling rearing | 1 | 25 | 0 | 25 | | | 0 | 25 |
| Composite fish culture | 1 | 25 | | 25 | | | 0 | 25 |
| Hatchery management and culture of | | | | 0 | | | 0 | 0 |
| freshwater prawn | | | | | | | | |
| Breeding and culture of ornamental fishes | | | | 0 | | | 0 | 0 |
| Portable plastic carp hatchery | | | | 0 | | | 0 | 0 |
| Pen culture of fish and prawn | | | | 0 | | | 0 | 0 |
| Shrimp farming | | | | 0 | | | 0 | 0 |
| Edible oyster farming | 1 | 1 | | 0 | | | 0 | 0 |
| Pearl culture | 1 | 0 | 0 | 0 | 18 | 7 | 25 | 25 |
| Fish processing and value addition | 1 | | | 0 | | | 0 | 0 |
| Tota | 3 | 50 | 0 | 50 | 18 | 7 | 25 | 75 |
| IX Production of Inputs at site | | | | 0 | | | 0 | 0 |
| Seed Production | 1 | 22 | 0 | 22 | 3 | | 3 | 25 |
| Planting material production | | | - | 0 | | | 0 | 0 |
| Bio-agents production | | | | 0 | | | 0 | 0 |
| Bio-pesticides production | 1 | | | 0 | | | 0 | 0 |
| Bio-fertilizer production | + | | | 0 | | | 0 | 0 |
| Vermi-compost production | + | | | 0 | | | 0 | 0 |
| Organic manures production | | | | 0 | | | 0 | 0 |
| Production of fry and fingerlings | | | | 0 | | | 0 | 0 |
| Production of Bee-colonies and wax sheets | | | | 0 | | | 0 | 0 |
| | + | | | 0 | | | 0 | 0 |
| Small tools and implements Production of livestock feed and fodder | + | | | 0 | | | 0 | 0 |
| | | | | 0 | | | 0 | 0 |
| Production of Fish feed | 1 | 22 | 0 | 22 | 2 | 0 | 3 | |
| Total | 1 I | 22 | U | 0 | 3 | U | 3 | 25 0 |
| X Capacity Building and Group Dynamics | | | | - | | | 0 | 0 |
| Leadership development | + | | | 0 | | | - | |
| Group dynamics | + | | | 0 | | | 0 | 0 |
| Formation and Management of SHGs | + | | | 0 | | | 0 | 0 |
| Mobilization of social capital | | | | 0 | | | 0 | 0 |
| Entrepreneurial development of | | | | 0 | | | 0 | 0 |
| farmers/youths | + | | | | | | | |
| WTO and IPR issues | | • | | 0 | • | - | 0 | 0 |
| Tota | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| XI Agro-forestry | | | | 0 | | | 0 | 0 |
| Production technologies | <u> </u> | | | 0 | | | 0 | 0 |
| Nursery management | <u> </u> | ļ | | 0 | | | 0 | 0 |
| Integrated Farming Systems | | | | 0 | | | 0 | 0 |
| Tota | I 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| XII Others (Pl. Specify) | | | | 0 | | | 0 | 0 |
| TOTAL | 26 | 425 | 165 | 590 | 64 | 26 | 90 | 680 |

| | | | | | • | , | | |
|--|---|---|----|----|---|---|---|----|
| (B) RURAL YOUTH | | | | 0 | | | 0 | 0 |
| Mushroom Production | | | | 0 | | | 0 | 0 |
| Bee-keeping | | | | 0 | | | 0 | 0 |
| Integrated farming | | | | 0 | | | 0 | 0 |
| Seed production | | | | 0 | | | 0 | 0 |
| Production of organic inputs | | | | 0 | | | 0 | 0 |
| Integrated Farming (Medicinal) | | | | 0 | | | 0 | 0 |
| Planting material production | | | | 0 | | | 0 | 0 |
| Vermi-culture | | | | 0 | | | 0 | 0 |
| Sericulture | | | | 0 | | | 0 | 0 |
| Protected cultivation of vegetable crops | | | | 0 | | | 0 | 0 |
| Commercial fruit production | | | | 0 | | | 0 | 0 |
| Repair and maintenance of farm machinery | | | | 0 | | | 0 | 0 |
| and implements | | | | _ | | | | |
| Nursery Management of Horticulture crops | | | | 0 | | | 0 | 0 |
| Training and pruning of orchards | | | | 0 | | | 0 | 0 |
| Value addition | 1 | 0 | 19 | 19 | 0 | 6 | 6 | 25 |
| Production of quality animal products | | - | - | 0 | - | - | 0 | 0 |
| Dairying | | | | 0 | | | 0 | 0 |
| Sheep and goat rearing | | | | 0 | | | 0 | 0 |
| Quail farming | | | | 0 | | | 0 | 0 |
| Piggery | | | | 0 | | | 0 | 0 |
| Rabbit farming | | | | 0 | | | 0 | 0 |
| Poultry production | | | | 0 | | | 0 | 0 |
| Ornamental fisheries | | | | 0 | | | 0 | 0 |
| Para vets | | | | 0 | | | 0 | 0 |
| Para extension workers | | | | 0 | | | 0 | 0 |
| Composite fish culture | | | | 0 | | | 0 | 0 |
| Freshwater prawn culture | | | | 0 | | | 0 | 0 |
| Shrimp farming | | | | 0 | | | 0 | 0 |
| Pearl culture | | | | 0 | | | 0 | 0 |
| | | | | 0 | | | 0 | 0 |
| Cold water fisheries | | | | | | | - | |
| Fish harvest and processing technology | | | | 0 | | | 0 | 0 |
| Fry and fingerling rearing | | | | 0 | | | 0 | - |
| Small scale processing | | | | 0 | | | 0 | 0 |
| Post Harvest Technology | | | | 0 | | | 0 | 0 |
| Tailoring and Stitching | | | | 0 | | | 0 | 0 |
| Rural Crafts | 1 | 0 | 10 | 0 | 0 | 6 | 0 | 0 |
| TOTAL | 1 | 0 | 19 | 19 | 0 | 6 | 6 | 25 |
| (C) Extension Personnel | | | | 0 | | | 0 | 0 |
| Productivity enhancement in field crops | | | | 0 | | | 0 | 0 |
| Integrated Pest Management | | | | 0 | | | 0 | 0 |
| Integrated Nutrient management | | | | 0 | | | 0 | 0 |
| Rejuvenation of old orchards | | | | 0 | | | 0 | 0 |
| Protected cultivation technology | | | | 0 | | | 0 | 0 |
| Formation and Management of SHGs | | | | 0 | | | 0 | 0 |
| Group Dynamics and farmers organization | | | | 0 | | | 0 | 0 |
| Information networking among farmers | | | | 0 | | | 0 | 0 |
| Capacity building for ICT application | | | | 0 | | | 0 | 0 |
| Care and maintenance of farm machinery and | | | | 0 | | | 0 | 0 |
| implements | | | | | | | | |

| WTO and IPR issues | | | | 0 | | | 0 | 0 |
|--|----|-----|-----|-----|----|----|----|-----|
| Management in farm animals | | | | 0 | | | 0 | 0 |
| Livestock feed and fodder production | | | | 0 | | | 0 | 0 |
| Household food security | | | | 0 | | | 0 | 0 |
| Women and Child care | | | | 0 | | | 0 | 0 |
| Low cost and nutrient efficient diet designing | | | | 0 | | | 0 | 0 |
| Production and use of organic inputs | | | | 0 | | | 0 | 0 |
| Gender mainstreaming through SHGs | | | | 0 | | | 0 | 0 |
| Any other (Pl. Specify) | | | | 0 | | | 0 | 0 |
| TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G. Total | 27 | 425 | 184 | 609 | 64 | 32 | 96 | 705 |

C. Consolidated table (ON and OFF Campus)

| Thematic Area | No. of | No. of participant | | | | | | | | |
|---|---------|--------------------|--------|-------|------|--------|-------|-------|--|--|
| Thematic Area | Courses | | Others | | | SC/ST | | Grand | | |
| | courses | Male | Female | Total | Male | Female | Total | Total | | |
| (A) Farmers & Farm Women | | | | | | | | | | |
| I Crop Production | | | | | | | | | | |
| Weed Management | 2 | 41 | 9 | 50 | 3 | 2 | 5 | 55 | | |
| Resource Conservation Technologies | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Cropping Systems | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Crop Diversification | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Integrated Farming | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Water management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Seed production | 1 | 21 | 2 | 23 | 2 | 0 | 2 | 25 | | |
| Nursery management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Integrated Crop Management | 2 | 47 | 2 | 49 | 1 | 0 | 1 | 50 | | |
| Fodder production | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Production of organic inputs | 1 | 24 | 0 | 24 | 1 | 0 | 1 | 25 | | |
| Total | 6 | 133 | 13 | 146 | 7 | 2 | 9 | 155 | | |
| II Horticulture | | | | 0 | | | 0 | 0 | | |
| a) Vegetable Crops | | | | 0 | | | 0 | 0 | | |
| Production of low volume and high value crops | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Off-season vegetables | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Nursery raising | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Exotic vegetables like Broccoli | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Export potential vegetables | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Grading and standardization | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Protective cultivation (Green Houses, Shade Net | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| etc.) | | | | | | | | | | |
| b) Fruits | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Training and Pruning | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Layout and Management of Orchards | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Cultivation of Fruit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Management of young plants/orchards | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Rejuvenation of old orchards | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Export potential fruits | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Micro irrigation systems of orchards | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Plant propagation techniques | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| c) Ornamental Plants | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Nursery Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Management of potted plants | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

| | | | Annual Actic | | ,10 20) | | | |
|--|---|-----|--------------|-----|---------|----|----|-----------|
| Export potential of ornamental plants | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Propagation techniques of Ornamental Plants | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| d) Plantation crops | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Production and Management technology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Processing and value addition | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| e) Tuber crops | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Production and Management technology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Processing and value addition | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| f) Spices | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Production and Management technology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Processing and value addition | 1 | 0 | 25 | 25 | 0 | 0 | 0 | 25 |
| g) Medicinal and Aromatic Plants | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nursery management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Production and management technology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Post harvest technology and value addition | 1 | 0 | 25 | 25 | 0 | 0 | 0 | 25 |
| Total | | U | 25 | 0 | U | U | 0 | 0 |
| III Soil Health and Fertility Management | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| Soil fertility management | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| Soil and Water Conservation | | - | - | - | - | 0 | | |
| Integrated Nutrient Management | 2 | 41 | 13 | 54 | 1 | 0 | 1 | 55 |
| Production and use of organic inputs | 1 | 28 | 0 | 28 | 2 | 0 | 2 | 30 |
| Management of Problematic soils | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Micro nutrient deficiency in crops | 1 | 18 | 5 | 23 | 1 | 1 | 2 | 25 |
| Nutrient Use Efficiency | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Soil and Water Testing | 1 | 20 | 8 | 28 | 2 | 0 | 2 | 30 |
| Total | 5 | 107 | 26 | 133 | 6 | 1 | 7 | 140 |
| IV Livestock Production and Management | | | | 0 | | | 0 | 0 |
| Dairy Management | 2 | 25 | 20 | 45 | 5 | 10 | 15 | 60 |
| Poultry Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Piggery Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rabbit Management/goat | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Disease Management | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| Feed management | 2 | 45 | 0 | 45 | 15 | 0 | 15 | 60 |
| Production of quality animal products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 5 | 95 | 20 | 115 | 20 | 10 | 30 | 145 |
| V Home Science/Women empowerment | | | | 0 | | | 0 | 0 |
| Household food security by kitchen gardening | 1 | 0 | 19 | 19 | 0 | 6 | 6 | 25 |
| and nutrition gardening | | | | | | | | |
| Design and development of low/minimum cost | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| diet | | | | | | | | |
| Designing and development for high nutrient | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| efficiency diet | | | | | | | | |
| Minimization of nutrient loss in processing | 1 | 0 | 19 | 19 | 0 | 6 | 6 | 25 |
| Gender mainstreaming through SHGs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage loss minimization techniques | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Value addition | 2 | 0 | 50 | 50 | 0 | 0 | 0 | 50 |
| Income generation activities for empowerment | 2 | 0 | 42 | 42 | 0 | 8 | 8 | 50 |
| of rural Women | | | | | | | | |
| Location specific drudgery reduction | 1 | 0 | 19 | 19 | 0 | 6 | 6 | 25 |
| technologies | | | | | | | | |
| Rural Crafts | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | - | | | | | | | |
| Women and child care | 1 | 0 | 25 | 25 | 0 | 0 | 0 | 25 |

| Total | 8 | 0 | 174 | 174 | 0 | 26 | 26 | 200 |
|---|---|-----|-----|-----|----|----|----|-----|
| VI Agril. Engineering | 0 | U | 174 | 0 | U | 20 | 0 | 0 |
| | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| Installation and maintenance of micro irrigation systems | T | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| Use of Plastics in farming practices | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Production of small tools and implements | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Repair and maintenance of farm machinery and | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| implements | | | | | | | | |
| Small scale processing and value addition | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Post Harvest Technology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| VII Plant Protection | | | | 0 | | | 0 | 0 |
| Integrated Pest Management | 4 | 87 | 0 | 87 | 13 | 0 | 13 | 100 |
| Integrated Disease Management | 3 | 65 | 0 | 65 | 10 | 0 | 10 | 75 |
| Bio-control of pests and diseases | 2 | 50 | 0 | 50 | 0 | 0 | 0 | 50 |
| Production of bio control agents and bio | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| pesticides | | | | | | | | |
| Total | 9 | 202 | 0 | 202 | 23 | 0 | 23 | 225 |
| VIII Fisheries | | | | 0 | | | 0 | 0 |
| Integrated fish farming | 1 | 0 | 0 | 0 | 0 | 30 | 30 | 30 |
| Carp breeding and hatchery management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Carp fry and fingerling rearing | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| Composite fish culture | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| Hatchery management and culture of freshwater | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| prawn | | | | | | | | |
| Breeding and culture of ornamental fishes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Portable plastic carp hatchery | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pen culture of fish and prawn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Shrimp farming | 1 | 30 | 0 | 30 | 0 | 0 | 0 | 30 |
| Edible oyster farming | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pearl culture | 1 | 0 | 0 | 0 | 18 | 7 | 25 | 25 |
| Fish processing and value addition | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 5 | 80 | 0 | 80 | 18 | 37 | 55 | 135 |
| IX Production of Inputs at site | | | | 0 | | | 0 | 0 |
| Seed Production | 1 | 22 | 0 | 22 | 3 | 0 | 3 | 25 |
| Planting material production | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bio-agents production | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bio-pesticides production | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bio-fertilizer production | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vermi-compost production | 1 | 23 | 0 | 23 | 2 | 0 | 2 | 25 |
| Organic manures production | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Production of fry and fingerlings | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Production of Bee-colonies and wax sheets | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Small tools and implements | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Production of livestock feed and fodder | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Production of Fish feed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 2 | 45 | 0 | 45 | 5 | 0 | 5 | 50 |
| X Capacity Building and Group Dynamics | | | | 0 | | | 0 | 0 |
| Leadership development | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Group dynamics | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Formation and Management of SHGs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mobilization of social capital | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Entrepreneurial development of farmers/youths | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|----|-----|-----|-----|----|----|-----|------|
| WTO and IPR issues | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| XI Agro-forestry | | | | 0 | | | 0 | 0 |
| Production technologies | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nursery management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Integrated Farming Systems | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| XII Others (Pl. Specify) | | | | 0 | | | 0 | 0 |
| TOTAL | 42 | 687 | 258 | 945 | 79 | 76 | 155 | 1100 |
| (B) RURAL YOUTH | | | | 0 | | | 0 | 0 |
| Mushroom Production | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bee-keeping | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Integrated farming | 1 | 16 | 0 | 16 | 9 | 0 | 9 | 25 |
| Seed production | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Production of organic inputs | 1 | 20 | 0 | 20 | 5 | 0 | 5 | 25 |
| Integrated Farming (Medicinal) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Planting material production | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vermi-culture | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sericulture | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Protected cultivation of vegetable crops | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Commercial fruit production | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Repair and maintenance of farm machinery and | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| implements | | | | | | | | |
| Nursery Management of Horticulture crops | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Training and pruning of orchards | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Value addition | 1 | 0 | 19 | 19 | 0 | 6 | 6 | 25 |
| Production of quality animal products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dairying | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sheep and goat rearing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Quail farming | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Piggery | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rabbit farming | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Poultry production | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ornamental fisheries | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Para vets | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Para extension workers | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Composite fish culture | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Freshwater prawn culture | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Shrimp farming | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pearl culture | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cold water fisheries | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fish harvest and processing technology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fry and fingerling rearing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Small scale processing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Post Harvest Technology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tailoring and Stitching | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rural Crafts | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 3 | 36 | 19 | 55 | 14 | 6 | 20 | 75 |
| (C) Extension Personnel | | | | 0 | | | 0 | 0 |
| Productivity enhancement in field crops | 2 | 40 | 0 | 40 | 10 | 0 | 10 | 50 |

| Integrated Pest Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|----|-----|-----|------|-----|----|-----|------|
| Integrated Nutrient management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rejuvenation of old orchards | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Protected cultivation technology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Formation and Management of SHGs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Group Dynamics and farmers organization | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Information networking among farmers | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Capacity building for ICT application | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Care and maintenance of farm machinery and | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| implements | | | | | | | | |
| WTO and IPR issues | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Management in farm animals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Livestock feed and fodder production | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Household food security | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Women and Child care | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Low cost and nutrient efficient diet designing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Production and use of organic inputs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Gender mainstreaming through SHGs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Any other (Pl. Specify) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 2 | 40 | 0 | 40 | 10 | 0 | 10 | 50 |
| G. Total | 47 | 763 | 277 | 1040 | 103 | 82 | 185 | 1225 |

Summary of Training Programme

ON Campus

| | No. of | No. of participant | | | | | | |
|--|--------|--------------------|--------|-------|------|--------|-------|-------|
| (A) Farmers & Farm Women | couses | | others | | | SC/ST | | Grand |
| | | Male | Female | Total | Male | Female | Total | Total |
| I Crop Production | 3 | 69 | 2 | 71 | 4 | 0 | 4 | 75 |
| II Horticulture | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| III Soil Health and Fertility Management | 1 | 18 | 5 | 23 | 1 | 1 | 2 | 25 |
| IV Livestock Production and Management | 2 | 25 | 20 | 45 | 5 | 10 | 15 | 60 |
| V Home Science/Women empowerment | 3 | 0 | 66 | 66 | 0 | 9 | 9 | 75 |
| VI Agril. Engineering | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| VII Plant Protection | 3 | 72 | 0 | 72 | 3 | 0 | 3 | 75 |
| VIII Fisheries | 2 | 30 | 0 | 30 | 0 | 30 | 30 | 60 |
| IX Production of Inputs at site | 1 | 23 | 0 | 23 | 2 | 0 | 2 | 25 |
| X Capacity Building and Group Dynamics | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| XI Agro-forestry | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| XII Others (Pl. Specify) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total (A) | 16 | 262 | 93 | 355 | 15 | 50 | 65 | 420 |
| (B) RURAL YOUTH | 2 | 36 | 0 | 36 | 14 | 0 | 14 | 50 |
| (C) Extension Personnel | 2 | 40 | 0 | 40 | 10 | 0 | 10 | 50 |
| Grand Total (A+B+C) | 20 | 338 | 93 | 431 | 39 | 50 | 89 | 520 |
| Off Campus | | | | | | | | |

| | No. of | No. of participant | | | | | | | | |
|--|--------|--------------------|-----------------------------|-----|----|--------|-------|-------|--|--|
| (A) Farmers & Farm Women | couses | | others Male Female Total | | | SC/ST | | | | |
| | | Male | | | | Female | Total | Total | | |
| I Crop Production | 3 | 64 | 11 | 75 | 3 | 2 | 5 | 80 | | |
| II Horticulture | 1 | 0 | 25 | 25 | 0 | 0 | 0 | 25 | | |
| III Soil Health and Fertility Management | 4 | 89 | 21 | 110 | 5 | 0 | 5 | 115 | | |
| IV Livestock Production and Management | 3 | 70 | 0 | 70 | 15 | 0 | 15 | 85 | | |
| V Home Science/Women empowerment | 5 | 0 | 108 | 108 | 0 | 17 | 17 | 125 | | |

Annual Action Plan (2019-20)

| VI Agril. Engineering | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|----|-----|-----|------------|----|----|----|-----|
| VII Plant Protection | 6 | 130 | 0 | 130 | 20 | 0 | 20 | 150 |
| VIII Fisheries | 3 | 50 | 0 | 50 | 18 | 7 | 25 | 75 |
| IX Production of Inputs at site | 1 | 22 | 0 | 22 | 3 | 0 | 3 | 25 |
| X Capacity Building and Group Dynamics | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| XI Agro-forestry | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| XII Others (Pl. Specify) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total (A) | 26 | 425 | 165 | 590 | 64 | 26 | 90 | 680 |
| (B) RURAL YOUTH | 1 | 0 | 19 | 19 | 0 | 6 | 6 | 25 |
| (C) Extension Personnel | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total (A+B+C) | 27 | 425 | 184 | 609 | 64 | 32 | 96 | 705 |

| | No. of | No. of participant | | | | | | | |
|--|--------|--------------------|--------|-------|------|--------|-------|-------|--|
| (A) Farmers & Farm Women | couses | | others | | | SC/ST | | Grand | |
| | | Male | Female | Total | Male | Female | Total | Total | |
| I Crop Production | 6 | 133 | 13 | 146 | 7 | 2 | 9 | 155 | |
| II Horticulture | 1 | 0 | 25 | 25 | 0 | 0 | 0 | 25 | |
| III Soil Health and Fertility Management | 5 | 107 | 26 | 133 | 6 | 1 | 7 | 140 | |
| IV Livestock Production and Management | 5 | 95 | 20 | 115 | 20 | 10 | 30 | 145 | |
| V Home Science/Women empowerment | 8 | 0 | 174 | 174 | 0 | 26 | 26 | 200 | |
| VI Agril. Engineering | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 | |
| VII Plant Protection | 9 | 202 | 0 | 202 | 23 | 0 | 23 | 225 | |
| VIII Fisheries | 5 | 80 | 0 | 80 | 18 | 37 | 55 | 135 | |
| IX Production of Inputs at site | 2 | 45 | 0 | 45 | 5 | 0 | 5 | 50 | |
| X Capacity Building and Group Dynamics | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| XI Agro-forestry | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| XII Others (Pl. Specify) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total (A) | 42 | 687 | 258 | 945 | 79 | 76 | 155 | 1100 | |
| (B) RURAL YOUTH | 3 | 36 | 19 | 55 | 14 | 6 | 20 | 75 | |
| (C) Extension Personnel | 2 | 40 | 0 | 40 | 10 | 0 | 10 | 50 | |
| Grand Total (A+B+C) | 47 | 763 | 277 | 1040 | 103 | 82 | 185 | 1225 | |

Consolidated (On + Off Campus)

Details of training programmes attached in Annexure -I

3.5. Extension Activities (including activities of FLD programmes)

| Nature of Extension | No. of | | Farmers | | Exte | nsion Off | icials | | Total | |
|---|------------|------|---------|-------|------|-----------|--------|-------|--------|-------|
| Activity | activities | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Field Day | 12 | 210 | 35 | 245 | 65 | 50 | 115 | 275 | 85 | 360 |
| Kisan Mela | 1 | 1200 | 250 | 1450 | 200 | 50 | 250 | 1400 | 300 | 1700 |
| Kisan Ghosthi | 10 | 300 | 125 | 425 | 200 | 100 | 300 | 500 | 225 | 725 |
| Exhibition | 5 | 4000 | 1000 | 5000 | 2000 | 800 | 2800 | 6000 | 1800 | 7800 |
| Film Show | 50 | 1500 | 400 | 1900 | 900 | 300 | 1200 | 2400 | 700 | 3100 |
| Method demonstration | 2 | 20 | 10 | 30 | 10 | 50 | 60 | 30 | 60 | 90 |
| Farmers Seminar | 5 | 250 | 40 | 290 | 80 | 10 | 90 | 330 | 50 | 380 |
| Workshop | 1 | 200 | 100 | 300 | 100 | 80 | 180 | 300 | 180 | 480 |
| Group meetings | 12 | 120 | 30 | 150 | 50 | 30 | 80 | 170 | 60 | 230 |
| Lectures delivered as resource persons | 55 | 8000 | 1500 | 9500 | 3000 | 1000 | 4000 | 11000 | 2500 | 13500 |
| Newspaper coverage | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Radio talks | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| TV talks | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|-----|-------|------|-------|------|------|-------|-------|------|-------|
| Popular articles | 3 | 0 | 20 | 20 | 0 | 20 | 20 | 0 | 40 | 40 |
| Extension Literature | 7 | 2500 | 200 | 2700 | 1200 | 100 | 1300 | 3700 | 300 | 4000 |
| Advisory Services | 10 | 100 | 10 | 110 | 50 | 10 | 60 | 150 | 20 | 170 |
| Scientific visit to farmers field | 50 | 200 | 20 | 220 | 60 | 5 | 65 | 260 | 25 | 285 |
| Farmers visit to KVK | 80 | 300 | 20 | 320 | 40 | 10 | 50 | 340 | 30 | 370 |
| Diagnostic visits | 32 | 30 | 5 | 35 | 5 | 2 | 7 | 35 | 7 | 42 |
| Exposure visits | 2 | 30 | 0 | 30 | 10 | 0 | 10 | 40 | 0 | 40 |
| Ex-trainees Sammelan | 3 | 20 | 5 | 25 | 4 | 1 | 5 | 24 | 6 | 30 |
| Soil health Camp | 3 | 100 | 20 | 120 | 30 | 20 | 50 | 130 | 40 | 170 |
| Animal Health Camp | 3 | 50 | 10 | 60 | 20 | 5 | 25 | 70 | 15 | 85 |
| Agri mobile clinic | 30 | 3000 | 100 | 3100 | 1000 | 100 | 1100 | 4000 | 200 | 4200 |
| Soil test campaigns | 2 | 110 | 10 | 120 | 40 | 10 | 50 | 150 | 20 | 170 |
| Farm Science Club Conveners meet | 3 | 100 | 10 | 110 | 40 | 10 | 50 | 140 | 20 | 160 |
| Self Help Group Conveners meetings | 3 | 40 | 20 | 60 | 20 | 20 | 40 | 60 | 40 | 100 |
| MahilaMandals Conveners meetings | 6 | 10 | 50 | 60 | 10 | 40 | 50 | 20 | 90 | 110 |
| Celebration of important days (specify) | 3 | 150 | 40 | 190 | 60 | 30 | 90 | 210 | 70 | 280 |
| KrishiMohostva | 5 | 0 | 20 | 20 | 0 | 20 | 20 | 0 | 40 | 40 |
| KrishiRath | 3 | 40 | 0 | 40 | 20 | 0 | 20 | 60 | 0 | 60 |
| Pre Kharif workshop | 3 | 80 | 0 | 80 | 30 | 0 | 30 | 110 | 0 | 110 |
| Pre Rabi workshop | 7 | 250 | 40 | 290 | 100 | 30 | 130 | 350 | 70 | 420 |
| PPVFRA workshop | 1 | 20 | 10 | 30 | 10 | 5 | 15 | 30 | 15 | 45 |
| Any Other (Specify) | 5 | 220 | 20 | 240 | 90 | 10 | 100 | 310 | 30 | 340 |
| Total | 424 | 23150 | 4120 | 27270 | 9444 | 2918 | 12362 | 32594 | 7038 | 39632 |

3.6 Target for Production and supply of Technological products SEED MATERIALS

| Sl. No. | Сгор | Variety | Quantity (qtl.) |
|------------------|------------|---------|-----------------|
| CEREALS | Wheat | GW-496 | 150 |
| OILSEEDS | Groundnut | GJG-9 | 96 |
| | Sesame | G.Til3 | 12 |
| PULSES | Green gram | GM-4 | 6 |
| VEGETABLES | | | |
| OTHERS (Specify) | | | |

PLANTING MATERIALS

| SI. No. | Сгор | Variety | Quantity (Nos.) |
|------------------|---------|----------|-----------------|
| FRUITS | | | |
| SPICES | | | |
| VEGETABLES | Brinjal | GJLB-3,4 | 500 |
| FOREST SPECIES | | | |
| ORNAMENTAL CROPS | | | |

| | Total | 500 |
|--|-------|-----|
| | | |

Bio-products

| SI. No. | Product Name | Species | Quantity | | |
|----------------|----------------|---------|----------|------|--|
| | | | No | (kg) | |
| BIO PESTICIDES | | | | | |
| 1 | Beauveria | | | 5000 | |
| 2 | Trichoderma | | | 5000 | |
| 3 | PSB | | 200 | | |
| 4 | Azaobactor | | 200 | | |
| 5 | Rhizobium | | 200 | | |
| 6 | Pheromone trap | | | | |
| 7 | NPV | | | | |

LIVESTOCK

| SI. No. | Туре | Breed | Quantity | | |
|-------------|---------------------|-------|----------|------|--|
| | | | (Nos) | Unit | |
| Cattle | | | | | |
| GOAT | | | | | |
| SHEEP | | | | | |
| POULTRY | | | | | |
| Pig farming | | | | | |
| FISHERIES | Advance Fingerlings | IMC | 500 | | |

4 Literature to be Developed/Published

A. KVK News Letter

| Date of start | :0: |
|----------------------------------|------|
| Number of copies to be published | : e- |

| : 01/01/2016 |
|-----------------|
| : e-publication |

B. Literature developed/published

| S.No. | Торіс | Number |
|-------|--------------------------------|--------|
| 1 | Research paper each scientist | 1 |
| 2 | Technical reports | 6 |
| 3 | News letters | 4 |
| 4 | Training manual all discipline | 4 |
| 5 | Popular article | 6 |
| 6 | Extension literature | 5 |
| | Total | 26 |

C. Details of Electronic Media to be Produced

| | Type of media (CD / VCD / DVD / Audio-Cassette) | Title of the programme | Number |
|---|--|------------------------|--------|
| 1 | | | |
| | | | |

D. Success stories/Case studies identified for development as a case. -

- a. Brief introduction
- b. Interventions
- c. Output
- d. Outcomes
- e. Impacti) Social economic, ii) Bio-Physical

f. Good Action Photographs

5.1 Indicate the specific training need analysis tools/methodology followed for

Practicing Farmers

- a) Focused group discussion with the farmers
- b) Field visits
- c) Identifying general trends in the area

Rural Youth

- a) Filling up research based questionnaires
- b) Identification of leaderand role of rural youth in agriculture (Sociometric method)
- c) Engagement of rural youth in agriculture

In-service personnel

- a) Knowledgetest (Interview schedule)
- b) Interaction with the personnel
- c) b) Functional areas of personnel

5.2 Indicate the methodology for identifying OFTs/FLDs

For OFT :

- i) PRA
- ii) Problem identified from Matrix
- iii) Field level observations
- iv) Farmer group discussions
- v) Others if any

For FLD :

- i) New variety/technology
- ii) Poor yield at farmers level
- iii) Existing cropping system :- Coriander
- iv) Others if any

5.3 Field activities

- i. Name of villages identified/adopted with block name (from which year) :-
- ii. No. of farm families selected per village :
- iii. No. of survey/PRA conducted :
- iv. No. of technologies taken to the adopted villages
- v. Name of the technologies found suitable by the farmers of the adopted villages:
- vi. Impact (production, income, employment, area/technological- horizontal/vertical)
- vii. Constraints if any in the continued application of these improved technologies

5.4 Activities of Soil and Water Testing Laboratory

Status of establishment of Lab:

- 1. Year of establishment :2005-06
- 2. List of equipments purchase with amount

| SI. No | Name of the Equipment | Qty. | Cost | Remarks |
|--------|-------------------------------------|------|--------|-------------|
| 1 | Spectrophotometer | 1 | 89160 | Not working |
| 2 | Flame photometer | 1 | | Not working |
| 3 | Physicalbalance | 1 | 10640 | Not working |
| 4 | Chemicalbalance | 1 | 100000 | Not working |
| 5 | Water distillation still | 1 | 96118 | Not working |
| 6 | Kieldahi digestion and distillation | 1 | 49644 | Not working |

| 7 | Shaker | 1 | 80080 | Working |
|-------|--------------|----|--------|---------|
| 8 | Grinder | 1 | 16772 | Working |
| 9 | Refrigerator | 1 | 10//2 | Working |
| 10 | Oven | 1 | 20550 | Working |
| 11 | Hot plate | 1 | 30550 | Working |
| Total | | 11 | 472964 | |

3. Targets of samples for analysis:

| Details | No. of Samples | No. of Farmers | No. of Villages | Amount to be realized |
|--------------|----------------|----------------|-----------------|-----------------------|
| Soil Samples | 500 | 500 | 15 | |
| Water | 50 | 50 | 12 | |
| Plant | | | | |
| Total | 550 | 550 | 27 | |

6. LINKAGE

6.1 Functional linkage with different organizations

| Sr. | Name of organization | Nature of linkage | |
|-----|--|--|--|
| Α | Statecorporation and state deptt. | | |
| 1 | DistrictAgriculturalOfficer, Deptt. of Agriculture, District Panchayat, Jamnagar | Joint diagnostic teamvisit at farmersfield | |
| 2 | DistrictRuralDevelopment Agency, Jamnagar | Organizing collaborative | |
| 3 | DeputyDirector of Veterinary, Department of veterinary &Animal Husbandry, Jamnagar | trainingto farmers ➤ For collaborative off campus | |
| 4 | DeputyDirector of Horticulture, Jamnagar | training | |
| 5 | DeputyDirector of Agriculture (Training), Farmer Training Centre, Jamnagar | For collaborative training and | |
| 6 | DeputyDirector of Agriculture (Extension), Jamnagar | demonstrationProgramme | |
| 7 | Asstt. Director of Fisheries, Jamnagar | Collaborative on | |
| 8 | RangeForest Officer, Jamnagar | campustrainingprogramme | |
| 9 | Asstt. Director of GLDC, Jamnagar | For providing hostelfacilitiesto | |
| 10 | Estate Engineer, Department of Irrigation, Jamnagar | participants and organizing | |
| 11 | All TalukaDevelopmentOfficers, and their team at Talukalevel | collaborative | |
| 12 | Rajkot-Jamnagar Gramin Bank, Jamnagar | MahilaKrishiMela | |
| 13 | Project Director, ATMA, Jamnagar | | |
| 14 | Project Director, DWDU, Jamnagar | | |
| В | Private Corporation | | |
| 1 | Territory Manager, GSFC, Jamnagar | Imparttraining on Agril. | |
| 2 | Territory Manager, GNFC, Jamnagar | aspects | |
| 3 | Territory Manager, IFFCO, Jamnagar | Collaborative on/off | |
| 4 | Reliance Industries, Dept. of Green Belt, Jamnagar | campustrainingprogramme ➤ Sponsortrainingprogramme | |
| С | NGOs | | |
| 1 | Murlidhar Trust, Opp. Trajitpara Branch School, Bhanvad | Imparttraining on Agril. | |
| 2 | V.D.R.F. Trust, Momai Xerox, B.P. Road, Bhanvad | aspects | |
| 3 | Late J.V. Nariya Educational and Charitable Trust, 49, Modern Market, First Floor, Nr. Amber Cinema | Collaborative on/off campustrainingprogramme | |
| 4 | Jay AshapuraCharitable Society, MadhavNivas, Karmachari Society, Trikonban, Dhrol (DistJamnagar) | | |
| 5 | Shekhpat Jalstrav Vikas Mandal, AtShekhpat, Post-Aliyabada, Ta.&Dist Jamnagar | | |
| 6 | LakhtarJalstravGramVikas Trust, 55, Shiv Complex, At Bhadra (Patiya), Ta Jodia, Dist Jamnagar | | |
| 7 | Umiya Mataji Mandir Trust, At Sidsar, TaJamjodhpur, DistJamnagar | | |

| 8 | Shardapith Education Trust, 104-Shrusti complex, Nr. Gurudwara, Jamnagar |
|----|--|
| 9 | ChacharaEducation & Charitable Trust, 104- Shrusti complex, Nr. Gurudwara, |
| | Jamnagar |
| 10 | Tata Chemical SocietyforRural Development Foundation, At. Mithapur, Ta |
| | Dwarka, DistJamnagar |
| 11 | Agakhan Rural Development Trust |
| 12 | ANARDE foundation trust |

6.2 Details of linkage with ATMA

a) Is ATMA implemented in your district (Yes/No) :- Yes

| S. No. | Programme | Nature of linkage | Remarks |
|--------|-------------------------|--|---|
| 1 | District Level Training | Impart Training on Agricultural Aspects | Celeberate Technology week Arrangement of KrishiMela |
| 2. | Block level training | Lecture delivered | |
| 3. | Village level training | | |

6.3 E-linkage during 2019-20

| S. No | Nature of activities | Likely period of completion (please set the time frame) | Remarks if any |
|----------|-------------------------|--|--|
| 1 | ERNET | 2008 | Not connected and not in working condition |
| 2 | JAU Website | 2006 | Continuous updated |
| 3 | ICAR Website | 2017 | Entry of all activity on web portal |
| 4 | Facebook page | | Activities carried out by KVK |
| 5 | M-kishan portal | | SMS to Farmers in verenacular language |

6.4 Give details of programmes implemented underNational Horticultural Mission

| S. No. | Programme | Nature of linkage | Constraints if any |
|--------|-----------|-------------------|---------------------------------|
| 1 | - | - | District is not inovolve in NHM |

6.5 Nature of linkage with NationalFisheriesDevelopmentBoard

| S. No. | Programme | Nature of linkage | Remarks |
|--------|-----------|-------------------|---------|
| 1. | - | - | - |

6.6 Additional Activities Planned including sponsored projects (ProCRA / Pro SOIL/NARI/DAESI/DAMU/DFI, etc.) / schemes during 2019-20, if involved.

| S.No. | Name of the agency / scheme | Name of activity | Technical programme with quantification | Financial outlay (Rs.) | Names of the team members involved |
|-------|--------------------------------|---------------------|---|---------------------------|---------------------------------------|
| 1 | DAMU | | | | S. H. Lakhani |

* The financial sanction is given but not release the fund till date for establishment of DAMU

7.0 Convergence with departments :

| Sr. | Name of organization | Nature of linkage |
|-----|---|---|
| | ATMA DWDU DAO DRDA GGRC NABARD SPICE BOARD STATE HORTICULTURE CENTRAL WEREHOUSE | Organizing collaborative training to farmers For collaborative off campus training For collaborative training and demonstration Programme Collaborative on campus training programme For providing hostel facilities to participants and organizing collaborative MahilaKrishiMela Celebrating important days and programmes by central government as well as state government |

| 10. TATA CHEMICAL | \triangleright | Field visit to gather |
|-----------------------|------------------|--|
| 11. ENARDE Foundation | \triangleright | Diagnostic visit on farmers field with line department |

8. Innovator Farmer's Meet 2019- 2020

| SI.No. | Particulars | Details |
|--------|-------------------------------------|--|
| 1 | Are you planning for conducing Farm | Yes/ No |
| | Innovators meet in your district? | |
| 2 | If Yes likely month of the meet | September |
| 3 | Brief action plan in this regard | Organic farm innovators & pomegranate |
| | | cultivator of this area will be invite for the meet. |

9. Farmers Field School (FFS) planned 2019-2020

| S. No | Thematic area | Title of the FFS | Budget proposed in Rs. |
|-------|---------------|------------------|------------------------|
| 1 | Nil | Nil | Nil |
| | | | |

10. Technical feedback

10.1 Feedback of the farmers about the technologies demonstrated and assessed :

- Demonstrated new variety
- > Introduction of newer crop by KVK through different FLD as well as OFT
- Information of any crop diversification get from KVK
- Frequently visit to farmers
- > Telephonic information is available 24 hours through scientist mobile

10.2 Feedback from the KVK Scientists (Subject wise) to the research institutions/universities :

- > Grant for the contingency for handling diferent programmes is in sufficient
- Limit of food provision during training and other cost should be increase along with stipend and transportation fascility (Approximately Rs. 500 to 1000 per head per training required)
- > Timely release of grant for successful and perfect conducting of FLD and OFT
- Required new vehicle for field visit and other extension programme. It is also required minimum two vehicle in KVK due to work load and it is among farmers field
- > Contingency grant is in sufficient (It should be minimum 30 lakhs per KVK)
- > Provide grant for farm protection wall and other infrastructure fascilities

11. Utilization of hostel facilities

| S. No. | Programme | No. of days |
|--------|--------------------|-------------|
| 1 | As per requirement | |
| 2 | | |
| | Total | |

12. ACTION PLAN OF INFRASTRUCTURE IN KVK

A. Action plan of demonstration units (other than instructional farm)

| | Sl. No. Demo Unit Year | | Area | | of produc expected) | tion | Expected A (Rs | Remarks | |
|----------|------------------------|---------------|------|---------|------------------------|------|-------------------|-----------------|--|
| 51. INO. | Demo Unit | establishment | (ha) | Variety | Produce | Qty. | Cost of inputs | Gross income | |
| 1 | Crop Cafeteria | Every year | 0.5 | - | - | - | 100000 | - | |
| 2 | Vermicompost | 2008 | 0.1 | - | - | - | 50000 | 70000 | |
| 3 | Animal unit | 2007 | - | Gir | - | - | 50000 | 61200 | |
| 4 | Fisheries | 2008 | 0.06 | IMC | 120 | Kg. | 1000 | 3600 | |

B. Action plan of instructional farm (Crops) including seed production

| Name | | Details of pro | oduction (expe | ected) | Expected Am | ount (Rs.) | Remarks |
|---------------------------|-----------|----------------|--------------------|--------|----------------|-----------------|---------|
| of the crop | Area (ha) | Variety | Type of Produce | Qty. | Cost of inputs | Gross income | |
| Cereals | | | | | | | |
| Wheat | 3 | GW-496 | Truthful | 150 | 180000 | 300000 | |
| Pulses | | | | | | | |
| Green gram | 1 | GM-4 | Truthful | 6 | 28000 | 54000 | |
| Oilseeds | | | | | | | |
| Groundnut | 8 | GJG-9 | Breeder | 96 | 380000 | 1200000 | |
| Sesame | 2 | G.Til3 | Breeder | 12 | 50000 | 180000 | |
| Fibers | | | | | | | |
| Spices & Plantation crops | | | | | | | |
| Floriculture | | | | | | | |
| Fruits | | | | | | | |
| Vegetables | | | | | | | |
| Others (specify) | | | | | | | |

C. Action plan of production Units (bio-agents / bio pesticides/ bio fertilizers etc.)

| SI. | Name of the | | Expected Am | ount (Rs.) | |
|-----|-------------|----------------|-----------------------------|------------|------------------------|
| No. | Product | Qty (expected) | Cost of inputs Gross income | | Remarks |
| 1 | Nil | - | - | - | As per the requirement |
| | | | | | |

D. Action plan of instructional farm (livestock and fisheries production)

| | | Name | Details | of production | (expected) | Expected A | mount (Rs.) | |
|---|-----------|--|---------|--------------------|------------|----------------|--------------|---------|
| | SI. No | of the animal / bird / aquatics | Breed | Type of Produce | Qty. | Cost of inputs | Gross income | Remarks |
| 1 | 1 | Cow | Gir | Milk | 1600 lit | 40000 | 51200 | |
| | | | | FYM | 3 ton | | 10000 | |

a

TRAINING PROGRAMMES

Annexure - I

| Date | Clientele | Title of the training programme | Duration | N | umbei | r of | Nu | mber | of | G. |
|------------------------------|-----------|---|----------|----|---------|------|----|-------|----|------|
| | | | in days | ра | rticipa | ints | : | SC/ST | | Tota |
| | | | | М | F | Т | М | F | Т | |
| Crop Produ | ction | | | | | I | | | | |
| Quarter-1 st | PF | Doubling Farmers income through scientific | 4 | 24 | 0 | 24 | 1 | 0 | 1 | 25 |
| | | production technology of major kharif crops | | | | | | | | |
| Quarter-1 st | PF | Groundnut seed production Technology for | 2 | 21 | 2 | 23 | 2 | 0 | 2 | 25 |
| | D.5 | doubling farmers income | | 24 | | 24 | 4 | | 4 | 25 |
| Quarter– 3 rd | PF | Organic Farming: A Step towards doubling farmers income | 4 | 24 | 0 | 24 | 1 | 0 | 1 | 25 |
| Livestock p | rod | Tarmers income | | | | | | | | |
| Quarter-1 st | PF | Feed and Fodder Management in Animal | 3 | 25 | 0 | 25 | 5 | 0 | 5 | 30 |
| | | Husbandry | 5 | 25 | Ū | 25 | 5 | U | 5 | 50 |
| Quarter- | PF | Additional income generation through | 4 | 0 | 20 | 20 | 0 | 10 | 10 | 30 |
| 2 nd | | Animal Husbandry by higher milk production | | - | | | - | | | |
| | | by improving Breed and Nutrition & Feed | | | | | | | | |
| | | Management | | | | | | | | |
| Agril. Engg. | | | | | | | | | | |
| Quarter- | PF | Water management through micro irrigation | 2 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| 2 nd | | system in kharif crops doubling the farmes | | | | | | | | |
| | | income | | | | | | | | |
| Home Sc. | | | <u> </u> | | | | | | | |
| Quarter-1 st | PF | Income generation activities for | 1 | 0 | 22 | 22 | 0 | 3 | 3 | 25 |
| | | empowerment of rural Women for doubling | | | | | | | | |
| Quartar | PF | the faremrs income Value addition in fruits, vegetables and | 4 | 0 | 25 | 25 | 0 | 0 | 0 | 25 |
| Quarter- 2 nd | PF | agriculture produce for doubling the faremrs | 4 | 0 | 25 | 25 | 0 | 0 | 0 | 25 |
| 2 | | income | | | | | | | | |
| Quarter- | PF | Importance of nutrition in daily diet and | 1 | 0 | 19 | 19 | 0 | 6 | 6 | 25 |
| 3 rd | •• | techniques of Minimization of nutrition loss | - | Ũ | 10 | | Ŭ | Ũ | Ũ | 20 |
| - | | in processing | | | | | | | | |
| Plan prot. | | | | 1 | | | | | 1 | |
| Quarter-1 st | PF | IPM in vegetable and summer crops for | 2 | 22 | 0 | 22 | 3 | 0 | 3 | 25 |
| | | doubling the faremrs income | | | | | | | | |
| Quarter- | PF | Bio-control of pest & Diseases for doubling | 2 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| 2 nd | | the faremrs income | | | | | | | | |
| Quarter- | PF | IPM and IDM in rabi crops for doubling the | 3 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| 3 rd | | faremrs income | | | | | | | | |
| Fisheries | | I- | | | | | | | | |
| Quarter- | PF | Doubling the income in brackish water | 5 | 30 | 0 | 30 | 0 | 0 | 0 | 30 |
| 2 nd | | Aquaculture-Shrimp Farming: Culture, Feed | | | | | | | | |
| Quarter | PF | Management, Diseases and its prevention. Natural resources for additional income | 5 | 0 | 0 | 0 | 0 | 30 | 30 | 30 |
| Quarter – 3 rd | PF | generation in fisheries sector-Sea Weeds: | 5 | 0 | 0 | 0 | 0 | 50 | 50 | 50 |
| J | | types, importance, culture techniques and | | | | | | | | |
| | | various uses. | | | | | | | | |
| Production | of Inputs | | 1 | 1 | | I | 1 | | 1 | |
| Quarter-4 th | | Vermi-compost production for doubling the | 1 | 23 | 0 | 23 | 2 | 0 | 2 | 25 |
| ······· | | faremrs income | | | - | | | - | | |
| Soil Health | | | | | | • | | | | |
| Quarter- | PF | Importance of major and micro nutrient in | 1 | 18 | 5 | 23 | 1 | 1 | 2 | 25 |
| 2 nd | | crops production for doubling the faremrs | | | | | | | | |
| | | income | 1 | | | 1 | | | 1 | |

47

| ii) Farmers | & Farm wo | omen (Off Campus) | | | | | | | | |
|-------------------------|---|--|----------|----|---------|----------|-----|----------|------|----------|
| Date | Clientele | Title of the training programme | Duration | N | umber | of | Num | per of S | C/ST | G. |
| | | | in days | pa | rticipa | nts | | | | Total |
| | | | | Μ | F | Т | Μ | F | Т | |
| Crop Produc | | | | | | 1 | | 1 | T | |
| Quarter-2 nd | PF | Integrated Weed Management in | 1 | 21 | 3 | 24 | 1 | 0 | 1 | 25 |
| | | Oilseed crops for doubling the faremrs | | | | | | | | |
| | | income | | | | | | | | |
| Quarter-3 rd | PF | Pre-seasonal training on rabi crops | 1 | 23 | 2 | 25 | 0 | 0 | 0 | 25 |
| | | (Chickpea, Cumin, Wheat) for doubling | | | | | | | | |
| | | the faremrs income | | | | | | | | |
| Quarter-3 rd | PF | Techniques of weed Management in | 1 | 20 | 6 | 26 | 2 | 2 | 4 | 30 |
| | | Pulse crop for doubling the faremrs | | | | | | | | |
| | | income | | | | | | | | |
| Horticulture | 1 | | | - | | | | - | | |
| Quarter-1 st | PF | Processing and value addition in | 1 | 0 | 25 | 25 | 0 | 0 | 0 | 25 |
| | | spices crops for doubling the faremrs | | | | | | | | |
| 1.5 | | income | | | | | | | | |
| Livestock pr | | Common diseases and its remedies in | 1 | 25 | 0 | 25 | | 0 | | 25 |
| Quarter-1 st | PF | | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| Quarter-2 nd | PF | cattle. Importance of Nutrients and Feed | 1 | 20 | 0 | 20 | 10 | 0 | 10 | 20 |
| Quarter-2 | PF | Management in Animal Husbandry to | 1 | 20 | 0 | 20 | 10 | 0 | 10 | 30 |
| | | increase milk production and diseases | | | | | | | | |
| | | control. | | | | | | | | |
| Quarter-3 rd | PF | Importance of selection, housing, feed, | 4 | 25 | 0 | 25 | 5 | 0 | 5 | 30 |
| Quarter-5 | ГТ | breeding and health of animals for | 4 | 25 | 0 | 25 | 5 | 0 | 5 | 50 |
| | | more profits in dairy industries | | | | | | | | |
| Home Sc. | | | | | | | | | | |
| Quarter-1 st | PF | House hold food security by kitchen | 1 | 0 | 19 | 19 | 0 | 6 | 6 | 25 |
| | | gardening and nutrition gardening for | - | Ŭ | 10 | | Ŭ | Ŭ | Ũ | 23 |
| | | doubling the faremrs income | | | | | | | | |
| Quarter-2 nd | PF | Location specific drudgery reduction | 1 | 0 | 19 | 19 | 0 | 6 | 6 | 25 |
| | | technology for doubling the faremrs | | | | | | | | |
| | | income | | | | | | | | |
| Quarter-3 rd | PF | Income generation activities for | 4 | 0 | 20 | 20 | 0 | 5 | 5 | 25 |
| | | empowerment of rural Women | | | | | | | | |
| | | through rural crafts for doubling the | | | | | | | | |
| | | faremrs income | | | | | | | | |
| Quarter-4 th | PF | food processing and value addition in | 1 | 0 | 25 | 25 | 0 | 0 | 0 | 25 |
| | | fruit, vegetable, and other agricultural | | | | | | | | |
| | | produce for doubling the faremrs | | | | | | | | |
| | | income | | | | | | | | |
| Quarter-4 th | PF | Women and Child Care | 1 | 0 | 25 | 25 | 0 | 0 | 0 | 25 |
| Plan prot. | | | | | - | | | - | - | |
| Quarter-1 st | PF | Management of pink bollworm in | 1 | 20 | 0 | 20 | 5 | 0 | 5 | 25 |
| | | cotton for doubling the faremrs | | | | | | | | |
| Oursetser 2nd | | income | 1 | 20 | 0 | 20 | - | 0 | - | 25 |
| Quarter-2 nd | PF | Management of pink bollworm in | 1 | 20 | 0 | 20 | 5 | 0 | 5 | 25 |
| | | cotton & management of white grub in | | | | | | | | |
| Quarter-2 nd | PF | groundnut and other kharif crops | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| Quarter-2 rd | PF | Management of diseases in <i>kharifc</i> rops Integrated Disease and pest | 1 | 25 | 0 | 25 20 | 0 | 0 | 0 | 25 25 |
| Qual Lef-3" | PF | | 1 | 20 | U | 20 | 5 | U | 5 | 23 |
| | management in cumin and gram for doubling the farmers income | | | | | | | | | |
| Quarter-3 rd | PF | IPM in vegetable crops: onion & garlic | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| | | | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| Quarter-4 th | PF | Store grain pests and its management | | | | | | | | 75 |

| | | | | | | | | | _ | |
|-------------------------|-----------|---|---|----|---|----|----|---|----|----|
| | | income | | | | | | | | |
| Fisheries | | | | | | | | | | |
| Quarter-1 st | PF | Importance of composite/mix culture of IMC with exotic carp/Fresh water prawn spp. | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| Quarter-3 rd | PF | Pearl production: A source of additional income generation from inland fisheries | 3 | 0 | 0 | 0 | 18 | 7 | 25 | 25 |
| Quarter-4 th | PF | Doubling the income in inland fisheries sector by stocking, rearing and selling the fish seeds. | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 |
| Production of | of Inputs | at site | | | | | | | | |
| Quarter-4 th | PF | Seed production technology of summer sesame for doubling the faremrs income | 1 | 22 | 0 | 22 | 3 | 0 | З | 25 |
| Soil Health | | | | | l | I | | 1 | | |
| Quarter-1 st | PF | Awareness about soil health card (SHC) | 1 | 20 | 8 | 28 | 2 | 0 | 2 | 30 |
| Quarter-1 st | PF | Use of bio-fertilizers and recycling of farm waste through composting for doubling the faremrs income | 1 | 28 | 0 | 28 | 2 | 0 | 2 | 30 |
| Quarter-2 nd | PF | Integrated Nutrient Management in Groundnut for doubling the faremrs income | 1 | 22 | 7 | 29 | 1 | 0 | 1 | 30 |
| Quarter-3 rd | PF | Integrated Nutrient Management in rabi crops for doubling the faremrs income | 1 | 19 | 6 | 25 | 0 | 0 | 0 | 25 |

ii) Vocational training programmes for Rural Youth

| Crop / | Identified Thrust | Training title* | Training title* Month (days) | | No. of Participants | | | | SC/ST ticipa | | G.Total |
|------------|--------------------|------------------------------|------------------------------|---|------------------------|----|----|---|-----------------|----|---------|
| Enterprise | Area | | | | М | F | Т | М | F | Т | |
| Plant | Bio-Pesticide | Production of Bio Pesticides | May | 4 | 0 | 0 | 0 | 0 | 25 | 25 | 25 |
| Protection | | at Small scale level | | | | | | | | | |
| Fruit and | Value addition | Value addition in fruits, | Octo | 4 | 0 | 19 | 19 | 0 | 6 | 6 | 25 |
| Vegetable | | vegetables and agriculture | | | | | | | | | |
| | | produce for doubling farmers | | | | | | | | | |
| | | income | | | | | | | | | |
| Integrated | Integrated Farming | Integrated Farming System | Jan | 4 | 16 | 0 | 16 | 9 | 0 | 9 | 25 |
| Farming | | | | | | | | | | | |

iii) Training programme for extension functionaries

| Date | Clientele | Title of the training programme | Duration in days | No. of participants | | Number of SC/ST | | | G. Total | |
|-----------|-----------|---|---------------------|------------------------|---|--------------------|---|---|-------------|----|
| | | | | Μ | F | Т | Μ | F | т | |
| On Campus | | | | | | | | | | |
| | EF | Pre-seasonal training on kharif crops (Pigeon | 2 | 20 | 0 | 20 | 5 | 0 | 5 | 25 |
| | | pea, Green gram, Groundnut, Cotton) | | | | | | | | |
| | EF | Crop production technology in Cumin, Gram, | 2 | 20 | 0 | 20 | 5 | 0 | 5 | 25 |
| | | Wheat, Onion, Garlic | | | | | | | | |

| Discipline | Subject | SubjectOn-CampusCodeQuarter | | | | | Off-Campus | | | | | |
|--|---------|-----------------------------|----|-----|----|-------|------------|---------|-----|----|-------|----|
| | Code | | | | | | | Quarter | | | | |
| | | Ι | II | III | IV | Total | Ι | II | III | IV | Total | |
| (A) Farmers & Farm Women, Rural Youth | | | | | | | | | | | | |
| I Crop Production | СР | 2 | 0 | 1 | 0 | 3 | | 1 | 2 | | 3 | 6 |
| II Horticulture | HO | | | | | 0 | 1 | | | | 1 | 1 |
| III Soil Health and Fertility Management | SFM | | 1 | | | 1 | 2 | 1 | 1 | | 4 | 5 |
| IV Livestock Production and Management | LPM | 1 | 1 | | | 2 | 1 | 1 | 1 | | 3 | 5 |
| V Home Science/Women empowerment | WOE | 1 | 1 | 1 | | 3 | 1 | 1 | 1 | 2 | 5 | 8 |
| VI Agril. Engineering | AEG | | 1 | | | 1 | | | | | 0 | 1 |
| VII Plant Protection | PLP | 1 | 1 | 1 | | 3 | 1 | 2 | 2 | 1 | 6 | 9 |
| VIII Fisheries | FIS | | 1 | 1 | | 2 | 1 | 0 | 1 | 1 | 3 | 5 |
| IX Production of Inputs at site | PI | | | | 1 | 1 | | | | 1 | 1 | 2 |
| X Capacity Building and Group Dynamics | CBD | | | | | 0 | | | | | 0 | 0 |
| (B) Extension Functionaries | EF | 1 | | 1 | | 2 | | | | | 0 | 2 |
| (C) Rural youth | RY | 1 | | | 1 | 2 | | | 1 | | 1 | 3 |
| Total | | 7 | 6 | 5 | 2 | 20 | 7 | 6 | 9 | 5 | 27 | 47 |

• • • •

iv) Sponsored programme

| Discipl | Sponsorin | Client | Title of the training programme | No. of | | Nu | G. | | | | |
|----------------------------------|--------------|----------|---|--------|--------------|-----|-----|-------|----|----|-------|
| ine | g agency | ele | | cours | participants | | | SC/ST | | | Total |
| | | | | е | М | F | Т | Μ | F | Т | |
| a) Sponsored training progdramme | | | | | | | | | | | |
| AEG | ATMA | PF | Importance of MIS | 2 | 80 | 0 | 80 | 20 | 0 | 20 | 100 |
| PLP | ATMA | PF | Kharif crop protection and production | 3 | 100 | 40 | 140 | 10 | 10 | 20 | 160 |
| | | | technology | | | | | | | | |
| SFM, | AGAKHAN | PF | INM and MIS in rabi crops | 2 | 50 | 50 | 100 | 5 | 5 | 10 | 110 |
| AEG | | | | | | | | | | | |
| PLP | DAO | PF | Integrated pest and diseases management | 1 | 60 | 0 | 60 | 0 | 0 | 0 | 60 |
| | | | in cumin | | | | | | | | |
| PLP | ATMA | PF | IPM & IDM in groundnut, cotton crops | 1 | 55 | 0 | 55 | 5 | 0 | 5 | 60 |
| PLP | DAO | PF | IPM, IDM, INM in groudnnut and cotton | 1 | 55 | 0 | 55 | 5 | 0 | 5 | 60 |
| PLP | ATMA | PF | IPM & IDM in kharif crop | 1 | 55 | 0 | 55 | 5 | 0 | 5 | 60 |
| PLP | Dy.D.Hort. | PF | IPM, IDM, INM in Horticultural Crops | 1 | 55 | 0 | 55 | 5 | 0 | 5 | 60 |
| PLP | ATMA | PF | IPM, IDM, INM in Horticultural Crops | 1 | 55 | 0 | 55 | 5 | 0 | 5 | 60 |
| PLP | DWDU | PF | IPM & IDM in kharif crop | 1 | 55 | 0 | 55 | 5 | 0 | 5 | 60 |
| PLP, CP | ATMA | PF | Seed Production technology and IPM in | 1 | 55 | 0 | 55 | 5 | 0 | 5 | 60 |
| | | | these crops | | | | | | | | |
| PLP | ATMA | PF | Storage Techniques and IPM in summer | 1 | 0 | 55 | 55 | 0 | 5 | 5 | 60 |
| | | | crops | | | | | | | | |
| | | | Total | 16 | 675 | 145 | 820 | 70 | 20 | 90 | 910 |
| b) Sp | ponsored res | search p | programme | | | | | | | | |
| | | | | | | | | | | | |
| | | | Total | | | | | | | | |
| c) Any special programmes | | | | | | | | | | | |
| SFM | ATMA | PF | World Soil health day | 1 | 50 | 50 | 100 | 10 | 10 | 20 | 120 |
| WOE | ATMA | PF | Mahila Krushi Divas | 1 | 0 | 100 | 100 | 0 | 20 | 20 | 120 |
| | | | Total | 2 | 50 | 150 | 200 | 10 | 30 | 40 | 240 |

Annexure-II

| Ne | v Technical Project | Proposal 1 (Plant Protection) | | | | |
|----|--|---|--|--|--|--|
| 1 | Title | Knowledge of eco-friendly organic farming practices followed in crop by | the | | | |
| 1 | | | | | | |
| _ | | farmers of Jamnagar District | | | | |
| 2 | Background information | Organic farming follows the principle of circular causation and emerged in response to questions on health, environment and sustainab issues. It assesses the status, opportunities and sequestration potentials o India. It identifies constraints that impede adoption of especially for small f holders who constitute over 70% of farming community in India. Although India occupies second position in terms of number of certi organic farms (44,926), it is 13th in terms of area under of representing only 0. of total agricultural lands. This scenario appears poor compared to many of countries. Farmer"s apprehension towards in India is rooted in non-availabilit sufficient organic supplements, bio fertilizers and local market for organic proc and poor access to guidelines, certification and input costs. An integrated effo needed from government and non government agencies to encourage farmer adopt of as a solution to climate change, health and sustainability issue. India's organic food market has potential to grow more than 25 per of annually to touch \$1.36 billian by 2020. (Joshi, 2017). Organic farming system is not new in our country and is being follow from ancient time. It is a dynamic interaction between the soil, the plants, ecosystem and the environment which primarily aimed at cultivating land raising crops in such a way as to keep the soil alive and in good health by us organic waste i.e. crop, animal and farm waste and other biological material al with beneficial microbes. | ility f in arm fied 3 % ther y of luce rt is s to cent wed the and e of ong | | | |
| | | Gujarat has remained a pioneer state in adopting organic farming. The are more than dozen groups and networks across the state working voluntarily promotion, training and marketing of organic produce. But still there is a huge gap in efforts being made by govt and adoptio observe and do effort to document the practices followed by farmers we adopoted organic farming in the region. Looking to this, the study was empiric carried out with following specific objectives | r for n of who | | | |
| 3 | Objective | | | | | |
| 5 | Objective | To study the socio-economic profile of farmers. To assess the adoption level of farmers about organic farming practices To study knowledge of farmers for organic farming practices. | | | | |
| 4 | Principal | Dr. K. P. Baraiya, Senior Scientist & Head, KVK, JAU, Jamnagar | | | | |
| | Investigator | | | | | |
| | Co-investigator | Smt. A. K. Baraiya, Scientist (Home Science), KVK, JAU, Jamnagar Shri S. H. Lakhani, Scientist (Agronomy), KVK, JAU, Jamnagar Dr. P. V. Patel, Director of Extension Education, JAU, Junagadh | | | | |
| 5 | Location | Jamnagar and Devbhumi Dwarka District | | | | |
| 6 | Year of Commencement | 2019-20 | | | | |
| 7. | Experimental Detail/ Methodology | The present research study will conducted in jurisdiction of Krishi Vigyan Ken Junagadh Agricultural University, Jamnagar. Four talukas will selected purposi where organic farming is being practiced for conduction the present investigat Three villages will further selected purposively from each selected taluka; wh organic farming is being practiced and village wise organic farmers list prepared. Ten farmers will selected randomly for the study purpose. The overall 120 farmers will selected study purpose and an interview schedule developed as preferred by farmer time period and data were collected by person interview method. The data collected by personal interview method w processed, tabulated, classified and analyzed in light of objectives. | vely ion. here will hus, was onal | | | |

| Nev | w Technical Project | t Pi | roposal 2 (Home Science) |
|-----|--|------|---|
| 1 | Title | : | Knowledge of human nutritional practices among the farm women of Jamnagar District |
| - | | | |
| 2 | Background information | : | Health is a precious asset for everyone. It is an essential requirement of all irrespective age, caste, creed, race, religion and economic standard. There is a significant relationship between housing conditions and health. An adequate and safe water supply, disposal of excreta and solid wastes drainage of surface water, facilities for personal and domestic hygiene and sanitary food preparation, control of indoor air pollution, safe handling of things and suitable precautions where the home serves as a work place. Moreover, the health problems are rampant in rural areas, not merely because of lack of medical facilities but because of general poverty, lack of balanced and nutritious diet to large proportion of rural population and moreover lack of knowledge with regard to health and hygiene. Good nutrition is a firm foundation for human happiness, and sound health and skilled performance. It constitutes the most important readily improved environmental influence of health. Even, today 25 percent of our Indian populations are trapped in the viscous circle of poverty, malnutrition and diseases which reduce their work performance nullify al efforts under taken for their development and finally impede over nation's progress. Even though, there are many schemes, programmes, medical services to serve the people, there is a great bulk of illness in our country. The common factors which contribute are personal ignorance, poverty, isolation, lack of resources and lack of knowledge. The overall objective of the study is to bring the awareness to improve the nutrition status. The study provides the information on the knowledge of the nutritional practices of the farm women. It would also give the information on the suggestions to improve the health and nutrition status among the rural |
| 3 | Objective | : | Ivelihood. To know the social variables of farm women |
| | | | To study knowledge of farm women on selected nutritional practices |
| 4 | Principal Investigator | : | Smt. A. K. Baraiya, Scientist (Home Science), KVK, JAU, Jamnagar |
| | Co-investigator | | Dr. K. P. Baraiya, Senior Scientist & Head, KVK, JAU, Jamnagar Shri S. H. Lakhani, Scientist (Agronomy), KVK, JAU, Jamnagar Dr. P. V. Patel, Director of Extension Education, JAU, Junagadh |
| 5 | Location | :- | Jamnagar District |
| 6 | Year of Commencement | | 2019-20 |
| 7. | Experimental Detail/ Methodology | : | The study area of this research programme will be all six blocks viz., Jamnagar, Jodia, Dhrol, Kalavad, Lalpur & Jamjodhpur of Jamnagar District. From each taluka three villages and from selected villages four women will be selected randomly for the study. Thus, total of 120 women will constitute the sample size for this study. For collection of data personal interview technique will be use. Data will be collected with the help of structured interview schedule. Frequencies, percentage and mean percent score will be used for analysing the data statistically. |

| Annexure - | |
|------------|--|
|------------|--|

| S. | Deutieuleure | Constianed | Deleged | From a mediate on a |
|----------|---|------------|----------|---------------------|
| No. | Particulars | Sanctioned | Released | Expenditure |
| 13.1 | Recurring Contingencies | | | |
| 13.1.1 | Pay & Allowances | 9500000 | 7200000 | 6850659 |
| 13.1.2 | Traveling allowances | 200000 | 50000 | 46923 |
| 13.1.3 | Contingencies | 1050000 | 850000 | 1030092 |
| 13.1.4.1 | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance | | | |
| В | POL, repair of vehicles, tractor and equipments | | | |
| С | Meals/refreshment for trainees | | | |
| D | Training material | | | |
| Ε | Frontline demonstration except oilseeds and pulses | | | |
| F | On farm testing | | | |
| G | Training of extension functionaries | | | |
| Н | Maintenance of buildings | | | |
| Ι | Establishment of Soil, Plant & Water Testing Laboratory | | | |
| J | Library | | | |
| 13.1 | Total Recurring | 10750000 | 8100000 | 7927674 |
| 13.2 | Non-Recurring Contingencies | | | |
| 13.2.1 | Works | 0 | 0 | 0 |
| 13.2.2 | Equipments including SWTL & Furniture | 800000 | 0 | 0 |
| 13.2.3 | Vehicle (Four wheeler/Two wheeler, please specify) | 800000 | 0 | 0 |
| 24.2.4 | Library | 0 | 0 | 0 |
| 13.2 | TotalNon Recurring | 1600000 | 0 | 0 |
| 13.3 | REVOLVING FUND | 0 | 0 | 0 |
| 13.4 | GRAND TOTAL (A+B+C) | 12350000 | 8100000 | 7927674 |

Budget - Details of budget utilization (2018-19) up to 31 January 2019

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

| S. No. | Particulars | BE 2019-20 proposed (Rs.) |
|-----------|--|---------------------------------|
| 14.1 | Recurring Contingencies | |
| 14.1.1 | Pay & Allowances | 10800000 |
| 14.1.2 | Traveling allowances | 200000 |
| 14.1.3 | Contingencies | 2800000 |
| A | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines) | 500000 |
| В | POL, repair of vehicles, tractor and equipments | 300000 |
| С | Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained) | 400000 |
| D | Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training) | 100000 |
| E | Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year) | 500000 |
| F | On farm testing (on need based, location specific and newly generated information in the major production systems of the area) | 200000 |
| G | Training of extension functionaries | 300000 |
| Н | Maintenance of buildings | 400000 |
| 1 | Establishment of Soil, Plant & Water Testing Laboratory | 80000 |

| J | Library | 20000 |
|--------|--|----------|
| 14.1 | TOTAL Recurring Contingencies | 16600000 |
| 14.2 | Non-Recurring Contingencies | |
| 14.2.1 | Works | 55800000 |
| 14.2.2 | Equipments including SWTL & Furniture | |
| 14.2.3 | Vehicle (Four wheeler/Two wheeler, please specify) | 2000000 |
| 14.2.4 | Library (Purchase of assets like books & journals) | 50000 |
| 14.2 | TOTAL Non-Recurring Contingencies | 57850000 |
| 14.3 | REVOLVING FUND | 0 |
| 14.4 | GRAND TOTAL | 74450000 |