

ANNUAL ACTION PLAN OF KVKS, 2014-15

KVK: Tinsukia **STATE:** Assam

HOST ORGANISATION: Assam Agriculture University, Jorhat

Mandated activities (Abstract)

Discipline: Agronomy

| Activities | Thematic Area | Crop/ cropping System | Target | | | Achievement | | |
|------------|--|---------------------------|-----------|-------------|------------|-------------|-------------|-----------|
| | | | OFT (No.) | Trial (No.) | Area (ha) | OFT (No.) | Trial (No.) | Area (ha) |
| OFT | Varietal performance | Rice- toria Black gram | 1 1 | 3 3 | 0.4 0.4 | | | |
| | Integrated Weed Mgmt | | | | | | | |
| | Integrated Nutrient Mgt | | | | | | | |
| | Water Mgmt | Black gram | 1 | | | | | |
| | Tillage Mgmt/Farm Machinery | | | | | | | |
| | Any other (Please specify) lowering seed rate of lentil | Toria | 1 | 2 | 0.4 | | | |

| Activities | Thematic Area | Crop/ cropping System | Target | | Achievement | |
|------------|---|--|-------------|----------------|-------------|------------|
| | | | FLD (No.) | Area (ha.) | FLD (No.) | Area (ha.) |
| FLD | Varietal performance | Glutinous rice Scented rice Sugar cane | 5 5 2 | 1 1 0.26 | | |
| | Integrated Weed Mgmt | | | | | |
| | Integrated Nutrient Mgmt | | | | | |
| | Water Mgmt | | | | | |
| | Tillage Mgmt/Farm Machinery | | | | | |
| | Integrated Farming System/ICM | Toria | 5 | 1 | | |
| | Any other (Please specify) Relay cropping | Pea in rice | 2 | 1 | | |

| Training activities (under Agronomy) | Participants | Target | | Achievement | |
|--------------------------------------|-------------------------|-------------------|--------------------|-------------------|--------------------|
| | | No. of programmes | No. of beneficiary | No. of programmes | No. of beneficiary |
| | Rural youth | | | | |
| | Farmers | 14 | 350 | | |
| | Farm women | | | | |
| | Extension personnel | 2 | 50 | | |
| | Civil society | | | | |
| | Any other (Pl. specify) | | | | |
| | Vocational programmes | Rural youth | | | |
| Farmers | | | | | |
| Farm women | | | | | |
| Extension personnel | | | | | |

| | Civil society | | | | |
|----------------------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|---------------------------|
| | NGO | | | | |
| | Any other (Pl. specify) | | | | |
| Sponsored programmes | Rural youth | | | | |
| | Farmers | | | | |
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| Activity (under Agronomy) | Thematic area | Target | | Achievement | |
| | | No. of demonstration | No. of beneficiary | No. of demonstration | No. of beneficiary |
| Method demonstration | | | | | |
| | | | | | |
| | | | | | |
| Diagnostic visits | INM | 2 | 10 | | |
| | Weed Management | 3 | 10 | | |

SEED PRODUCTION (FIELD CROPS)

| Crop | Variety | Quantity (qt) | |
|--------------------------|---------------------------------|----------------------|---------------------|
| | | Target | Achievements |
| Black gram/Toria/Sesamum | KU-301/TS-38/Kaliabor selection | 2.5 | |
| Fodder | Napier | 1000 nos | |
| | Setarria | 1000 nos | |
| | Guinea | 500 nos | |
| | | | |
| | | | |

DISCIPLINE: HORTICULTURE

| Activities | Thematic Area | Crop/ cropping System | Target | | | Achievement | | |
|---|--------------------------------------|------------------------------|------------------|--------------------|------------------|--------------------|--------------------|------------------|
| | | | OFT (No.) | Trial (No.) | Area (ha) | OFT (No.) | Trial (No.) | Area (ha) |
| OFT | Varietal performance | Ridge gourd | 1 | 3 | 0.5 | | | |
| | Integrated Nutrient Mgmt | Okra | 1 | 3 | 0.5 | | | |
| | | Cabbage | 1 | 3 | 0.5 | | | |
| | Integrated Weed Mgmt | | | | | | | |
| | Orchard Rejuvenation | | | | | | | |
| | Post harvest | | | | | | | |
| | Value addition | | | | | | | |
| | Canopy mgmt. | | | | | | | |
| | Landscaping | | | | | | | |
| | Mechanization Mechanical plucking | | | | | | | |
| Any other (Pl. Specify) Farming System | Rice –French bean | 1 | 3 | 0.5 | | | | |

| Activities | Thematic Area | Crop/ cropping System | Target | Achievement |
|-------------------|----------------------|------------------------------|---------------|--------------------|
|-------------------|----------------------|------------------------------|---------------|--------------------|

| | | | FLD (No.) | Area (ha.) | FLD (No.) | Area (ha.) |
|-------------------------|--------------------------|-----------------------|-----------|------------|-----------|------------|
| FLD | Varietal performance | Tube Rose | 4 | 0.5 | | |
| | | Tissue culture banana | 4 | 0.5 | | |
| | | Turmeric | 4 | 0.5 | | |
| | Integrated Nutrient Mgmt | | | | | |
| | Integrated Weed Mgmt | | | | | |
| | Orchard Rejuvenation | | | | | |
| | Post harvest | | | | | |
| | Value addition | | | | | |
| | Canopy mgmt. | | | | | |
| | Landscaping | | | | | |
| | Mechanization | | | | | |
| Any other (Pl. Specify) | | | | | | |

| Training activities (under Horticulture) | Participants | Target | | Achievement | |
|--|-------------------------|-------------------|--------------------|-------------------|--------------------|
| | | No. of programmes | No. of beneficiary | No. of programmes | No. of beneficiary |
| Short term courses | Rural youth | 2 | 50 | | |
| | Farmers | 13 | 325 | | |
| | Farm women | | | | |
| | Extension personnel | 1 | 25 | | |
| | Civil society | | | | |
| | Any other (Pl. specify) | | | | |
| Vocational programmes | Rural youth | | | | |
| | Farmers | | | | |
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | NGO | | | | |
| | Any other (Pl. specify) | | | | |
| Sponsored programmes | Rural youth | | | | |
| | Farmers | | | | |
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | Any other (Pl. specify) | | | | |

| Activity (under Horticulture) | Thematic area | Target | | Achievement | |
|-------------------------------|--------------------------|----------------------|--------------------|----------------------|--------------------|
| | | No. of demonstration | No. of beneficiary | No. of demonstration | No. of beneficiary |
| Method demonstration | 1. Fertilizer management | 2 | 10 | | |
| | 2. Training & pruning | 1 | 10 | | |
| | 3. Rejuvenation | 2 | 10 | | |
| Diagnostic visits | | 5 | 20 | | |

PRODUCTION OF PLANTING MATERIALS/ SEED: (VEG/ SPECIES)

| Crop/ Trees | Variety | Quantity (No/ qt) |
|-------------|---------|-------------------|
| | | |

| | | Target | Achievements |
|-------------------------|----------|----------|--------------|
| Fruits - Assam lemon | Local | 500 nos | |
| Rough Lemon | Local | 500 nos | |
| Papaya | Red lady | 500 nos | |
| Spices Black pepper | Paneur-1 | 2000 nos | |

DISCIPLINE: SOIL SCIENCE

| Activities | Thematic Area | Crop/ cropping System | Target | | | Achievement | | |
|------------|-------------------------------|-----------------------|-----------|-------------|-----------|-------------|-------------|-----------|
| | | | OFT (No.) | Trial (No.) | Area (ha) | OFT (No.) | Trial (No.) | Area (ha) |
| OFT | Soil health | INM in toria | 1 | 3 | 0.4 | | | |
| | Soil management | | | | | | | |
| | Soil testing | | | | | | | |
| | Soil amendment (Lime/ Others) | Pulses | 1 | 3 | 0.4 | | | |
| | Soil biology (BGA/ Azolla) | | | | | | | |
| | Soil microbes (beneficial) | | | | | | | |
| | Water harvesting | | | | | | | |

| Activities | Thematic Area | Crop/ cropping System | Target | | Achievement | |
|------------|-------------------------------|-----------------------|-----------|------------|-------------|------------|
| | | | FLD (No.) | Area (ha.) | FLD (No.) | Area (ha.) |
| FLD | Soil health | Vermicompost | 5 | | | |
| | Soil management | | | | | |
| | Soil testing | | | | | |
| | Soil amendment (Lime/ Others) | Rice | 5 | 1.5 | | |
| | Soil biology (BGA/ Azolla) | Rice | 5 | 1.5 | | |
| | Soil microbes (beneficial) | | | | | |

| Training activities (under Soil Science) | Participants | Target | | Achievement | |
|--|-----------------------------|-------------------|--------------------|-------------------|--------------------|
| | | No. of programmes | No. of beneficiary | No. of programmes | No. of beneficiary |
| Short term courses | Rural youth | 1 | 25 | | |
| | Farmers | 10 | 250 | | |
| | Farm women | | | | |
| | Extension personnel | 1 | 25 | | |
| | Civil society | | | | |
| | Any other (Pl. specify) NGO | | | | |
| Vocational programmes | Rural youth | 1 | 25 | | |
| | Farmers | | | | |

| | | | | | |
|-----------------------------|-------------------------|--|--|--|--|
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | NGO | | | | |
| | Any other (Pl. specify) | | | | |
| Sponsored programmes | Rural youth | | | | |
| | Farmers | | | | |
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | Any other (Pl. specify) | | | | |

| Activity | Thematic area | Target | | Achievement | |
|----------------------|----------------|----------------------|--------------------|----------------------|--------------------|
| | | No. of demonstration | No. of beneficiary | No. of demonstration | No. of beneficiary |
| Method demonstration | 1.INM | 2 | 10 | | |
| | 2.Vermicompost | 3 | 30 | | |
| Diagnostic visits | 1. | | | | |
| | 2. | | | | |

PRODUCTION OF BIO FERTILIZERS/ VERMICOMPOST ETC

| Product | Quantity (qt) | |
|--------------|---------------|--------------|
| | Target | Achievements |
| Vermicompost | 20 | |
| Azolla | 5 | |

DISCIPLINE: PLANT PROTECTION (ENTOMOLOGY/ PLANT PATHOLOGY)

| Activities | Thematic Area | Crop/ cropping System | Target | | | Achievement | | |
|------------|---|-----------------------|-----------|-------------|-----------|-------------|-------------|-----------|
| | | | OFT (No.) | Trial (No.) | Area (ha) | OFT (No.) | Trial (No.) | Area (ha) |
| OFT | IPM/IDM | | | | | | | |
| | Biological control (Insect/pest/ weeds etc) | | | | | | | |
| | Product evaluation (Efficacy) | | | | | | | |
| | Beneficial insect | | | | | | | |
| | Beneficial organisms | | | | | | | |
| | Store grain pest | | | | | | | |

| Activities | Thematic Area | Crop/ cropping System | Target | | Achievement | |
|------------|---|-----------------------|-----------|------------|-------------|------------|
| | | | FLD (No.) | Area (ha.) | FLD (No.) | Area (ha.) |
| FLD | IPM/IDM | | | | | |
| | Biological control (Insect/pest/ weeds etc) | | | | | |
| | Product evaluation (Efficacy) | | | | | |
| | Beneficial insect | | | | | |

| | | | | | | |
|--|----------------------|--|--|--|--|--|
| | Beneficial organisms | | | | | |
|--|----------------------|--|--|--|--|--|

| Training activities (under plant protection) | Participants | Target | | Achievement | |
|--|-------------------------|-------------------|--------------------|-------------------|--------------------|
| | | No. of programmes | No. of beneficiary | No. of programmes | No. of beneficiary |
| Short term courses | Rural youth | | | | |
| | Farmers | | | | |
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | Any other (Pl. specify) | | | | |
| Vocational programmes | Rural youth | | | | |
| | Farmers | | | | |
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | NGO | | | | |
| Sponsored programmes | Rural youth | | | | |
| | Farmers | | | | |
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | Any other (Pl. specify) | | | | |

| Activity | Thematic area | Target | | Achievement | |
|----------------------|------------------------------|----------------------|--------------------|----------------------|--------------------|
| | | No. of demonstration | No. of beneficiary | No. of demonstration | No. of beneficiary |
| Method demonstration | Safe handling of pesticides | | | | |
| | Bordeaux mixture preparation | | | | |
| Diagnostic visits | IPM | | | | |
| | IDM | | | | |

PRODUCTION OF BIOGENESIS/ BIOAGENTS:

| Product | Quantity (No/ qt) | |
|---------|-------------------|-------------|
| | Target | Achievement |
| | | |
| | | |

DISCIPLINE: ANIMAL HUSBANDRY

| Activities | Thematic Area | Livestock/Bird | Target | | | Achievement | | |
|------------|--------------------|----------------|-----------|-------------|----------------------------|-------------|-------------|----------------------------|
| | | | OFT (No.) | Trial (No.) | Area (ha)/Unit/Beneficiary | OFT (No.) | Trial (No.) | Area (ha)/Unit/Beneficiary |
| OFT | Breed introduction | | | | | | | |
| | Breed improvement | | | | | | | |

| | | | | | | | | |
|--|----------------------------|--|--|--|--|--|--|--|
| | Feeding management | | | | | | | |
| | Health and clinic | | | | | | | |
| | Housing | | | | | | | |
| | Processing/ Value addition | | | | | | | |
| | Fodder quality/ Production | | | | | | | |
| | Pasture management | | | | | | | |

| Activities | Thematic Area | Livestock/ Bird | Target | | Achievement | |
|------------|----------------------------|-----------------|-----------|------------------------------|-------------|------------------------------|
| | | | FLD (No.) | Area (ha.) /Unit/Beneficiary | FLD (No.) | Area (ha.) /Unit/Beneficiary |
| FLD | Breed introduction | | | | | |
| | Breed improvement | | | | | |
| | Feeding management | | | | | |
| | Health and clinic | | | | | |
| | Housing | | | | | |
| | Processing/ Value addition | | | | | |
| | Fodder quality | | | | | |
| | Pasture management | | | | | |

| Training activities (under Animal Husbandry) | Participants | Target | | Achievement | |
|--|-------------------------|-------------------|--------------------|-------------------|--------------------|
| | | No. of programmes | No. of beneficiary | No. of programmes | No. of beneficiary |
| Short term courses | Rural youth | | | | |
| | Farmers | | | | |
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | Any other (Pl. specify) | | | | |
| Vocational programmes | Rural youth | | | | |
| | Farmers | | | | |
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | NGO | | | | |
| Sponsored programmes | Rural youth | | | | |
| | Farmers | | | | |
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | Any other (Pl. specify) | | | | |

| Activity (under Animal Husbandry) | Thematic area | Target | | Achievement | |
|-----------------------------------|---------------|--------|--------|-------------|--------|
| | | No. of | No. of | No. of | No. of |
| | | | | | |

| | | demon./visit | beneficiary | demon./visit | beneficiary |
|----------------------|---------------|--------------|-------------|--------------|-------------|
| Method demonstration | 1.Vaccination | | | | |
| | | | | | |
| | | | | | |
| Diagnostic visits | 1. | | | | |
| | 2. | | | | |

PRODUCTION:

| Item | Target(No.) | Achievements (No.) |
|------|-------------|--------------------|
| | | |
| | | |

DISCIPLINE: TEA HUSBANDRY AND TECHNOLOGY

| Activities | Thematic Area | Crop/ cropping System | Target | | | Achievement | | |
|---|--------------------------------------|-----------------------|-----------|-------------|-----------|-------------|-------------|-----------|
| | | | OFT (No.) | Trial (No.) | Area (ha) | OFT (No.) | Trial (No.) | Area (ha) |
| OFT | Varietal performance | | | | | | | |
| | Integrated Nutrient Mgmt | | | | | | | |
| | Integrated Weed Mgmt | | | | | | | |
| | Orchard Rejuvenation | | | | | | | |
| | Post harvest | | | | | | | |
| | Value addition | | | | | | | |
| | Canopy mgmt. | | | | | | | |
| | Landscaping | | | | | | | |
| | Mechanization Mechanical plucking | Use of hand sches | 1 | 2 | 0.26 | | | |
| Any other (Pl. Specify) Mixed cropping | Tea with Khasi mandarin | 1 | 2 | 0.26 | | | | |

| Activities | Thematic Area | Crop/ cropping System | Target | | Achievement | |
|------------|--|---------------------------------|-----------|------------|-------------|------------|
| | | | FLD (No.) | Area (ha.) | FLD (No.) | Area (ha.) |
| FLD | Varietal performance | | | | | |
| | Integrated Nutrient Mgmt | YTD application | 2 | 0.26 | | |
| | Integrated Pest Mgmt | Tea | 2 | 0.26 | | |
| | Orchard Rejuvenation | | | | | |
| | Post harvest | | | | | |
| | Value addition | | | | | |
| | Canopy mgmt. | Frame formation | 2 | 0.26 | | |
| | Landscaping | | | | | |
| | Mechanization Any other (Pl. Specify) Mixed cropping | Black pepper+ Areca nut +Tea | 2 | 0.26 | | |

| | Participants | Target | Achievement |
|--|--------------|--------|-------------|
| | | | |

| Training activities (under Animal Husbandry) | | No. of programmes | No. of beneficiary | No. of programmes | No. of beneficiary |
|--|-------------------------|-------------------|--------------------|-------------------|--------------------|
| Short term courses | Rural youth | 12 | 300 | | |
| | Farmers | | | | |
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | Any other (Pl. specify) | | | | |
| Vocational programmes | Rural youth | 1 | 25 | | |
| | Farmers | | | | |
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | NGO | | | | |
| | Any other (Pl. specify) | | | | |
| Sponsored programmes | Rural youth | | | | |
| | Farmers | | | | |
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | Any other (Pl. specify) | | | | |

| Activity (under Animal Husbandry) | Thematic area | Target | | Achievement | |
|-----------------------------------|---------------|---------------------|--------------------|---------------------|--------------------|
| | | No. of demon./visit | No. of beneficiary | No. of demon./visit | No. of beneficiary |
| Method demonstration | 1. Pruning | 3 | 30 | | |
| | | | | | |
| Diagnostic visits | 1. | 5 | 20 | | |
| | 2. | | | | |

PRODUCTION:

| Item | Target(No.) | Achievements (No.) |
|--------------|-------------|--------------------|
| Tea cuttings | 5000 | |
| Albizia spp. | 1000 | |

DISCIPLINE: HOME SCIENCE

| Activities | Thematic Area | Enterprise/ Crop/ cropping System/ | Target | | | Achievement | | |
|------------|---|---|-----------|-------------|--------------------------------|-------------|-------------|----------------------------|
| | | | OFT (No.) | Trial (No.) | Area (ha)/ Unit/Beneficiary | OFT (No.) | Trial (No.) | Area (ha)/Unit/Beneficiary |
| OFT | Nutritional Gardening | | | | | | | |
| | Nutritional diet for children/ Pregnant women | | | | | | | |
| | Energy saving tools/ devices | | | | | | | |
| | Water harvesting devices including purification | | | | | | | |
| | Hygienic Sanitation | | | | | | | |

| | | | | | | | |
|---|-------------------------|---|---|----|--|--|--|
| Organic dye introduction/ utilization | | | | | | | |
| Utilization of waste materials (Bio-degraded/ non-degraded) | | | | | | | |
| Storage techniques (grains/ fruits/ fishes/ meat etc) | Minor fruits | 1 | 2 | 10 | | | |
| Use of women friendly tools | Pedal operated thresher | 1 | 3 | 30 | | | |
| Techniques of child care/ old age | | | | | | | |

| Activities | Thematic Area | Enterprise/ Crop/ cropping System | Target | | Achievement | |
|-----------------------------------|---|--|-----------|------------------------------|-------------|------------------------------|
| | | | FLD (No.) | Area (ha.)/Unit/ Beneficiary | FLD (No.) | Area (ha.)/Unit/ Beneficiary |
| FLD | Nutritional Gardening | Vegetable crops | 3 | 0.13 | | |
| | Nutritional diet for children/ Pregnant women | | | | | |
| | Energy saving tools/ devices | Hand shears in tea | 3 | 30 | | |
| | Water harvesting devices including purification | | | | | |
| | Hygienic Sanitation | | | | | |
| | Organic dye introduction/ utilization | Use of natural dyes form local trees and flowers | 3 | 20 | | |
| | Utilization of waste materials (Bio-degraded/ non-degraded) | | | | | |
| | Storage techniques (grains/ fruits/ fishes/ meat etc) | | | | | |
| | Use of women friendly tools | Improved sickle Women friendly weeder | 3 3 | 30 20 | | |
| Techniques of child care/ old age | | | | | | |

| Training activities (under Home Sc.) | Participants | Target | | Achievement | |
|--------------------------------------|---------------------|-------------------|--------------------|-------------------|--------------------|
| | | No. of programmes | No. of beneficiary | No. of programmes | No. of beneficiary |
| Short term courses | Rural youth | 5 | 125 | | |
| | Farmers | | | | |
| | Farm women | 8 | 200 | | |
| | Extension personnel | | | | |
| | Civil society | | | | |

| | | | | | |
|------------------------------|-------------------------|---|----|--|--|
| | Any other (Pl. specify) | | | | |
| Vocational programmes | Rural youth | 1 | 25 | | |
| | Farmers | | | | |
| | Farm women | 3 | 75 | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | NGO | | | | |
| | Any other (Pl. specify) | | | | |
| Sponsored programmes | Rural youth | | | | |
| | Farmers | | | | |
| | Farm women | | | | |
| | Extension personnel | | | | |
| | Civil society | | | | |
| | Any other (Pl. specify) | | | | |

| Activity (under Home Sc.) | Thematic area | Target | | Achievement | |
|---------------------------|-----------------------------|---------------------|--------------------|---------------------|--------------------|
| | | No. of demon./visit | No. of beneficiary | No. of demon./visit | No. of beneficiary |
| Method demonstration | 1.Value addition | 2 | 20 | | |
| | 2. Organic dye introduction | 1 | 10 | | |
| | 3. | | | | |
| | | | | | |
| Diagnostic visits | 1. | | | | |
| | 2. | | | | |

PRODUCTION through training materials:

| Items | Target(No.) | Achievements (No.) | Remarks |
|-------|-------------|--------------------|---------|
| | | | |

Varietal performance/ performance of early/ long duration rice varieties under upland/ lowland/ flood prone/ flood free etc situations.

- Varietal performance of pulses/ oilseeds etc
- Integrated nutrient management in Rice/ Wheat/ Pulses/ Oilseeds/ Fodder crops etc
- Integrated pest management in Rice/ Wheat/ Pulses/ Oilseeds/ Fodder crops etc
- Biological control of pests/ nematodes etc
- Biological control of diseases of Rice etc/ Vegetables etc / fruit trees etc.
- Green manuring of crops with Serbenia/ Dhaincha etc
- Vermicomposting of crops.

AGROFORESTRY:

Introduction of multipurpose tree species (MPTS)

- In existing systems (Agri- Silvi/ Agri-Pasteur etc)
- Newly developed systems
- Planting under social farming programmes
- Introduction of high value crops/ livestock
- Planting MPTS in degraded areas
- Introduction of biofuel species/ trees
- Pruning/ Topping of trees
- Bamboo/ Broomgrass/ Wild S ac species- Forest diversification
- Scientific nursery promotion

PIGGERY

Methods for restraining pigs

- Restraining piglets on its side (for injection vaccination treatment)
- Restraining piglets by holding its rear legs (for transportation)

Methods for restraining older/ heavier pigs

- By using a snare
- Laying the animal on its side

Methods for measuring body temperature and respiration

| CLIMATRIC | NORMAL RANGE |
|-------------|---------------|
| Respiration | |
| Young | 50/ minute |
| Old | 13-15/ minute |
| temperature | 39 C |

Methods of administration of medicines and use of a few surgical equipments

- Method of withdrawing medicine from a vial
- Intramuscular injection (into muscle)
- Subcutaneous injections (under the skin)

Home Science

- Nutritional gardening
- Nutritional diet for children
- Energy saving chullas
- Water harvesting devices including purification of drinking water
- Hygienic sanitation
- Organic dye utilization
- Utilization of waste materials/ biodegraded/ non-degraded
- Storage techniques (grains/ fruits/ fishes/ meat etc)

- Uses of women friendly tools/ implements
- Techniques of child care