

**MANUAL**  
**Of**  
**Student 'READY' Programme**  
**(Rural Entrepreneurship Awareness Development Yojana)**



**Shri Vaishnav Institute of Agriculture**  
**Shri Vaishnav Vidyapeeth Vishwavidyalaya,**  
**Indore (M.P.)**



**MANUAL**  
**Of**  
**Student 'READY' Programme**

(Rural Entrepreneurship Awareness Development Yojana)

**Patron:** Prof.(Dr.) Upinder Dhar  
Vice Chancellor,  
SVVV, Indore

**Chairman:** Dr. K.N. Guruprasad  
Coordinator,  
SVIAg, Indore

**Compiled & Edited by:**

Prof. Vinod Dhar  
Prof. Satish Patidar

**Published by:**  
Professor  
RAWE Coordinator  
SVIAg, Indore



**Shri Vaishnav Institute of Agriculture**  
**Shri Vaishnav Vidyapeeth Vishwavidyalaya,**  
**Indore (M.P.)**

Prof.(Dr.) Upinder Dhar,  
Vice Chancellor, SVVV, Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya,  
Indore (M.P.)  
Email: vc@svvv.edu.in

## FOREWORD

The Student READY (Rural Entrepreneurship Awareness Development Yojana) programme aims to provide rural entrepreneurship awareness, practical experience in real-life situation in rural agriculture and creating awareness to undergraduate students about practical agriculture and allied sciences. The programme will help in building confidence, skills and acquire Indigenous Technical Knowledge (ITK) of the locality and thereby preparing the pass-out students for self-employment. It also aims to provide opportunities to acquire hands-on-experience and entrepreneurial skills through experiential learning (EL) and Hands on Training (HoT).

Rural Agricultural Work Experience (RAWEx) will provide an opportunity for students to understand the rural setting in relation to agriculture and allied activities to familiarize with socio-economic conditions of farmers and their problems, to learn real field situations, especially in contact with farmers, growers, etc.

Agro Industrial Attachment (AIA) is useful to gain the knowledge and experience of the work culture, because it provides an industrial exposure to the students for developing their career in the Agro based industries.

Experiential Learning Programme (EL) and Hands on Training (HoT) offered to undergraduate agriculture students will empower students with practical know how and skill development. The employability of students will definitely increase in the Agro-Industry Sector.

I hope that *Manual of Student 'READY' Programme* would guide the students in achieving cherished objectives of the programme and the designated RAWEx teachers will also be benefited while adopting the new syllabus of 5<sup>th</sup> Dean's Committee of ICAR.

Date: 25<sup>th</sup> January 2021



(Upinder Dhar)

Dr. K.N. Guruprasad  
Coordinator, SVI Ag, Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya  
Shri Vaishnav Institute of Agriculture  
Indore (M.P.)  
Email: director\_svis@svvv.edu.in

## PREFACE

Student READY (Rural Entrepreneurship Awareness Development Yojana) is a new initiative to reorient graduates of agriculture and allied subjects for ensuring and assuring employability and develop entrepreneurs for emerging knowledge intensive agriculture. This programme includes Rural Agricultural Work Experience (RAWE) and Experiential Learning.

Rural Agricultural Work Experience (RAWE) enable the students to gain rural experience, give them confidence and enhance on-farm problem solving abilities in real life situations, especially in contact with farmers, growers, etc. The students will undertake this programme during the VII semester for a total 20 credits in two parts viz., 16 credits of RAWE and 4 credits of Agro Industrial Attachment. It will consist of general orientation and on campus training by different faculties followed by village attachment/unit attachment at KVKs/Research Stations. The students will be attached with the agro-industries to get an experience of the industrial environment and working. During village stay, the students stay along with rural households and this provides a rare opportunity to rediscover the farmers. Besides acquiring first hand field experience, the RAWE bring about positive changes in the student's mindset, outlook, personality traits, managerial and entrepreneurial skills.

Experiential Learning (EL)/Hands on Training (HoT) Programme will be undertaken by students during VIII Semester for a total of 20 Credits. They shall have to choose two modules from a basket of twelve each having 0+10 Credits.

It is passionately hoped that the students will make the best use of this manual to gain sufficient rural experience and be of benefit to the farmers and themselves equally.

Date: 25<sup>th</sup> January 2021

  
(K.N. Guruprasad)

Prof. Vinod Dhar  
Head - Centre for Vocational Studies  
Head – Shri Vaishnav Institute of  
Agriculture, Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya  
Shri Vaishnav Institute of Agriculture  
Indore (M.P.)  
Email: vinoddhar@svvv.edu.in

## ACKNOWLEDGEMENT

In the changed agricultural scenario world over, it has been felt essential to give a new and vibrant impetus to reorient the agricultural graduates towards self-reliance. SVIAG under the aegis of SVVV, Indore since its inception in the year 2018 has been making concerted efforts in improving the levels of learning and inculcating elements of self reliance in the students for serving the rural community vis-a-vis strengthening their own career prospect of gainful employment.

Student READY Programme as recommended by Vth Deans' Committee (ICAR) for implementation by all state agricultural universities and agricultural institutes all over India is also pursued in this institution for under graduate students. **READY component- I RAWE & READY Component-II AIA** is offered to students in VII semester whereas; **READY component-III Experiential Learning / Hands on Training** is being offered in the VIII semester of the final Year.

The Rural Agricultural Work Experience (RAWE) helps the students primarily to understand the rural situations, status of technologies adopted by farmers, prioritize the farmer's problems and to develop skills and attitude of working with farm families for overall development in rural area. It is hoped that this manual will serve the purpose of implementing the new RAWE and AIA Programme and would be of great utility to students. Also, Experiential Learning (EL)/Hands on Training (HoT) will give students proper insight into the vocational aspect as well as scope for useful skill development and in the end enhance their employability in companies dealing in agricultural and allied sector. Moreover, the students can start their own agro based enterprise also.

The help rendered by faculty, especially Mr. Satish Patidar, Assistant Professor, Department of Agronomy, SVIAG and staff members of the SVIAG in creating, editing and manuscript writing of this manual is duly acknowledged.

Dated: 25<sup>th</sup> January 2021

*Vinod Dhar*  
(Vinod Dhar)

## CONTENTS

S.No.	Particulars	Credit hrs.	Page Nos.
1.	<b>Component-I Rural Agricultural Work Experience (RAWE)</b>		1
	Objectives		2
	<b>Component-II Agro-Industrial Attachment (AIA)</b>		2
	Activities and Tasks during Agro-Industrial Attachment Programme		2
	Objectives		3
	I. Registration		3
	II. Eligibility for Registration		3
	III. Monitoring		4
	IV. Evaluation		4-5
	V. Implementation of Programme		5
	VI. Norms of allotment of villages		5
	VII. Orientation		5
	VIII. Programme of Work		5-6
	<b>Component-III Experiential Learning Programme (ELP)/ Hands on Training (HoT)</b>		8
	Objectives		8
	I. Duration		8
	II. Attendance		8-9
	III. Students Eligibility		9
	IV. Module for skill Development and entrepreneurship		9
	V. Project Preparation Modules for Experiential Learning (EL) / Hands on Training (HoT)		9-10
2.	<b>Proforma for daily diary of students &amp; Weather Record</b>		10-11
3.	<b>Courses</b>		
	I. Survey of Village	0+1	12-24
	II. Agronomical Interventions	0+3	25-30
	III. Plant Protection Interventions	0+2	31-34
	IV. Soil Improvement Interventions (Soil sampling and testing)	0+2	35-39
	V. Fruit and Vegetable production interventions	0+3	40-48
	VI. Food Processing and Storage interventions	0+1	49-51
	VII. Animal Production Interventions	0+1	52-56
	VIII. Extension and Transfer of Technology activities	0+3	57-63
	IX. Agro-Industrial Attachment	0+4	64-66
	<b>Annexure</b>		



**Shri Vaishnav Institute of Agriculture**  
**Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore**  
**Student 'READY' Programme**

The Hon'ble Prime Minister of India launched 'Student READY' programme on 25<sup>th</sup> July 2015. The term 'READY' refers to “**Rural Entrepreneurship Awareness Development Yojana**”.

To reorient graduates of agriculture and allied subjects for ensuring and assuring employability and develop entrepreneurs for emerging knowledge intensive agriculture, the component envisages the introduction of the programme as an essential prerequisite for the award of degree to ensure hands on experience and practical training.

**The components of 'READY':**

- Rural Agricultural Work Experience (RAWE) &
- In-Plant Training/Agro Industrial Attachment (AIA)
- Experiential Learning / Hands on Training
- Skill Development Training
- Students Project

Fifth Deans' Committee has recommended for under graduate program of B.Sc.(Hons.) Agriculture RAWE and AIA programme in VII<sup>th</sup> and Experiential Learning / Hands on training (HoT) in VIII<sup>th</sup> semester of the programme.

**Rural Agricultural Work Experience (RAWE)**  
**&**  
**Agro Industrial Attachment (AIA)**

**Credits: 20 (0+20)**

The Rural Agricultural Work Experience (RAWE) helps the students primarily to understand the rural situations, status of Agricultural technologies adopted by farmers, prioritize the farmer's problems and to develop skills & attitude of working with farm families for giving them confidence and enhancing on farm problem solving abilities.

The students will undertake this program during the seventh semester for a total duration of 20 weeks with a weightage of 0+20 credit hours in **two** parts namely **RAWE** and **AIA**. It will consist of general orientation and on campus training by different faculties followed by village attachment/unit attachment in KVK or a research station. The students would be attached with the agro-industries to get an experience of the industrial environment and working. Due weightage in terms of credit hours will be given depending upon the duration of stay of students in villages/agro- industries.

At the end of RAWE & AIA, the students will be given **one week for project report preparation, presentation and evaluation**. The students would be required to record their observations in field and agro-industries on daily basis and will prepare their project report based on these observations.



## **READY Component- I**

### **Rural Agricultural Work Experience (RAWE)**

**Credits: 16 (0+16)**

#### **Objectives**

1. To provide an opportunity to the students to understand the rural setting in relation to agriculture and allied activities.
2. To make the students familiar with socio-economic conditions of the farmers and their problems.
3. To impart diagnostic and remedial knowledge to the students relevant to real field situations through practical training.
4. To develop communication skills in students using extension teaching methods in transfer of technology.
5. To develop confidence and competence to solve agricultural problems.
6. To acquaint students with on-going extension and rural development programmes.

## **READY Component- II**

### **Agro-Industrial Attachment (AIA)**

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

Technology and globalization are ushering an era of unprecedented change. The need and pressure for change and innovation is immense. To enrich the practical knowledge of the students, in-plant training shall be mandatory in the VII<sup>th</sup> semester for a period of up to 3 weeks. In this training, students will have to study a problem in industrial perspective and submit the reports to the SVIAg. Such in-plant trainings will provide an industrial exposure to the students as well as to develop their career in the high tech industrial requirements. In-Plant training is meant to correlate theory and actual practices in the industries. It is expected that sense of running an industry may be articulated in right way through this type of industrial attachment mode.

#### **Objectives**

1. To expose the students to Industrial environment, this cannot be simulated in the university.
2. To familiarize the students with various Materials, Machines, Processes, Products and their applications along with relevant aspects of shop management.
3. To make the students understand the psychology of the workers, and approach to problems along with the practices followed at factory
4. To understand the scope, functions and job responsibilities in various departments of an organization.
5. To expose various aspects of entrepreneurship during the programme period.

#### **Placement**

- Students shall be placed in Agro-and Cottage industries and Commodities Boards for three weeks.
- Industries include Seed/Sapling production, Pesticides-insecticides, Post harvest-

processing-value addition, Agri-finance institutions, etc.

### Duration wise activities performed during RAWE

S.No.	Activity	Week/s	Total Duration
1	Orientation & Placement	1	1 week
2	Survey of Village	1	15 weeks
3	Agronomical Interventions	2	
4	Plant Protection Interventions	2	
5	Soil Improvement Interventions (Soil sampling and testing)	2	
6	Fruit and Vegetable Production Interventions	2	
7	Food Processing and Storage Interventions	2	
8	Animal Production Interventions	2	
9	Extension and Transfer of Technology Activities	2	
10	Agro-Industrial Attachment	3	3 weeks
11	Project Report Preparation, Presentation & Evaluation	1	1 weeks
		Total	20 weeks

### Registration

- The students shall register for RAWE programme during VII semester in B.Sc. (Hons) Agriculture degree programme.

### Eligibility for registration and other requirements

- Students undergoing studies leading to the award of B.Sc. (Hons.) Agriculture shall be eligible for a period of one semester (VII).
- A student will be under the administrative control of the Head of the Institution as he joins. The Head of the Institution will ensure that all the rules and regulations of ICAR are strictly adhered to.
- A student will devote his whole time to the approved training and will not be allowed to accept or hold another appointment paid or otherwise.
- If a student shows unsatisfactory progress during the course of his training or gives up the chosen course of studies before its completion without any prior approval of the Head of Institution, or is irregular in attendance (85 per cent attendance is compulsory).
- Students registered for RAWE programme, will have to repeat the programme at their own cost.
- The students registered for RAWE are not allowed to leave the venue of their placement without written permission of Coordinator RAWE / HoD/HoI, SVIAg. Permission will be granted only under emergency.
- Good conduct and regularity in attendance are also implied conditions for the continuance of Programme.
- The Coordinator of RAWE/Head KVK is expected to bring to the notice of the Head SVIAg any adverse report that may have been necessitated due to habitual/irregularity, misbehavior, participation in strikes etc. suggesting suspension/cancellation registration.

## Monitoring

1. The advisory committee for monitoring of RAWE programme will comprise of the following members:
  - a. Principal Scientist/Senior Scientist /Senior Scientist and Head (KVK) / Heads of Research Station of concerned station (Chairman).
  - b. Head SVIAG's nominee (Head will be the overall in-charge of the programme).
  - c. Head/representative of the departments involved in the RAWE programme.
2. Students will be required to submit a final comprehensive report on or before the date specified in the academic calendar.
3. The students will be required to maintain a daily diary as per the prescribed proforma. They shall produce their diary to the visiting teacher for inspection and for recording their observation & suggestions. The visiting teachers shall verify the work and sign the diary.
4. The Chairman of the committee shall monitor daily activities of individual student.

## Evaluation

1. Students shall be evaluated component-wise under village attachment/ agro-industrial attachment.
2. Each SVIAG of SVVV will designate a Student READY Program Coordinator and component wise evaluation committees. These committees will evolve a method of evaluation depending upon the component undertaken giving due weightage to the observations made by the Scientists/Agro-industrial Officer and the Senior Scientist and Head (KVK)/Head research station with whom they are attached.
3. Since the Credit Hours allotted to the Student READY programme are gradial, the minimum condition of attendance and grading system will apply for the program as will be applicable to other courses.
4. It is expected that at the end of Student READY program, the students should gain competency for entrepreneurship, which should be innovative and creative in nature. The evaluation committee must ensure percentage increase in this competency at the end & successful organization of all Student READY programmes.
5. The 50 marks allotted to each activity will be awarded by considering the performance of student viz. work done in respective subject with the host farmer, observation of the teacher recorded during the visits, punctuality, enthusiasm, rapport with the host farmer and any other significant achievements of the student. All the course teacher will evaluate the comprehensive report, submitted by the student and conduct viva-voce examination as per their course.

S.No.	Activity	Credit(s)	Maximum Marks
<b>Component - I Rural Agricultural Work Experience (RAWE)</b>			
BAG701	Survey of Village	0+1	50
BAG702	Agronomical Interventions	0+3	50
BAG703	Plant Protection Interventions	0+2	50

BAG704	Soil Improvement Interventions (Soil sampling and testing)	0+2	50
BAG705	Fruit and Vegetable production interventions	0+3	50
BAG706	Food Processing and Storage interventions	0+1	50
BAG707	Animal Production Interventions	0+1	50
BAG708	Extension and Transfer of Technology activities	0+3	50
<b>Component - II Agro-Industrial Attachment (AIA)</b>			
BAG709	Agro-Industrial Attachment	0+4	50
	<b>Total</b>	<b>0+20</b>	<b>450</b>

Thus, a student registered for RAWE will have to obtain 225 marks, i.e. 50% to pass RAWE; OGPA will be worked as ICAR/SVVV procedures. In case, a student failed to secure the required marks will have to repeat the programme at their own cost, in the next year as and when RAWE will be offered.

### **Implementation of the Programme**

The students from SVI Ag will be placed in Krishi Vigyan Kendra/ Research Station under the jurisdiction of SVVV, Indore and a small group of 4-5 students will work in the selected villages.

### **Norms for Allotment of Villages**

1. The students will be placed in KVK or Research Station and they will be equally distributed in different villages depending on availability of enterprising and innovative host-farmers. The ADR/Senior Scientist / Senior Scientist and Head (KVK) must satisfy themselves with regard to suitability of selected farmers / villages for fulfilling the overall objectives of RAWE programme.
2. Among the student placed in a village, one student nominated by Station in-charge will function as a student group leader and coordinate the activities in the assigned village.

### **Orientation**

Students have to report to the In-charge RAWE programme in SVI Ag as per the prescribed schedule of work for orientation immediately after registration. The Heads of concerned departments will ensure that the students are well exposed to the latest practices / technologies available in their respective fields before undergoing training on Agronomical Interventions, Plant Protection Interventions, Soil Improvement Interventions, Fruit and Vegetable production interventions, Animal Production Interventions and Extension and Transfer of Technology activities.

### **Programme of Work**

The RAWE programme comprises of nine components as under:

1. Survey of Village
2. Agronomical Interventions
3. Plant Protections
4. Soil Improvement Interventions (Soil sampling and testing)
5. Fruit and Vegetable production interventions

6. Food Processing and Storage interventions
7. Animal Production Interventions
8. Extension and Transfer of Technology activities
9. Agro-Industrial Attachment

### **1. Survey of Village**

The students shall take-up a survey of the village as per the prescribed scheduled. The students shall be required to collect the data on overall condition of village, resource endowment and its utilization, problems of labour and employment and other important economic aspect detailed in the schedule. The student shall also conduct a PRA of the village.

### **2. Agronomical Interventions**

In agronomical interventions, the students will be exposed to various crops and different agronomical practices in farmer's field. He /She will also involve in production technology and management of various crops. The student shall maintain a record of work done in prescribed proforma.

### **3. Plant Protection Interventions**

Under this the students will be exposed to various plant diseases, insect-pests, and physiological disorders prevailing in the area and prescribe remedial measures.

### **4. Soil Improvement Interventions (Soil sampling and testing)**

Under this component the students shall involve in activities i.e. Soil Testing, Collection of soil sample by using Geo positioning system (GPS). Students shall study the Use of soil health card for fertilizer schedule, Integrated Nutrient Management (INM) and its importance in soil quality improvement, role and importance of micronutrients in crop production, soil salinity, alkalinity and acidity and its reclamation. Natural Resource Management (NRM), role of Bio-fertilizer in improving soil health, soil properties important for soil health, Quality control in fertilizer, Soil degradation, improvement of soil health for sustainable agriculture, vermi-compost and its role in improving soil health, classification of green manures & role in improving soil health, Water management, Crop rotation.

### **5. Fruit and Vegetable production interventions**

In fruits and vegetables crops, the students shall involve themselves in field operation viz., seedbed preparation, nursery management, propagation etc. along with their host farmers. The student shall maintain a record of work done and will submit it at the end of the semester.

### **6. Food Processing and Storage interventions**

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.

## **7. Animal Production Interventions**

Under this, the students shall collect the information of livestock on various aspects i.e. daily maintenance and feed expenses, milk production, milk disposal, dairy products, egg and birds, pig etc.

## **8. Extension and Transfer of Technology activities**

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.

## **9. Agro-Industrial Attachment**

The students shall involve themselves in the activities and tasks during Agro- Industrial attachment for 3 Weeks duration viz.

1. Acquaintance with industry and staff.
2. Study of structure, functioning, objective and mandates of the industry.
3. Study of various processing units and hands-on trainings under supervision of industry staff.
4. Ethics of industry.
5. Employment generated by the industry.
6. Contribution of the industry promoting environment.
7. Learning business network including outlets of the industry.
8. Skill development in all crucial tasks of the industry.
9. Documentation of the activities and task performed by the students.
10. Performance evaluation, appraisal and ranking of students.

## **Case study of Agro-Industry Attachment**

1. Topic/Title of case study
2. Student name/ID. No.

3. Name of Instructor/Supervisor/Designation.
4. Department/Section.
5. Details of Agro-Industry Promoter/Place/Address of Industry.
6. Relevance of case study.
7. Objective of case study.
8. Functioning of agro-industry/structure of industry/type of technology used/type of machinery used.
9. Case study output.
10. Future prospects of case study & suggestions.
11. Recommendations for beneficiaries/farmers about the case study.
12. References.
13. Appendices.

### **READY – Component-III**

**Credits: 20 (0+20)**

#### **Experiential Learning Programme (ELP)/ Hands on Training (HoT)**

Experiential Learning means that learning and development are achieved through personal involvement, typically in group, by observation, study of theory or hypothesis and bring in innovation or some other transfer of skills or knowledge. Experiential learning is a business curriculum - related endeavor which is interactive.

Experiential Learning is for building or reinforcing skills in project development and execution, decision making, individual and team coordination, approach to problem solving, accounting, marketing and resolving conflicts etc. The programme induces movement and motivation in students to explore and discover their own potential and infuses confidence in them.

#### **Objective:**

The main objectives are:

1. To promote professional skills and knowledge through meaningful hands on experience.
2. To design and execute project work.
3. To build confidence and to work in project mode.
4. To acquire enterprise management capabilities to start one's own enterprise.
5. To be industry read for employability.

#### **Duration:**

The Experiential Learning programme will be offered for one complete semester period in the final year. **This programme will be undertaken by the students during the eighth semester for a total duration of 24 weeks with a weightage of 0+20 credit hours.**

#### **Attendance:**

The minimum attendance required for this programme is 85%. The attendance of a

student will be maintained at Experiential Learning unit and communicated every week by the manager of Experiential Learning. No student will be eligible for the final evaluation of EL if he has attendance short of 85% and any student having shortage of attendance has to re-register the EL when offered next by paying the assigned fee.

### Students Eligibility:

Students registering for ELP should have **completed all the courses at the end of fifth semester successfully. No student will be allowed to take up the ELP with backlog/repeat courses.** The assignment/allotment of the ELP shall be based on merit of the student at the end of 5<sup>th</sup> semester. A separate certificate would be issued to the students after successful completion of ELP course.

### Modules for skill development and entrepreneurship:

Students will register for **any of two modules listed below of 0+10 credit hours each. (Total 20 credits)**

Course Code	Title of the modules	Department	Credits
BAG801	Production Technology for Bioagents & Biofertilizers	SS & AC; PP	0+10
BAG802	Seed Production, processing and technology	PBG; SST	0+10
BAG803	Mushroom Cultivation Technology	CVS;PP	0+10
BAG804	Soil, Plant, Water and seed Testing	SS & AC; CP	0+10
BAG805	Poultry Production Technology	LPM;AH;CVS	0+10
BAG806	Commercial Beekeeping	Entomology, Horticulture	0+10
BAG807	Commercial Horticulture	Horticulture	0+10
BAG808	Agriculture Waste Management	CVS; Agronomy	0+10
BAG809	Organic crop production technology	CVS; Agronomy	0+10
BAG810	Hybrid Seed Production Technologies	PBG; Agronomy & Horticulture	0+10
BAG811	Floriculture & Landscaping	Horticulture	0+10
BAG812	Food Processing/ Value addition in milk	PHT, AH	0+10

### Project Preparation Modules for Experiential Learning (EL) / Hands on Training (HoT)

1. Project title of case study
2. Student name/ Id. No.



3. Department/ Section.
4. Name of guide / Instructor / supervisor / designation / department.
5. Jurisdiction / relevance of project.
6. Project Activities / Methodologies.
7. Project output/results.
8. Summery & Conclusion.
9. Future Prospects of Case Study & Suggestions.
10. References
11. Appendices

### **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. Week	Temperature		Humidity %		Rainfall (mm)	No. of rainy 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 Scholl: .....
  - 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 <ol style="list-style-type: none"><li>1. Male</li><li>2. Female</li></ol>	
6.	Other Nos. of Scheduled Castes Nos. of Scheduled Tribes 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 1. Light soil (Depth upto one foot) 2. Medium soil (Depth 1 to 2 ft) 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 a) Well in use 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 a) Yellow b) Black			
2.	Jowar a) HYV b) Local			
3.	Maize a) HYV b) Local			
4.	Cotton a) HYV b) BT c) Other			
5.	Paddy a) HYV b) Improve c) Other			
6.	Tur a) HYV b) Local			
7.	Moong a) HYV b) Local			
8.	Urid a) HYV b) Local			
9.	Wheat a) HYV b) Improve c) Local			
10.	Gram a) HYV b) Local			
11.	Oilseeds (Safflower, Groundnut, Sunflower, 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 a) Sowing time b) Interculture c) Harvesting d) Threshing				
2.	Rabi Season a) Sowing time b) Interculture c) Harvesting d) Threshing				
3.	Summer Season				

**Household Schedule (HS)**

Information of Selected Cultivators

- a) Name of the Farmer : .....
- b) Caste : .....
- c) Village : .....
- d) Block Tehsil..... District.....

**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 Year of purchase Price (Rs.)				
4.	If home bred 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/ Transplanting													
7.	Fertilizer application													
8.	Weeding													
9.	Hoeing													
10.	Fertilizer application (Second dose)													
11.	Plant protection													
12.	Irrigation													
13.	Harvesting													
14.	Threshing and winnowing													
15.	Transportation of produce to home													
16.	Other 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 Used	Price per unit	Total cost	Per cent to total cost
1.	Family labour a) Man (day) b) Woman (day)				
2.	Hired Human labour owned/Hire a) Male (day) b) Woman (day)				
3.	Bullock labour Pair (day) a) Owned b) Hired				
4.	Machine Labour a) Owned (Hrs.) b) Hired (Hrs.)				
5.	Seed (Kg)				
6.	Manures (Q.)				
7.	Fertilizer a) N b) P 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>				
	a) Main produce (Q.)				
	b) By produce (Q.)				
	<b>Gross Income = (Value of M.P.+B.P.)</b>				
	Net Income over				
	Net income over a) Cost A2 = GI-Cost A2 b) Cost B2 = GI-Cost B2 c) Cost C2 = GI-Cost C2 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 Jowar Wheat Rice Other				
II.	Pulses Tue Gram Mung Urid Other Pulses				
III.	Edible Oil Groundnut/Linseed/Til /Safflower Vegetable oil				
IV.	Non Vegetarian Mutton/Chicken Eggs Other				
V.	Milk and Milk Products Milk Ghee/Butter				
VI.	Condiments and Spices 1. Condiments 2. Chilies 3. Turmeric 4. Other				
VII.	Beverages 1. Tea 2. Coffee 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 storage prevailing in the district**

S.No.	Year of Establishment	Commodity Store	Capacity (In tones)	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**

**Signature of Officer In-charge**

## II: Agronomical Interventions

Credits: 3 (0+3)

### Format - I

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	Tillage	Agronomic operation done by the farmer during crop production			
				Seed rate, Sowing date seed treatment, sowing method 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				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	14

### 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 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	14

### 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 of the Teacher**

**Signature of Student**

**Signature of Farmer of**

## 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 :
- d. Farm Stead (ha) :
- e. Waste land (ha) :

### 2. Soil Conditions :

- a. Topography :
- b. Colour :
- c. Texture :
- d. Depth :
- e. Fertility Status :

### 3. Rainfall of the district (Weekly) :

### 4. Irrigation facilities available on the field :

- a. Irrigation source :
- b. Water availability period :
- c. Approximate irrigated area (ha) :

### 5. Drainage requirement :

### 6. Crop(s) / Variety (s) i.e. grown by the farmers

- a. During kharif :
- b. During rabi :
- c. During summer :

### 7. Existing cropping systems practiced by the farmer

- a. Cropped area during kharif :
- b. Cropped area during rabi :
- c. Cropped area during summer :

### 8. Use of seeds

- a. Own seeds :
- b. Seeds if purchased / Procured (Source/Agency) :
- c. Category of seed used, if purchased :

### **9. Use of agro-inputs**

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

### **10. Adoption of cultivation practice by the farmer with reasoning**

- a. Traditional practice :
- b. Recommended practice :

### **11. Livestock / position in numbers :**

- a. Bullock :
- b. Cows :
- c. He buffaloes :
- d. She buffaloes :
- e. Goats :
- f. (iv) Others :

### **12. Farm machinery and power**

- a. Availability of electricity :
- b. Tractor :
- c. Trolley / bullock cart :
- d. Plough :
- e. Harrow :
- f. Leveler :
- g. Seed drill :
- h. Weeders :
- i. Threshers / Winnowers :
- j. Chaff cutters :

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

### **14. Transport facilities (Road, Railways):**

### **15. Loan facilities**

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

### **16. Technological facilities**

- a. Training Centres / Charcha Mandal :
- b. Television / Radio :
- c. Public Library :
- d. Krishi Vigyan Kendra :
- e. Research Centre :
- f. NGO's :

**17. 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 (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 :
- (iv) Practices / soil amendments :
- (v) 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 earthening : 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 +

Streptocycline 0.25 g

Per kg/L

transplanting

Seed treatment

or

Seedling drip (30 ml) Before

**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:P <sub>2</sub> O <sub>5</sub> :K <sub>2</sub> O) 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 Fruit crops /    Time    Quantity  
intercrop
5. Inter-crop taken (name of the crop season)    Crop    Area  
Plant population m<sup>2</sup>
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 corps:
- 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) Seedling b) Layers / Grafts					
2.	Manures/Fertilizers					
3.	Irrigation					
4.	Hormone & Plant protection Chemicals					
5.	Staking cost					
6.	Packaging Material					
7.	Cultivation problem/ other 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				

<b>3. Intercrop taken:</b>	Crop	Area
Kharif	-	
Rabi Summer	-	
	-	
	-	
<b>4. Actual yield obtained:</b>	Quantity (No./Q)	Rate Rs. Value Rs.
Main vegetable		
Inter crops		
<b>5. Yield per ha (Quintal /No.)</b>		
Main crops		
Inter crops		
<b>6. Estimated cost:</b>	Main crop:	
<b>7. Gross Income in Rs. (value)</b>	Inter crop:	
<b>8. Net Income Rs. (value)</b>	per plot	per ha
<b>9. Cost/ Benefit ratio</b>	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		Hired Rate			Machinery Hours	Tractor Rate
		M/F/B.P./ 1 2 3	M/F/B.P./ 1 2 3	M/F/B.P./ 1	2	3		
1.	Ploughing							
2.	Harrowing							
3.	Bed Preparation							
4.	Manuring							
5.	Sowing/Planting							
6.	Fertilizers							
7.	Irrigation							
8.	Weeding Earthing Training Staking							
9.	Spraying Dusting							
10.	Harvesting Grading 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 a) b) c)					
3.	Total No. Irrigation Season Irrigation Charges					
4.	Hormonal spray and plant protection charges					
	Cost of chemical					
5.	Stake cost					
6.	Packaging/Charge (Boxes or tokni) for hybrid tomato only 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 spring- summers 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 (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**
  - a. Type of storage structure.....
  - b. Temperature.....
  - c. pH.....
  - d. Moisture.....

2. **Storage losses in grains (%)**
  - a. Type of structure used.....
  - b. 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 (Cow/Buffalo/ Sheep/Goat) Whole milk /Milk products	Utilized for making Products (Cow/Buffalo/ Sheep/Goat) Ghee/ butter/Khoa/ Curd/Others	Sale (raw milk) (Cow/Buffalo/ Sheep/Goat)	Name of agency to which sold	Income (Rs.) Rate of Dairy Milk/Unions/ Milk Vendors

## Daily Production and Disposal Record

### (A) Dairy Products

Date	Name of the dairy products	Quantity of dairy products (Kg)	Quantity sold (Kg)	Name of agency to which sold	Income (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> 1. Animals 2. Milk and milk product 3. Dung/F.Y.M. 4. Eggs 5. Poultry Birds/Chicks 6. Wool 7. Meat	
<b>B) Disposal of –</b> 1. Animals 2. Milk and milk product 3. Dung/F.Y.M. 4. Eggs 5. Poultry Birds 6. Wool	
<b>C) Yearly income from the sale of</b> 1. Animals 2. Milk and milk product 3. Cowdung / F.Y.M. 4. Eggs 5. Poultry Birds 6. Wool	
<b>Total income (Rs.)</b>	

### Yearly Receipt and Expenditure Statement

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

S.No.	Technology Adopted	Name of Crops/ varieties
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.

S.No.	Recommended practices	Practices followed by farmers	Extent of gap in adoption of recommended technology	Constraints in adopting recommended practices	Action oriented suggestions
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 participated?
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: .....
3. Village: .....Block..... District: .....
4. Who informed about the programme?
5. Date of participation in the programme:
6. Support of the Programme:
  - Cash
    - a)
    - b)
    - c)
  - Kind
    - a)
    - b)
    - c)
7. Subsidies Availed:
8. Achievements of the Programme :
  - a)
  - b)
  - c)
9. Problems faced:
  - a)
  - b)
  - c)
10. Suggestions for Improvement :
  - a)
  - b)
  - c)
11. 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

- 1.  Public
- 2.  Private
- 3.  Mixed
- 4.  Cooperative

Type of Organization

- 1.  Individual Proprietorship
- 2.  Partnership
- 3.  Limited Company
- 4.  Shareholding Company
- 5.  Other

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 whether for Yes/No If yes, please indicated

- 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**



# Shri Vaishnav Vidyapeeth Vishwavidyalaya

**Shri Vaishnav Institute of Agriculture**  
B.Sc. (Hons) Agriculture  
**READY PROGRAMME-2021-22**

## **UNDERTAKING**

1. I express my willingness to participate in the READY programme commencing from August 9, 2021
2. I abide to follow all the guidelines and instructions given to me from time to time by my supervisor
3. I will be fully responsible for any loss or injury, which I may suffer while or in consequence of my stay in the village or traveling etc.
4. I will depict good conduct & behavior during my village stay and will not indulge in any conflict or coercive activities, which may tarnish of the institution of which I am student.
5. I will devote my complete READY programme tenure in the activities assigned to me, if any deviations from the norms are reported; I may be dropped from the roll.

**Date:**

**Signature :**.....

**Signature:** .....

**Father's Name :**.....

**Name of students:**.....

**Enrollment Number:**.....



# Shri Vaishnav Vidyapeeth Vishwavidyalaya

**Shri Vaishnav Institute of Agriculture**  
B.Sc. (Hons) Agriculture  
**READY PROGRAMME-2021-22**  
**INFORMATION SHEET**

1.	Name of Student (In capital letters)	
2.	Father's/Guardian Name	
3.	Aadhar Card No	
4.	Permanent Address	
5.	Telephone No./Mobile No.	
6.	Present Address	
7.	Blood group	
8.	Any specific health problem/illness	
9.	Any other details	

The above information is correct to best of my knowledge & belief

Date:

**Signature:** .....

**Name of students:**.....

**Enrollment Number:**.....



# Shri Vaishnav Vidyapeeth Vishwavidyalaya

**Shri Vaishnav Institute of Agriculture**  
B.Sc. (Hons) Agriculture  
**READY PROGRAMME-2021-22**

## **MEDICAL FITNESS CERTIFICATE**

1. Certified that I have examined Shri/Ku.....  
S/o,D/o.....Shri Vaishnav Institute of Agriculture, found his /her FIT  
to attend village stay READY programme.
2. I also certify that the above mentioned student has been vaccinated against Covid-19.

Signature Medical Officer

(With seal)



# Shri Vaishnav Vidyapeeth Vishwavidyalaya

**Shri Vaishnav Institute of Agriculture**  
B.Sc. (Hons) Agriculture  
**READY PROGRAMME-2021-22**

## **Instructions**

The students are advised to carry with them the following items:

1. Sufficient money for expenditure
2. Diary
3. Note Book
4. Bedding
5. Mosquito net/Repellant
6. Woolen garments
7. Plate, Tumbler, Glass, Water Bottle, Mug, etc.
8. First Aid kit
9. Gum boots
10. Torch
11. Candles
12. Bucket

Coordinators

(Ready Programme)





**Shri Vaishnav Vidyapeeth Vishwavidyalaya,  
Shri Vaishnav Institute of Agriculture  
Indore (M.P.)**