

The students shall involve themselves in the following activities i.e. Participatory Rural Appraisal, Identification of agricultural problems of the village and training needs of the farmers, Conducting method demonstrations of improved practices, Organization of short duration farmers training camp, field visits and agricultural exhibitions, Study of the on-going rural and agriculture development programme in the villages, Arrange farmers meeting to discuss agricultural aspects, Visit to various village institutions and study their role in development programmes and other extension activities, Motivate farmers through different extension teaching methods, Documentation of success stories.

Each student will prepare a report with respect to the activities indicated above and submit it to the Chairman of Advisory Committee for its evaluation. The students shall be given an opportunity to acquaint themselves with on-going programme and activities of research, development, marketing, extension agencies and organizations in the village. The students will submit report on the institutions he/she has visited.

#### **1. Agro-Industrial Attachment**

The students shall involve themselves in the activities and tasks during Agro-industrial attachment for 3 Weeks duration viz. acquaintance with industry and staff, study of structure, functioning, objective and mandates of the industry, study of various processing units and hands-on trainings under supervision of industry staff, ethics of industry, employment generated by the industry, contribution of the industry promoting environment, learning business network including outlets of the industry, skill development in all crucial tasks of the industry, documentation of the activities and task performed by the students.

**Component – I: Rural Agricultural Work Experience (RAWE)**

**PROFORMA FOR DAILY DIARY OF STUDENT**

(To be maintained by the student in ruled notebook)

1. Name of the student :
2. Enrolment No. :
3. Name of the College :
4. Name & address of the contact farmer :
5. Research Station / KVK :
6. Abstract of work :

| Work days & Date | Abstract of work done | Signature & Designation of Visitors / Contact Farmer |
|------------------|-----------------------|--|
| Monday           |                       |  |
| Tuesday          |                       |  |
| Wednesday        |                       |  |
| Thursday         |                       |  |
| Friday           |                       |  |
| Saturday         |                       |  |
| Sunday           |                       |  |

\* Daily diary will be maintained in a separate ruled book Register showing work report on daily basis for each month of stay in the village.

**Fortnightly Progress Report**

| Number of Fortnight | Date | Remarks about the performance | Signature of officers Incharge |
|---------------------|------|-------------------------------|--------------------------------|
| 1                   |      |                               |                                |

|   |  |  |  |  |
|---|--|--|--|--|
| 2 |  |  |  |  |
| 3 |  |  |  |  |
| 4 |  |  |  |  |
| 5 |  |  |  |  |

Note: Fortnightly / Monthly verification will be done on the basis of daily diary.

### WEATHER RECORD

Village..... Taluka: .....

(if the data at the place is not available, the data of the research station can be given)

| Month | Met.<br>Week | Temperature |        | Humidity % |         | Rainfall<br>(mm) | No. of<br>rainy<br>days |
|-------|--------------|-------------|--------|------------|---------|------------------|-------------------------|
|       |              | Max °C      | Min °C | Morning    | Evening |                  |                         |
|       |              |             |        |            |         |                  |                         |
|       |              |             |        |            |         |                  |                         |
|       |              |             |        |            |         |                  |                         |
|       |              |             |        |            |         |                  |                         |
|       |              |             |        |            |         |                  |                         |
|       |              |             |        |            |         |                  |                         |
|       |              |             |        |            |         |                  |                         |
|       |              |             |        |            |         |                  |                         |
|       |              |             |        |            |         |                  |                         |

### PATWARI RECORD OF THE VILLAGE (To be acquainted with)

1. Khasara
2. Khatauni

3. Zamabandi
4. Village Map

## I. Survey of Village

Credit: 1 (0+1)

### VS-I: General Information

1. Name of village: .....
2. Tehsil: .....
3. District: .....
4. Distance in Kilometers from the nearest:
  - a) Primary/Middle School: .....
  - b) High School/ Higher Secondary/College: .....
  - c) Post Office: .....
  - d) Telegraph Office: .....
  - e) Railway Station: .....
  - f) Bus Stand: .....
  - g) Tehsil Place: .....
  - h) Krishi Upaj Mandi: .....
5. Transport facilities available in the village: .....
6. Nearest village (weekly) market:
  - a) Place: .....
  - b) Distance: .....

### VS-II: Population of Village

| S.No. | Item  | Population as per Census |
|-------|---|--------------------------|
| 1.    | Total Population  |                          |
| 2.    | Total Male <ol style="list-style-type: none"> <li>1. Literate</li> <li>2. Illiterate</li> </ol>   |                          |
| 3.    | Total Female <ol style="list-style-type: none"> <li>1. Literate</li> <li>2. Illiterate</li> </ol> |                          |
| 4.    | Number of Cultivators   |                          |

|    |  |  |
|----|--|--|
| 5. | Number of Agricultural Labourers<br>1. Male<br>2. Female                                     |  |
| 6. | Other<br>Nos. of Scheduled Castes<br>Nos. of Scheduled Tribes<br>Nos. of Scheduled Backwards |  |

Note: Information of village population to be obtained from the Gram Panchayat Officer /Patwari

**VS-III: Land use pattern of village**

| S.No. | Item   | Area in hectares | % to total Geographical area |
|-------|--|------------------|------------------------------|
| 1.    | Total Geographical area of Village   |                  |                              |
| 2.    | Area under forest  |                  |                              |
| 3.    | Barren and uncultivable land   |                  |                              |
| 4.    | Land put to non-agricultural use   |                  |                              |
| 5.    | Cultivable waste land  |                  |                              |
| 6.    | Total fallow land  |                  |                              |
| 7.    | Net area sown  |                  |                              |
| 8.    | Net irrigated area   |                  |                              |
| 9.    | Area sown more than once   |                  |                              |
| 10.   | Gross cropped area (S.No. 7+9)   |                  |                              |
| 11.   | Area under<br>1. Light soil (Depth upto one foot)<br>2. Medium soil (Depth 1 to 2 ft)<br>3. Heavy soil (Depth more than 2ft) |                  |                              |

Note: Information on land use pattern of the village to be obtained from the Patwari.

**VS-IV: Irrigation facilities available in the village:**

| S.No. | Source of Irrigation                           | Number | Area irrigated in Hectare |           |
|-------|--|--------|---------------------------|-----------|
|       |  |        | Seasonal                  | Perennial |
| 1.    | Total Wells<br>a) Well in use<br>b) Not in use |        |                           |           |
| 2.    | Canal  |        |                           |           |
| 3.    | Tube wells                                     |        |                           |           |
| 4.    | Tank   |        |                           |           |
| 5.    | Other Sources (specify)                        |        |                           |           |

**VS-V: Implements and machinery available in village:**

| S.No. | Particulars              | Number |
|-------|--------------------------|--------|
| 1.    | Bullock drawn implements |        |
| 2.    | Hand drawn implements    |        |
| 3.    | Tractors                 |        |
| 4.    | Power thresher           |        |
| 5.    | Electric pump/oil engine |        |
| 6.    | Sprayers                 |        |
| 7.    | Dusters                  |        |

Note: Information on irrigation facilities and implements and machinery can be obtained from the Patwari and Village Development Officer (V.D.O) working in Gram Panchyat.

**VS-VI: Cropping pattern of village (use data for current/latest year):**

| S.No. | Crop                                      | Varieties grown | Area in hectares | Percentage to gross cropped area |
|-------|---|-----------------|------------------|----------------------------------|
| 1.    | Soybean<br>a) Yellow<br>b) Black          |                 |                  |                                  |
| 2.    | Jowar<br>a) HYV<br>b) Local               |                 |                  |                                  |
| 3.    | Maize<br>a) HYV<br>b) Local               |                 |                  |                                  |
| 4.    | Cotton<br>a) HYV<br>b) BT<br>c) Other     |                 |                  |                                  |
| 5.    | Paddy<br>a) HYV<br>b) Improve<br>c) Other |                 |                  |                                  |
| 6.    | Tur<br>a) HYV<br>b) Local                 |                 |                  |                                  |
| 7.    | Moong<br>a) HYV<br>b) Local               |                 |                  |                                  |
| 8.    | Urid<br>a) HYV<br>b) Local                |                 |                  |                                  |

|     |   |  |  |  |
|-----|---|--|--|--|
| 9.  | Wheat<br>a) HYV<br>b) Improve<br>c) Local                                     |  |  |  |
| 10. | Gram<br>a) HYV<br>b) Local  |  |  |  |
| 11. | Oilseeds (Safflower,<br>Groundnut, Sunflower,<br>Linseed, Seasmum, Nizer etc. |  |  |  |
| 12. | Other crops (Vegetables)  |  |  |  |
| 13. | Gross cropped area of village   |  |  |  |

Note: Data on Cropping Pattern of the village to be obtained from the village Patwari.

**VS-VII: Wages rates prevalent in the village:**

| S.No. | Period  | Wages Rate (Rs.) per day |       |              |             |
|-------|---|--------------------------|-------|--------------|-------------|
|       |   | Man                      | Women | Bullock pair | Tractor/hr. |
| 1.    | Khairf Season<br>a) Sowing time<br>b) Interculture<br>c) Harvesting<br>d) Threshing |                          |       |              |             |
| 2.    | Rabi Season<br>a) Sowing time<br>b) Interculture<br>c) Harvesting<br>d) Threshing   |                          |       |              |             |
| 3.    | Summer Season   |                          |       |              |             |

**Household Schedule (HS)**

Information of Selected Cultivators

a) Name of the Farmer .....

b) Caste : .....

c) Village: .....

Block \_\_\_\_\_ Tehsil..... District..... d)

**HS-I: Details about Family Members**

| S. No. | Name | Age (Yrs) | Education |   |   |   |   | Relation with head | Occupation |            |
|--------|------|-----------|-----------|---|---|---|---|--------------------|------------|------------|
|        |      |           | IL        | P | M | S | G |                    | Main       | Subsidiary |
| 1.     |      |           |           |   |   |   |   |                    |            |            |
| 2.     |      |           |           |   |   |   |   |                    |            |            |
| 3.     |      |           |           |   |   |   |   |                    |            |            |
| 4.     |      |           |           |   |   |   |   |                    |            |            |
| 5.     |      |           |           |   |   |   |   |                    |            |            |
| 6.     |      |           |           |   |   |   |   |                    |            |            |

IL - Illiterate, P - Primary Level, M - Middle Standard, S - Secondary Level, G- Graduate & above.

**HS-II: Details about land possessed by the cultivator**

| S.No. | Particulars                            | Area (hectare) |
|-------|--|----------------|
| 1.    | Total land area                        |                |
| 2.    | Permanent fallow                       |                |
| 3.    | Current fallow                         |                |
| 4.    | Net sown area                          |                |
| 5.    | Area under irrigation                  |                |
| 6.    | Area sown more than once               |                |
| 7.    | Gross cropped area (4+6)               |                |
| 8.    | Approximate value of land (Rs. /ha)    |                |
| 9.    | Total land revenue paid (Rs.) per year |                |
| 10.   | Other taxes                            |                |

**HS-III: Details of Livestock Position**

| S. No. | Particulars | Type of Animal |              |      | Others |
|--------|-------------|----------------|--------------|------|--------|
|        |             | Bullock Pairs  | Milch Animal |      |        |
|        |             |                | Buffaloes    | Cows |        |



|    |   |  |  |  |  |
|----|---|--|--|--|--|
| 1. | No. of animals                                  |  |  |  |  |
| 2. | Age of animals                                  |  |  |  |  |
| 3. | If purchased<br>Year of purchase<br>Price (Rs.) |  |  |  |  |
| 4. | If home bred<br>Present Value (Rs.)             |  |  |  |  |

#### HS-IV: Farm Machineries

| S.No. | Name of Machine | Machine's make | Year and Purchase/price | Present value (Rs.) |
|-------|-----------------|----------------|-------------------------|---------------------|
| 1.    |                 |                |                         |                     |
| 2.    |                 |                |                         |                     |
| 3.    |                 |                |                         |                     |
| 4.    |                 |                |                         |                     |
| 5.    |                 |                |                         |                     |
| 6.    |                 |                |                         |                     |
| 7.    |                 |                |                         |                     |
| 8.    |                 |                |                         |                     |
| 9.    |                 |                |                         |                     |
| 10.   |                 |                |                         |                     |

#### HS-V: Inventory of Residential and Farm Building

| S.No. | Type of building                   | Year of construction | Type of construction | Present value (Rs.) |
|-------|------------------------------------|----------------------|----------------------|---------------------|
| 1.    | Type of building                   |                      |                      |                     |
| 2.    | Residential                        |                      |                      |                     |
| 3.    | Cattle Shed                        |                      |                      |                     |
| 4.    | Other Shed Storage                 |                      |                      |                     |
| 5.    | Irrigation Structures (Pump house) |                      |                      |                     |
| 6.    | Tractor shed                       |                      |                      |                     |

|    |        |  |  |  |
|----|--------|--|--|--|
| 7. | Others |  |  |  |
|----|--------|--|--|--|

## HS-VI: Financial Position of Farmer

### (I) Dues payable (Liabilities)

| S.No. | Particulars                                   | Loan No. |    |     |    |
|-------|---|----------|----|-----|----|
|       |   | I        | II | III | IV |
| 1.    | Amount of loan                                |          |    |     |    |
| 2.    | Date of borrowing                             |          |    |     |    |
| 3.    | Source of loan                                |          |    |     |    |
| 4.    | Purpose of loan                               |          |    |     |    |
| 5.    | Amount of loan outstanding at the end of year |          |    |     |    |

### (II) Dues Receivable

| S.No. | Dues receivable from | Amount in Rs. |
|-------|----------------------|---------------|
| 1.    | Cultivator/Relatives |               |
| 2.    | Traders              |               |
| 3.    | Aarhata              |               |
| 4.    | Other                |               |

### (III) Net Worth = Total Assets - Total Liabilities

Assets – HS- III, + HS -IV, HS-V Liabilities- HS-VII+II

**HS-VII: Details of labour used for one important crop grown by the selected farmer:**

**I) Name of Crop..... II) Area (ha).....**

| S.No. | Name of Operation | Frequency of use | Human Labour |      |       |      | Bullock Labour |      |       |      | Machine Labour |      |       |      |
|-------|-------------------|------------------|--------------|------|-------|------|----------------|------|-------|------|----------------|------|-------|------|
|       |                   |                  | Family       |      | Hired |      | Owned          |      | Hired |      | Owned          |      | Hired |      |
|       |                   |                  | Hrs.         | Val. | Hrs.  | Val. | Hrs.           | Val. | Hrs.  | Val. | Hrs.           | Val. | Hrs.  | Val. |

|     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 1.  | Ploughing                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.  | Harrowing                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.  | Leveling                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4.  | Manuring                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5.  | Seed raising                               |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6.  | Sowing/<br>Transplanting                   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7.  | Fertilizer<br>application                  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8.  | Weeding                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9.  | Hoeing                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10. | Fertilizer<br>application<br>(Second dose) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11. | Plant<br>protection                        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12. | Irrigation                                 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13. | Harvesting                                 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14. | Threshing and<br>winnowing                 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15. | Transportation<br>of produce to<br>home    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16. | Other<br>operation                         |  |  |  |  |  |  |  |  |  |  |  |  |  |

**HS-VIII: Details of Material used and Estimation of the cost of cultivation of one important crop grown by the selected farmer:**

**I) Name of the Crop..... II) Area (ha).....**

| S.No | Particulars | Quantity<br>Used | Price per<br>unit | Total<br>cost | Per cent to<br>total cost |
|------|-------------|------------------|-------------------|---------------|---------------------------|
|------|-------------|------------------|-------------------|---------------|---------------------------|

|     |   |  |  |  |  |
|-----|---|--|--|--|--|
| 1.  | Family labour<br>a) Man (day)<br>b) Woman (day)   |  |  |  |  |
| 2.  | Hired Human labour owned/Hire<br>a) Male (day)<br>b) Woman (day)  |  |  |  |  |
| 3.  | Bullock labour Pair (day)<br>a) Owned<br>b) Hired   |  |  |  |  |
| 4.  | Machine Labour<br>a) Owned (Hrs.)<br>b) Hired (Hrs.)  |  |  |  |  |
| 5.  | Seed (Kg)   |  |  |  |  |
| 6.  | Manures (Q.)  |  |  |  |  |
| 7.  | Fertilizer<br>a) N<br>b) P<br>c) K  |  |  |  |  |
| 8.  | Insecticides  |  |  |  |  |
| 9.  | Irrigation charges (Rs.)  |  |  |  |  |
| 10. | Land Revenue  |  |  |  |  |
| 11. | Other taxes   |  |  |  |  |
| 12. | <b>Total S.No. 2 to 11</b>  |  |  |  |  |
| 13. | Interest on working capital on S.No.12 @10%   |  |  |  |  |
| 14. | Rent paid for leased in land  |  |  |  |  |
| 15. | Rental value of owned land prevailing rate in the village or 1/6th of the gross value of produce                            |  |  |  |  |
| 16. | Interest on fixed capital @ of 10% per annum (Excluding land)   |  |  |  |  |
|     | <b>Total Cost (S.No. 12 to 16)</b>  |  |  |  |  |
|     | <b>PRODUCTION</b><br>a) Main produce (Q.)<br>b) By produce (Q.)   |  |  |  |  |
|     | <b>Gross Income = (Value of M.P.+B.P.)</b>  |  |  |  |  |
|     | Net Income over   |  |  |  |  |
|     | Net income over<br>a) Cost A2 = GI-Cost A2<br>b) Cost B2 = GI-Cost B2<br>c) Cost C2 = GI-Cost C2<br>d) Cost C3 = GI-Cost C3 |  |  |  |  |

**Cost Concept:**

Cost A1 = S.No. 2 to 13 (Except S. No. 12)

Cost A2 – Cost A1 + Rent paid for leased in land if any

Cost B1= Cost A1+ Interest on fixed capital (Excluding land value)

Cost B2 = Cost B1 + Rental value of owned land + rent paid for leased in land

Cost C1 = Cost B1 = Imputed value of family labour i.e. S. No. 1

Cost C2 = Cost B2 + Imputed value of family labour (i.e. S. No. 1)

Cost C3 = Cost C2 + 10% of Cost C2 (Treated as managerial cost)

Cost of Production Rs. /q = (Total Cost – Value by Product) / (Yield/ha)

**HS-IX: Crop Production Record**

| S.No. | Name of the crop with variety | Area (ha) | Quantity produced |                | Productivity per hectare |
|-------|-------------------------------|-----------|-------------------|----------------|--------------------------|
|       |                               |           | Main product (Q)  | By product (Q) | Main product (Q)         |
| 1.    |                               |           |                   |                |                          |
| 2.    |                               |           |                   |                |                          |
| 3.    |                               |           |                   |                |                          |
| 4.    |                               |           |                   |                |                          |
| 5.    |                               |           |                   |                |                          |
| 6.    |                               |           |                   |                |                          |
| 7.    |                               |           |                   |                |                          |
| 8.    |                               |           |                   |                |                          |
| 9.    |                               |           |                   |                |                          |
| 10.   |                               |           |                   |                |                          |
| 11.   |                               |           |                   |                |                          |
| 12.   |                               |           |                   |                |                          |

**HS-X: Disposal of Farm Produce**

| S.No. | Name of the crop | Quantity Produced | Quantity Consumed | Quantity sold |         |       |
|-------|------------------|-------------------|-------------------|---------------|---------|-------|
|       |                  |                   |                   | Q             | Price/Q | Total |
| 1.    |                  |                   |                   |               |         |       |
| 2.    |                  |                   |                   |               |         |       |
| 3.    |                  |                   |                   |               |         |       |
| 4.    |                  |                   |                   |               |         |       |
| 5.    |                  |                   |                   |               |         |       |
| 6.    |                  |                   |                   |               |         |       |
| 7.    |                  |                   |                   |               |         |       |
| 8.    |                  |                   |                   |               |         |       |
| 9.    |                  |                   |                   |               |         |       |
| 10.   |                  |                   |                   |               |         |       |

|     |  |  |  |  |  |  |
|-----|--|--|--|--|--|--|
| 11. |  |  |  |  |  |  |
| 12. |  |  |  |  |  |  |

**HS-XI: Family Budget of the Farmer**

| S.No. | Item  | Consumed during the year |          | Total Value | % of total |
|-------|---|--------------------------|----------|-------------|------------|
|       |   | Home Produced            | Purchase |             |            |
| I.    | Cereals<br>Jowar<br>Wheat<br>Rice<br>Other                                      |                          |          |             |            |
| II.   | Pulses<br>Tue<br>Gram Mung<br>Urid<br>Other Pulses                              |                          |          |             |            |
| III.  | Edible Oil<br>Groundnut/Linseed/Til<br>/Safflower<br>Vegetable oil              |                          |          |             |            |
| IV.   | Non-Vegetarian<br>Mutton/Chicken<br>Eggs<br>Other                               |                          |          |             |            |
| V.    | Milk and Milk Products<br>Milk<br>Ghee/Butter                                   |                          |          |             |            |
| VI.   | Condiments and Spices<br>1. Condiments<br>2. Chilies<br>3. Turmeric<br>4. Other |                          |          |             |            |
| VII.  | Beverages<br>1. Tea<br>2. Coffee<br>3. Other                                    |                          |          |             |            |
| IX.   | Fuel and Light  |                          |          |             |            |
| X.    | Clothing and Footwear   |                          |          |             |            |
| XI.   | Education   |                          |          |             |            |

|       |                               |  |  |  |  |
|-------|-------------------------------|--|--|--|--|
| XII.  | Medicine and Medical Services |  |  |  |  |
| XIII. | Other                         |  |  |  |  |
|       | <b>TOTAL</b>                  |  |  |  |  |

### Other Information Related to Village / District

#### 1. Industry wise progress in Production and employment (Year .....)

| S.No. | Village industry                 | Production in Rs. | Employment in days |
|-------|----------------------------------|-------------------|--------------------|
| 1.    | Processing of cereals and pulses |                   |                    |
| 2.    | Ghani Oil                        |                   |                    |
| 3.    | Village leather                  |                   |                    |
| 4.    | Cottage Match                    |                   |                    |
| 5.    | Sugar Cane and Khandsari         |                   |                    |
| 6.    | Bee Keeping                      |                   |                    |
| 7.    | Village pottery                  |                   |                    |
| 8.    | Carpentry and block smithy       |                   |                    |
| 9.    | Lime manufacturing               |                   |                    |
| 10.   | Others                           |                   |                    |

#### 2. Employment potential in forestry (Year.....)

| S.No. | Head of Development    | Employment (Man hours) |
|-------|------------------------|------------------------|
| 1.    | Production forestry    |                        |
| 2.    | Regeneration operation |                        |
| 3.    | Road construction      |                        |
| 4.    | Social Forestry        |                        |
| 5.    | Minor Forest Product   |                        |

#### 3. Institutional Finance for Agricultural Development (Year.....)

##### (A)

| S.No. | Particular                      | Amount (Rs.) |
|-------|---------------------------------|--------------|
| 1.    | Primary agril. Credit societies |              |

|    |                                     |  |
|----|-------------------------------------|--|
| 2. | Govt. loans                         |  |
| 3. | Commercial bank loans               |  |
| 4. | RRB loans (Total Short-Term Credit) |  |

**(B)**

| S.No. | Particular                           | Amount (Rs.) |
|-------|--------------------------------------|--------------|
| 1.    | Primary land Development bank        |              |
| 2.    | Commercial bank loans                |              |
|       | Total Medium term & Long-term credit |              |
|       | Total Direct Credit (A+B)            |              |

**4. Prevailing Marketing Channel for cereals/pulses/oil seed/fruit and vegetable/ forests products**

| S. No. | Cereals | Pulses | Oil Seeds | Fruits | Vegetables | Forest Product |
|--------|---------|--------|-----------|--------|------------|----------------|
| 1.     |         |        |           |        |            |                |
| 2.     |         |        |           |        |            |                |
| 3.     |         |        |           |        |            |                |
| 4.     |         |        |           |        |            |                |
| 5.     |         |        |           |        |            |                |
| 6.     |         |        |           |        |            |                |
| 7.     |         |        |           |        |            |                |
| 8.     |         |        |           |        |            |                |

**5. Number of cold storages prevailing in the district**

| S.No. | Year of Establishment | Commodity Store | Capacity (In tons) | Charges/per months |
|-------|-----------------------|-----------------|--------------------|--------------------|
|       |                       |                 |                    |                    |
|       |                       |                 |                    |                    |
|       |                       |                 |                    |                    |
|       |                       |                 |                    |                    |
|       |                       |                 |                    |                    |

**6. Rural employment generation schemes and other schemes in operation including tribal schemes**



| S.No. | Name of Scheme | Beneficiaries (Nos.) |
|-------|----------------|----------------------|
|       |                |                      |
|       |                |                      |
|       |                |                      |
|       |                |                      |
|       |                |                      |

#### 7. Details of minor irrigation projects

| S.No. | Name | Numbers | Area covered (ha) |
|-------|------|---------|-------------------|
|       |      |         |                   |
|       |      |         |                   |
|       |      |         |                   |
|       |      |         |                   |
|       |      |         |                   |
|       |      |         |                   |

#### 8. Self Help Groups in the village/cluster

| S.No. | Name of SHG | Group of Person | Activity | Employment |
|-------|-------------|-----------------|----------|------------|
|       |             |                 |          |            |
|       |             |                 |          |            |
|       |             |                 |          |            |
|       |             |                 |          |            |
|       |             |                 |          |            |

#### Final Report on Socio-economic Study of Village/Farmer:

(This is to be based on the data collected by the student for the village and selected farmer. He should write at least one para on location, institutional facilities, population composition and cropping pattern of the village. Similar report for the selected farmer should also be prepared.)

#### Observations on Contact Farmers:

Students will record their observation on following aspects: - (Quantity, Nature, Use Pattern)

- a) Resource base of the farmer
- b) Technological Status of the farmer
- c) Family budget and investment pattern of farmer
- d) Marketing problems of the farmer
- e) Constraints in adoption on technology
- f) Farmers position against poverty line of Rs. 32,000/- per year per family.  
(Use separate sheet if space is insufficient)

**Signature of Student**

**Remarks of Examiner:**

**Signature of Examiner**  
**II: Agronomical Interventions**  
**Format - I**

**Signature of Officer In-charge**  
**Credits: 3 (0+3)**

**Details of the Agricultural Operation Performed by the Host Farmers (Some good photographs of important features can be attached)**

**Name of the host farmers** .....  
**Village**..... **Block** .....  
**District** ..... **Cropping Season(s)** .....  
**Year** .....

| Field No. | Field area (ha) | Crop(s) Variety(s) grown |  | Agronomic operation done by the farmer during crop production |
|-----------|-----------------|--------------------------|--|---|
|-----------|-----------------|--------------------------|--|---|

|   |   |   | Tillage | Seed rate,<br>Sowing date seed<br>treatment, sowing<br>method etc. | Manuring<br>and<br>Fertilizer<br>application | Weed<br>control and<br>inter culture<br>operations | Irrigation<br>and<br>drainage |
|---|---|---|---------|--|--|--|-------------------------------|
| 1 | 2 | 3 | 4       | 5  | 6  | 7  | 8                             |
|   |   |   |         |  |  |  |                               |
|   |   |   |         |  |  |  |                               |
|   |   |   |         |  |  |  |                               |

| Agronomic operations done during crop |            |   |                               | Actual Yield per ha   |  |
|---------------------------------------|------------|---|-------------------------------|---|--|
| After care<br>/ Plant<br>protection   | Harvesting | Transportation<br>to threshing<br>floor | Threshing<br>and<br>winnowing | Main<br>production<br>(Grain/Tubers/<br>Green<br>vegetable) | By-product<br>(Straw/Stover/<br>Haulm) |
| 9                                     | 10         | 11                                      | 12                            | 13  | 14                                     |
|                                       |            |   |                               |   |  |

**Estimated value of the produce (Rs. /ha)**

| Main produce | Main produce | Main produce | Estimated<br>expenditure<br>(Rs. /ha) | Profit or loss (Rs.<br>/ha) |
|--------------|--------------|--------------|---------------------------------------|-----------------------------|
| 15           | 16           | 17           | 18                                    | 19                          |
|              |              |              |                                       |                             |

Remarks and Signature of the Teacher      Signature of Student      Signature of Farmer      of

**Format - II**

**Details of the cropping programme proposed by the student to the Host Farmer  
(To be filled by the students as suggestions to the farmers)**

| Field No. | Field area (ha) | Crop(s) Variety(s) grown |         | Agronomical operation done by the farmer during crop production |                                     |   |                         |
|-----------|-----------------|--------------------------|---------|---|-------------------------------------|---|-------------------------|
|           |                 |                          | Tillage | Seed rate, Date of Sowing, Seed treatment, Depth of sowing etc. | Manuring and Fertilizer application | Weed control and inter culture operations | Irrigation and drainage |
| 1         | 2               | 3                        | 4       | 5   | 6                                   | 7   | 8                       |
|           |                 |                          |         |   |                                     |   |                         |
|           |                 |                          |         |   |                                     |   |                         |
|           |                 |                          |         |   |                                     |   |                         |

| Agronomic operations done during crop production |            |                                   |                         | Actual Yield per ha                             |                                  |
|--|------------|-----------------------------------|-------------------------|---|----------------------------------|
| After care / Plant protection                    | Harvesting | Transportation to threshing floor | Threshing and winnowing | Main production (Grain/Tubers/ Green vegetable) | By-product (Straw/Stover/ Haulm) |
| 9  | 10         | 11                                | 12                      | 13  | 1                                |
|  |            |                                   |                         |   |                                  |

#### Estimated value of the produce (Rs. /ha)

| Main Produce | Main Produce | Main Produce | Estimated expenditure (Rs. /ha) | Profit or loss (Rs. /Ha.) |
|--------------|--------------|--------------|---------------------------------|---------------------------|
| 15           | 16           | 17           | 18                              | 19                        |
|              |              |              |                                 |                           |
|              |              |              |                                 |                           |

Remarks and Signature      Signature of Student      Signature of Farmer      of the Teacher

#### Background Information of the Host Farmer

- 1. Name of the farmer** :
- (a) Total land owned by the farmer (ha) :
- (b) Land suitable for cultivation (ha) :
- (c) Land not suitable for cultivation :
- (i) Farm Stead (ha) :
- (ii) Waste land (ha) :
- 2. Soil Conditions** :
- (i) Topography :
- (ii) Colour :
- (iii) Texture :
- (iv) Depth :
- (v) Fertility Status :
- 4. Rainfall of the district (Weekly):**
- 5. Irrigation facilities available on the field** :
- (i) Irrigation source :
- (ii) Water availability period :
- (iii) Approximate irrigated area (ha) :
- 6. Drainage requirement** :
- 7. Crop(s) / Variety (s) i.e. grown by the farmers**
- (i) During kharif :
- (ii) During rabi :
- (iii) During summer :
- 8. Existing cropping systems practiced by the farmer**
- (i) Cropped area during kharif :
- (ii) Cropped area during rabi :
- (iii) Cropped area during summer: **9. Use of seeds**
- (i) Own seeds :
- (ii) Seeds if purchased / Procured (Source/Agency):
- (iii) Category of seed used, if purchased :
- 10. Use of agro-inputs**

(Fertilizers/Manures/Herbicides/Insecticides/Fungicides/Others) etc. (quantity) 11.

**Adoption of cultivation practice by the farmer with reasoning**

- (i) Traditional practice :
- (ii) Recommended practice :

**12. Livestock / position in numbers :**

- (i) Bullock :
- (ii) Cows :
- (iii) He buffaloes :
- (iv) She buffalo :
- (v) Goats :
- (iv) Others :

**13. Farm machinery and power**

- (i) Availability of electricity :
- (ii) Tractor :
- (iii) Trolley / bullock cart :
- (iv) Plough :
- (v) Harrow :
- (vi) Leveler :
- (vii) Seed drill :
- (viii) Weeders :
- (ix) Threshers / Winnowers :
- (x) Chaff cutters :

**14. Market facilities (Regulated/unregulated): (Mandi, Cold storage if any)**

**15. Transport facilities (Road, Railways):**

**16. Loan facilities**

- (Cooperative or commercial or private :)
- Banks, Government Agencies, Other sources)

**17. Technological facilities**

- (i) Training Centres / Charcha Mandal :
- (ii) Television / Radio : (iii) Public Library
- : (iv) Krishi Vigyan Kendra : (v)
- Research Centre : (vi) NGO's
- :

**18. Calendar of the farm operation during the crop season / year. Calendar of agricultural operations done by the farmer\***

| S.No. | Day and Date | Name of the operation performed by the<br>(Attach a separate sheet, if necessary) |
|-------|--------------|---|
| 1.    | 2            | 3   |
| 2.    |              |   |
| 3.    |              |   |

\* Calendar should be maintained for the following:

**(a) Land preparation**

- (i) Number of ploughing / harrowing :
- (ii) Leveling :
- (iii) Soil and water conservation practices :  
Practices / soil amendments
- (iv) Any practice to facilitate :  
(irrigation/drainage)

**(b) Seed and sowing**

- (i) Seed treatment / seed inoculation :
- (ii) Raising of nursery, if needed :
- (iii) Seed rate :
- (iv) Method of nursery raising :  
(Sowing, Fertilizer Application :  
Irrigation, after care), if needed
- (v) Date of sowing / transplanting :
- (vi) Method of sowing of Transplanting :  
(if applicable)
- (vii) Date of sowing / transplanting :  
Plant population etc.
- (viii) Thinning / gap filling :
- (ix) Bird watching / aftercare after seeding :

**(c) Fertilizer application**

- (i) Application of organic manures :
- (ii) Application of fertilizers :
- (iii) Method and time of manure and fertilizer application :
- (iv) Any other information pertaining to nutrient management:

**(d) After care**

- (i) Weed control :
- (ii) Intercultural

- (iii) Manual / cultural :
- (iv) Mechanical / Chemical weed control measures, if any:
- (v) Special cultural operations, if any: (vi) Any other information like earthing: stacking, wrapping, nipping etc. **(e)**

**Irrigation**

- (i) Time of irrigation (s) : (ii)
- Drainage, if done :

**(f) Plant protection**

- (i) Time and stage of the occurrence: of the pests / diseases
- (ii) Severity of the pest / diseases:
- (iii) Extent of damage caused :

**(g) Control measures adopted for the control of insects' pest / diseases**

- (i) Type of sprayer / no..... used by farmers:
- (ii) Insecticides pesticides used, dose and frequency of application :
- (iii) Any other information like bird watching etc.: **(h) Harvesting,**

**threshing and processing**

- (i) Date of harvesting and duration :
- (ii) Transportation to threshing floor :
- (iii) Threshing (manual / animal / machinery):
- (iv) Winnowing (method, time) :
- (v) Storage, processing, marketing facilities:
- (vi) Any other work :

**Summary of the work by the student done on the farmer's field :**  
**(Attach separate sheet of paper, if necessary)**

**Suggestions to farmers for future work**  
**(Attach separate sheet)**

**Signature of Student**

**Signature of Officer In-charge**



Remarks and Signature of Examiner

### III. Plant Protection Interventions

Credits: 2 (0+2)

#### (A). Entomology

Identification of Important Insect pests of at least two major crops cultivated in village.

1. Name of Crop

2. Name of insects identified in the field

| S.No. | Common Name | Local Name | Scientific Name | Systematic position |
|-------|-------------|------------|-----------------|---------------------|
| 1.    |             |            |                 |                     |
| 2.    |             |            |                 |                     |
| 3.    |             |            |                 |                     |
| 4.    |             |            |                 |                     |
| 5.    |             |            |                 |                     |

#### 1. Principle symptoms of pest damage

| S.No. | Early growth stage | Vegetative stage | Flowering / podding / earhead | Grain etc. |
|-------|--------------------|------------------|-------------------------------|------------|
| 1.    |                    |                  |                               |            |
| 2.    |                    |                  |                               |            |
| 3.    |                    |                  |                               |            |
| 4.    |                    |                  |                               |            |
| 5.    |                    |                  |                               |            |

#### 2. Intensity of pest attack and degree of infestation (Pest wise)

|     |  |
|-----|--|
| Nil |  |
| Low |  |

|          |  |
|----------|--|
| Medium   |  |
| High     |  |
| Epidemic |  |

**3. Collection of major insect-pests and predatory insects in the field**

| S.No. | Name of Insects | Stages |        |      |       |       |
|-------|-----------------|--------|--------|------|-------|-------|
|       |                 | Egg    | Larval | Pupa | Nymph | Adult |
| 1.    |                 |        |        |      |       |       |
| 2.    |                 |        |        |      |       |       |
| 3.    |                 |        |        |      |       |       |

**4. Methods of Control adopted: (2 major crops) (Crop wise at different times)**

| S.No. | Name of Insects | Non chemical methods | Cultural methods | Mechanical/ physical methods |
|-------|-----------------|----------------------|------------------|------------------------------|
| 1.    |                 |                      |                  |                              |
| 2.    |                 |                      |                  |                              |
| 3.    |                 |                      |                  |                              |

**5. Chemical Control:**

| Pest attack | Farmers Practices    |       |                           |                | Recommended practices |       |                          |                |
|-------------|----------------------|-------|---------------------------|----------------|-----------------------|-------|--------------------------|----------------|
|             | Name of Insecticides | Doses | Type of sprayers / Duster | Stages of crop | Name of Insecticides  | Doses | Type of sprayer / Duster | Stages of crop |
|             |                      |       |                           |                |                       |       |                          |                |

- (i) Commonly available insecticides in the village / local market:
- (ii) Precautions observed while using insecticides:
- (iii) Methods of preparation of insecticidal solution:
- (iv) Method of calibration of machines (sprayer / duster):

**6. Rodent management in field as well as in House / Storage (As per recommended practice)**

| Farmers Practices |                |            |      |         | Recommended Practices |                |            |      |         |
|-------------------|----------------|------------|------|---------|-----------------------|----------------|------------|------|---------|
| Strategies        |                | Field      |      | Storage | Strategies            |                | Field      |      | Storage |
| Tapping           | Poison Baiting | Crop stage | Dose | Dose    | Tapping               | Poison Baiting | Crop stage | Dose | Dose    |

|  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|

**7. Suggestion for proper storage of food grains.**

| S.No. | Name of Food Grain  | Moisture content | Fungicide / Fumigant Treatment | Dose |
|-------|---------------------|------------------|--------------------------------|------|
| 1.    | For Human           |                  |                                |      |
| 2.    | For storage purpose |                  |                                |      |

**8. Documentation of indigenous technology knowledge (ITK) of pest management practices in the village along with photographs.**

**Signature of Student**

**Signature of Officer In-charge**

**B. Plant Pathology**

The following assignments have to be completed by Group (Batch) / Individual students during their stay in adopted Villages under RA WE programme.

**I. Herbarium Collection**

Each student has to submit at least 15 plant disease species specimens properly pressed / dried and labeled in file cover by giving following information.

- |                                |                            |
|--------------------------------|----------------------------|
| 1. Name of crop / variety      | 2. Name of Disease         |
| 3. Name of the casual organism | 4. Locality / place / Name |
| 5. Date of collection          | 6. Collected by            |

**II. Demonstration of disease management technology**

To be done by each batch of students in 0.5 (Half) acre area:

- A. Seed treatment in 1. Gram, 2. Wheat, 3. Potato, 4. Seasonal vegetable (any two)

**1. Gram:**

- (a) Bio agent (*Trichoderma*) @ 5g/kg seed
- (b) Thiram + Carbendazim (2:1) 3 g/kg seed
- (c) Control without treatment

**2. Wheat:**

- (a) Carboxin @ 2.5 g/kg seed
- (b) Control without any treatment

**3. Potato:**

- (a) 0.5% (5g/liter) Mancozeb solution for 30 minutes
- (b) Control without any treatment

B. Demonstration on foliar spray of fungicides: supported by Field photograph in paddy/soybean/potato/pea/chilies/mustard/lentil/tomato etc. Optional (any two).

For Powdery mildew - Sulphur (35 EC) @3g/liter water.

For Leaf spots / Blights (early / late) Mancozeb @3g/liter water.

For Downy mildew / white rust: Copper Oxychloride (Fytolan or Blue Copper) @3g/L water.

**4. Soybean:**

Thiram +Carbendazim (2:1) 3g/kg seed for seed & seedling diseases

For YMV prone areas: Thiamethoxam 3g/kg seed

**Foliar diseases: Control Spray** of carbendazim 1 g/L after 30 and 45 days after sowing.

**5. Paddy:**

**Seed treatment:**

|                       |                       |
|-----------------------|-----------------------|
| Carbendazim 1 g +     | Seed treatment        |
| Streptocycline 0.25 g | or                    |
| Per kg/L              | Seedling drip (30 ml) |

Before transplanting Blast:

Carbendazim 1-1.5 g/L water (with sticker or soap) Bacterial

**blight:**

Spray Streptocycline (Pausamycine, Agrimycine 100 etc.)

2.5-3.0 g/10 L of water with sticker

(Repeat in case cloudy/raining after 7 days)

**Smut/bunt:** Propiconazole 1 ml/litre spray during flowering stage.

**III. Training cum Demonstration of low-cost simple oyster mushroom production technology:** To be done by each batch (Date wise record of data/photos)

Specially - Farmer women/Rural Youth

Trainings to: unemployed youth/farmers and rural/tribal people on mushroom production, its nutritional and medicinal value and post-harvest technology in order to generate an alternative source of employment and sustainable income.

#### IV. Survey of Plant Disease:

Each student has to submit duly filled proforma (as per manual/booklet) of least five commonly occurring diseases from 4-5 location/field i.e. 20 - 25 proforma. For example: brown spot/blast of paddy, yellow mosaic, blights of soybean, loose smut of wheat, wilt/root rot/collar rot of gram, powdery mildew of pea - cucurbits and disease of other crops/vegetables.

Each student will prepare a "Practical Record" giving details of above work duly verified by Station I/c Course teacher and submit the same at the Semester end.

Signature of Student

Signature of Officer In-charge

#### IV. Soil Improvement Interventions (Soil Sampling and Testing) Credits: 2 (0+2)

Students have to test soil samples in respective Krishi Vigyan Kendra, for which the information should be collected according to the given format:

##### Information Sheet for Soil Testing

1. Full address of Farmer :
2. Sample number :
3. Number of soil samples : 4. Date of soil sampling :
5. Field name (Khasara number etc.) : 6.
- Whether the field is irrigated or not :
7. Source of irrigation :
8. Nature of field i.e. sloppy, depression, stony etc.:
9. Crop rotation :
10. Name of crops to be sown :
11. Amount and nature of fertilizer applied to the previous crop:
12. Visual nutrient deficiency, if any : 13. Water infiltration rate : 14.
- Water logging problem, if any :
15. Any other :

Signature

##### Preparation of Soil Health Card

### Detail Information of Farmer

- Name: • Address: • Village: •  
Tehsil: • District:
- Aadhar Number :  
• Mobile Number  
:

### Details of Soil Sample

- Soil Sample Number : •  
Date of Soil Collection :
- Khasra Number :
- GPS: ○ Longitude  
:  
○ Latitude :
- Irrigated Soil/Rainfed Soil :

### Result of Soil Testing

| S.No. | Parameter            | Value | Analysis | Remarks |
|-------|----------------------|-------|----------|---------|
| 1.    | pH                   |       |          |         |
| 2.    | EC                   |       |          |         |
| 3.    | Organic Carbon       |       |          |         |
| 4.    | Available Nitrogen   |       |          |         |
| 5.    | Available Phosphorus |       |          |         |
| 6.    | Available Potassium  |       |          |         |
| 7.    | Available Sulphur    |       |          |         |
| 8.    | Available Zinc       |       |          |         |
| 9.    | Available Boron      |       |          |         |
| 10.   | Available Iron       |       |          |         |

|     |                     |  |  |  |
|-----|---------------------|--|--|--|
| 11. | Available Manganese |  |  |  |
| 12. | Available Copper    |  |  |  |

| Recommendations for application of Micro nutrients |                |  |
|--|----------------|--|
| S.No.  | Parameter      | Recommendations for soil application   |
| 1.   | Sulphur (S)    | Gypsum (18%)                           |
| 2.   | Zinc (Zn)      | Zink Sulphate (21%): <b>25 Kg. /ha</b> |
| 3.   | Boron (B)      | Borex (10%)                            |
| 4.   | Iron (Fe)      | Ferrous Sulphate (19%)                 |
| 5.   | Manganese (Mn) | Maganesium Sulphate (30.5%)            |
| 6.   | Copper (Cu)    | Copper Sulphate (24%)                  |
| General Recommendations                            |                |  |
| 1.   | Organic Manure | <b>5 tonnes/ ha</b>                    |
| 2.   | Bio-fertilizer |  |
| 3.   | Gypsum         |  |

### Integrated Nutrient Management for Major Crops

| S. No. | Crop  | Nutrients (N: P2O5:K2O)<br>kg/ha | Fertilizers (kg/ha) |     |     |     |
|--------|-------|----------------------------------|---------------------|-----|-----|-----|
|        |       |                                  | Urea                | SSP | MoP | DAP |
| 1.     | Rice  | 120:60:40                        | 261                 | 375 | 67  | 0   |
|        |       |                                  | 210                 | 0   | 67  | 130 |
| 2.     | Maize | 180:60:40                        | 391                 | 375 | 67  | 0   |
|        |       |                                  | 340                 | 0   | 67  | 130 |

|     |              |           |     |     |     |     |
|-----|--------------|-----------|-----|-----|-----|-----|
| 3   | Soybean      | 20:80:20  | 43  | 500 | 33  | 0   |
|     |              |           | 0   | 0   | 33  | 174 |
| 4.  | Wheat        | 120:60:40 | 217 | 375 | 67  | 0   |
|     |              |           | 210 | 0   | 67  | 130 |
| 5.  | Chickpea     | 20:50:20  | 43  | 313 | 33  | 0   |
|     |              |           | 0   | 0   | 33  | 109 |
| 6.  | Sugarcane    | 300:80:60 | 652 | 500 | 100 | 0   |
|     |              |           | 584 | 0   | 100 | 174 |
| 7.  | Mustard      | 80:40:20  | 174 | 250 | 33  | 0   |
|     |              |           | 140 | 0   | 33  | 87  |
| 8.  | Pigeonpea    | 30:60:40  | 65  | 375 | 67  | 0   |
|     |              |           | 14  | 0   | 67  | 130 |
| 9.  | Jawar        | 80:40:40  | 174 | 250 | 67  | 0   |
|     |              |           | 140 | 0   | 67  | 87  |
| 10. | Hybrid Bajra | 120:60:50 | 261 | 375 | 83  | 0   |
|     |              |           | 210 | 0   | 83  | 130 |

- Application of FYM @ 5 t/ha reduces the requirement of Urea, SSP and MoP by 54, 63 and 42 kg/ha, respectively from given doses of fertilizers for different crops.
- Seed treatment by crop specific Rhizobium in legumes and Azotobactor/ Azospirillum in non-legume crops @ 5.0 g/kg seed and PSB @ 3.0 kg/ha as soil application for all crops is recommended.
- In case Zinc deficiency, application of Zinc Sulphate @ 25 kg/ha on alternate year is advised.
- In case of sulphur deficiency, application of S @ 40 kg/ha per year or continuous application of SSP instead of DAP is advised.

**Objective and advantage of soil testing:**



**Objectives:**

- 1.
- 2.
- 3.
- 4.
- 5.

**Advantages:**

- 1.
- 2.
- 3.
- 4.
- 5.

**Importance of Micronutrients in Crop Production**

| S.No. | Name of micro nutrient | Importance |
|-------|------------------------|------------|
| 1.    | Zinc                   |            |
| 2.    | Copper                 |            |
| 3.    | Iron                   |            |
| 4.    | Manganese              |            |
| 5.    | Boron                  |            |
| 6.    | Chlorine               |            |
| 7.    | Molybdenum             |            |

**Reclamation of soil salinity, alkalinity and acidity**

1. Soil salinity.....
2. Soil alkalinity.....
3. Soil acidity.....

**Natural resource management (NRM) (a) Role of Bio fertilizer in improving soil health**

- 1.
- 2.
- 3.

4.

**(b) Role of Vermi compost in improving soil health**

1.

2.

3.

4.

**(c) Role of Green manure in improving soil health**

1.

2.

3.

4.

**(d) Soil degradation, improvement of soil health for sustainable agriculture**

**Reasons:**

1.

2.

3.

4.

**Improvement:**

1.

2.

3.

4.

**(e) Role of Quality control in fertilizer**

1.

2.

3.

4.

**(f) Water management for soil improvement**

1.

2.

3.

4.

**(g) Role of Crop rotation in soil improvement**

1.

2.

3.

4.

Signature of Student

Signature of Farmer

Signature of Officer In-charge

**V. Fruit and Vegetable Production Interventions**

**Credits: 3 (0+3)**

**A. FRUIT PRODUCTION**

Details of existing fruit trees:

(Period of the Scheme.....)

1. Name of Village/Block/District

2. Name of the Farmer

3. Plot No. Crop & Crop Variety Area (ha)/No. of trees

i.

ii. iii. iv. v. **Crop-wise details shall be given under following heads**

4. Manures/Fertilizers applied Time Quantity  
Fruit crops / intercrop

5. Inter-crop taken (name of the crop season) Crop Plant population m<sup>2</sup>  
Area

6. Actual yield obtained

i) Fruit Crop Area Quality Amount (Rate/kg) ii) Inter Crop

7. Yield per ha/per tree 8. Cultivation Problems

9. Income in Rs.

Fruit Crops

Inter Crops

10. Net Expenditure Rs. per ha per tree
11. Mode of transport and sale of the produce
12. Status of production technology
13. Suggestions if any
14. Total area cultivated
15. Irrigated area
16. Area in fallow
17. Area under fruit/horticultural crop
18. Net profit per ha per tree

Signature of Farmer

Signature of Student

**PLOT HISTORY**  
(Two important Fruit Crops)

1. Name of Student:
2. Name of Research Station/KVK to which attached:
3. Name of farmer:
4. Topography:
5. Soil type & drainage:
6. Irrigation source and irrigated area:  
Well, /Canal/River/Nala/Rainfed potential available  
(Hours per day & area covered)
7. Trees planted with area and number:
8. Quality of planting material, method of planting:
9. Present survival of trees with age & condition of plants:
10. Remarks (Inter crops grown in the plot in the past):
11. Per cent of total area under horticultural crops:
- 12.

| Area | Crop | Variety | Number of trees |
|------|------|---------|-----------------|
| PI   |      |         |                 |
| PII  |      |         |                 |

Problems faced and techniques adopted to overcome.

Signature of Inspecting Officer

Signature of Student

### CALENDAR OF OPERATIONS

Name of Crop and No. of trees ..... Period of Report .....

| S.No. | Date | Operation done & trees covered |          | Details of plant material used |
|-------|------|--------------------------------|----------|--------------------------------|
|       |      | Plot –I                        | Plot –II |                                |
| 1.    |      |                                |          |                                |
| 2.    |      |                                |          |                                |
| 3.    |      |                                |          |                                |
| 4.    |      |                                |          |                                |
| 5.    |      |                                |          |                                |

**Operational Labour Cost (Rs).....**  
(only two plots)

| S.No. | Particulars                 | Owned@ | Hired @ | Bullock Pair @ | Tractor machinery |
|-------|-----------------------------|--------|---------|----------------|-------------------|
| 1.    | Ploughing / harrowing       |        |         |                |                   |
| 2.    | Digging, filling & planting |        |         |                |                   |
| 3.    | Manuring /Fertilizers       |        |         |                |                   |
| 4.    | Weeding                     |        |         |                |                   |
| 5.    | Irrigation                  |        |         |                |                   |
| 6.    | Trining & Pruning           |        |         |                |                   |
| 7.    | Spraying/Dusting            |        |         |                |                   |
| 8.    | Harvesting/grading/ packing |        |         |                |                   |
| 9.    | Watching                    |        |         |                |                   |
| 10.   | Transport to market         |        |         |                |                   |

**Total Cost on Labour (Rs.) .....**

### Material Cost

| S.No. | Particulars   | Number |        | Value (Rs.) |        | Remarks |
|-------|---|--------|--------|-------------|--------|---------|
|       |   | Plot-1 | Plot-2 | Plot-1      | Plot-2 |         |
| 1.    | Plant Material a)<br>Seedling<br>b) Layers / Grafts |        |        |             |        |         |
| 2.    | Manures/Fertilizers                                 |        |        |             |        |         |
| 3.    | Irrigation  |        |        |             |        |         |
| 4.    | Hormone & Plant<br>protection Chemicals             |        |        |             |        |         |
| 5.    | Staking cost  |        |        |             |        |         |
| 6.    | Packaging Material                                  |        |        |             |        |         |
| 7.    | Cultivation problem/ other<br>problems identified   |        |        |             |        |         |

**Total cost of material (Rs.): .....**

### COST OF FARM PRODUCE (YEAR WISE)

1. Name of Crop, Number & Age of Trees
2. Crop Variety
3. Date of flowering & harvest
4. Production (kg) and income  
Per tree  
Rs. Per ha  
Rs.
5. Price of Produce Rs.  
Demonstration by student on:

- (a) Propagational studies
- (b) Special Horticultural Practices
- (c) Special problem & demonstration of solution (Training, Prunning, Bahar treatment, Manuring etc.)

Plantation of fruit trees-Demonstration & Plantation of at least 5 fruit trees

Grading and Packing

Storage – Zero Energy Chamber

Note: Detailed note on above shall be written.

**Signature of Student**

## **B. VEGETABLE PRODUCTION**

**Cropping Scheme for Vegetables** (period of reports)

| 1. | Plot No. | Crop variety    | Area (ha) |
|----|----------|-----------------|-----------|
|    | i.       | Brinjal         |           |
|    | i.       | Potato / Tomato |           |
|    | iii.     | Onion/Garlic    |           |

|  |     |                              |  |
|--|-----|------------------------------|--|
|  | iv. | Cabbage /Cauliflower         |  |
|  | v.  | Chillies/Coriander/Fenugreek |  |
|  | vi. | Other                        |  |

**2. Nutrient Application:**

|                    | Time | Quality | Rate | Value |
|--------------------|------|---------|------|-------|
| Manure applied     |      |         |      |       |
| Fertilizer applied |      |         |      |       |
| Green manure used  |      |         |      |       |

**3. Intercrop taken:** Crop Area

Kharif -  
 Rabi -  
 Summer -  
 -

**4. Actual yield obtained:** Quantity (No./Q) Rate Rs. Value Rs.

Main vegetable  
 Inter crops

**5. Yield per ha (Quintal /No.)**

Main crops  
 Inter crops

**6. Estimated cost:** Main crop:

**7. Gross Income in Rs. (value)** Inter crop:

**8. Net Income Rs. (value)** per plot per ha

**9. Cost/ Benefit ratio** per plot per ha

**PLOT HISTORY** (two important crops)

Field –I

Field –II



1. Name of Student :
2. Name of institute to which attached:
3. Name of farmer : 4. Topography :
5. Soil type with drainage :
6. Well, /Canal/River/Water: irrigation: with potential available  
(hours/day & area covered) 7. Crops  
grown in last year :
- Plot No., Survey No. and area in ha:
8. Crops now grown with Plot No. :  
Survey No. and area (ha) planted  
or proposed
9. Remarks :

**Signature of Inspection Officer In-charge**

**Signature of Student**

### **Calendar of Operations**

**Period of report** .....

Name of crop and area (ha) :.....

| S. No. | Date | Operation done and area covered |            | Details of labour /bullock, tractor & material used |
|--------|------|---------------------------------|------------|---|
|        |      | Field - I                       | Field - II |   |
|        |      |                                 |            |   |

**Operational cost (Labour wages) one crop only**

| S.No | Particular                                 | Owned<br>M/F/B.P./<br>1 2 3 | Hired<br>M/F/B.P./<br>1 2 3 | Hired Rate<br>M/F/B.P./<br>1 2 3 | Machinery<br>Hours | Tractor<br>Rate |
|------|--|-----------------------------|-----------------------------|----------------------------------|--------------------|-----------------|
| 1.   | Ploughing                                  |                             |                             |                                  |                    |                 |
| 2.   | Harrowing                                  |                             |                             |                                  |                    |                 |
| 3.   | Bed Preparation                            |                             |                             |                                  |                    |                 |
| 4.   | Manuring                                   |                             |                             |                                  |                    |                 |
| 5.   | Sowing/Planting                            |                             |                             |                                  |                    |                 |
| 6.   | Fertilizers                                |                             |                             |                                  |                    |                 |
| 7.   | Irrigation                                 |                             |                             |                                  |                    |                 |
| 8.   | Weeding<br>Earthing<br>Training<br>Staking |                             |                             |                                  |                    |                 |
| 9.   | Spraying Dusting                           |                             |                             |                                  |                    |                 |
| 10.  | Harvesting<br>Grading<br>Packing           |                             |                             |                                  |                    |                 |
| 11.  | Watching                                   |                             |                             |                                  |                    |                 |
| 12.  | Transport to market                        |                             |                             |                                  |                    |                 |

M - Male, F - Female, B.P. - Bullock Power

**Total Income**

**Net Profit**

**Signature of Student**      **Signature of Farmer**      **Signature of Officer In-charge**  
 Farm production cost (year .....to.....) (at least one crop)

Name of Crops

Variety

Date of Flowering

Date of Harvest

Production (Quintal)

Rate (Rs.)

Value of Produce (Rs.)

Material Cost (Area)

| S.No. | Particulars   | Quantity |         | Value  |         | Remarks |
|-------|---|----------|---------|--------|---------|---------|
|       |   | Crop-I   | Crop II | Crop-I | Crop II |         |
| 1.    | Seed/Seedling Plant   |          |         |        |         |         |
| 2.    | F.Y.M./ Oil cake / Fertilizer<br>a)<br>b)<br>c)                                       |          |         |        |         |         |
| 3.    | Total No. Irrigation Season<br>Irrigation Charges                                     |          |         |        |         |         |
| 4.    | Hormonal spray and plant<br>protection charges  |          |         |        |         |         |
|       | Cost of chemical  |          |         |        |         |         |
| 5.    | Stake cost  |          |         |        |         |         |
| 6.    | Packaging/Charge (Boxes or<br>tokni) for hybrid tomato only<br>Total cost of material |          |         |        |         |         |

Remarks by student on:

Vegetable Nursery raising (Crop .....)

Site selection & Nursery bed preparation

Nursery area required for one hectare

Seed rate required for different Vegetable crops

Seed and soil treatment

Type of Nursery bed raised/flat/sunken bed

After care

Economics of Nursery raising for one hectare

Quantity & quality of certified /TL seed saved by the farmer from the previous crops  
(Seed Production Technology)

### **Special Horticultural Practices to boost vegetable production**

Hot water treatment of Cole crop seed for control of Black rot (Bacterial) disease.

Potato tuber seed treatment.

Use of herbicides in weed control in vegetables.

Special method of raising cucurbits seedling & for early planting in springsummers season.

Staking for hybrid tomato.

Use of plant growth regulators MH, Ethereal for increasing fruit set, in cucurbits.

Identification of production problems of major commercialized vegetables.

Control of major insect, pests and diseases.

Economics of vegetable production.

Layout of kitchen garden to get vegetable throughout the year.

Crops for kitchen garden with suitable rotation.

**Signature of Student**

Submission of brief write up by student on work done including special practices for boost up vegetable production.

**Signature of Student**

Remarks by Evaluator

Signature of Examiner

Signature of Officer In-charge

**VI. Food Processing and Storage Interventions****Credit: 1 (0+1)**

Students shall involve themselves to study and collect the information i.e. methods of food processing and preservation, Importance of processing of fruits and vegetables, spices, condiments and flowers, Packaging of horticultural commodities, Common methods of storage, Post harvest management and equipment for spices and flowers, Quality control in Fruit and vegetable processing industry, Storage structure and methods of grain storage, Traditional and modern storage structures, Indigenous Technological Knowledge used for food storage.

**Food processing methods that are used by farmer to preserve foods:**

| S.No. | Method                     | Material used<br>(Cereals/Pulses/Vegetable/Fruits) |
|-------|----------------------------|--|
| 1.    | Refrigeration and freezing |  |
| 2.    | Canning                    |  |
| 3.    | Irradiation                |  |
| 4.    | Dehydration                |  |
| 5.    | Freeze-drying              |  |
| 6.    | Pickling                   |  |
| 7.    | Pasteurizing               |  |
| 8.    | Fermentation               |  |

Procedures for fruit and vegetable preservation

| Procedures    | Practical applications (Fruits/Vegetables etc.) |
|---------------|---|
| Fresh storage |   |
| Cold storage  |   |

|                         |  |
|-------------------------|--|
| Freezing                |  |
| Drying/dehydration      |  |
| Concentration           |  |
| Chemical preservation   |  |
| Preservation with sugar |  |
| Pasteurization          |  |
| Sterilization           |  |

### Packaging material Used for horticultural crops:

Students have to collect the information regarding the packaging material used for vegetables, fruits and other material at village level.

Natural material i.e. wood, bamboo, straw and synthetic bags, sacks, cardboards, plastic container, crates, etc.

| S.No. | Name of article | Packaging material used |
|-------|-----------------|-------------------------|
| 1.    |                 |                         |
| 2.    |                 |                         |
| 3.    |                 |                         |
| 4.    |                 |                         |
| 5.    |                 |                         |

### Storage Interventions

#### 1. Grain contamination is influenced by

- Type of storage structure.....
- Temperature.....
- pH.....
- Moisture.....

#### 2. Storage losses in grains (%)

- Type of structure used.....
- Length and purpose of storage.....

c. Grain treatment.....

d. Pre storage practices.....

**3. What are the insects that are seen during storage**

| S.No. | Name of Crop | Insect pests observed during storage |
|-------|--------------|--------------------------------------|
| 1.    | Paddy        |                                      |
| 2.    | Wheat        |                                      |
| 3.    | Maize        |                                      |
| 4.    | Groundnut    |                                      |
| 5.    | Pulses       |                                      |
| 6.    | Coriander    |                                      |
| 7.    | Other Crop   |                                      |

**4. Name of the structure used for grain storage:**

**Outdoor structures**

- (1) Name.....
- (2) Quantity stored .....
- (3) Materials used for construction of the storage structure.....
- (4) Any innovative practice that the farmer has evolved/ demesnes.....
- (5) Problem observed by farm in storage shape of the structure.....
- (6) Traditional or modern method.....
- (7) Fumigation practices.....
- (8) Time schedule.....
- (9) Inter opening.....

**5. Control Measures adopted by Farmers for Storage pest & Rodent**

| S.No. | Name of Insect | Control Measures |
|-------|----------------|------------------|
| 1.    | Beetles        |                  |
| 2.    | Weevils        |                  |
| 3.    | Moth           |                  |
| 4.    | Other          |                  |

**6. Type of control measure used for Rodents by farmers**

(Kindly ✓ the method used by the farmers of the locality)

- a. Fumigant aluminum phosphide ☐
- b. Rodent rat cases ☐
- c. Poison baits ☐
- d. Rat borrow fumigation ☐

**7. Storage Structure used by the farmers of the locality**

- a. Kothi/Banda
- b. PAU Bin (capacity 1-5 to 15 quintal) ☐
- c. Pusa Bin (made from mud and bricks polythene) ☐
- d. Cylindrical rubberized cloth structure ☐
- e. CAP storage (cover and plinth) ☐
- f. Silo ☐
- g. large scale storage ☐
- h. Other (Specify) ☐

**8. Student have to write at least two indigenous practices used for safe grain storage adopted at village**

- i)    ii)

Signature of Student

Signature of Officer In-charge

**VII. Animal Production Interventions**

**Credit: 1 (0+1)**

**Information of Livestock**

| Particulars       | Strength of livestock | Name of the Breed |
|-------------------|-----------------------|-------------------|
| <b>Cow class</b>  |                       |                   |
| 1. Adult cows     |                       |                   |
| a) Milking        |                       |                   |
| b) Dry            |                       |                   |
| 2. Heifers        |                       |                   |
| 3. Breeding bulls |                       |                   |
| 4. Bullocks       |                       |                   |



|   |                     |                |
|---|---------------------|----------------|
| <b>Buffalo class</b>                    |                     |                |
| 1. Adult Buffaloes                      |                     |                |
| a) Milking                              |                     |                |
| b) Dry                                  |                     |                |
| 3. Heifers                              |                     |                |
| 4. Bulls                                |                     |                |
| <b>Sheep</b>                            |                     |                |
| 1. Young stock                          |                     |                |
| 2. Adult stock                          |                     |                |
| 3. Adult rams                           |                     |                |
| 4. Adult ewe                            |                     |                |
| <b>Goat</b>                             |                     |                |
| 1. Young stock                          |                     |                |
| 2. Adult stock                          |                     |                |
| 3. Adult bucks                          |                     |                |
| 4. Adult doe                            |                     |                |
| <b>Poultry/ Pig/ Fish</b>               |                     |                |
| 1. No. of chicks/piglets/fingerlings    |                     |                |
| 2. No. of layers/broilers/boar/sow      |                     |                |
| <b>Cost Structure</b>                   | <b>Amount (Rs.)</b> | <b>Remarks</b> |
| 1. Cost of animals (if purchased)       |                     |                |
| 2. Cost of dairy structure and paddocks |                     |                |
| 3. Total cost of dairy structures       |                     |                |

### Daily maintenance and feeding expenses

| Particulars                       | Cow  |           | Buffaloes |           | Sheep/Goats |           | Poultry |           |
|-----------------------------------|------|-----------|-----------|-----------|-------------|-----------|---------|-----------|
|                                   | Qty. | Amt (Rs.) | Qty.      | Amt (Rs.) | Qty.        | Amt (Rs.) | Qty.    | Amt (Rs.) |
| 1. Labour male/female requirement |      |           |           |           |             |           |         |           |
| 2. Concentrates (kg)              |      |           |           |           |             |           |         |           |

|                                       |  |  |  |  |  |  |  |  |
|---------------------------------------|--|--|--|--|--|--|--|--|
| 3. Green roughages (kg)               |  |  |  |  |  |  |  |  |
| 4. Dry roughages (kg)                 |  |  |  |  |  |  |  |  |
| 5. Mineral mixtures (kg)              |  |  |  |  |  |  |  |  |
| 6. Veterinary aids including breeding |  |  |  |  |  |  |  |  |
| 7. Total expenses per day             |  |  |  |  |  |  |  |  |

### Daily Milk Production and Disposal Record

#### (A) Milk Production

| Date | No. of animals in milk |         |       |      | Milk Produced (L) |         |       |      | Total Milk Produced (L) |
|------|------------------------|---------|-------|------|-------------------|---------|-------|------|-------------------------|
|      | Cow                    | Buffalo | Sheep | Goat | Cow               | Buffalo | Sheep | Goat |                         |
|      |                        |         |       |      |                   |         |       |      |                         |
|      |                        |         |       |      |                   |         |       |      |                         |
|      |                        |         |       |      |                   |         |       |      |                         |
|      |                        |         |       |      |                   |         |       |      |                         |
|      |                        |         |       |      |                   |         |       |      |                         |

#### (B) Milk Disposal (L)

| Date | Home consumption<br>(Cow/Buffalo/<br>Sheep/Goat)<br>Whole milk /Milk<br>products | Utilized for making<br>Products<br>(Cow/Buffalo/<br>Sheep/Goat)<br>Ghee/ butter/Khoa/<br>Curd/Others | Sale<br>(raw milk)<br>(Cow/Buffalo/<br>Sheep/Goat) | Name of<br>agency<br>to which<br>sold | Income (Rs.)<br>Rate of Dairy<br>Milk/Unions/<br>Milk Vendors |
|------|--|--|--|---------------------------------------|---|
|      |  |  |  |                                       |   |
|      |  |  |  |                                       |   |
|      |  |  |  |                                       |   |
|      |  |  |  |                                       |   |

### Daily Production and Disposal Record

#### (A) Dairy Products

| Date | Name of the<br>dairy<br>products | Quantity of<br>dairy<br>products (Kg) | Quantity sold<br>(Kg) | Name of<br>agency to<br>which sold | Income<br>(Rs.) Rate/kg. |
|------|----------------------------------|---------------------------------------|-----------------------|------------------------------------|--------------------------|
|------|----------------------------------|---------------------------------------|-----------------------|------------------------------------|--------------------------|

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**(B) Eggs and Birds**

| Date | Breed/strains of Birds and system of keeping /Rearing | Production of |               | Home consumption |             | Disposal of |       | Name of agency to which sold | Income (Rs.) |
|------|---|---------------|---------------|------------------|-------------|-------------|-------|------------------------------|--------------|
|      |   | Eggs          | Birds/ Chicks | Eggs             | Birds/ Meat | Eggs        | Birds |                              |              |
|      |   |               |               |                  |             |             |       |                              |              |
|      |   |               |               |                  |             |             |       |                              |              |
|      |   |               |               |                  |             |             |       |                              |              |

**(C) Pig**

| Date | Breed & system of keeping/rearing | Production of Animals/Piglets | Disposal of Animals | Name of agency to which sold | Income (Rs.) |
|------|-----------------------------------|-------------------------------|---------------------|------------------------------|--------------|
|      |                                   |                               |                     |                              |              |
|      |                                   |                               |                     |                              |              |
|      |                                   |                               |                     |                              |              |
|      |                                   |                               |                     |                              |              |

**(D) Any Other Animals / Birds**

| Date | Species/Breed & system of keeping /Rearing | Production of |               | Home consumption |             | Disposal of |       | Name of agency to which sold | Income (Rs.) |
|------|--|---------------|---------------|------------------|-------------|-------------|-------|------------------------------|--------------|
|      |  | Eggs          | Birds/ Chicks | Eggs             | Birds/ Meat | Eggs        | Birds |                              |              |
|      |  |               |               |                  |             |             |       |                              |              |
|      |  |               |               |                  |             |             |       |                              |              |
|      |  |               |               |                  |             |             |       |                              |              |

**Yearly Production and Disposal Record**

| Particulars | Amount (Rs.) |
|-------------|--------------|
|-------------|--------------|

|   |  |
|---|--|
| <b>A) Total production of –</b><br>1. Animals<br>2. Milk and milk product<br>3. Dung/F.Y.M.<br>4. Eggs<br>5. Poultry Birds/Chicks<br>6. Wool<br>7. Meat |  |
| <b>B) Disposal of –</b><br>1. Animals<br>2. Milk and milk product<br>3. Dung/F.Y.M.<br>4. Eggs<br>5. Poultry Birds<br>6. Wool                           |  |
| <b>C) Yearly income from the sale of</b><br>1. Animals<br>2. Milk and milk product<br>3. Cowdung / F.Y.M.<br>4. Eggs<br>5. Poultry Birds<br>6. Wool     |  |
| <b>Total income (Rs.)</b>   |  |

### Yearly Receipt and Expenditure Statement

| Particulars  | Amount (Rs.) |
|--|--------------|
| <b>A) Receipt - *</b><br>Total income obtained from the sale.  |              |
| <b>B) Expenditure-</b><br>1. Cost of feeds and fodder<br>2. Labour cost<br>3. Expenditure on land<br>revenue, energy charges etc.<br>4. Medicines & Vaccines (Veterinary<br>Aids)<br>Total expenditure |              |
| <b>C) Net profit (per year)</b>  |              |

\* Crop production record should be used from Agronomy Proforma.

### FINAL REPORT:

1. **Brief note on work done on specific practices suggested by the students-**  
Cow/buffalo/ others/crossbred cow
  - (a) Sanitation of sheds and Design & house/Pattern adopted eg. Cage housing in layers.
  - (b) Balanced ration
    - i. Concentrate mixture ii. Green roughage iii. Dry roughage
  - (c) Full hand milking practice
  - (d) First aid given
  - (e) Vaccination to R.P., H.S., B.Q. and F.M.D. & Poultry vaccination
  - (f) Care of pregnant animal
  - (g) Care of calves
  - (h) Care of buffalo, if any
  - (i) Care of bullocks
  - (j) Some important management practices like grooming, clipping, stoppage of bad habits/vices like sucking of own milk, licking of own calf.
  - (k) Visit of cattle show if any
- (1) **Maintenance of Pedigree records**
- (2) **Analysis of work and receptivity of the farmer for improved dairy practices**
- (3) **Remarks by farmer**

**Signature of Student**

**Signature of Officer In-charge**

**Signature of the Evaluator**

## VIII. Extension and Transfer of Technology Activities Credits: 3 (0+3)

Study of development programme and activities of various agriculture and rural development programme, extension agencies or organization.

### Project –1: Identifying problems of farmers:

For identifying the problems of the farmer, it is proposed to collect the information from individual farmers. The students will contact the farmers and collect the information in the schedule for identifying the specific and general agriculture problems.

1. Name of the farmer:

2. Village:

3. Age:

4. Education:

5. Total members in family:

Men ..... Women ..... Children .....

6. Total area of land owned (in ha)

Dry ..... Irrigated ..... Fallow .....

7. Sources of information used by farmers:

- i. How do you obtain the latest information about agricultural technology?
- ii. On which topics you feel that you are not getting information?
- iii. Do you regularly obtain farm information from the RAEO?
- iv. How many times you met the RAEO?
- v. Do you contact University Experts for obtaining information about agricultural technology?
- vi. Do you regularly listen to the 'Krishiwani' and other similar programmes of All India Radio?

- vii. Are you a subscriber of 'News Paper / Krishak Jagat / Krishi Vishwa' or another similar agricultural magazine?
- viii. How do you keep yourself update about the new agricultural technology to be adopted on your farms?

**8. Adoption of farm technology:**

The student is expected to collect the information about the adoption of recommended farm technology related to major crops.

| <b>S.No.</b> | <b>Technology Adopted</b>       | <b>Name of Crops/ varieties</b> |
|--------------|---------------------------------|---------------------------------|
| 1.           | Improved varieties              |                                 |
| 2.           | Seed treatment                  |                                 |
| 3.           | Recommended doses of fertilizer |                                 |
| 4.           | Irrigation method               |                                 |
| 5.           | Use of Weedicides               |                                 |
| 6.           | Insecticide                     |                                 |

**9. Identifying specific gaps in adoption:**

The student is expected to fill in this sheet about one important cereal, cash and oil seed / pulse crop grown by the farmer. The recommended practices may be based on the information collected from the research recommendation of the Department of Agriculture / Agriculture University. As regards the information with respect to the practices followed by the farmers, the information collected by student under Agronomy and Agriculture Economics may be used.

| <b>S.No.</b> | <b>Recommended practices</b> | <b>Practices followed by farmers</b> | <b>Extent of gap in adoption of recommended technology</b> | <b>Constraints in adopting recommended practices</b> | <b>Action oriented suggestions</b> |
|--------------|------------------------------|--------------------------------------|--|--|------------------------------------|
| 1.           |                              |                                      |  |  |                                    |
| 2.           |                              |                                      |  |  |                                    |
| 3.           |                              |                                      |  |  |                                    |

10. After collecting the information in the schedule, the student should record his observations in the following proforma.

| S.No. | Agricultural problems identified | Action oriented suggestions for solving the problems |
|-------|----------------------------------|--|
| 1.    |                                  |  |
| 2.    |                                  |  |
| 3.    |                                  |  |

### **Project - 2: Organizing Method Demonstration (Jointly)**

A method demonstration is a short time demonstration given before a group to show how to carry out an entirely new practice or an old practice in a better way.

Three students should organize a method demonstration collectively on the farmer's field and record their observation with the help of the schedule.

1. Topic of demonstration:
2. Place of demonstration:
3. How the topic was decided?
4. What equipments and materials were there on spot before starting the demonstration?
5. How publicity was given to the demonstration?
6. How were the physical arrangements for the audience on the demonstration?
7. What steps were followed while conducting the actual demonstration?
8. How many people were present and how many were given opportunity to practice the skill?
9. Whether names of the participants and list of those who contemplate the adoption of the practices were prepared for follow up?
10. Your suggestions for improving the effectiveness of the demonstration.

### **Project - 3: Organizing Field Visits with Farmers (Jointly)**

It is a method by which a group gets together for the purpose of seeing an improved performance or result of practice in actual situations. This requires the group to move out of the area for a considerable period with a pre decided programme.

A field visit will be organized and the students will record their observations with the help of the schedule.



1. Place of visit:
2. Purpose of visit:
3. Whether the places to be visited and the things to be seen and learnt were decided before starting the visit?
4. What methods were used to publicize the programme of visit?
5. Whether the date, period, transport, food and other related matters with the visit were properly planned?
6. How many farmers participated in the visit? Whether they were informed about the visit?
7. Which problems of farmers were identified in the field visit?
8. Which solutions were offered for these problems?
9. Whether sufficient time was allowed for questions and answers?
10. What interesting information was noted during visit?
11. Your suggestions for improving the effectiveness of the visit.

#### **Project - 4: Studying Ongoing Extension Programme in Village**

There are number of extension programmes undertaken by various agencies in the village. These programmes may be field visits, demonstrations, family planning work, training camps and so on. The student will select extensions programme and study it on the aspects given below:

1. Name of ongoing extension programme you have studied.
2. What were the objectives of the programme?
  - (i)
  - (ii) (iii)
3. What activities were undertaken to attain these objectives; state objectives?
  - (i)
  - (ii)
  - (iii)
  - (iv)
4. How far the targets were achieved? State objective wise.
  - (i)
  - (ii)
  - (iii) (iv)
5. What difficulties were faced by the executors of programme?

- (i)
  - (ii) (iii)
6. What efforts were made by them to overcome these difficulties?
- (i)
  - (ii)
  - (iii)
7. Your own remarks on achievements of the extension programme.

### **Project - 5: Participation in Village Social Service Activity**

The student shall participate in any one of the social service activities already existing in the village. If the activity is not in existence the students will select any one social service activity from the following activities, initiate it in the village with the involvement of people, evaluate the same and record observations in the schedule.

#### **Social service activities**

- (i) Tree planting in a village
- (ii) Cleaning of village
- (iii) Participation in Blood Donation Camp
- (iv) Participation in Health Care Camp
- (v) Participation in Animal Care Camp
- (vi) Use of Bleaching powder in drinking water
- (vii) Adult education
- (viii) Giving information about the importance of cleanliness of teeth, clothes etc.
- (ix) Establishing a library in village
- (x) Organizing games and sports
- (xi) Organizing social service clubs
- (xii) Providing agricultural information through Bulletins
- (xiii) Providing agricultural information through charts, graphs and samples
- (xiv) Repairing village roads
- (xv) Cleaning drainage channels
- (xvi) Construction of soak pits
- (xvii) Social Forestry
- (xviii) Recreation clubs
- (xix) Bhajan Mandals

1. Name of the social service activity, place and date
2. Who organized it?
3. When was it organized?
4. Object of activity
5. At what stage did you participate?
6. What was the nature of your participation in the activity?
7. Was it in the line with object of work?
8. Who were the other participants?
9. Your remarks and suggestions (a brief write up on the work done by the student)

**Proforma for Case Study of Rural Development / Agricultural Development Programmes**

1. Name of Programme: .....
2. Name of Beneficiary: .....  
Village: .....Block..... District: .....
3. Who informed about the programme?
4. Date of participation in the programme:
5. Support of the Programme:  
Cash  
    a)  
    b)  
    c)  
Kind  
    a)  
    b)  
    c)
6. Subsidies Availled:
7. Achievements of the Programme:  
    a)  
    b)  
    c)
8. Problems faced:  
    a)  
    b)  
    c)
9. Suggestions for Improvement:

- a)
- b)
- c)
- 10. An overview of the Programme:
  - a)
  - b)
  - c)

(Benefits, opinion of the beneficiaries and your own comments on organization and implementation)

**Signature of Officer In-Charge**

**Signature of Student**

**Project - 6: Poverty Alleviation Programmes (Perception and Evaluation)**

The students during their stay in the village will have an overview of the Poverty Alleviation and Agricultural Development Programmes implemented by various agencies. They should have clear-cut perception of the incidence and causes of poverty among the villagers. The case study of beneficiaries out of the following programmes will be necessary as per proforma appended.

**(A) Agricultural Development Programmes**

1. Intensive Agricultural Districts Programme (IADP)
2. High Yielding Varieties Programme (HYVP)
3. Watershed Development Programme (WOP)
4. National Agricultural Technology Project (NATP)
5. Agriculture Technology & Management Agency (ATMA)
6. Jal Dhara
7. Pulse Development Programme
8. Training and Visit System (T & V System)
9. Biogas Plants
10. National Horticulture Mission (NHM)

**(B) Poverty Alleviation Programmes**

1. District Poverty Initiative Programme (DPIP)
2. Integrated Tribal Development Agency (ITDA)
3. Integrated Rural Development Programme (IRDP)
4. Swarnjayanti Gram Swarajgar Yojna (SGSY)
5. Mahatma Gandhi National Gramin Rojgar Yojna
6. Indra Awas Yojna (IAY)
7. Prime Minister Employment Yojna (PMEY)
8. Panchyatiraj System
9. Madhya Pradesh Rural Livelihood Project (MPRLP)

**(C) Women development Programme**

1. Integrated Child Development Scheme (ICDS)
2. Rastriya Mahila Kosh (RMK)
3. Mahila Samridhi Yojna (MSY)
4. Madhya Pradesh, Women in Agriculture
5. Mahatma Gandhi National Gramin Rojgar Yojna (MGNGRY)

**(D) Indigenous Technical Knowledge (ITK)**

Identification of ITK practices and mention at least one practice used by farmers. The students will acquaint themselves with this programme through the concerned agency.

**Signature of Officer-In-Charge**

**Signature of Student**

**Component – II**

**Credits: 4 (0+4) IX.**

**Agricultural Industrial Attachment (AIA) / In-Plant training**

Name of Industry \_\_\_\_\_

Location Rural ☐ Urban ☐

Mailing Address \_\_\_\_\_

Does the industry operate in an industrial estate Yes, ☐ No ☐ Form of

Ownership

- |                                     |   |
|-------------------------------------|---|
| <input type="checkbox"/> 1. Public  | 3. <input type="checkbox"/> Mixed       |
| <input type="checkbox"/> 2. Private | 4. <input type="checkbox"/> Cooperative |

Type of Organization

- |   |                |  |
|---|----------------|--|
| <input type="checkbox"/> 1. Individual  | Proprietorship | <input type="checkbox"/> 4. Shareholding |
| <input type="checkbox"/> Company        |                | <input type="checkbox"/>                 |
| <input type="checkbox"/> 2. Partnership |                | 5. Other                                 |
| 3. Limited Company                      |                |  |

Objectives of the industry : Mandates of the industry :

Employment :

**Number of workers engaged**

| S.No. | Category                       | Male | Female | Total |
|-------|--------------------------------|------|--------|-------|
| 1.    | Working Proprietor and Partner |      |        |       |
| 2.    | Unpaid Workers                 |      |        |       |

|    |                                 |  |  |  |
|----|---------------------------------|--|--|--|
| 3. | Employees                       |  |  |  |
|    | a) Manager & Professional staff |  |  |  |
|    | b) Skilled staff                |  |  |  |
|    | c) Unskilled Staff              |  |  |  |
|    | d) Others                       |  |  |  |

Number of Shifts per day \_\_\_\_\_

Number of hours worked per week for all shifts \_\_\_\_\_

Working Capital (Rs.) \_\_\_\_\_

Source of Finance

- a) Personal and relatives \_\_\_\_\_
- b) Loans from banks and bank credit institutions \_\_\_\_\_
- c) Other (Specify) \_\_\_\_\_

Tenure of building occupied for industry

- a) Wholly owned ☐
- b) Wholly rented ☐
- c) Partly rented ☐

Total area occupied for business \_\_\_\_\_ m<sup>2</sup> Contribution

of the industry-promoting environment

Labour Costs

| S.No. | Particular  | Amount Paid (Rs.) |
|-------|---|-------------------|
| 1.    | Gross Wages & Salaries (including bonus & gratuity) |                   |
| 2.    | Overtime payment                                    |                   |
| 3.    | Payment in kind, i.e. food, drinks, fuel, etc.      |                   |
| 4.    | Employer's contribution to social security schemes  |                   |
| 5.    | Training expenses                                   |                   |
| 6.    | Other labour costs (Please specify)                 |                   |

Purchases

Goods Purchased (Value in Rs.)

- a) Purchase of goods to be sold in the same condition.....
- b) Raw material & supplies purchased for transformation.....

Current Technology Status

| Type of Machines | Percentage | Average Age | Expected average life span of equipment |
|------------------|------------|-------------|---|
|------------------|------------|-------------|---|

|              |  |  |  |
|--------------|--|--|--|
| Manual       |  |  |  |
| Automatic    |  |  |  |
| Computerized |  |  |  |

Does the industry have any investment plan Yes/No

If yes, please indicated whether for

- a) Replacement of old equipment
- b) Increasing production capacity
- c) Upgrading technology

Value of Stocks (At the time of in-plant training)

| Description                             | Value (Rs.) |
|---|-------------|
| Material supplies and raw materials etc |             |
| Semi-finished products                  |             |
| Finished product                        |             |
| Goods purchased for resale              |             |

Value of fixed assets

| S.No. | Particulars                        | Value (Rs.) |
|-------|------------------------------------|-------------|
| 1.    | Land                               |             |
| 2.    | Building & Other construction work |             |
| 3.    | Transport & Other equipment        |             |
| 4.    | Others                             |             |

Output

| S.No. | Description of main product | Unit | Exported |       | Locally sold |       |
|-------|-----------------------------|------|----------|-------|--------------|-------|
|       |                             |      | Quantity | Value | Quantity     | Value |
| 1.    |                             |      |          |       |              |       |
| 2.    |                             |      |          |       |              |       |
| 3.    |                             |      |          |       |              |       |

Main destinations of Exports

- 1.
- 2.
- 3.
- 4.

Marketing of Final products:

Direct selling \_\_\_\_\_ %

Intermediaries \_\_\_\_\_ %

Exports \_\_\_\_\_ %

Is the industry a member of any association Yes No

If yes, indicate the type

Quality management

Are the products of the industry certified? Yes No

If yes, indicate type of certification

Is the quality of raw materials purchased also controlled Yes No

Does the industry have a laboratory Yes No

Total number of Quality control staff .....

Are there any environmental regulations? Yes No

Does the industry have treatment facilities for waste?

Yes ☐ No ☐ No need

☐

**Signature of Student**

**Signature of Officer In-Charge**



