

**Loknete Dr Balasaheb Vikhe Patil**

**(Padmbhushan awardee)**

**Pravara Rural Education Society's**

**Arts, Commerce, Science and Computer  
Science College, Ashwi Kd.**

**Affiliated to Savitribai Phule Pune University,  
Pune**

## **BEST PRACTICE - I**

*Creation of atmosphere in the  
institution where social  
commitment becomes challenge for  
students through experiential  
learning which further helps the  
rural area peoples*

# BEST PRACTICE - I

*Creation of atmosphere in the institution where social commitment becomes challenge for students through experiential learning which further helps the rural area peoples*

## Contents

One page note

Committee

Annual Farmers meet

Physics Department Report

Chemistry Department Report

Zoology Department Report

Botany Department Report

Commerce Department Report

Economics Department Report

Geography Department Report

## **Best Practices: Note**

### **Introduction**

Farmers require on-going education to stay aware of fast-moving developments in technology, science, business management, and an array of other skills and fields that affect agricultural operations. Colleges initiatives increase farmers' knowledge in these areas and help them adopt practices that are profitable, environmentally sound, and contribute to quality of life. Many farmers in rural areas do not have the most up-to-date information on how to grow food efficiently and economically. Improving their knowledge of new techniques and technologies and providing them with any physical resources necessary for implementation, can dramatically increase the farmers level of productivity. Recognizing the need for a sustainable approach to agriculture, our solution emphasizes farmer education in methods and technologies that do not have an overly negative effect on soil, water, and air quality.

### **Aims and Objectives**

- To generate among the students as well as faculties an intensively entrenched urge which to be informed and involved in farmers issues and causes.
- To enable the students of the institution to understand the basic causes about the negative issues addressed by the farmers from rural area during Farmers meet.
- To foster staff of the institution to carry out informative sessions to rural area villagers and farmers in the institution.
- To promote students to do practical work ensuring the management of natural resources and protection of eco-sensitive area by adopting the sustainable development, hence to improve the basic knowledge and presentation skill of students.

- The practice above mentioned is termed as **Farmers Education** in our institute. In these practices seven departments along with students of institute is working intensively in different topics revealed as below.

1. Physics-Solar energy and electricity consumption awareness
2. Chemistry-Soil and water analysis
3. Zoology-Pest control management and practices
4. Botany-Cropping pattern
5. Commerce-Farmer Accounting
6. Economics- Financial Literacy about Central Budget
7. Geography-Weather prediction and water management

- For this practice, individual department wise co-coordinator is assigned at the beginning of each academic year. These coordinators decide the scope and methodology regarding the practice. These coordinators later choose the interested students and make their list. Moreover, a student advisor is designated who coordinates the program and counsel the other student also,
- From 2018-till date, institute organizes annual farmers meet for rural area farmers and villagers too. Right after that the institute organizes some informative lectures for the farmers.
- During the interactive session, farmer discusses their problems with staff members.
- Meanwhile student of the institute interacts with the farmers and does the survey regarding the format given to the student which takes some information from them.
- After the survey of this information, student as well as staff of respective departments does the analysis of the filled information. Later the staff along with some team of the student visited the needy villages regarding some informative and experiential training to the farmers. Area for the projects was chosen on the basis of priority needs.
- With this practice staffs first have to give training to the students regarding the concept of the practice to be run. Then after the students will learn the basic knowledge of what actual practice is to be done.

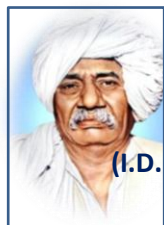


Pravara Rural Education Society's

**Arts, Commerce, Science and Computer Science College,**

**Ashvi (Kd). Tal: Sangamner, Dist: Ahmednagar, Pin:413738**

**Affiliated to Savitribai Phule Pune University, Pune**



(I.D. No. PU/AN/.ACS&CS/066/2001)

☎ (02425) 240051 Fax ☎ 02425-240051

Email ID : ashvicollege@rediffmail.com Web :www.pravara.in/acsbcsashvi



Date: / / 2021

### Farmers Education committee

Following staff are appointed as a coordinator for the academic year 2020-21.

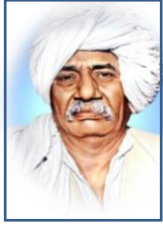
Department	Practice	Coordinator/Member
Physics	Solar energy and Electricity consumption awareness	Dr. Rohom A.B.
Chemistry	Soil and water analysis	Dr. Gaikar R.B. Dr. Bhumkar S.D.
Zoology	Pest control management and practices	Mr. Lokhande D.V. Dr. Gholap AB
Botany	Cropping patter	Mr. Varpe SS. Ms. Anarthe B.B.
Commerce	Farmer Accounting	Dr. Gholap A R. Dr. Unde S.A
Economics	Financial Literacy about Central Budget	Mr. Shelke GR Dr. Rohmare SS
Geography	Weather prediction	Mr. Dabhade D.D. Mr. Shinde A.B.

You are requested to coordinate the Best Practices activities for the academic Year 2020-21

# **Department of Physics**

**Solar energy and Electricity**

**consumption awareness**



Pravara Rural Education Society's  
**Arts, Commerce, Science and Computer Science College,**  
Ashvi (Kd). Tal: Sangamner, Dist: Ahmednagar, Pin:413738  
Affiliated to Savitribai Phule Pune University, Pune

(I.D. No. PU/AN/ACS&CS/066/2001) ☎ (02425) 240051 Fax ☎ 02425-240051

Email ID: ashvicollege@rediffmail.com Web: www.pravara.in/acsbeshashi

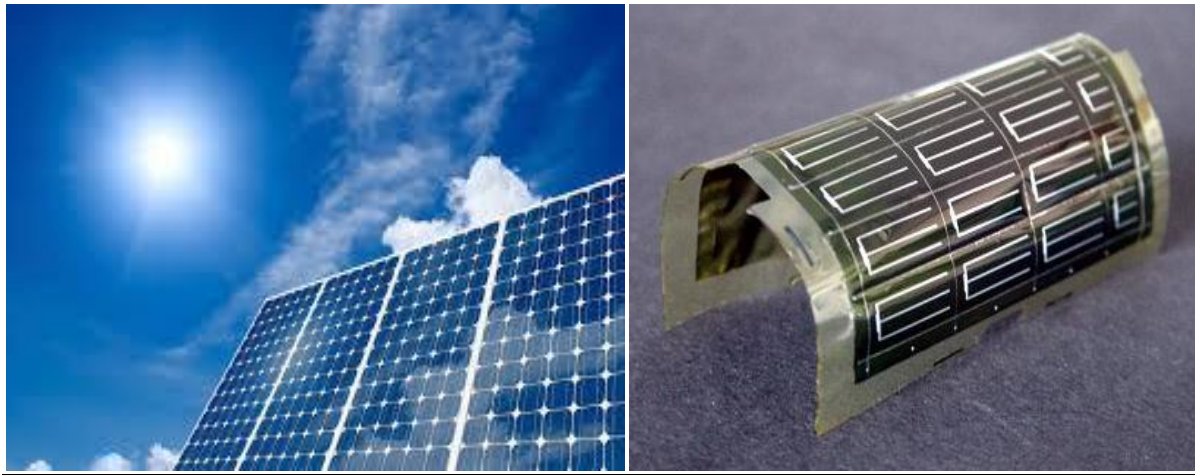


**Academic year 2020-21**

**Solar Energy and electricity consumption**  
**awareness**

By

**Department of Physics**



## Popularization of Solar Energy awareness

### **Brief note:**



Nowadays, energy has been seen as a basic need of human life. Scientist has divided energy into several kinds of it but mainly is renewable and non-renewable energy sources. Non-renewable energy sources are the one like fossil fuels which require long time to regenerate, however the renewable energy sources are always available in a huge amount. The renewable energy resources such as oil, gas and coal are limited globally due to the overconsumption and expected to be increased continuously in future. As a result, the renewable energy resource becomes the fastest growing power generation sources. The predicted energy consumption in 2050 will be as much as 50 TW. Therefore the question is how to supply energy for all this; certainly the answer is not fossil fuels due to the limited storage. Even if the available fossil fuel is infinite, the damage of burning fuel causes environmental pollution. To overcome all these issue one has to focus on renewable energy resources. Researchers are now trying to harvest solar, biogas, water and air reserves. Solar energy is one of the most promising sources who have the brightest future. In addition, solar energy is the abundantly available and economically compactable energy source on earth. The earth receives  $5 \times 10^{21}$  KJperyear from sun. This energy is 15000

times larger than annual energy demand of the world. Therefore, more attention has been paid to solar energy and its wide application.

There are various generations of solar cells depending upon the development based on the reduction of cost is briefed below.

The first generation is based on the Si-wafer technology which is a commonly dominant since the material is abundant on the earth's crust. These solar cells are highly stable with very good performance till date. Silicon solar cells are made up from either single or polycrystalline wafers. Till date, the best efficiency for silicon solar cell in research laboratory is demonstrated 26.3 %. However, to achieve such record efficiency, high purity silicon along with the sophisticated instruments is needed. As silica is abundant but the cost requires to obtain pure silicon is huge which makes the final produce very expensive. The second generation of solar cell is based on the thin film solar cells (TFSC). Basically thin films are the layers of material ranging from nm to several micrometers. In TFSC, the materials used as absorber of thickness less than 5  $\mu\text{m}$  which is sufficient to absorb the sunlight. The third generation solar cells are the emerging technologies and could become commercial in future either by achieving low cost and high efficiency. The examples for third generation solar cells includes dye sensitized solar cells, organic solar cells and perovskites solar cell/

The basic structure for thin film solar cells are composed of different layers of materials.

- a. Buffer layer:
- b. Absorber layer:
- c. Window layer:
- d. Antireflection coating:
- e. Metal contact:

The effective way to use the solar energy in the form of electricity is to create solar cells. Solar devices are the one which can generate voltage upon the exposure of light. It works on the principle of photovoltaic effect which was discovered by Becquerel in 1839. Quantitatively the power delivered from solar cells is termed into power conversion efficiency which is nothing but the power extracted per incident solar energy.

## **Social Commitments**

- **Awareness Regarding Energy Crisis, Pollution & Environmental Friendly Energy Sources**
- **Popularization of Renewable Energy Sources through lectures and demonstrations**
- **People are encouraged to install hot water system, use of Solar cooker, solar lantern etc.**
- **Creating health & environmental awareness among the rural women**
- **Imparting training to rural women specially use of solar cooker & solar lantern**
- **Guidance to farmers for installing go-bar gas plants as well as maintenance and repairs.**

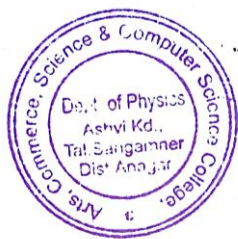



**Actual photographs taken (2020-21)**



## List of F.Y.B.Sc. Students who took part in the practice

Sr. No	Student Name
1	Amale Akansha Bhanudas
2	Andhale Sanchit Vilas
3	Borude Pooja Suresh
4	Burkul Pooja Pandurang
5	Chaudhari Sarika Bhausahab
6	Datir Anuja Kailas
7	Dongare Pornima Maruti
8	Gaikwad Jayshri Raghunath
9	Kadam Vishal Balu
10	Lambhate Santosh Namdev
11	Magar Neha Pravin
12	Nagare Dipali Ramkisan
13	Nagare Nikita Sampat
14	Pabal Raunak Sahebrao
15	Pansare Swati Dingambar
16	Patole Krishna Popat
17	Pawar Vishal Sarjerao
18	Sangale Saurabh Sachin
19	Shinde Nikita Ganpat
20	Suryawanshi Shraddha Ramesh



  
Head  
Department of Physics  
ACS & Comp.Sci. College, Ashvi Kd.



## Energy Survey of village – Outcome of the practice

No. of farmers Families Covered - 90

Sr. No.	Particular	No. of Users (Family) at the end of academic year 2019-20	No. of Users (Family) at the end of academic year 2020-21
1.	CFL/LED bulbs	55	73
2.	Solar Hot Water System	13	16
3.	Solar Photovoltaic System	04	6
4.	Solar Cooker	03	5

### Conclusion

It is well known that the fossil fuels are expected to be consumed entirely within next 100-200 years. In order to address the future energy needs of the world, a renewable energy source is needed. Among all, the most abundant source of energy is solar radiation. The further development of solar cell will be required the reduction of the cost.



  
Head  
Department of Physics  
ACS & Comp.Sci. College, Ashvi Kd.

# **Department of Chemistry**

## **Soil Water Analysis**

# SOIL & WATER ANALYSIS

## Farmer's List

YEAR: 2020-21

Sr. No	Name	Address	Phone No.
1.	Jadhav Anil Ranganath	At: Panodi, Tal: SangamnerDist: A. Nagar	9579015861
2.	Parwat Sitaram Rambhau	At/Post-Panodi Tal- Sangamner Dist-A.nagar	8888981249
3.	Dongare Ramdas Sadashiv	At: Panodi, Tal: SangamnerDist: A. Nagar	9765550938
4.	Jadhav Shankar Kesu	At: Panodi, Tal: SangamnerDist: A. Nagar	9322982041
5.	Talekar Satish Babasaheb	At: Panodi, Tal: Sangamner Dist: A. Nagar	8007212461
6.	Khedkar Govind Balasaheb	At: Panodi, Tal: Sangamner Dist: A. Nagar	-
7.	Ghodekar Anil Vitthal	At: Panodi, Tal: SangamnerDist: A. Nagar	-
8.	Sayyad Aayaj	At: Panodi, Tal: SangamnerDist: A. Nagar	7030030412
9.	Mhadhe Jayram	At: Panodi, Tal: SangamnerDist: A. Nagar	-
10.	Dighe Dattatray Bhima	At: Panodi, Tal: SangamnerDist: A. Nagar	-
11.	Sangale Ganesh Nanasaheb	At: Panodi, Tal: SangamnerDist: A. Nagar	9834957507
12.	Jadhav Dhannanjay Sopan	At: Panodi, Tal: SangamnerDist: A. Nagar	8975791826
13.	Jadhav Mangesh Annasaheb	At: Panodi, Tal: SangamnerDist: A. Nagar	8600301162





## DEPARTMENT OF CHEMISTRY


### Report

#### SOIL AND WATER ANALYSIS AWARENESS PROGRAMME 2020-21

By considering today's scenario about the awareness of Soil and Water Analysis, Department of chemistry of Arts, Commerce, Science and Computer science collage, Ashvi kd., conduct the soil and water analysis awareness program. In this program, the chemistry teachers provide the information of importance of soil and water analysis. Department organizes various events, where the rural area peoples can be made aware about the importance of Soil and Water Analysis.

#### Details of the Soil and Water Analysis Awareness Programme 2020 - 21

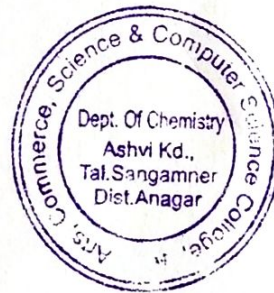
Sr. No	Year	Day and Date	Place	Guidance given to farmers	Number of Farmers present
1	2020-21	10-02-2021 to 16-02-2021	At: Panodi, Tal: Sangamner Dist: A. Nagar	<ul style="list-style-type: none"><li>• Area of village</li><li>• Environment of village</li><li>• Soil and water analysis System.</li><li>• .Benefits of Soil and water analysis System</li><li>• Importance of Soil and water analysis System</li><li>• People are encouraged to analyse soil and water sample in laboratory in their farm.</li></ul>	13

  
Head  
Department of Chemistry  
ACS & Comp.Sci. College, Ashvi Kd



### Photo Gallery

Moreover, Department of Chemistry organised Innovative practice Soil and Water Analysis in Villages.



**Department of Zoology**

**Pest Control Management and**

**Practices**

Loknete Dr. Balasaheb Vikhe Patil (Padmbhushan awardee)  
Pravara Rural Education Society's  
**Arts, Commerce, Science and Computer Science College, Ashvi Kd,**  
Tal. Sangamner, Dist. Ahmednagar

**Department of Zoology**

**Best Practices- 2020-2021**

**Pest control management and practices**



## **Brief Note on Pest control management and practices**

Pest control is the regulation or management of a species defined as a pest, a member of the animal kingdom whose impacts adversely on human activities. The human response depends on the importance of the damage done, and will range from tolerance, through deterrence and management, to attempts to completely eradicate the pest. Pest control measures may be performed as part of an integrated pest management strategy

Pesticides are used to control pest populations, and are generally named for the type of organism they control. Pesticides are important tools for homeowners, growers, land managers, public health officials and beekeepers to control insect pests, disease vectors (such as mosquitos), disease-causing organisms (bacteria, fungi), weeds, and invasive species that threaten the balance of our natural ecosystems.

In agriculture, pests are kept at bay by cultural, chemical and biological means. Ploughing and cultivation of the soil before sowing reduces the pest burden and there is a modern trend to limit the use of pesticides as far as possible. This can be achieved by monitoring the crop, only applying insecticides when necessary, and by growing varieties and crops which are resistant to pests. Where possible, biological means are used, encouraging the natural enemies of the pests and introducing suitable predators or parasites.

IPM is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only the target organism. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and nontarget organisms, and the environment.



## **Aims and Objectives**

- Focuses on pest prevention.
- Uses pesticides only as need
- Determine the best preventive measures.
- Reduce the unnecessary use of pesticides
- Increase farmer income
- Increase sustainability of agricultural practices
- to improve production and marketing methods
- Maximize crop production with minimum input costs.
- Minimize environmental pollution in soil, water and air due to pesticides.
- Minimize occupational health hazards due to chemical pesticides.
- Conserve ecosystem and maintain ecological equilibrium.
- Judicious use of chemical pesticides for reducing pesticide residues

## **Activities**

- Surveillance & Monitoring of insect-pest & diseases.
- Augmentation and Conservation of Natural enemies.
- Production and release of bio-control agents.
- Farmers' Field orientation programme

## **Survey and Surveillance**

- To keep a close watch over a desired period of time in an identified cropped area on build up of pests (insects, vertebrates, diseases, nematodes & weeds etc.) and their natural enemy population so that a prior care can be adopted to control the target pests.
- The basic objective of pest surveillance is to detect the early sign of existing and emerging pest and their natural enemies
- Survey, monitoring, field scouting are the major activities of the pest surveillance.
- Rapid Roving Pest Surveys are conducted by the teams of student on a predetermined survey routes.

## ORGANIC FARMING

Organic farming relies on methods which combine scientific knowledge of ecology and modern technology with traditional farming practices based on naturally occurring biological processes. It is a farming system that sustains the health of soils, ecosystems and people. The principal methods of organic farming include crop rotation, green manure and compost, mechanical cultivation and biological pest control.

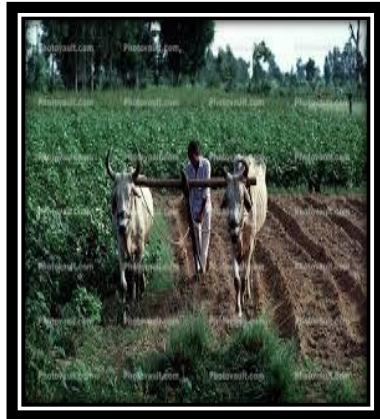
Farmers are faced with myriad of production challenges where the most common problems are pests, which include insects, diseases, and weeds. They integrate cultural, biological, mechanical, physical and chemical practices to manage pests.



**Cultural practices** – Means making the environment unsuitable or unfavorable, unacceptable to pests by interfering with their oviposition preferences, host plant discrimination or location by both adults and immatures. Those can be achieved with practices such as crop isolation, mixed cropping, and crop rotation. The timing of sowing and planting can be used to allow young plants to establish to a tolerant stage before an attack occurs and to reduce the susceptible period of attack. Management of trap and nursery crops and surrounding environment is also included to divert insect attack away from the crop.



**Mechanical and physical control** – include tillage, mowing, cutting, mulching and organic soil coverage and barriers. Tillage turning the soil between crops to incorporate crop residues and soil amendments. It also destroys weeds and disrupts pest life cycle.



**Biological control** – biological control in organic plant protection is a method of controlling insect pests and diseases using other organisms which rely on predation, parasitism and herbivore, or some other natural mechanisms with active farmer's management interaction. Natural enemies of insect pests, known as biological control agents, are predators, parasitoids and pathogens. For weeds biological control, agents are seed predators, herbivores and plant pathogens, while for plant diseases biological agents are antagonists. In organic farming, biological agents can be imported to locations where they don't naturally occur, or farmers can make a supplemental release of natural enemies, boosting the naturally occurring population.



**Chemical control** - organic standards are designed to allow the use of naturally occurring substances such as pyrethrin and rotenone. Farmers avoid the use of broad-spectrum synthetic pesticides, which severely disrupt natural control and promote the occurrence of secondary pests such as spider mites, brown planthoppers and Rhizoctonia. There are also few synthetic substances allowed in organic farming, such as fixed coppers (copper hydroxide, copper oxide, copper oxychloride, copper sulfate), hydrated lime, hydrogen peroxide, lime sulfur, and potassium bicarbonate.



To design and implement best practices of pest management in organic farming, it is also necessary to have accurate knowledge of crop and pest biology, ecology, phenology and of pest-crop interactions, while following strictly regulated rules of organic farming. In many countries around the world, it's regulated by an inspection, certification and labeling scheme. Although organic farming has many regulations and restrictions, farmers still need to track their activities on fields. To facilitate them record keeping and to have all in one place, Agrivi farm management software helps farmers track organic materials, work hours and finances spent on their farm. It also helps farmers fight with complex organic farming regulations and reports. With over 20 different reports of all farm activities, from planting, protecting, maintaining to harvesting, Agrivi enables farmers to track spent amounts of organic pesticides and fertilizers per fields and crops, their finances and farm productivity and to print it out. Everything that farmer enters into the system; it's automatically filled in reports.

### **Prevent Crop Loss with Proper Harvest Management**

When the time comes to harvest, it's important to choose a suitable method to maximize the yield and minimize losses. Many farmers have difficulties at harvesting and handling their crops. They have to know the exact time for harvest, because harve

## Best Practices: Pest control management and practices

Best Practices: for the academic year 2020-21

### List of Students

#### Department of Zoology

Sr. No	Name	Designation
1	Mr. Lokhande D.V./ Gholap A. B.	Teacher
2	Barde Vijaya Laxman	Student
3	Bhokare Poonam Anil	Student
4	Bhosale Shobha Prabhakar	Student
5	Bhusal kirti Gorakshanath	Student
6	Datir Yogesh Dhodiram	Student
7	Dongare Nikita Ramdas	Student
8	Mandhare Kiran Vijay	Student
9	Mandhare Vikrant Kailas	Student
10	Mhaske Nikhil Suresh	Student
11	Pabal Prachi Ram	Student



*Ashvi Kd.*  
Head  
Department of Zoology  
ACS & Comp.Sci. College, Ashvi Kd.



**Arts, Commerce, Science and Computer Science College,**  
**Department of Zoology**  
**Best Practices: Pest control management and practices**  
**Best Practices: Visit Report- 2020-2021**

In our college Department of Zoology conducted the best in Pest control management and practices from academic year from 2020-2021. In these best practice 10 students from class S.Y.B.Sc are enrolled, these students first bring the survey of nearby villages surrounding to the ashvi collage. They studied the area of these village, environment Of village, land of village soil type, types of crop, cropping pattern, irrigation system, and fertilization method and harvesting pattern. The students bring the group discussion in the farmers. Students aware the farmers about environment Of village, land of village, soil type, types of crop, cropping pattern, irrigation system, fertilization method and harvesting pattern With bringing a field visit



Outcome of this practice in this academic year farmer benefited as follow:

Name of village	Guidance given to farmers	Name of Framer participated
Ashvi Kd, Tal- Sagamner, Dist.- Ahmednagar	<ul style="list-style-type: none"> <li>• Area of village</li> <li>• Environment of village</li> <li>• Cropping pattern.</li> <li>• Types of pest.</li> <li>• Types of pest control practices</li> <li>• Importance of irrigation and fertilization management</li> <li>• Importance of different pest control practices.</li> <li>• Importance of time of harvesting of crop</li> </ul>	1. Shri. Gaikwad Sadashiv Ram
		2. Shri. Tajane Ramdas Haribhu
		3. Shri. Gaikwad Sunil Murlidhar
		4. Shri. Sonavane Changdev Vithal
		5. Shri. Gikwad Dinkar Ganpat
		6. Shri. Gaikwad Namdeo Damodhar
		7. Shri. Mandhare Sonyabapu Gabaji
		8. Shri. Bhavar Bapusaheb Madhav
		9. Shri. Sonavane Sopan Madhukar



*Ashvi Kd.*  
**Head**  
 Department of Zoology  
 ACS & Comp.Sci. College, Ashvi Kd.

# Department of Botany

## Cropping Pattern

Loknete Dr. Balasaheb Vikhe Patil (Padmabhushan Awardee)  
Pravara Rural Education Society's  
**Arts, Commerce, Science and Computer Science College,**  
Ashvi Kd, Tal. Sangamner, Dist. Ahmednagar

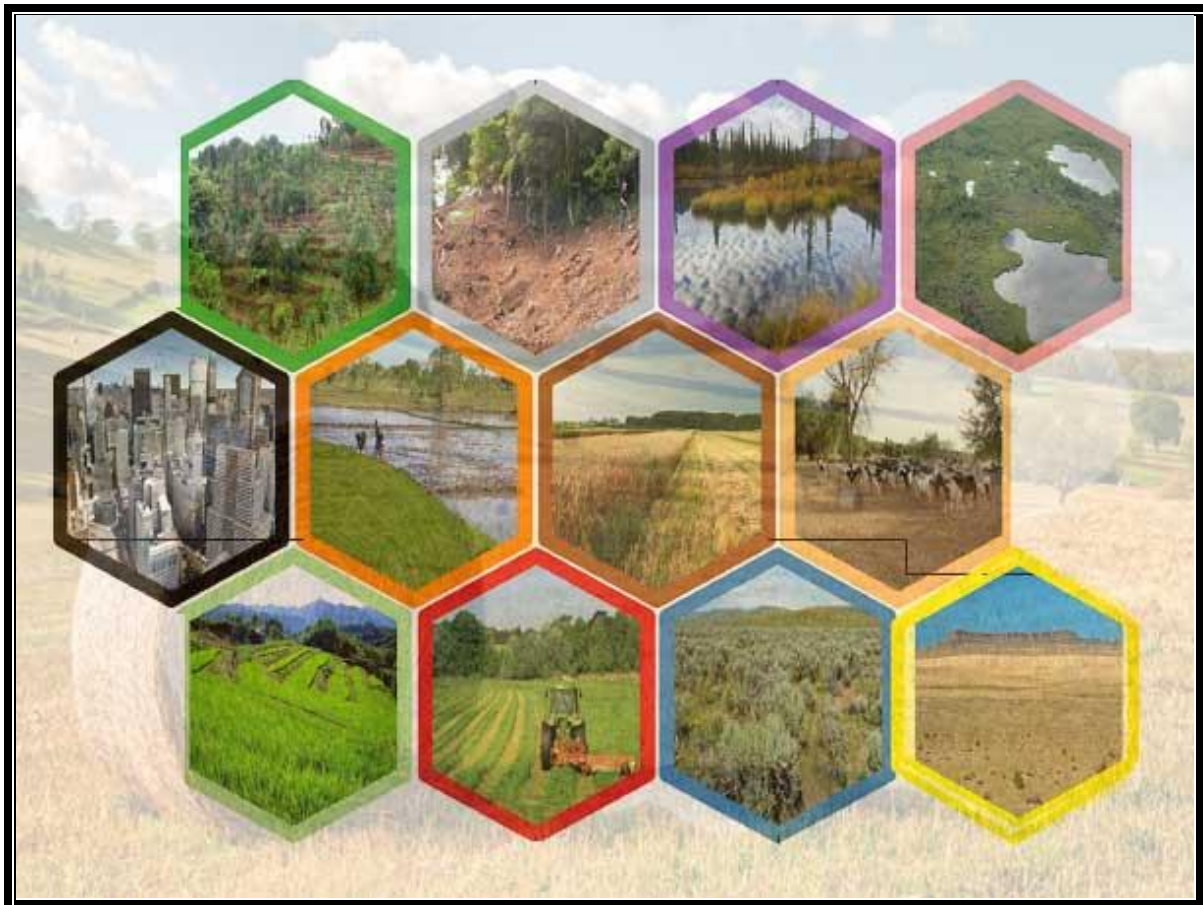
**DEPARTMENT OF BOTANY**

**Academic year 2020-21**

***Cropping Pattern***

**By**

***Department of Botany***





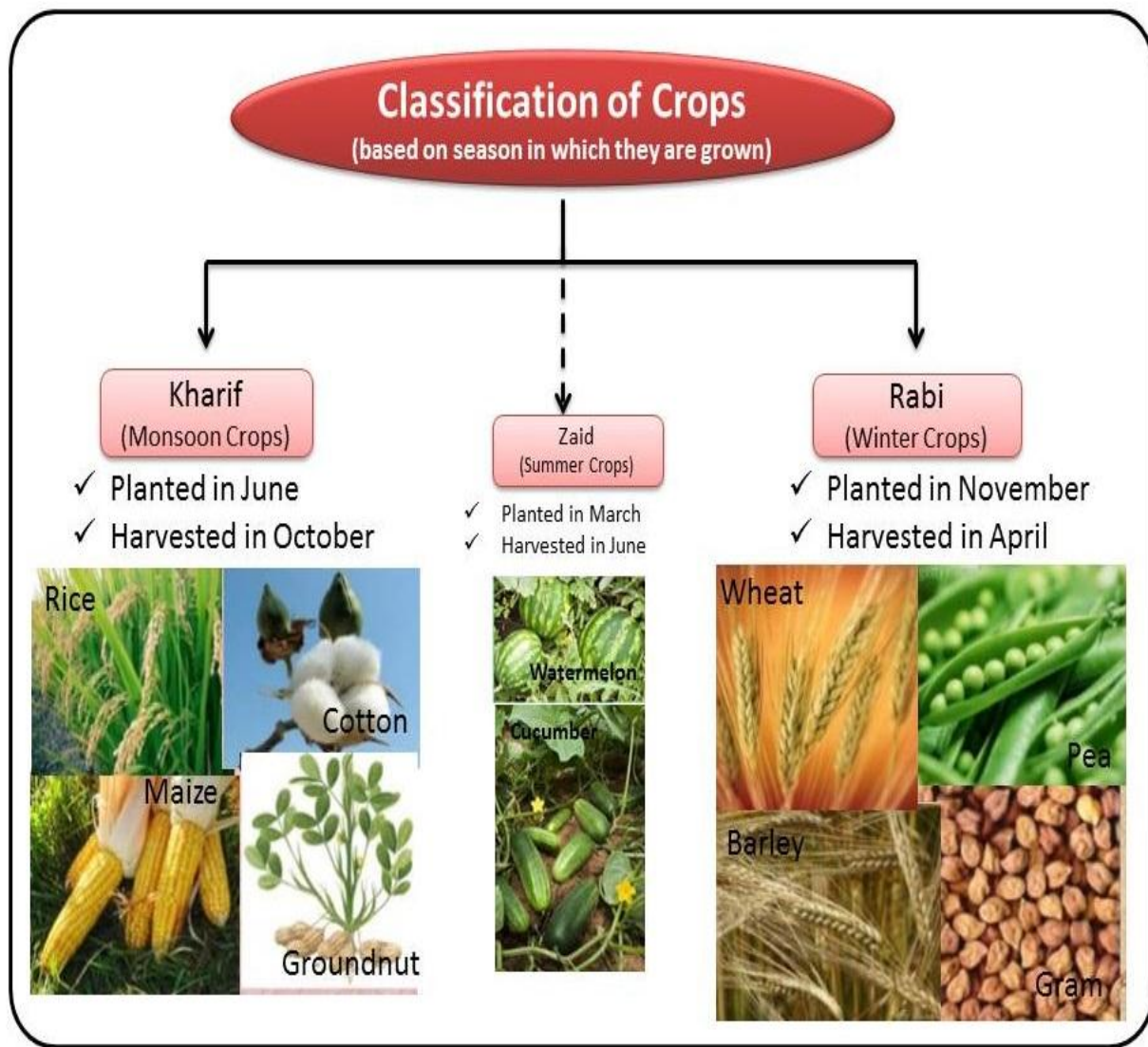
# Title of the Practice – Cropping Pattern

## Introduction-

**Cropping pattern refers to the proportion of land under cultivation of different crops at different points of time. This indicates the time and arrangement of crops in a particular land area. Any change in the cropping pattern would cause:**

- change in the proportion of land under different crops
- change in space sequence and time of crops

In India, the cropping pattern is determined by rainfall, temperature, climate, and technology and soil type.



**The major cropping patterns include the following:**

## **Monocropping**

Monocropping reduces soil fertility and destroys the structure of the soil. Chemical fertilizers are required to upgrade production. This practice allows the spread of pests and diseases.

## **Mixed Cropping**

When two or more crops are grown on the same land simultaneously, it is known as mixed cropping. For e.g., growing wheat and gram on the same land at the same time is mixed cropping. This practice minimizes the risk of failure of one of the crops and insures against crop failure due to abnormal weather conditions.

The crops to be grown together should have a different maturation time and different water requirements. One tall and one dwarf crop should be grown together. The nutrients required by one crop should be less than those required by the other. One crop should have deep roots, others should be shallow. All these criteria lead to a successful mixed cropping pattern.

## **Advantages of Mixed Cropping**

- The crop yield increases.
- The pest infestation is minimized.
- Reduction in the risk of crop failure.
- The soil is utilized properly.
- More than one variety of crops can be harvested at the same time.

## **Intercropping**

Intercropping is the practice of growing more than one crop on the same field at the same time in a definite row pattern. After one row of the main crop, three rows of intercrops can be grown. This increases productivity per unit area.

Intercropping can be of different types:

### **Row Intercropping**

When the component crops are arranged in alternate rows it is known as row intercropping. It helps in optimum utilization of land space and suppression of weeds during the early stages of the main crop.

### **Strip Intercropping**

When two or more crops are grown in wide strips so that the two crops can be managed separately, it is known as strip cropping. However, the crops are close enough to interact.

### **Relay Intercropping**

In this type of intercropping, a second crop is planted when the existed crop has flowered but not harvested. For e.g., Rice-Cauliflower-Onion-Summer gourds.

### **Advantages of Intercropping**

- The fertility of the soil is maintained.
- The spread of diseases and pests is controlled.
- Optimum utilization of resources.
- The space and time of growing more than one crop are saved.
- Maximum utilization of nutrients present in the soil.

Maize and soybean, bajra are some of the crops grown as intercrops.

### **Crop Rotation**

In this pattern, different crops are grown on the same land in preplanned succession. The crops are classified as one-year rotation, two-year rotation, and three-year rotation, depending upon their duration.

Legumes are included in the crop rotation programme to increase soil fertility. The crops which require high fertility level (wheat) can be grown after the legumes. The crops which require low inputs can be grown after the crops that require high inputs.

### **How are the crops selected for Rotation?**

While selecting the crops for rotation, the following criteria should be adopted:

- Enough moisture should be available.
- Availability of fertilizers, man-power, and machine-power.
- Marketing and processing facilities.
- Availability of nutrients in the soil.
- The crop duration- short or long.

### **Advantages of Crop Rotation**

- The soil fertility is maintained for a prolonged period.
- The growth of weeds and pests is prevented.
- A lot of chemical fertilizers are not required.

- The physical and chemical nature of the soil remains unaltered.

## **Factors Affecting Cropping Patterns**

- The cropping patterns determine the level of agricultural production. This reflects the agricultural economy of any region.
- The cropping patterns are affected by changes in agrarian policy, availability of agricultural inputs, and improvement in technology.
- Thus, the cropping patterns are beneficial in improving the fertility of the soil, thereby, increasing the yield of the crops. It ensures crop protection and availability of nutrients to the crops.

## **Objectives and Benefit of Practice**

### **Objectives of Cropping Pattern-**

- Efficient utilization of all resources viz. Land, Water and solar radiation maintaining stability in production and obtaining higher net returns.
- The efficiency is measured by the quantity of produce obtained per unit resource in a unit time.

### **❖ Benefit of Cropping Pattern-**

- Maintain and enhance soil fertility
- Enhance crop growth
- Minimize spread of disease
- Control weeds
- Inhibit insect and pest growth
- Increase soil cover
- Reduce risk for crop failure



**Photo Gallery:-**




## Best Practices: Cropping Pattern

Practice: for the academic year 2020-21

### List of Students

Sr. No	Name	Designation
1.	Mr.Varpe S.S	Teacher
2.	Miss.Anarthe.B.B	Teacher
3.	Mandhare Vikrant Kailas	Student
4.	Mhaske Nikhil Suresh	Student
5.	Mhaske Prajakta Sandip	Student
6.	Pabal Prachi Ram	Student
7.	Dongare Nikita Ramdas	Student
8.	Tambe Nikita Abasaheb	Student
9.	Chaudhar Jayant Bhivraj	Student
10.	Chaudhari Chaitali Ashok	Student
11.	Daradi Rahul Eknath	Student
12.	Datir Vanita Damu	Student

  
Head  
Department of Botany  
ACS & Comp.Sci. College, Ashvi Kd.



Loknete Dr.Balasaheb Vikhe Patil (Padmabhushan Awardee)  
Pravara Rural Education Society's  
**Arts, Commerce, Science and Computer Science College,**  
Ashvi Kd, Tal. Sangamner, Dist. Ahmednagar

## DEPARTMENT OF BOTANY

### Best Practices: Cropping Pattern

#### Best Practices: Repot- 2020-2021

Department of Botany conducted the best practice in Cropping Pattern from academic year 2020-21. In this best practice 10 student from class S.Y.B.Sc was enrolled, these students first bring the survey of nearby villages surrounding to the ashvi collage. They studied the area of this village, environment of village, types of crop, cropping pattern, irrigation system, fertilization method and harvesting pattern. The students bring the group discussion with the farmers. Students aware the farmers about types of crop, cropping pattern, irrigation system, fertilization method and harvesting pattern with bringing a field visit.



**Outcome of this practice in this academic year farmer benefited as follow:**

<b>Name of village</b>	<b>Guidance given to farmers on</b>	<b>Name of Framer</b>
Ashvi Kd, Tal-Sangamner, Dist.- Ahmednagar	<ul style="list-style-type: none"><li>• Area of village</li><li>• Environment of village</li><li>• Cropping pattern System.</li><li>• Types of cropping pattern.</li><li>• Benefits of cropping pattern.</li><li>• Importance of time of harvesting of crop</li></ul>	1. Pawar Sudhakar Dhondiba
		2. Gaikwad Popat Laxman
		3. Gaikwad Ramesh Lahanu
		4. Walhekar Mayur Sampat
		5. Tajane Mahesh Gangadhar



*A. K. K. K.*  
Head  
Department of Botany  
ACS & Comp.Sci. College, Ashvi Kd.



**Department of Commerce**

**Farmers Accounting**

Loknete Dr. Balasaheb Vikhe Patil (Padmabhushan Awardee)

Pravara Rural Education Society's

Arts, Commerce, Science and Computer Science College, Ashwi Kd.

Department of Commerce

## Farmer Accounting

### Introduction:

Economy of India has been recording rapid industrial progress yet still it is based principally on agriculture and more than 72 per cent population of the country is directly or indirectly engaged in this profession. There are more than 500,000 villages in the country which are engaged in agriculture allied activities. Major share of the national income of the country is contributed by agriculture. In spite of these, productivity in the agricultural sector has not been increase as growth witnessed in other sector of economy. Many factors are responsible for the low productivity of agriculture but one point that can mainly be attributed to it is the "farm management" which has received far less attention than the industrial and business management. In spite of the fact that agriculture plays the most significant role in our economy, no comprehensive, detailed and systematic accounting methods, costing system and management techniques has been developed for this sector.

With no written records, farmers have to depend on their memory while making decisions regarding their farm practices. Record keeping is a necessary element of all types of farming practices especially in livestock business management. There are several useful records such as production and financial transactions in the dairy enterprise. Mahatma Gandhi said that the soul of India is living in villages. Lack of infrastructure and ill managed manpower making the farming uncertain in India. Hence the farmers are still poor in India. There is a large gap regarding economics and other aspects in rich and poor farmers. Majority of farmers are marginalized in India possess very small piece of land. Average landholding is less than 2.5 acres. Therefore, it is very necessary to make farm accounting as a daily practice. It will then



increase accountability in farming. The surrounding of the college is of Agriculture. Almost all students are from farming backgrounds. The high labour employment is also provided by the farming. It is essential to maintain accounts of agriculture farm. Farmers also need to be financial managers; that means keeping accurate farm records and establishing and maintaining a proven record keeping system. Farmers need an accurate farm records system, bookkeeping, and financial planning system to track all of the farms business activities. Agriculture income is tax free in India, subject to certain stipulation.

### **Aims and Objectives:**

- ❖ To provide Accounting Knowledge to the farmers
- ❖ To help for accurate farm records system, bookkeeping, and financial planning system to track all of the farms business activities.
- ❖ To involve students in the practice, for practical knowledge.
- ❖ To strive for positive change in Agriculture sector
- ❖ To bring about the all-round development of Farmers

### **The Practice –**

To fulfill aim and objectives of the farm accounting and to involve students into this practice the meeting is held with students. In the first meeting of the year students were acquainted with the practice along with other discussion. Interested students are then enrolled under this practice. In the initial stage, enrolled students and farmers from nearby community were called for a meeting and the details were communicated to farmers. Specially designed form is circulated and collected. The form collects the information regarding landholding, type of land, Irrigation facilities, Livestock details, new techniques used and other economic related details. After studying the details of all the forms, 20 farmers are selected on the basis of their economic and social background. Precaution is taken while selecting farmers making sure not include farmers from same economical and social background.





After completing this initial stage, students are then involved in this activity. Face to face visits plays important role. Personal visits are arranged for these 20 selected farmers. All the details regarding farm accounting and other details are then communicated to farmers. Students are then asked to take follow-up of the activity. In this process farmers get acquainted with the new techniques of farm accounting as well as students learns directly from practical knowledge.



## List Participated Student 2020-21

Sr. No	Name Of The Students
1.	Amle Vishal Bhima
2.	Andhale Ashok Bhausahab
3.	Bhusal Akshay Namdeo
4.	Bondre Kanchan Subhash
5.	Burkul Balasaheb Pandharinath
6.	Dengale Akshay Lahanbhau
7.	Deshmukh Deepak Anil
8.	Gaikwad Rushikesh Suresh
9.	Gaikwad Pratiksha Suresh
10.	Gite Pravin Bhausahab
11.	Ilag Sagar Ramkrishna
12.	Laware Pradip Bhagwat
13.	Nagare Ashvini Madhav
14.	Pabal Sharad Dattatray
15.	Sanap Sudarshan Sakharam
16.	Shinde Nitin Chandrakant
17.	Sose Pravin Bhausahab
18.	Tajane Vrushali Dnyaneshwar
19.	Tambe Arti Bapusaheb
20.	Ugalmugale Akshay Laxman







**पुण्य नगरी**

**पशुधन टिकले तर शेती टिकेल - म्हस्के**

**आरवी खुर्द महाविद्यालयात शेतकरी मेळावा**

पुण्यनगरीत पुण्यनगरातील आरवी खुर्द महाविद्यालयात शेतकरी मेळावा आयोजित करण्यात आला आहे. यावेळी शेतकरी मित्रांच्या हजेरीत डॉ. विनायक शिंदे यांनी शेतकरी मेळावा आयोजित करण्यात आला आहे. यावेळी शेतकरी मित्रांच्या हजेरीत डॉ. विनायक शिंदे यांनी शेतकरी मेळावा आयोजित करण्यात आला आहे.

यावेळी डॉ. विनायक शिंदे यांनी शेतकरी मेळावा आयोजित करण्यात आला आहे. यावेळी शेतकरी मित्रांच्या हजेरीत डॉ. विनायक शिंदे यांनी शेतकरी मेळावा आयोजित करण्यात आला आहे.

यावेळी डॉ. विनायक शिंदे यांनी शेतकरी मेळावा आयोजित करण्यात आला आहे. यावेळी शेतकरी मित्रांच्या हजेरीत डॉ. विनायक शिंदे यांनी शेतकरी मेळावा आयोजित करण्यात आला आहे.



**Farmer Accounting - various activity run by Department of Commerce**





## Outcomes of the Practice

Farmers typically do not prepare various financial statements, because current accounting rules do not adapt well to the particularities of agriculture. Farmers consider that the benefits of accounting reports do not outweigh the cost and effort of preparing them, or learning how to prepare them. A big farmer's wealth is as good as small scale industries. But he has not maintaining his accounting system. If a good developed farm accounting is use then the present scenario of agriculture will change. For this purpose, we are implementing a new initiative for the farmers of Ashvi village on behalf of the Commerce Department with student.

### Success story

#### Success story 1

**"Ilag Ramkrishna Yashwant"** has been in farming sector from years but never kept any financial record of his income and expenditure. His son **Ilag Sagar Ramkrishna** our student of T.Y.B.Com. gave impetus to keep the farming record and started to keep all entries in a notebook. After a year notebook was analyzed in various aspects. Now it is his daily routine to keep a record which is yielding great benefits to him

#### Success story 2

**"Sose Bhausaheb Dhodiba"** Has been practicing farming activities form years. He is been practicing mixed farming. His family income is largely through animal rearing and allied activities. A dairy business is the major activity providing sustainable income and manure to the farm. In recent years due to various diseases in animals, the income from dairy business has dropped but he never got a clear view of loss. After keeping a record he was able to specify the sector of loss. When he started to keep all the record of his dairy business and all farm activities he was able to curtail some unnecessary expenditure



  
Head  
Department of Commerce  
ACS & Comp.Sci. College, Ashvi Kd.

# **Department of Economics**

**Financial Literacy about Central**

**Budget**

## Department of Economics

### Financial literacy on-Agricultural Issue, PM Kisan Yojana

#### Report -2020-2021

The Department of Economics helped in disseminating information about the Prime Minister's Kisan Scheme to the farmers. Students from the Department of Economics explained the details of the Prime Minister's Farmer Scheme to the farmers of Ashvi Budruk village. The students provided technical assistance to the farmers concerned to avail the benefits of the Prime Minister's Farmer Scheme.

Sr. No.	Year	Month/Date	Objectives of this activity	Outcomes of this activity	Total numbers of farmers and Place
1	2020-21	22 Feb. 2021 to 25 Feb. 2021	1) To Provide Information about Government Agricultural schemes to the farmers. 2) To Participated Farmers in the Practice. 3) To involved students in the practice for practical knowledge. 4) Providing information on agricultural schemes to students. 5) Providing information on central government schemes to farmers.	Twenty Two Farmers enrolled in Pradhan Mantri Kisan Yojana From Ashvi Block, due to financial literacy campaign of Economics department ACS&CS College Ashvi kd.	22 Farmers in Ashvi Bk.



# List of Farmers who took Beneficiaries in the PM Kisan Yojana

## Farmers List 2020-21

### Village- Ashvi Bk.

Sr.No	Name Of Farmer	Address
1	Mule Pushpabai Muralidhar	Ashvi Bk
2	Gaikwad Rabhaji Krushnaji	Ashvi Bk
3	Mhase Radhabai Baburav	Ashvi Bk
4	Gaikwad Radhabai Chabu	Ashvi Bk
5	Jarhad Rahul Baburao	Ashvi Bk
6	Gaikwad Rahul Gangadhar	Ashvi Bk
7	Hodgar Rahul Hanumant	Ashvi Bk
8	Balote Rajani Vinayak	Ashvi Bk
9	Dokhe Rajendr Sahebrao	Ashvi Bk
10	Khemnar Rajendr Savitra	Ashvi Bk
11	Gaikwad Rajendra Dinkar	Ashvi Bk
12	Jarhad Rajendra Eknath	Ashvi Bk
13	Tajane Rajendra Jayram	Ashvi Bk
14	Hinge Rajendra Kundalik	Ashvi Bk
15	Tajane Rajendra Punjaji	Ashvi Bk
16	Shaikh Mosin Ismail	Ashvi Bk
17	Ratadiya Sushma Ashok	Ashvi Bk
18	Pinjari Mumtaj Mehabub	Ashvi Bk
19	Shaikh Mumtaj Rashid	Ashvi Bk
20	Khemner Murlidhar Kashinath	Ashvi Bk
21	Tajane Namdeo Anna	Ashvi Bk
22	Nighute Namdeo Sakharam	Ashvi Bk





## Success story:

Awareness about Pradhan Mantri Kisan Yojana was spread among the farmers of Ashwi Budruk villages through the Department of Economics. Beneficiary farmers were registered through the Department of Economics. All the beneficiary farmers who were registered benefited from the Prime Minister's Kisan Yojana. Farmers in Ashwi Bk. villages are guided by the Department of Economics to avail the benefits of the Prime Minister's Kisan Yojana and the benefits are given to the concerned beneficiary farmers.

Almost 22 Farmers enrolled in Pradhan Mantri Kisan Yojana From Ashvi Block, due to financial literacy campaign of Economics department Ashvi College. Thus the Financial Literacy Campaign of PM Kisan Schemes was good implemented by the department of Economics and received a good response.




Head  
Department of Economics  
ACS & Comp.Sci. College, Ashvi Kd.



Principal  
Pravara Rural Education Society's  
Arts, Commerce, Science & Computer  
Science College, Ashvi Kd.  
Tal. Sangamner, Dist. A'Nagar Pin- 412708

**Department of Geography**

**Weather Prediction**



Department of Geography

Best Practise - Weather Prediction to Farmers

Report of the Year 2020-21

Meeting No. 1

Geography special Second Year B.A and Third year B.A students were called for the meeting. Meeting was called for the concept clearance of the best practises. Interested 5 students were selected. Various websites addressing the issues were communicated to the students.

Meeting No. 2

10 farmers were selected, the parents of selected students were selected among the 10 farmers for better communication.

Prepared form was circulated among the farmers.

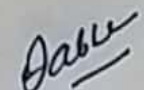
Villages where selected

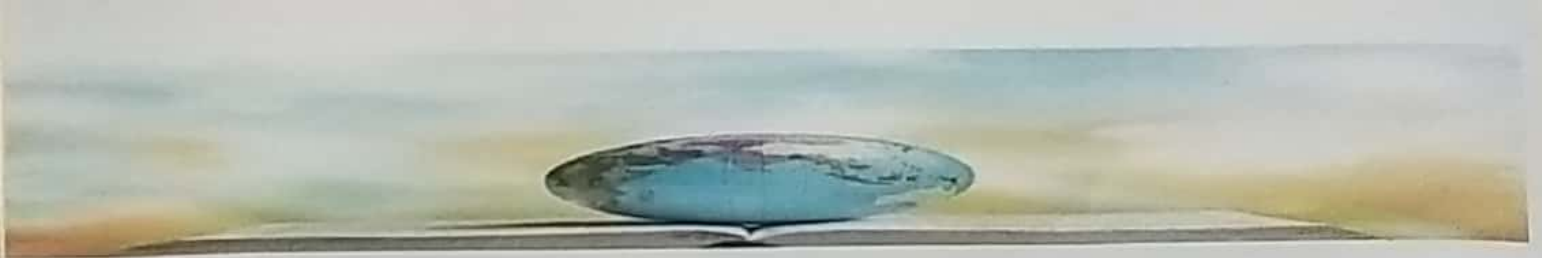
Selected students were acquainted with the concept

Meeting No. 3

Selected farmers were called for the meeting.

The concept of best practises was also communicated with them.

  
Head  
Department of Geography  
ACS & Comp.Sci. College, Ashvi Kd.



**IMD warning and other predication date wise**

**Year 2020-21**

<b>Sr No.</b>	<b>Climatic Phenomena and season. / period</b>	<b>Details</b>
1	Cloudy Weather	Warning on 8 Jan 2020 Warning on 3 January 2021
2	Unseasonal rains	Warning in 8 February 2020, 1 march 2020, Warning on 3 January 2021
3	Hailstorm Warning	1 March 2020
4	Cold Wave	Warning on 30 Jan 2020

  
Head  
Department of Geography  
ACS & Comp.Sci. College, Ashvi Kd.

### Participation of Students

Sr. No	Name of the Students	Class	Village
1	Suryawanshi Ramdas Hari	SYBA	Pratppur
2	Borhade Mahendra Dattu	SYBA	Malunje
3	Kale Shreya Babasaheb	TYBA	Warvandi
4	Pawade Ankita Babasaheb	TYBA	Kumbharwadi
5	Nagare Nitin Balasaheb	TYBA	Khali

### Involved Farmers

Sr. No	Name of the Farmer	Village
1	Hari Narayan Suryawanshi	Pratppur
2	Dattatrya Sakharam Borhade	Malunje
3	Babasaheb Vishwanath Kale	Warvandi
4	Babasaheb Sitaram Pawade	Kumbharwadi
5	Balasaheb Baburao Nagare	Khali

*Dasu*  
Head  
Department of Geography  
ACS & Comp.Sci. College, Ashvi Kd.





## Success Story

2020-21

There were many fluctuations in the weather pattern. Department with the help of students communicated the major deviations in the weather to the farmers. The activity proved successful; farmers were able to manage their farming activity as per the warnings given

Shri. Babasaheb Pawade (Village – Kumbharwadi) Cultivated onion in his farm. Onion crop is very sensitive to sudden changes in weather conditions. Our timely prediction helped him to save his valuable crop by using proper sprays. Village Kumbharwadi is in rain shadow region of Sangamner tehsil. The main crop is onion. Many farmers were benefitted by our timely communication with them. Along with this, other farmers were beneficiary of our predictions.

*Dablu*  
Head

Department of Geography  
ACS & Comp.Sci. College, Ashvi Kd.

*Dablu*

**IC Principal**

**Pravara Rural Education Society's  
Arts, Commerce, Science & Computer  
Science College, Ashvi Kd.  
Tel. Sangamner, Dist. A'Nagar, Pin- 413750**