



Rayat Shikshan Sanstha's

D. P. BHOSALE COLLEGE, KOREGAON

Dist. Satara, (MS), India 415 501



Criterion VII

Institutional Values and Best Practices

Key Indicator – 7.2

Best Practices



Rayat Shikshan Sanstha's

D. P. BHOSALE COLLEGE, KOREGAON

Dist. Satara, (MS), India 415 501

7.2.1 Describe two best practices successfully implemented by the institution as per the NAAC format provided.

Best Practice 1

Nurturing Nature for Future

“There are no economies without environments, but there are environments without economies.”

Introduction

The world's natural environment is under tremendous pressure. Human development is threatening the resources and services which nature, through its habitats and its wildlife, provides. This creates considerable economic, as well as environmental risks. However, it is possible for policymakers and communities to reverse this decline, harnessing economic growth to avoid environmental degradation.

The natural environment is the fundamental basis for all economic activity and human well-being. Its natural resources, including oil, timber and food, provide the raw materials for economic progress. Ecological processes deliver these resources, as well as other services such as clean air and water. Humans benefit from the pleasure of enjoying wildlife and green space. Moreover, nature has an intrinsic importance which we have a moral responsibility to protect.

Biodiversity is a measure of the variety of life on earth. It is the quantity and variability of life among species of plants, animals and microorganisms, as well as the genes they contain. It also measures the diversity of and between ecosystems.

Over the years, wildlife habitats and many plant species have been fragmented and isolated. This makes it harder for species to move between different havens and cope with external shocks, such as climate change.

There have been significant declines across a range of species. This includes more decline in well-known species such as House Sparrows, Vultures, Hyenas and reptiles, amphibians, butterflies, honey bees, flowering trees, medicinal plants and herbs over the past years. Loss of habitats and species has led to declines in the provision of some **ecosystems services** provides valuable assets in nurturing the nature. These services include provisioning services in terms of different varieties of crops, livestock, water supply and medicinal plants. It also supports many amenities like travel and tourism, health etc. Besides this the most important regulating and supporting services which are helpful in soil formation with rich nutrients, pollination to increase crop productivity, recharging of ground water, pollutant absorption and flood protection.

Many environmentalists and social workers working on protection of environment and biodiversity experienced many hurdles to value nature. Protecting our natural environment is key to the survival of fragile ecosystems, wildlife and even humankind. Therefore to ensure a better future, where we can all live in a perfect harmony with our natural environment to raise awareness among the masses regarding the needs to protect and conserve our environment and to gear up the attitude of humanity as a whole towards sustainable development with the hope that the awareness will lead to promoting environmental-friendly behaviour to conserve Nature.

The 21st century had brought many technological benefits and changes to our way of life, but we have also experienced huge population explosion which have created environmental issues, pollution clean air etc. and therefore we have decided for plantation drive and conservation of medicinal plants and herbs during the last five years.

We undertake plantation drive knowing that it will not only be beneficial to us, but our children and grandchildren, who will enjoy their shade in future. Thus, the college endeavours to **Nurture Nature for Prospective Future.**

Location of the Proposed Plantation Drive

Jarandeshwar hill is a track of dry deciduous forest. It comprises Ca. 199 ha. area which is located at the border line of Padali Jamb villages of Koregaon Tahsil and Mahuli of Satara Tahsil, which is situated at Latitude N 17° 44.013' and longitude E 074° 06.291' and altitude between 825m to 1227m from mean sea level. It is 15 km away from Satara city towards east and 9 km away from Koregaon Tahasil.

Jarandeshwar Hill shows dry deciduous type of forest in the Satara region of Maharashtra state. It is famous for the medicinal plants in the area. At the top (plateau) of the hill there is temple of lord Maruti (Jarandeshwar). People are visiting to this temple for worship. The devotees and natives harvest right hand side plants for the treatment of diseases while going upward and downwards, because they have strong belief that, each and every plant is medicinal plants (Sanjivini). Therefore it may create threat to the plants. At east and south side of the hill, a cattle grazing is responsible for degradation of biodiversity. It is found that, forest fire has a profound effect on forest biodiversity.

Objectives of the Practice

- To create awareness related to environment among students, villagers and stakeholders.
- To form environmental protection and conservation task force for nurturing natural beauty and bounty.
- To undertake plantation drives and seed ball dumpings for revival of endemic plant species.
- To prevent wild fires/ Jungle fires for protection and conservation of flora and fauna.
- To maintain plastic free zone and implement pick up trash campaign.
- To manage waterholes for sustenance of wildlife during summer season.
- To create awareness against hunting, poaching and other illegal activities.
- To protect and conserve endangered medicinal plants.

Rayat Shikshan Sanstha's
D. P. Bhosale College, Koregaon

**Environmental Protection & Conservation in Collaboration with
Agricultural Skill Council of India, Future Agriculture Leaders
of India & Dept. of Agriculture, Govt. of Maharashtra**



Environmental Protection & Conservation Task Force



Activities

- Plantation drives, Seed Ball Dumpings
- Adoption of plants by students and faculty
- Jungle fire prevention and control activities
- Cleanliness campaign (pick up Trash/ plastic free zone)
- Water holes for wildlife
- Forest protection task force against wild fires, hunting, poaching and other illegal activities in forest
- Study of biodiversity
- Conservation of endangered flora and fauna
- Geographical Survey of land
- Soil analysis

Dr. S.P. Nalawade
Coordinator
EP&C Task Force

Dr. V.S. Sawant
Principal
D.P. Bhosale College, Koregaon

The Context

General Climatic Feature

The climate of Study Area is composed of four seasons namely, the cold, hot, the south west monsoon and the post monsoon season. The cold season starts by about end of November and continues up to middle of February. It is followed by the hot season from middle of February till onset of the monsoon or up to the first or second week of June. The south west monsoon season starts from June to September, October and November are the post monsoon months. Climate data of study area have been obtained from meteorological department of Satara.

Temperature

A wide variation occurs in temperature from season to season. In May and June temperature rises up to 38.2°C. The coldest days are in the month of December-January. In these days temperature falls up to 14.4°C

Rainfall

The monsoon in the area is irregularly distributed. Rainfall in this area ranges between 750-1250mm. Total number of rainy days in 2007 were 110. Minimum rainfall was 0.3 mm in the month of January while maximum rainfall was 368.2 mm in the month of June. However, the area is drought prone and variation in rainfall from year to year is considerable.

Humidity

Humidity of the study area ranges between 22-98%. Highest humidity found in the month of June to September (98%) and lowest humidity found in the month of April (22%).

Soil Analysis

Altitude	Colour	pH	Water holding Capacity in ml /150 gm of soil	Texture of soil			
				Coarse	sand Fine	Sand Silt	Clay
Top	Reddish	7.3	13.6	121.6	21.9	4.8	1.8
Middle	Black	7.5	43.4	22.5	66.9	32.2	22.4
Base	Black	7.4	16.3	63.4	34.2	28.7	23.7

Colour of the soil is red to black. Soil is alkaline with average pH 7.4. Soil from the middle part of the hill has high water holding capacity (43.5). Top and basal soil samples appear sandy as they show 81.7% and 42.27% coarse sand while middle soil shows higher proportion of fine sand (44.60%).

Water Source

There are two ponds and Rain water conservation tank at top of the Jarandeshwar hill. After survey of Jarandeshwar and Triputi region, it was observed that there is scarcity of trees, along with medicinal and herbal plants which were abundant earlier on either sides of main road highway. The hills were barren and less vegetation. The number of banyan trees is more comparatively with the existence of other species. The medicinal plants like Narkya, Ashwagandha, and Cassia etc. are on the verge of extinction.



Barren hillside at Triputi-Jamb before plantation 2017-18

Therefore, Department of Forest and Social Forestry taken plantation drive along with Grampanchayat of Jrandeshwar, Triputi –Jamb and other stakeholders to revival of medicinal herbal plants and enhancement of biodiversity and decided to execute five-year perspective plan to protect and conserve the biodiversity. 10 hectares of land on either side of Trputi-Jamb crossing main highway available for this plantation drive. Students of our college have joint on large scale for this drive as there has been MoU with Department of Forest and Social Forestry.

This practice is being implemented in collaboration with-

- Rotary club
- Youth club
- GOs and NGOs.

In actual practice about 3000 pits have been made with dimension of 3 X 3X 2 feet with the help of machineries and pits were filled with manure and vermicompost with agricultural practice and the saplings which have made earlier in forest department nurseries have been utilized in actual plantation drive.



Pits are made by machineries 2017-18



Banyan Tree Plantation



Plantation drive in collaboration with forest department and villagers

Plantation drive was conducted under the leadership of RFO Mr. R. S. Atole, Mr. Khade and Prin. Dr. V.S. Sawant, along with students of the college, local villagers and Grampanchayat leaders. In this drive 20 plant species like Cassia, Banyan, Karanj, Neem etc. have been planted.

Sr. No.	Botanical Name	Family	Common Name	Status
1	Acacia catechu	Mimosaceae	खैर	Medicinal
2	Bauhinia purpurea	Caesalpiniaceae	कांचन	Medicinal & Ornamental
3	Butea monosperma	Fabaceae	पळस	Medicinal & Dye Yielding
4	Cassia fistula	Caesalpiniaceae	बहावा	Medicinal & Ornamental

5	<i>Cordia dichotoma</i>	Boraginaceae	भोकर	Rare & Edible
6	<i>Delonix regia</i>	Caesalpiniaceae	गुलमोहर	Ornamental
7	<i>Hardwickia binata</i>	Fabaceae	अंजन	Medicinal & Ornamental
8	<i>Mimusops elengi</i>	Sapotaceae	बकुळ	Medicinal & Ornamental
9	<i>Pongamia pinnata</i>	Fabaceae	करंज	Medicinal
10	<i>Saraca asoca</i>	Caesalpiniaceae	सिता अशोक	Medicinal & Ornamental
11	<i>Stereospermum chelenoides</i>	Bignoniaceae	पाडळ	Rare & Medicinal
12	<i>Syzygium cumini</i>	Myrtaceae	जांभूळ	Medicinal & Edible
13	<i>Tamarindus indica</i>	Caesalpiniaceae	चिंच	Medicinal & Edible
14	<i>Terminalia arjuna</i>	Combretaceae	अर्जुन	Medicinal
15	<i>Terminalia belerica</i>	Combretaceae	बेहाडा	Medicinal
16	<i>Terminalia chebula</i>	Combretaceae	हिरडा	Medicinal
17	<i>Thevetia nerifolia</i>	Apocynaceae	बिट्टी	Medicinal & Ornamental

The institute has set the activities to be undertaken during the five-year plan to conserve the plants and thus contribute in the protection and conservation of biodiversity in the region of Jarandeshwar and Triputi-Jamb. The following activities were conducted in this regard.

Sr. No.	Month	Activity to be undertaken
1	March, April	Awareness program Collection of Jungle seeds, from local residents
2	May	Preparation of Seed balls
3	June, July	Plantation of Seed balls and Medicinal Plants at Jarandeshwar and Triputi-Jamb
4	Aug, Sept	Review regarding germination progress by Environmental Protection and Conservation Task Force
5	Oct, Nov.	Spraying of Insecticides, applying fertilizers and weed management
6	Dec., Jan	Visits, Surveys and water supply management
7	Feb., March	Adoption of plants by students and faculty
8	April, May	Prevention of wild fires, hunting, poaching, water holes through task force, Collection of plastic.

Awareness Program

In order to inculcate the importance of plant protection and biodiversity, awareness programs related to conservations are organized periodically in collaboration with Department of Forest and social forestry which aims to prevent plants from becoming extinct. It includes the direct conservation of wild populations, collections of plant seeds education programmes, recovery and restoration work.



Hon. Prin. Dr. V. S. Sawant with student interaction

1. Collection of Jungle seeds, from local residents:

Jungle seed collection drive was undertaken to collect important medicinal plant seeds in association with the help of local residents, botanist and students. It resulted in the collection of more than 1 lakh seeds including Khair, Kanchan, Palas, Bahava, Bhokar, Gulmohar, Anjan, Bakul, Karanj, SitaAshok, Padal, Babhul and Chinch.



Collection of Hirada & Behda seeds by students



Different varieties of seeds

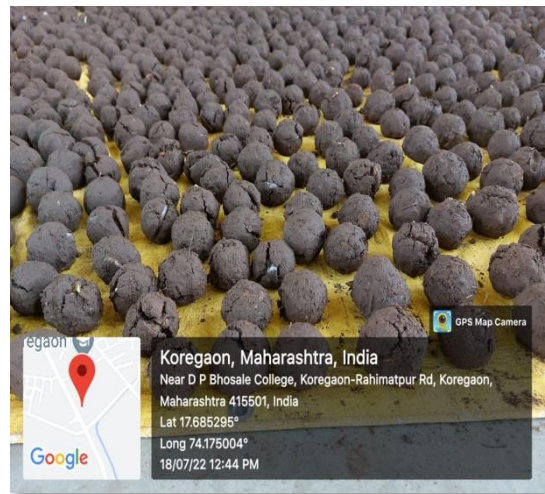
2. Preparation of Seed balls

Making Seed balls and its plantation is a traditional method for planting. Seed balls are useful for dry or arid climates. The clay surrounding the seeds protects them from blowing away, getting eaten by birds or other animals and from drying out in the sun. Seed balls sit on top of the soil until sufficient rain comes, and then the compost and clay act as nutrients to nourish the emerging seedling.

The collected seeds were properly preserved and the Seed Balls were made by mixing soil, compost and seeds. The students were instructed by the concerned teachers about the procedure of making the Seed Balls. More than 25,000 Seed Balls were prepared with assistance and involvement of students and faculty. They were dried, graded and bagged for identification and dropping at the sites suggested by forest department authorities.



Students involvement in seed ball preparation



Seed Balls of Medicinal Plants



Collected seeds were grown in Nurseries at Triputi

3. Plantation of Seed balls and Medicinal Plants at Jarandeshwar

Special plantation drives of medicinal plants and dumpling of seed balls were organized at the bottom of Jarandeshwar hills in which more than 1000 students, faculty, representatives from forest department and social forestry, farmers and members of Ex-DP'ians Association, Rotary club, Youth Club, GOs and NGOs actively participated. The college and Range Forest officer, Koregaon Dist. Satara jointly organized to plantation of critically endangered medicinal plants like Narakya, Ashwagandha, Camphor and Bodhi Vruksha in Triputi site. There are so many plants which have been endangered due to its medicinal therapeutic values and it is need of hour to take efforts to revive these species. With the help of Google lens, data was collected regarding the conditions necessary for Inter-Situ conservation of endangered species along with the soil profile analysis work. The plantation was done with the GPS track monitoring system.

डी. पी. भोसले कॉलेज, वन विभाग व सामाजिक वनीकरण कोरेगाव-सातारा

यांच्या संयुक्त विद्यमाने आयोजित



औषधी व दुर्मिळ वनस्पतींचे बीज गोळे (Seed Balls) रोपण व वृक्षरोपण मोहीम

* सहभागी संस्था *

- । रोटरी क्लब कोरेगाव
- । इन्स्टीट्यूट क्लब
- । सोनेरी ग्रुप
- । एक्स-डीपीयन्स
- । विविध सामाजिक संस्था
- । शासकीय कार्यालये
- । व्यापारी असोसिएशन
- । पोलीस डिपार्टमेंट
- । शाळा व महाविद्यालये

* संयोजक *

परीक्षेत्र वन अधिकारी
सामाजिक वनीकरण विभाग

परीक्षेत्र वन अधिकारी
वन विभाग

प्राचार्य
डी.पी. भोसले कॉलेज, कोरेगाव

स्थळ : जरंडेश्वर डोंगर परिसर



Plantation drive at Jarandeshwar



Endangered Medicinal Plantation by Forest Authorities



Seed Ball and Medicinal Plant Plantation Drive at Triputi



4. Review regarding germination progress by Environmental Protection and Conservation Task Force

The main objective of Task Force to inform about Jungle fire and illegal activities to forest department authorities to take necessary action. It also undertakes periodical review of the growth of plants, necessities and further treatment to the plants.

The task force is established to raise the awareness of College students in terms of environmental issues, to provide a greater student voice in planning for conservation and to promote environmental awareness and education as a top priority.

For the successful achievement of these goals, the following aims have been set:

- Coordinate student efforts on environmental activities.
- Increase the level of environmental awareness amongst students through lectures and workshops.
- Encourage students to become knowledgeable of environmental legislation and policies that adversely affect our community.
- Undertake outreach activities on campus and within the community by working with other campus and community organizations.





Sugar syrup given to Honey Bees

All the students of M.Sc.II Analytical Chemistry were gathered at Jarandeshwar hill. Students have collected the information on Bee & its importance in Nature and tried to nurture the honey bee with different colored material and its feed. It has been reported that, Bees are attracted towards Blue, Blue green and yellow color. Therefore, students have designed the Bee attractant color and

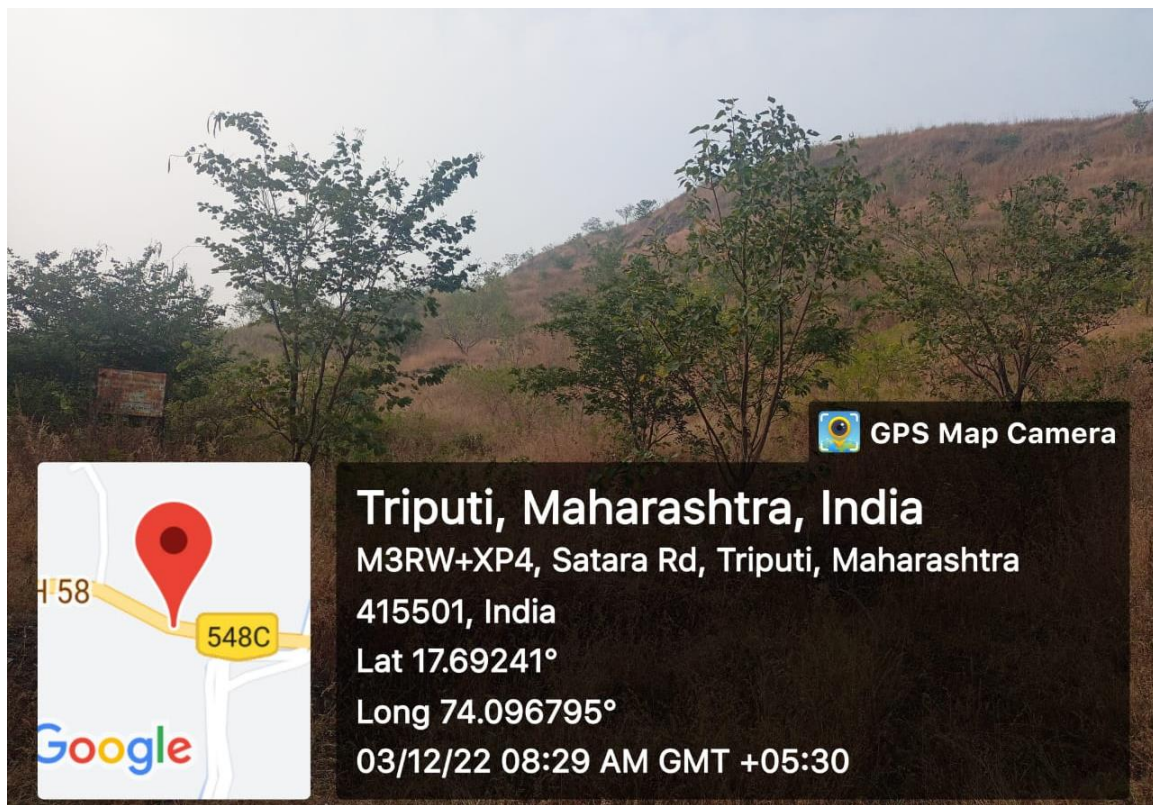
sugar based material. Students have also identified the endemic and other medicinal plants with the help of Google-Lens software and data has been maintained.

During visit, students also visited seedball dumping sites and observed growth status.



Successful germination





5. Insecticide Spraying/ Fertilizers, weed management

The primary causes of disease in trees are pathogens and environmental factors. Thus, spraying, dusting, or other direct control procedures commonly employed with high-value crops such as trees. Time to time visits were organized for observation of plants and proper disease control measures were carried out.

Managing wildfires is important for maintaining resources, protecting people, properties, and ecosystems, and reducing air pollution. Awareness campaign was organized by college in collaboration with department of forest for preventing **wildfires and protecting our natural resources**.

Considering the review report of task force, the students and faculty visited the site frequently and conducted the activity of spraying of micronutrients, applying fertilizers for healthy growth and spraying of insecticides for pest management.

6. Visit, Survey and water supply management:

As the site itself is in the hilly area, water management during summer season must be properly done and executed by constant visits and surveys. Accordingly,





Endangered Medicinal Plants



7. Adoption of plants by students and faculty

One student one tree formula has been implemented while adopting plants for care taking. QR code



containing plant details and its requirements has been made available to the students and stakeholders. Tree adoption program was organized at Triputi. Students and faculties adopted plants and committed to take care of them. 50 plants have been adopted and they are looked after by the village people who adopted them individually.

8. Prevention of wild fires, hunting, poaching, water holes through task force, collection of plastic.

A 'fire line', also called fire break, is the practice of burning a strip of vegetation and clearing the land so that if there's a fire, the flames don't spread. The fire lines were created by department of forest in collaboration with D. P. Bhosale College, Koregaon which was useful in controlling any accidental forest fire in the reserve forest area and prevent destruction of vegetation and wildlife.

Apart from damaging the forest, the plastic waste is also harmful to wildlife. In a joint initiative with Forest Department and students of D. P. Bhosale College Koregaon collected plastic waste from Triputi hill region, 50 students from college took part in cleaning drive. The students collected plastic and non-plastic waste which is quite harmful to wildlife. Degradable waste that were littered in forest.

In order to avoid jungle fire, the fire prevention lines have been marked in consultation with forest department authorities. With the help of conservation task force students are actively involved for prevention of illegal activities and management of water holes.

Natural water sources are fast drying up in summer season so provision of water to wildlife is crucial during dry season. Water holes are the best solutions to restore water. These can help to enhance survival during drought periods.

The Forest department has focused its attention on making drinking water available for the wild animals in the forest. The students of college in collaboration with forest department has created waterholes at many places in strategic location across the forest area.





Collection of Plastic waste at Triputi Site





Collection of Plastic Trash at Triputi



Water hole management at Triputi

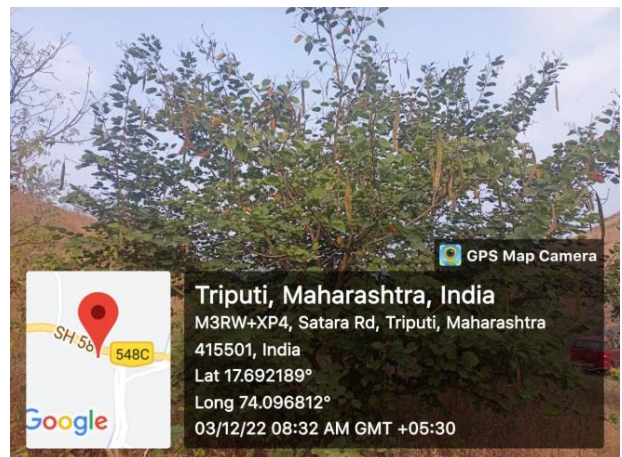
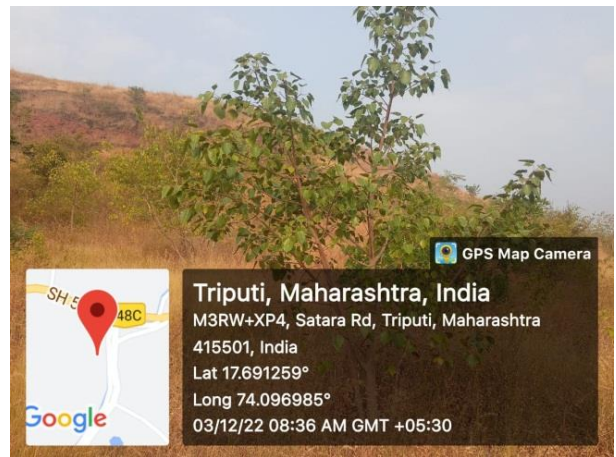
Evidence of Success

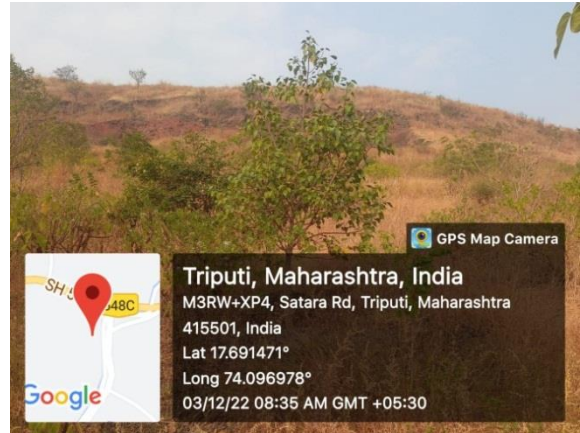
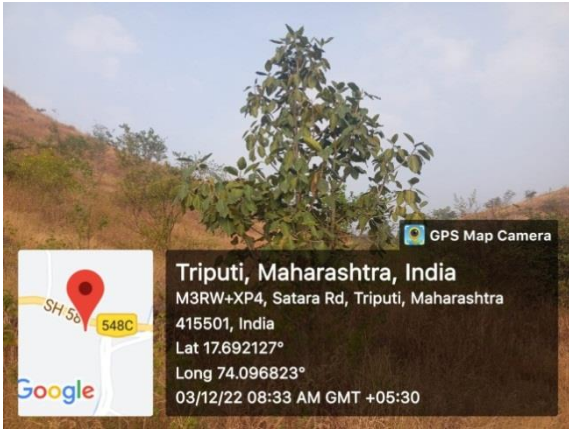
Conservation of plant biodiversity after plantation and seed dumping is a long-term process. Due to the sufficient and satisfactory rainfall during the past five years, we witnessed positive growth of the plants. The periodical visits by students and faculty to the sites and surveys resulted into the positive impact over the germination and growth of seedball dumpings. The whole process was recorded with GPS location. It was found that more than 30% seedlings have been successfully grown in next survival stage. The survived saplings are properly managed with good agricultural practices for further development and protection.

This drive became fruitful with constant assistance and guidance by the local Grampanchayat leaders, farmers and other stakeholders, government and forest authorities. The students from 25 nearby villages are keenly engaged in this activity and spread the message about plant conservation of biodiversity for better future.

The faculty of the college have also informed about jungle fire for speedy necessary action to the forest department authorities and supported to save valuable natural resources. The college has taken initiative in protection of rare and endangered medicinal plants like Narkya, Ashwagandha,

Camphor, Digitalis etc. in revival by inter situ conservation and positive results have been observed with these lifesaving medicinal plants. A proper care was taken to maintain and protect these valuable plants.





Evidence of Success



Problems Encountered and Resources Required

- Human activity inflicting unprecedented changes on the natural habitats on which wildlife depends.
- Interference of local people at adopted area for their daily needs.
- The difficulty in few plants acclimatization at adopted area due to climate change.
- Proper irrigation management required for plant growth.
- Delay to reach required site for fire extinguisher due to road constraints.
- Due to poor network, there is delay in communication with forest department authorities.
- Inertness of the local residents to inform about illegal activities to forest authorities.
- Limited availability of Tissue cultured medicinal plants.
- Student '**Van Mitra**' volunteers should be appointed and financially supported by forest department.




PRINCIPAL,
D. P. Bhosale College,
Koregaon.



Rayat Shikshan Sanstha's

D. P. BHOSALE COLLEGE, KOREGAON

Dist. Satara, (MS), India 415 501

7.2.1 Describe two best practices successfully implemented by the institution as per the NAAC format provided.

Best Practice 2

Title : Agro-based activities for Sustainable Agriculture

Objectives of the Practice

Agricultural sector is the **backbone of Indian economy** and large part of society from this region depends on it. To cope up with the challenges and changing needs of agricultural sector, DPBCK has initiated **agro-based activities** for **sustainable agricultural development** which is need of the hour. This practice is implemented keeping following objectives at the center:

- Encouragement of Organic Farming
- Integration of Agroforestry
- Promotion and Conservation of agriculture
- Water management through artificial recharge of the water level via Rainwater Harvesting
- Adoption of innovative approaches like Vermicomposting, Sericulture, Apiculture, Hydroponics and Tissue culture as good agricultural practices.
- Proper Integrated pest management of crops

- Control over soil erosion using Cover crops
- Inculcation of skills related to proper use of biofertilizers.
- Soil health management and integrated nutrient management
- Protection and enhancement of the environment by ensuring ecological balance.



3. The Context

The following contractual features and challenging issues in agricultural practices are to be addressed.

- Excessive expenditure in comparison with less profit.
- Traditional management in crop patterns leading to less production.
- Soil degradation by the excessive use of chemical fertilizers
- Crop cultivation without soil health card and proper consultation.
- Excessive use of water in irrigation zone result in saline soil and scarcity of water in drought prone region affect crop productivity.
- Decrease in product
- Due to regional discrepancy, natural calamities, high rate of biodiversity loss; land degradation, and inadequate resources farmers are facing financial issues.
- Division of land in small scales due to splitting of families resulting in insufficient portion of land to meet out family requirements.

To overcome these challenges in agriculture, the college has set the following programs to assist the farmers of the region:

- As most of the students belong to the agricultural families, the college focuses on recent agricultural practices, environmental changes, use of modern techniques in agriculture and related small-scale business, precision farming etc.
- Awareness programs on Sustainable agriculture for maintaining soil quality, reducing erosion, and preserving water and organic farming.
- Awareness through demo projects such as hydroponics, sericulture. Apiculture, Vermicomposting, polyhouse, shed net, production of Medicinal Plants and other value addition products etc. for yielding maximum crop production in minimum available land.
- Improvement in current conventional farming by **adopting appropriate technologies** for crop production and post-harvest processing.

4. The Practice

The college has formed an active 'Sheti Mitra Forum' (Farmhands Forum) which consists of final year students belonging to farmer's families, faculty from department of B.Voc. (Sustainable Agriculture), Nursery owners, dealers of seeds and fertilizers, Botanists and progressive farmers. The forum planned and executed following activities in consultation with officials from district and taluka level government Agriculture offices:

Farmer's consultancy in the field by competent expertise

- Students training on Lab to land techniques in collaboration with Maharashtra Center for Entrepreneurship Development (MCED)
- Awareness program on new agricultural techniques and practices through Demo projects: hydroponics, vermicomposting, apiculture, sericulture and tissue culture etc.
- Guidance on soil health management.

- Water analysis and management by proper use of drip irrigation system
- Encouragement for use of bio fertilizers instead of chemical fertilizers
- Field visits for farmers training on supportive small-scale business-like poultry farm, livestock and dairy etc.
- Encouragement for adopting new crop patterns such as Geranium, Citral, Castor
- Awareness on precision farming
- Guidance on crop rotation and intercropping
- Cultivation and conservations of medicinal plants
- Organization of Workshops, Seminars, Training programme etc.



HEAD
Department of B. Voc. (Sustainable Agriculture)
D P Bhosale College, Koregaon
Dist. Satara (Maharashtra)



Rayat Shikshan Sanstha's
D.P. Bhosale College, Koregaon

'Sheti Mitra Forum'

NOTICE

Date:- 11/07/2018

All heads and faculty members of Department of B. Voc., Zoology and Botany are hereby informed that, the meeting has been scheduled on Friday, 13/7/2018 in Principal cabin at 12.30pm. Hon. Principal Dr. V.S. Sawant will chair the meeting. Kindly consider the agenda of meeting given below.

Agenda of the Meeting

- 1) Establishment of 'Sheti Mitra Forum'
- 2) Activities to be undertaken for farmers
- 3) Awareness of demo projects available in college campus.
- 4) Shed net management.
- 5) Any other....

Members:

- i) Dr. S.D. Jadhav (Head, Department of Chemistry)
- ii) Dr. D. M. Jagtap (Head, Department of Botany)
- iii) Mr. V. M. Bankar (Head, Department of Zoology)
- iv) Mr. A.S. Kudale (Head, Department of B.Voc.)
- v) Faculty of B.Voc.
- vi) Faculty of Zoology
- vii) Faculty of Botany





Rayat Shikshan Sanstha's
D.P. Bhosale College, Koregaon

'Sheti Mitra Forum'

MINUTES OF THE MEETING

Date:- 13/07/2018

As per the meeting held on Friday, 13th July 2018 the agenda was discussed by the HoD's of B. Voc., Zoology and Botany and faculty members have expressed their opinion thoroughly. Hon. Principal chaired the session. The following decision have been unanimously approved.

- 1) In order to form 'Sheti Mitra forum' it was decided that, Dr. D.M. Jagtap will be acting as a coordinator for this forum and various activities related to agricultural practices like seed treatment, pest and disease management, local crop varieties cultivation techniques are to be consulted by faculty and students.
- 2) Consultancy regarding soil and water analysis, entrepreneurship development in collaboration with MCED and Sugar research Centre, Padegao are to be well planned as far as student and farmer training programs are considered.
- 3) In college campus there is availability of demo projects like hydroponics, vermicomposting, apiculture, sericulture etc. and local farmers are invited for demo projects.
- 4) As per module of B.Voc. (Sustainable agriculture), there is need of polyhouse / shed net for mini model of farming system. Therefore, in college campus there was planned to design of 8000 sq. feet shed net with necessary facilities.
- 5) It was unanimously decided that there should be MOU with Ganesh Nursery and Seema Biotech, Talsande for effective implementation of activities.
- 6) Committee members have agreed that next meeting should be arranged after review of activities undertaken.

Members:

- i) Dr. S.D. Jadhav (Head, Department of Chemistry)
- ii) Dr. D. M. Jagtap (Head, Department of Botany)
- iii) Mr. V. M. Bankar (Head, Department of Zoology)
- iv) Mr. A.S. Kudale (Head, Department of B.Voc.)
- v) Faculty of B.Voc.
- vi) Faculty of Zoology
- vii) Faculty of Botany



HEAD
Department of B. Voc.(Sustainable Agriculture)
D P Bhosale College, Koregaon
Dist. Satara (Maharashtra)



PRINCIPAL,
D. P. Bhosale College,
Koregaon.



Rayat Shikshan Sanstha's

D.P. Bhosale College, Koregaon

SHETI MITRA FORUM

2018-19

Composition of Forum

Date:- 16/07/2018

As per the meeting held on Friday, 13th July 2018, the composition of Sheti Mitra Forum is as follows:

Sr. No.	Name of Faculty	Role	Designation	Contact Number
1	Dr. V.S. Sawant	Chairperson	Principal	9822860215
2	Dr. D.M. Jagtap	Coordinator	Asst. Professor	9890778246
3	Dr. S.D. Jadhav	Member	Asso. Professor	9890967352
4	Mr. A.S. Kudale	Member	Asst. Professor	9503375185
5	Mr. V.M. Bankar	Member	Asso. Professor	9689521649
6	Ganesh Nursery	Member	Prop writer	7947417047
7	Seema Biotech	Member	Prop writer	9881547622
8	Viju Mane	Member	Farmer-Bhose	8275481199
9	Siddheshwar Mali	Member	Farmer - Mohol	9881369288
10	Kavidra Jagdale	Member	Farmer - Kumthe	-----
11	Pralhad Jagdale	Member	Farmer - Kumthe	-----
12	Sourabh Bhosale	Member	Farmer - Angapur	-----

PRINCIPAL,
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Rayat Shikshan Sanstha's
D. P. Bhosale College, Koregaon

**Best Practice in Collaboration with
Agricultural Skill Council of India, Future Agriculture Leaders
of India & Dept. of Agriculture, Govt. of Maharashtra**

Agro Based Activities: Initiatives for Farmer's Development



Sustainable Agriculture for Farmer's Development

Activities



- Guidance on crop rotation & inter cropping.
- Hands on Training for preparation of Bio-fertilizer
- Cultivation and conservation of medicinal plants
- Demonstration on live Agro based projects (Hydroponics, Apiculture, Sericulture, Vermi-Composting & Vermiwash)
- Onsite farmers consultancy
- Pre and Post Harvesting
- Lab to land programs
- Guidance of modern technologies for precision farming
- Organisation of workshop/ conferences on Agri. Business

Dr. S.M. Deshpande
Coordinator
SAFD Cell

Dr. V.S. Sawant
Principal
D.P. Bhosale College, Koregaon



Rayat Shikshan Sanstha's

D. P. BHOSALE COLLEGE, KOREGAON

Dist. Satara, (MS), India 415 501

Vertical Bottle Gardening For Cultivating Green Leafy Vegetables (Spinach, Cabbage, Lettuce etc.), Root Vegetables (Carrot, Potato, Onion etc.) and Herbs (Basil, Mint Coriander etc.)

Vertical Bottle Gardening

Food security and availability of food in world reached critical levels. We need to constantly investigate and experiment with different ways of growing food. The concept of a “Vertical Bottle Garden” came from the window gardens found in Europe. By creating vertical bottle gardening people also grow leaf vegetables (spinach, cabbage, lettuce etc), root vegetables (carrot, potato, onion etc) and sometimes herbs (basil, mint coriander etc). The department of B. Voc Sustainable Agriculture organized program of vertical bottle gardening on 27th January 2022 on the occasion of celebration of republic day week. About 40 species of vegetables were used for preparing Vertical Bottle Garden in college campus.



Bottle Gardening





Rayat Shikshan Sanstha's

D. P. BHOSALE COLLEGE, KOREGAON

Dist. Satara, (MS), India 415 501

**Sugarcane crop cultivation and
Nutrition Management**



D. P. Bhosale College, Koregaon
Department of B. Voc.
(Sustainable Agriculture)



Date: 16/01/2022

Notice

All the students of B.Voc. (Sustainable Agriculture) are hereby informed that, we are conducting Field Visit on Sugarcane crop cultivation and Nutrition Management **at Prithvi Agro Mart, Palashi, Tal- Koregaon, Dist Satara Palshi** will be organized on 18/01/2022. All should remain present in College premises on 9.00 am in the morning.

HEAD

Department of B. Voc. (Sustainable Agriculture)
D P Bhosale College, Koregaon
Dist. Satara (Maharashtra)



D. P. Bhosale College, Koregaon
Department of B. Voc.
(Sustainable Agriculture)



REPORT

Department of B.Voc. (Sustainable Agriculture) organized field visit at Palshi, Koregaon on 18/01/2022. Mr.S.U.Kanase Gave information regarding **Sugarcane crop cultivation and Nutrition Management**. Sugar-cane is one of the most important cash crops of the District. It is essentially a tropical crop and, for high outturns, moist hot climate and ample supply of water are necessary. The crop grows on a variety of soils ranging from light type to heavy ones. The best soil for the crop is the medium well-drained type having a depth of 24-30 inches. The soil is ploughed one or one and a half months prior to planting to a depth of 9-10 inches and brought into fine tilth by repeated harrowing. Planting is done from December to April. Early planting is always advisable, as the sprouted seedlings become sturdy and are not easily affected by stem-borers. In Satara district, the cultivation of sugar-cane has increased considerably, especially in the canal areas, since the opening of the Nira and the Krishna canals. Sugar-cane is always taken as an irrigated crop. It is a twelve-month crop, planted in January-February. Land is well-tilled and pulverised and from twenty to thirty cart-loads of farmyard manure are spread in the furrows before planting. The distance between the furrows ranges from three to five feet. Furrows are irrigated before planting. Again, at the time of earthing up, a dose of 150-200 lbs. of nitrogen is given per acre in the form of top-dressing of groundnut oil cakes and sulphate of ammonia, combined in equal proportions.

Sugarcane (Saccharum officinarum) Basal application of organic manures:

- Apply FYM at 12.5 t/ha or compost 25 t/ha or filter press mud at 37.5 t/ha before the last ploughing under garden land conditions.
- In wetlands this may be applied along the furrows and incorporated well. Basal

Application of Fertilizer

- If soil test is not done, follow blanket recommendation of NPK @ 300:100:200 kg/ha Apply super phosphate (625 kg/ha) along the furrows and incorporate with hand hoe.
- Apply 37.5 kg Zinc sulphate/ha and 100 kg Ferrous sulphate/ha to zinc and iron deficient soils.
- Application of sulphur in the form of Gypsum @ 500 kg /ha to sulphur deficient soils to increase the cane yield and juice quality.

Top Dressing with Fertilizers

a. Soil application

- Apply 275 kg of nitrogen and 112.5 kg of K₂O/ha in three equal splits at 30, 60 and 90 days in coastal and flow irrigated belts (assured water supply areas).
- In the case of lift irrigation belt, apply 225 kg of nitrogen and 112.5 kg of K₂O/ha in three equal splits at 30, 60 and 90 days (water scarcity areas). For jaggery areas, apply 175 kg of nitrogen and 112.5 kg of K₂O/ha in three equal splits on 30, 60 and 90 days.
- **Neem Cake Blended Urea:** Apply 67.5 kg of N/ha + 27.5 kg of Neem Cake at 30 days and repeat on 60th and 90th days. **Note:** Neem cake blending: Powder the required quantity of neem cake and mix it with urea thoroughly and keep it for 24 hours. Thus, 75 kg of nitrogen/ha can be saved by this method.
- **Azospirillum:** Mix 12 packets (2400 g)/ha of Azospirillum inoculant or TNAU Biofert –1 with 25 kg of FYM and 25 kg soil and apply near the clumps on 30th day of planting. Repeat the same on 60th day with another 12 packets (2400 gm). Repeat the above on the other side of the crop row on the 90th day (for lift irrigated belt).
- **Band placement:** Open deep furrows of 15 cm depth with hand hoes and place the fertilisers in the form of band and cover it properly.

- **Subsurface application:** Application of 255 kg of Nitrogen in the form of urea along with potash at 15 cm depth by the side of the cane clump will result in the saving of 20 kg N/ha without any yield reduction.
- Micro nutrient fertilizers: (a) Zinc deficient soils: Basal application of 37.5 kg/ha of zinc sulphate. (b) Sugarcane crop with zinc deficiency symptoms: foliar spray of 0.5% zinc sulphate with 1% urea at 15 days interval till deficiency symptoms disappear. (a) Iron deficient soils: Basal application of 100 kg/ha of ferrous sulphate. (b) Sugarcane with Iron deficiency symptoms: foliar spray of 1% ferrous sulphate with 1% urea at 15 days interval till deficiency symptoms disappear.
- Soil application of CuSO₄ @ 5 kg/ha in copper deficient soils. Alternatively foliar spray of 0.2% CuSO₄ twice during early stage of crop growth.
- **Common Micronutrient mixture :** To provide all micronutrients to sugarcane, 50 kg /ha of micronutrient mixture containing 20 kg Ferrous sulphate, 10 kg Manganese sulphate, 10 kg Zinc sulphate, 5 kg of Copper sulphate, 5 kg of Borax mixed with 100 kg of well decomposed FYM, can be recommended as soil application prior to planting. (Or) Application of TNAU MN mixture @ 50 kg/ha as EFYM for higher cane yield. Recommended dosage of macro and micronutrients

Sugarcane – plant crop (meant for sugar mills) 300:100:200 kg N, P₂O₅ and K₂O per ha

- Sugarcane – Ratoon crop (meant for sugar mills)
- 300 + 25% extra N : 100 : 200 kg N, P₂O₅ and K₂O per ha
- Sugarcane for jaggery manufacture (plant as well as ratoon crop) 225 : 62.5 : 112.5 kg N, P₂O₅ and K₂O per ha.

BIOFERTILIZER FOR SUGARCANE Azospirillum is the common bio fertilizer recommended for N nutrition which could colonize the roots of sugarcane and fix atmospheric nitrogen to the tune of about 50 to 75 kg nitrogen

per ha per year. Recently, another endophytic nitrogen fixing bacterium, *Gluconacetobacter diazotrophicus* isolated from sugarcane can able to fix more nitrogen than *Azospirillum*. It colonizes throughout the sugarcane and increases the total N content. In soil, it can also colonize the roots and able to solubilize the phosphate, iron and Zn. It can also enhance the crop growth, yield of sugarcane and sugar content of the juice. Since it is more efficient than *Azospirillum*, this new organism was test- verified in various centres and released as new bio fertilizer *Gluconacetobacter diazotrophicus* Biofert-I. Phosphobacteria as P solubiliser are recommended for sugarcane crop.

Sett treatment with *Gluconacetobacter diazotrophicus*

Before planting the sugarcane setts can be treated with ten packets (2 kg) per ha of *Gluconacetobacter diazotrophicus* prepared as slurry with 250 L of water.

Soil application *Gluconacetobacter diazotrophicus*

Twelve packets (2.4 kg) per ha is recommended for soil application each at 30th, 60th and 90th day after planting under irrigated condition. Same method of application can be followed for Phosphobacteria.

- If basal application is not followed apply the same with 30th day, 60th day and 90th day after planting and copiously irrigate the field.
- Biofertilizer treatment should be done just before planting. Immediately plant/ Irrigate after biofertilizer application.

Management of the Crop

1. 25% additional N application on 5-7 days after ratooning.
2. Spray Ferrous sulphate at 2.5 kg/ha on the 15th day. If chlorotic condition persists, repeat twice further at 15 days interval. Add urea 2.5 kg/ha in the last spray.
3. First top dressing on 25th day, 2nd on 45th to 50th day.
4. Final manuring on 70th to 75th day.



On Site Field Visit at Palashi





D. P. Bhosale College, Koregaon
Department of B. Voc.
(Sustainable Agriculture)



Date: 16/12/2022

Notice

All the students of B.Voc. (Sustainable Agriculture) are hereby informed that, their Field visit and guidance to farmers at **Tandulwadi, Koregaon**, is organized on 18th December 2022. All should remain present in college premises on 9.00 am in the morning.

HEAD
Department of B. Voc.(Sustainable Agriculture)
D P Bhosale College, Koregaon
Dist. Satara (Maharashtra)

REPORT

Department of B.Voc. (sustainable Agriculture) organised field visit to Tandulwadi, Koregaon on 18th December 2022. Mr. Kokare Ganesh Adesh Assist. Prof. of B.Voc. (Sustainable Agriculture) gave information regarding „Sorghum crop cultivation and plant protection“ Sorghum is major rabbi crop taken in Koregaon region. The area of production is large but productivity per hector is low because of pest and disease infestation. Near about 30-40% yield is affected due to disease and pest infestation. He gave techniques regarding seed treatment of sorghum as well as he gave guidance regarding different diseases of Sorghum.



Downy Mildew- Peronosclerosporasorghi

Symptoms:

The fungus causes systemic downy mildew of sorghum. It invades the growing points of young plants, either through oospore or conidial infection. As the leaves unfold they exhibit green or yellow coloration. Abundant downy white growth is produced on

the lower surface of the leaves, which consists of sporangiophores and sporangia. Normally three or four leaves develop the which consists of sporangiophores and Sporangia.

Management-

- Crop rotation with other crops viz., pulses and oilseeds.
- Avoid the secondary spread of the disease by roguing out the infected plants since the wind plays a major role in the secondary spread of the disease.
- Grow moderately resistant varieties like Co25 and Co26.
- Seed treatment with Metalaxyl at 6 g/kg of seed.
- Spray Metalaxyl 500 g or Mancozeb 2 kg or Ziram 1 kg or Zineb 1 kg/ha.

Leaf blight *Exerohilum turcicum* Symptoms-

The pathogen also causes seed rot and seedling blight of sorghum. The disease appears as small narrow elongated spots in the initial stage and in due course they extend along the length of the leaf. On older plants, the typical symptoms are long elliptical necrotic lesions, straw coloured in the centre with dark margins. The straw coloured centre becomes darker during sporulation. The lesions can be several centimeters long and wide. Many lesions may develop and coalesce on the leaves, destroying large areas of leaf tissue, giving the crop a burnt appearance.

Management-

- Use disease free seeds.
- Treat the seeds with Captan or Thiram at 4 g/kg.
- Spray Mancozeb 1.25 kg or Captafol 1 kg/ha



Anthrachnose and red rot- *Colletotrichum graminicolum*

Symptoms:

The fungus causes both leaf spot (anthracnose) and stalk rot (red rot). The disease appears as small red coloured spots on both surfaces of the leaf. The centre of the spot is white in colour encircled by red, purple or brown margin. Numerous small black dots like acervuli are seen on the white surface of the lesions. Red rot can be characterized externally by the development of circular cankers, particularly in the inflorescence. Infected stem when split open shows discoloration, which may be continuous over a large area or more generally discontinuous giving the stem a marbled appearance.

Management-

- Treat the seeds with Captan or Thiram at 4 g/kg.
- Spray the crop with Mancozeb 2 kg/ha.

Rust-Puccinia purpurea

Symptoms-

The fungus affects the crop at all stages of growth. The first symptoms are small flecks on the lower leaves (purple, tan or red depending upon the cultivar). Pustules (uredosori) appear on both surfaces of leaf as purplish spots which rupture to release reddish powdery masses of uredospores. Teliopores develop later sometimes in the old uredosori or in teliosori, which are darker and longer than the uredosori. The pustules may

also occur on the leaf sheaths and on the stalks of inflorescence.

Management-

- Remove the alternate host *Oxalis comiculata*
- Spray the crop with Mancozeb at 2 kg/ha.

Grain smut/Kernel smut / Covered smut/ Short smut- *Sphacelothecasorghii*

Symptoms-

The individual grains are replaced by smut sori. The sori are oval or cylindrical and are covered with a tough creamy skin (peridium) which often persists unbroken up to thrashing. Ratoon crops exhibit higher incidence of disease.

Loos Smut/ Kernel Smut *Sphacelothecacruenta*

Symptoms-

The affected plants can be detected before the ears come out. They are shorter than the healthy plants with thinner stalks and marked tillering. The ears come out much earlier than the healthy. The glumes are hypertrophied and the earhead gives a loose appearance than healthy. The sorus is covered by a thin membrane which ruptures very early, exposing the spores even as the head emerges from the sheath.

Management for all smuts-

- Use disease free seeds. Follow crop rotation.
- Treat the seed with Captan or Thiram at 4 g/kg.
- Collect the smutted ear heads in cloth bags and bury in soil

Ergot or Sugary disease - *Sphaceliasorghii*

Symptoms-

The disease is confined to individual spikelets. The first symptom is the secretion of honey dew from infected florets. Under favourable conditions, long, straight or curved, cream to light brown, hard sclerotia develop. Often the honey dew is colonized by *Crerebellasorghii* which gives the head a blackened appearance

Management-

- Adjust the date of sowing so that the crop does not flower during September-

October when high rainfall and high humidity favor the disease.

- Spray any one of the following fungicides viz., Mancozeb 2 kg/ha (or) Carbendazim at 500 g/ha at emergence of ear head (5-10 per cent flowering Stage) followed by a spray at 50 per cent flowering and repeat the spray after a Week, if necessary.



Interaction with Farmers





D. P. Bhosale College, Koregaon

**Department of B. Voc.
(Sustainable Agriculture)**



Date: 16/12/2022

Notice

All the students of B.Voc. (Sustainable Agriculture) are hereby informed that, their Field visit at **Ramoshiwadi, Koregaon**, is organized on 15th November 2022. All should remain present in college premises on 9.00 am in the morning.

HEAD
Department of B. Voc.(Sustainable Agriculture)
D P Bhosale College, Koregaon
Dist. Satara (Maharashtra)

REPORT

Department of B.Voc. (sustainable Agriculture) organized field visit to Ramoshiwadi, Koregaon on 15th November 2022. Dr. Bapurao Jaywant Chopade Gave information regarding Wheat crop cultivation and plant protection“ Wheat Major Rabbi crop Taken in Koregaon region. The area of production is large but Productivity per hector is low because of pests infestation. Near about 3-5% yield is Affected due to pest infestation. He gave techniques regarding seed treatment of Wheat as well as he gave guidance regarding different pests of Wheat.

- **Termites or white ants – Odontotermisobesus**

Symptoms:

Every year,wheat crop is damaged by this pest and huge economic loss Occurred to wheat growers particularly in rainfed areas. Generally,termite attackin wheat Is more serious at 3-4 weeks after germination and at the ear head stage. These feed on Roots and underground portion of stem causing the affected plant to wilt and wither.

Management-

- Adopt practices that promote conditions for healthy plant growth to prevent Termite damage, for example, weeding, applying fertilizers, adequate Irrigation, etc.
- Plough the field to destroy the termites“ nests, runways, and tunnels and to expose them to predators, such as ants, birds, chickens, etc.
- Practice crop rotation to reduce the build-up of termites, especially with Legume crops.
- Remove plant residues and other debris especially moist and decaying wood. Before sowing, treat the seed with fipronil 5% SC @ 6 ml or Chlorpyriphos 20ECO@4ml per kg seed

Pink stem borer -*Sesamia inferens*

Symptoms-

This pest is mainly observed in fields where rice-wheat cropping pattern is Practiced. It generally attacks the wheat crop at seedling stage. The larva bore into the stem of young plant and kills the central shoot causing „dead heart“.

The infested tillers first looks pale brown and ultimately dry up. At the ear Emergence due to its attack „white ears“ are produced which have little or chaffy Grains.

Management-

Spray the crop with quinalphos 25 EC@ 400 ml/acre. Removal or destruction of the stubbles at the time of first ploughing after harvest of rice reduces the carry over to wheat. Ploughing and flooding field is also effective in killing the larvae.

Root aphid –*Raphalosiphum padi*

The symptom of damage of root aphids appears on 3-4 week old crop. At seedling stage both nymphs and adults suck the sap from the roots and collar region of wheat plant under soil surface resulting in withering and discoloration of lower leaves and stunted plant growth.

Management-

Cultural Control:

Timely sowing i.e. 15 to 30 November is recommended, as late sown. Crop (December sown) received more infestation of root aphids and shoot fly. Application of zinc 5 to 20 kg/ha enhanced the root aphid population while Phosphorus alone was found to suppress it.

Chemical control:

Application of Chloropyrifos 20 EC ha with irrigation water at 21 days after sowing were found to be most effective in controlling root aphids.

Students interacted with farmers about wheat cultivation and its management. 20 students and faculties of B. Voc. enthusiastically participated in field visit.



IPM discussion with Farmers





D. P. Bhosale College, Koregaon

**Department of B. Voc.
(Sustainable Agriculture)**



Date: 02/01/2021

Notice

All the students of B.Voc. (Sustainable Agriculture) are hereby informed that, their Field demonstration program at **Kathapur, Koregaon**, is organized on 6th January 2021 All should remain present in college premises on 9.00 am in the morning.

HEAD
Department of B. Voc.(Sustainable Agriculture)
D P Bhosale College, Koregaon
Dist. Setara (Maharashtra)



D. P. Bhosale College, Koregaon
Department of B. Voc.
(Sustainable Agriculture)



REPORT

Department of B.Voc. (sustainable Agriculture) organised Field demonstration program at Kathapur, Koregaon on 6th January 2021. Mr. Kokare Ganesh Adesh Assist. Prof. of B.Voc. (Sustainable Agriculture) gave information regarding “Chick pea cultivation and plant protection.” Chick pea is major rabbi crop taken in Koregaon. region.

The area of production is large but productivity per hector is low because of lack of proper knowledge. Chickpea plants have root nodules that can fix most of the soil nitrogen needed for growth from atmospheric nitrogen. The nodules are formed by a symbiotic relationship with Rhizobium bacteria. Recent research shows that chickpea can fix more nitrogen than other pulse crops, thus enhancing soil fertility for subsequent crops.

Climate Chickpea prefers cool weather. It yields best when daytime temperatures are 70 to 80°F and night time temperatures are 64 to 70°F. The crop is relatively drought resistant because of its deep taproot. Rain or irrigation during the latter part of growth can delay maturity. The crop does not yield well in regions where precipitation is over 30 inches per year. Soil chickpea performs best on sandy or silt loam soils with good drainage. It is not suited to saline soils. The crop does not tolerate wet soils. Avoid planting chickpea in low-lying areas of fields that are susceptible to flooding. Cultural practices
Seed preparation Chickpea seeds need to be inoculated at seeding with the proper Rhizobium strain. The Rhizobium that nodulates peas and lentils will not produce nodules on chickpea. Inoculants come either in peat or granular form. Granular inoculant can be more effective than peat-based inoculant. The granular inoculant is metered through seed hoppers and placed in the seed row near the seed, preferably below the seed, at planting.

Seedbed preparation:

Chickpea seeds are larger than peas or lentils, so they are less sensitive to seed placement than some other crops. However, they still need a firm, moist seedbed. A conventional tillage system using primary tillage to bury previous crop residue followed by secondary tillage to incorporate herbicides is an effective strategy for creating a desirable seedbed. In direct-seed systems, where previous crop residue is left on the soil surface,

proper residue management and drill selection are essential for obtaining adequate stand establishment. Hoe-type no-till drills work best when the residue is baled and removed or when the residue is chopped into small pieces and spread uniformly.



Onsite Field demonstration

If using disc-type drills, uniformly spread crop residue to avoid leaving thickmats of residue that are difficult to penetrate. Seeding date Planting the crop early in the spring is particularly advantageous in eastern Oregon, where limited late-season moisture has a strong negative impact on seed yield. A laboratory germination study in combination with field trials in Oregon showed germination beginning at 41°F or higher. As the crop requires a long growing season to mature and is frost tolerant, it can be planted in March or early April in Eastern Oregon. In Idaho, growers traditionally seed in May when soil temperatures reach 45°F or warmer. These practices are successful under the higher rainfall and cooler temperatures found in Idaho production areas. In all areas, later plantings result in reduced yields and in problems with crop drying before harvest. Grain quality may be reduced in some varieties by late planting.

Method and rate of seeding:

Seeding rates vary because of the variation in seed size. Seeding rates range from three to four seeds/sq ft. This is equivalent to 80 to 95 pounds per acre for the Desi types and 150 to 200 pounds per acre for the Kabuli types. Higher seeding rates (four to five seeds/sqft) can produce higher grain yields but may not be economically feasible.

Recent research indicates that there are no differences in grain yield at 6- or 12-inch row spacing at test sites in Moro and Pendleton, Oregon. These locations receive about 11 and 16 inches of annual precipitation, respectively. plant the seed at a depth of 1.5 to 2.5 inches. Packing the soil after seeding improves seed-to-soil contact and seed.

Foliar diseases

Ascochyta blight:

The fungus *Ascochyta rabiei*, also known as *Didymella rabiei* or *Phoma rabiei*, causes lesions to occur on all aboveground parts of the chickpea plant. *Ascochyta* blight is the foliar disease having the greatest potential to destroy chickpea crops. Symptoms include yellowing of infected plant parts and elongated, sunken, dark lesions on stems, leaves, and pods.

Bacterial blight:

The bacterium *Pseudomonas syringae* causes small, water-soaked lesions on leaves, pods, and stems. The lesions grow together and turn brown. Lesions may completely girdle stems or individual leaves, causing wilting and dying of the entire stem or leaf above the lesion.

Fusarium wilt:

Fusarium oxysporum is a soil-borne fungus that causes leaves to yellow and plants to become stunted. Roots look normal, but plants wilt and die. Affected plants often are scattered across the field rather than occurring in patches. Cutting the stem diagonally with a knife reveals yellow, orange-brown, or reddish streaks in the vascular tissue.

Disease control:

Use a combination of control measures to limit development of foliar and root diseases. These practices include the following.

- Plant certified, disease-free seed.
- Plant varieties with genetic resistance, if available.
- Treat seeds with a mixture of protective fungicides.
- Use long rotations with chickpea crops separated by 4 or 5 years.

- Do not plant chickpea immediately after another pulse crop.
- Avoid planting chickpea in fields that are poorly drained or acidic (pH < 6.5).
- Harvesting and storage

Seed color is of utmost importance to buyers. They prefer a light yellowish-cream color as opposed to greenish or brown seeds, so monitor seed color carefully. Harvesting can be accomplished by either direct combining the crop or swath before combining, depending on uniformity of maturity. Swath when most of the plants are yellow and pods appear nearly matured. To reduce seed loss, swath at night or at dawn when plants are slightly damp. When the vines, pods, and seeds in the windrow have dried down to about 13 percent moisture content, the crop is ready to combine.





Rayat Shikshan Sanstha's

D. P. BHOSALE COLLEGE, KOREGAON

Dist. Satara, (MS), India 415 501

PRECISION FARMING

Precision farming

On 21st February 2020, the training programme organized for students and farmers by B.Voc department of D. P. Bhosale College Koregaon in collaboration with Om Enterprises, Kupwad Sangli on precision farming.

Mr. Suhas Sutar, Manager, Om Enterprises gave information about Technology based farm management System, Analyze and manages variability in fields by conducting crop production practices at the right place and time and in the right way for optimum profitability, sustainability and protection of land resources. He gave demonstration to students and farmers on spraying of insecticides and micronutrients on Sugarcane field by drone. Total 40 students 12 farmers were attended the training program.





Rayat Shikshan Sanstha's

D. P. BHOSALE COLLEGE, KOREGAON

Dist. Satara, (MS), India 415 501



Add on Course

Goat Farming Management

Course Duration: 01 Dec 2019 – 30 Dec 2019

**Student Training on Entrepreneurship
Development in Collaboration with
Maharashtra Centre for Entrepreneurship Development
(MCED)**



D. P. Bhosale College, Koregaon

**Department of B. Voc.
(Sustainable Agriculture)**



Date: 28/11/2019

Notice

All the students of Department of B.Voc. (Sustainable Agriculture) (Sustainable Agriculture) are here by informed that Department has organizing one month Add on course on “**Goat farming management**” from 1st December 2019 to 30th December 2019 Maharashtra Centre for Entrepreneurship Development (MCED). All students should remain present in department on 10.15 a.m. for lectures.

HEAD

Department of B. Voc.(Sustainable Agriculture)
D P Bhosale College, Koregaon
Dist. Satara (Maharashtra)



D. P. Bhosale College, Koregaon

**Department of B. Voc.
(Sustainable Agriculture)**



Add on Course

Goat Farming Management

Objectives:-

- Discuss the significance of goats, the characteristics that differentiate them from other domesticated animals and the scope and nature of goat industries
- Select appropriate Goat Breeds for specified purposes
- Determine and manage an appropriate diet and their disease management.
- Explain the commercial farming goats for fibre, meat and other products(excluding dairy)

Course Outcomes: -

- Gain the relevant skills in goat farming
- Know the importance of goat farming
- Develop a comprehensive understanding of goat breeding
- Discover the various goat diseases and how to prevent them
- Determine the supplies needed for goats

Goat Farming Management
Time Table- 2019-20 Theory & Practical

Date	Time	Theory / Practical	Name of the Teacher
01/12/2019	10.15-11.15	Theory	Dr. K.S. Mahadik
02/12/2019	10.15-11.15	Theory	Dr. B.J. Chopade
03/12/2019	10-15-11.15	Theory	Dr. K.S. Mahadik
04/12/2019	10.15-11.15	Theory	Dr. B.J. Chopade
05/12/2019	10.15-11.15	Theory	Mr. S.U. Kanase
06/12/2019	10.15-11.15	Theory	Mr. A.S. Kudale
07/12/2019	10.15-11.15	Theory	Mr. G.A. Kokare
08/12/2019	10.15-11.15	Theory	Dr. K.S. Mahadik
09/12/2019	08.30-10.30	Practical	Dr. B.J. Chopade
10/12/2019	10-15-11.15	Theory	Dr. K.S. Mahadik
11/12/2019	10.15-11.15	Theory	Dr. B.J. Chopade
12/12/2019	10.15-11.15	Theory	Mr. S.U. Kanase
13/12/2019	10.15-11.15	Theory	Mr. A.S. Kudale
14/12/2019	10.15-11.15	Theory	Mr. G.A. Kokare
15/12/2019	10.15-11.15	Theory	Dr. K.S. Mahadik
16/12/2019	08.30-10.30	Practical	Dr. B.J. Chopade
17/12/2019	10-15-11.15	Theory	Dr. K.S. Mahadik
18/12/2019	10.15-11.15	Theory	Dr. B.J. Chopade
19/12/2019	10-15-11.15	Theory	Mr. S.U. Kanase
20/12/2019	10.15-11.15	Theory	Mr. A.S. Kudale
22/12/2019	10.15-11.15	Theory	Mr. G.A. Kokare
23/12/2019	08.30-10.30	Practical	Dr. B.J. Chopade
24/12/2019	08.30-10.30	Practical	Dr. K.S. Mahadik
25/12/2019	08.30-10.30	Practical	Dr. B.J. Chopade
27/12/2019	08.30-10.30	Practical	Mr. S.U. Kanase
29/12/2019	08.30-10.30	Practical	Mr. A.S. Kudale
30/12/2019	08.30-10.30	Practical	Mr. G.A. Kokare



D. P. Bhosale College, Koregaon
Department of B. Voc.
(Sustainable Agriculture)



Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
10.15-11.15 Theory	KSM	BJC	SUK	ASK	GAK	KSM	BJC
08.30-10.30 Practical	KSM	BJC	SUK	ASK	GAK	KSM	BJC

KSM – Dr. K.S. Mahadik

BJC – Dr. B.J. Chopade

SUK- Mr. S. U. Kanase

ASK – Mr. A.S. Kudale

GAK- Mr. G.A. Kokare





D. P. Bhosale College, Koregaon

**Department of B. Voc.
(Sustainable Agriculture)**



Syllabus

Title – Add on Course

Goat Farming Management

Total Hrs- 30

Unit 1

Breeds of Goat/ Nutrition of Goats: Identification of different goat Breeds, Identification of milk and meat purpose breeds, Selection of animal Nutrition of Goat

Unit 2

Management of Goat: Housing management Kid management and Feeding Management of Goats etc.

Unit 3

Goat Diseases: Major Bacterial diseases of goat

Unit 4

Feed additives and supplements. Poultry diseases and their management

Unit 5

Poultry management systems, Routine poultry management practices, Health Management, Poultry products and marketing

Practicals

- Study of layout of Poultry housing
- Study breeds of poultry.



Report
Add on Course
Goat Farming Management

Department of B. Voc. (Sustainable Agriculture) and Maharashtra Center for Entrepreneurship Development (MCED) conducted 15 days Skill Based Course on Goat farming Management from 10/02/2019 to 24/02/2019. Objectives of this course was to study significance of goats, how to select appropriate Goat Breeds for specified purposes and management of Goat with respect to diet and their disease and to study the commercial farming goats for fiber, meat and other products. The lectures and practicals were conducted by resource persons from MCED and faculty of Department of B.Voc. (Sustainable Agriculture). 19 students were benefited by this course and acquired skillful knowledge for goat farming and its management.





D. P. Bhosale College, Koregaon
Department of B. Voc.
(Sustainable Agriculture)



Date: - 28/1/2019

Notice

All the students of B.Voc. are here by informed that Department of B.Voc.(Sustainable agriculture) and Maharashtra Center for Entrepreneurship Development (MCED) has organizing one month Add on Course on “**Poultry farming**” from 1st February 2019 to 2nd March 2019. All students should remain present in department on 10.15 a.m. for lectures.

HEAD
Department of B. Voc.(Sustainable Agriculture)
D P Bhosale College, Koregaon
Dist. Satara (Maharashtra)



Rayat Shikshan Sanstha's

D. P. BHOSALE COLLEGE, KOREGAON

Dist. Satara, (MS), India 415 501



Add on Course

Poultry Farming

Course Duration: 01 Feb 2019 – 02 March 2019



D. P. Bhosale College, Koregaon

**Department of B. Voc.
(Sustainable Agriculture)**



Add on Course

Poultry Farming

Objectives

- Development of new techniques in poultry farming
- Development of poultry ration
- Development of rural economy
- Development of entrepreneurial skills in poultry farming

Learning outcomes

- After completion of this course, students will be able to -
- Explain the economic importance of poultry farming
- Determine new housing pattern for poultry birds
- Identify a suitable breed for your poultry project
- Determine the best poultry management system to use for project
- Implement routine poultry management practices
- Identify poultry diseases and take the necessary control measures

Poultry Farming
Time Table

Date	Time	Theory / Practical	Name of the Teacher
01/02/2019	10.15-11.15	Theory	KSM – Dr. K.S. Mahadik
02/02/2019	10.15-11.15	Theory	BJC – Dr. B.J. Chopade
03/02/2019	10.15-11.15	Theory	SUK- Mr. S. U. Kanase
04/02/2019	10.15-11.15	Theory	KSM – Dr. K.S. Mahadik
05/02/2019	10.15-11.15	Theory	BJC – Dr. B.J. Chopade
06/02/2019	10.15-11.15	Theory	SUK- Mr. S. U. Kanase
07/02/2019	10.15-11.15	Theory	ASK – Mr. A.S. Kudale
08/02/2019	10.15-11.15	Theory	GAK- Mr. G.A. Kokare
09/02/2019	10.15-11.15	Theory	KSM – Dr. K.S. Mahadik
10/02/2019	08.30-10.30	Practical	BJC – Dr. B.J. Chopade
11/02/2019	10.15-11.15	Theory	KSM – Dr. K.S. Mahadik
12/02/2019	08.30-10.30	Practical	BJC – Dr. B.J. Chopade
13/02/2019	10.15-11.15	Theory	SUK- Mr. S. U. Kanase
14/02/2019	10.15-11.15	Theory	ASK – Mr. A.S. Kudale
15/02/2019	10.15-11.15	Theory	GAK- Mr. G.A. Kokare
16/02/2019	10.15-11.15	Theory	KSM – Dr. K.S. Mahadik
17/02/2019	08.30-10.30	Practical	BJC – Dr. B.J. Chopade
18/02/2019	10.15-11.15	Theory	KSM – Dr. K.S. Mahadik
19/02/2019	10.15-11.15	Theory	BJC – Dr. B.J. Chopade
20/02/2019	10.15-11.15	Theory	SUK- Mr. S. U. Kanase
21/02/2019	10.15-11.15	Theory	ASK – Mr. A.S. Kudale
22/02/2019	10.15-11.15	Theory	GAK- Mr. G.A. Kokare
23/02/2019	10.15-11.15	Theory	KSM – Dr. K.S. Mahadik
24/02/2019	08.30-10.30	Practical	BJC – Dr. B.J. Chopade
25/02/2019	08.30-10.30	Practical	KSM – Dr. K.S. Mahadik
26/02/2019	08.30-10.30	Practical	BJC – Dr. B.J. Chopade
27/02/2019	08.30-10.30	Practical	SUK- Mr. S. U. Kanase
28/02/2019	08.30-10.30	Practical	ASK – Mr. A.S. Kudale
01/03/2019	08.30-10.30	Practical	GAK- Mr. G.A. Kokare
02/03/2019	08.30-10.30	Practical	ASK – Mr. A.S. Kudale





D. P. Bhosale College, Koregaon

Department of B. Voc.
(Sustainable Agriculture)



Syllabus

Add on Course

Poultry Farming

Total Hrs- 30

Theory

Unit 1

Current status of poultry farming. Introduction to Poultry Keeping.

Unit 2

Poultry Housing, The layout of Poultry houses, cleaning and space management.

Unit 3

Breeds of Poultry

Unit 4

Feed additives and supplements. Poultry diseases and their management

Unit 5

Poultry management systems, Routine poultry management practices, Health

Management, Poultry products and marketing

Practicals

- Study of layout of Poultry housing
- Study breeds of poultry.



Add on Course

Poultry Farming Management

Report

Department of B.Voc.(Sustainable Agriculture) and Maharashtra Center for Entrepreneurship Development (MCED) conducted one month Skill Based Course on Poultry farming from 1/2/2019 to 2/3/2019. Objectives of this course was to study Poultry breeds, Poultry Farm Management, Poultry bird's diet and their disease and to study the commercial farming of poultry for meat and other products. The lectures and practicals were conducted by resourcepersons from MCED and faculty of Department of B.Voc. (Sustainable Agriculture). 19 students were benefited by this course and acquired skillful knowledge for Poultry farming and its management.



Wheat Crop Cultivation and Plant Protection

Report

Dr. Bapurao Jaywant Chopade Head & Assist. Prof. of B.Voc. (Sustainable Agriculture) department visited Ramoshiwadi on 10 January, 2019 Koregaon for consultancy purpose. He gave information regarding '**Wheat crop cultivation and plant protection**' Wheat is major rabbi crop taken in Koregaon region. The area of production is large but productivity per hector is low because of pests infestation. Near about 3-5% yield is affected due to pest infestation. He gave techniques regarding seed treatment of Wheat as well as he gave guidance regarding different pests of Wheat.



Dr. Chopade interacting with farmers of Ramoshiwadi

Termites or white ants - *Odonto termisobesus*

Symptoms:

Every year, wheat crop is damaged by this pest and huge economic loss occurred to wheat growers particularly in rainfed areas. Generally, termite attack in wheat is more serious at 3-4 weeks after germination and at the ear head stage. These feed on roots and underground portion of stem causing the affected plant to wilt and

wither.

Management

Cultural practices

- Sow at a higher rate to compensate for yield losses to termites.
- Adopt practices that promote conditions for healthy plant growth to prevent termite damage, for example, weeding, applying fertilizers, adequate irrigation etc.
- Plough the field to destroy the termites' nests, runways, and tunnels and to expose them to predators, such as ants, birds, chickens, etc. Practice crop rotation to reduce the build-up of termites, especially with legume crops.
- Remove plant residues and other debris especially moist and decaying wood.

Chemical Control

Seed treatment:

Before sowing, treat the seed with fipronil 5% SC 6 ml or chlorpyrifos 20EC 4ml per kg seed.

Pink stemborer- *Sesamia inferens*

Symptoms-

This pest is mainly observed in fields where rice-wheat cropping pattern is practiced. It generally attacks the wheat crop at seedling stage. The larva bore into the stem of young plant and kills the central shoot causing 'dead heart'. The infested tillers first look pale brown and ultimately dry up. At the ear emergence due to its attack 'white ears' are produced which have little or chaffy grains.

Management-

Spray the crop with quinalphos 25 EC @ 400 ml/acre. Removal or destruction of the stubbles at the time of first ploughing after harvest of rice reduces the carry over to wheat. Ploughing and flooding field is also effective in killing the larvae.

Root aphid-*Raphalosiphum urticivorum*

Symptoms-

The symptom of damage of root aphids appears on 3-4 week old crop. At seedling stage both nymphs and adults suck the sap from the roots and collar region of

wheat plant under soil surface resulting in withering and discoloration of lower leaves and stunted plant growth.

Management-

Cultural Control:

Timely sowing i.e. 15 to 30 November is recommended, as late sown crop (December sown) received more infestation of root aphids and shootfly. Application of zinc 5 to 20 kg/ha enhanced the root aphid population while phosphorus alone was found to suppress it.

Chemical control:

Application of Chloripyriphos 20 EC ha with irrigation water at 21 Days after sowing were found to be most effective in controlling root aphids. Overall farmers of Ramoshiwadi interacted with the resource person Dr. Chopade and all queries regarding wheat crop cultivation and plant protection with management and chemical control have been shared with farmers.





D. P. Bhosale College, Koregaon

**Department of B. Voc.
(Sustainable Agriculture)**



Date: - 3/12/2018

Notice

All the students of B. Voc. are here by informed that Department of B.Voc. has planned to celebrate “World Soil Day” on Wednesday, 5th December 2018 at Nigadi Village in Koregaon tehsil. They should remain present at 9.00 am for soil day celebration on time.

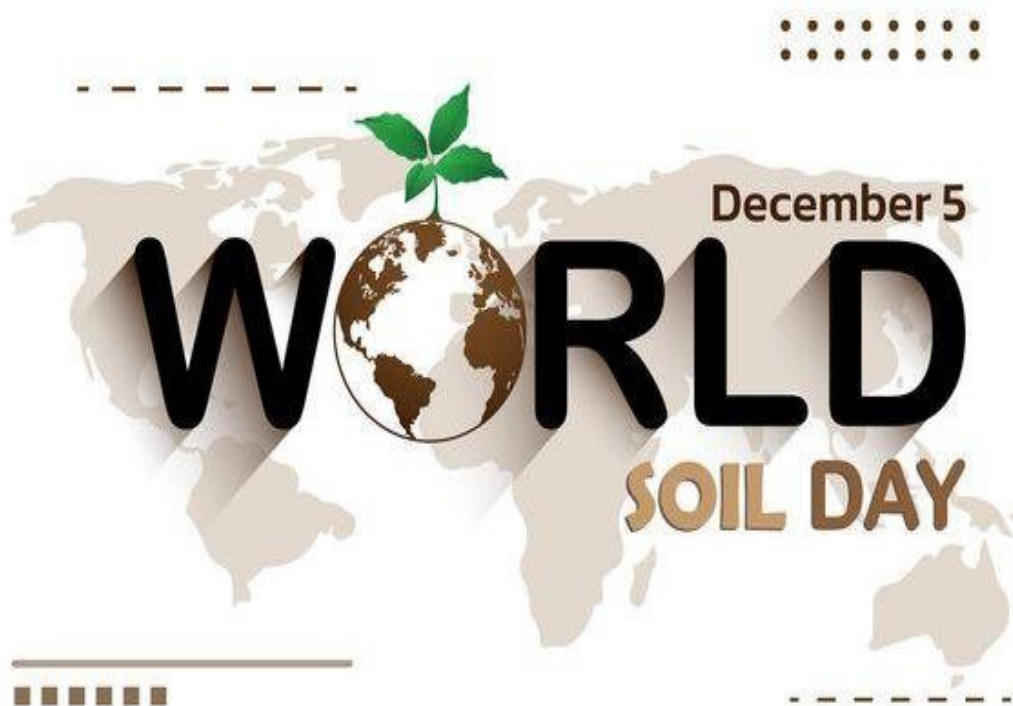
HEAD

**Department of B. Voc.(Sustainable Agriculture)
D P Bhosale College, Koregaon
Dist. Satara (Maharashtra)**

Report

Celebration of 'World Soil Day'

Department of B. Voc. has celebrated „World Soil Day“ on 5th December 2018 in Nigadi village of Koregaon Tahsil. It has been also studied about soil erosion which is leading to 50% loss in crop yields, thus Stop Erosion is the main objective of world soil day which is held every December, 05 annually by Tahsil Agriculture Office Koregaon. They invited to act as resource person on world soil day which was celebrated in Nigadi village of Koregaon Tahsil. Dr. S. D. Jadhav and Dr. B. J. Chopade worked as a resource person.



The programme begin with worshipping of soil by the auspicious hand of Sarpanch Mrs- Shobha Bhosale madam and progressive farmer Mr. Narayan Jagtap with the regards of soil and importance and about 40 farmers took active part and interacted with resource persons. Agriculture officer **Bapusaheb Shelke** welcomed to

Dr. S. D. Jadhav and **Dr. B. J. Chopade** by offering shawl and boque. Mandal Krushi Adhikari Mr. Kadam Sir talked on sustainable agriculture and its importance in crop productivity by fore fathers knowledge.



Distribution of Soil Health card to farmers

World Soil Day is celebrated all across the world to create awareness about dangerous of soil loss and to give attention to sustainable management of soil resources and to highlight importance of sustaining healthy ecosystem and human well-being to improving soil health. It has been estimated that, 1000 years are required to produce 2-3 cm of soil and over 33% of the soil has already been de- graded and 90% could become degraded by 2050.

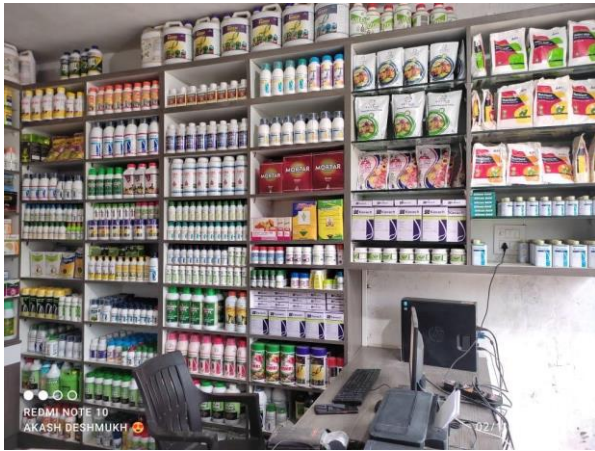
Dr. S. D. Jadhav highlighted the importance of soil health card in soilanalysis, the role of fertilizer and micro nutrients should be administered in correct amount of dose so that sustainable crop production can be maintained, he also highlighted soil pH and availability of soil nutrients .Dr. B. J. Chopade guided on role of soil testing and its advantages in agriculture. Programme completed about 2:00 pm. by offering of thanks by Mr. Narayan Jagtap.

Evidence of Success

The college has taken great efforts to initiate awareness programs by organizing agri expo, conferences, farmers meet and onsite visits. Our expertise delivered recent advancements in agricultural techniques to adopt precision farming, modern Integrated Nutrient Management, soil profile and crop management, thereby increasing their income and leading towards successful establishment of agro clinic and exporter of Ginger and sugarcane value added products. There has been extensive use of cold storage in food preservation and the use of water management by adopting new irrigation techniques like drip irrigation, sprinkler and fogger.

- Advance knowledge about agricultural techniques
- Advanced irrigation techniques
- Use of precision farming
- Increasing value added products from Ginger and sugarcane
- Extensive application of Vermicompost and Vermiwash.
- Entrepreneurship development among students
- Awareness about export quality medicinal plants
- Local marketing of Vermiwash for crop production
- Farmer are engaged in marketing and sales of their products in metro cities Pune, Mumbai, Belgavi etc.
- Increasing use of livestock farming such as Poultry, Fishery, Sericulture, Apiculture





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ज्ञानेश्वर (माऊली) ट्रेडिंग कंपनी

प्याज, बटाटा और आलेके बेपारी और ऑर्डर सप्लायर्स
प्रोप्रा. - प्रसाद ज्ञानेश्वर जाधव
मु.पो. ल्हासुर्णे, ता.कोरेगाव, जि.सातारा





D. P. Bhosale College, Koregaon

**Department of B. Voc.
(Sustainable Agriculture)**



Date:- 10/09/2018

NOTICE

All the students of B. Sc. & B. Voc. are here by informed that Department of Chemistry has organized “Workshop on Soil and Water Testing Analysis” from Tuesday 18th September 2018. All students are informed that they should remain present for workshop on time. It may clearly note that fine will be collected from absent students.

HEAD

**Department of B. Voc.(Sustainable Agriculture)
D P Bhosale College, Koregaon
Dist. Satara (Maharashtra)**



D. P. Bhosale College, Koregaon

Department of B. Voc.
(Sustainable Agriculture)



Workshop on Soil and Water Testing Analysis

Report

Department of Chemistry has organized workshop based on soil and water testing analysis for B.Sc. and B.Voc. students on 18th September 2018 in our college.

Over the past five decades, the practice and use of soil testing has become widely accepted in agribusiness both by farmers and industry. The potential for increased yields and profits has been the obvious motivator for the keen interest in soil testing. Soil test reports provide information regarding appropriate fertilizer application recommendations for Nitrogen, Phosphorous, Potassium and Limestone. Soil testing also provides information to determine the micronutrient requirements of crops. If there is low use of fertilizer, the crop yields and returns obtained are lower.

Too much fertilizer will waste time and money and risk environmental damage due to nutrient runoff. Consequently, soil testing provides a farm management tool with a potential benefit to the farmer of increased yields, reduced operating costs and superior environmental risk management. Additional benefits include; improved crop maturity and quality, higher tolerance to disease and pest damage, and increased growth. Limestone applications are of particular importance on acid soils. Soil testing is the best way to obtain a good estimate of the limestone applications required for a crop. Generally, Soil testing done in the summer season. Many farmers are using drip irrigation for water management. Hardness, pH, alkalinity and other micronutrient determination are helpful for water management. Department of Chemistry taken initiative in Analysis of Soil and Water Analysis in terms of Short Term Course for Undergraduate students. Students are working under the guidance of their teachers for P^H, EC, OC, P, N, S and Micronutrients like Cu, Mn, Zn and Fe analysis done as per prescribed protocols. Similarly Hardness of water, and alkalinity determination for potable use is screened. Overall with this practical demonstration, students have learn to determine soil parameters and helpful to advice to farmers regarding their soil health profile.



Prof. Dr. S.D. Jadhav addressing to farmers about Soil fertility



Problems Encountered and Resources Required

- Majority population of the region (90 to 95 %) belongs to the agrarian society hence the college activities reached to the families of students and their neighborhood farming community.
- Limitations of government financial resources, subsidies.
- Less number of awareness programs by other NGOs.
- Adoption of traditional agriculture practices and cultivation of same crop patterns by mass farmers during the same season.
- Less attempts are made by Bank officials on awareness regarding crop insurance among farmers.
- Reluctancy of farmers in responding due to meagre land, scarcity of financial resources and migration towards metro cities for survival.
- Many farmers are deprived of government schemes and finance from banks due to the lack of takeover documents from the generation of forefathers.




PRINCIPAL,
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