Rayat Shikshan Sanstha's

D. P. BHOSALE COLLEGE, KOREGAON

Dist. Satara, (MS), India 415 501




Institutional Values and Best Practices

Rayat Shikshan Sanstha's

D. P. BHOSALE COLLEGE, KOREGAON

Dist. Satara, (MS), India 415 501

Best Practice 2

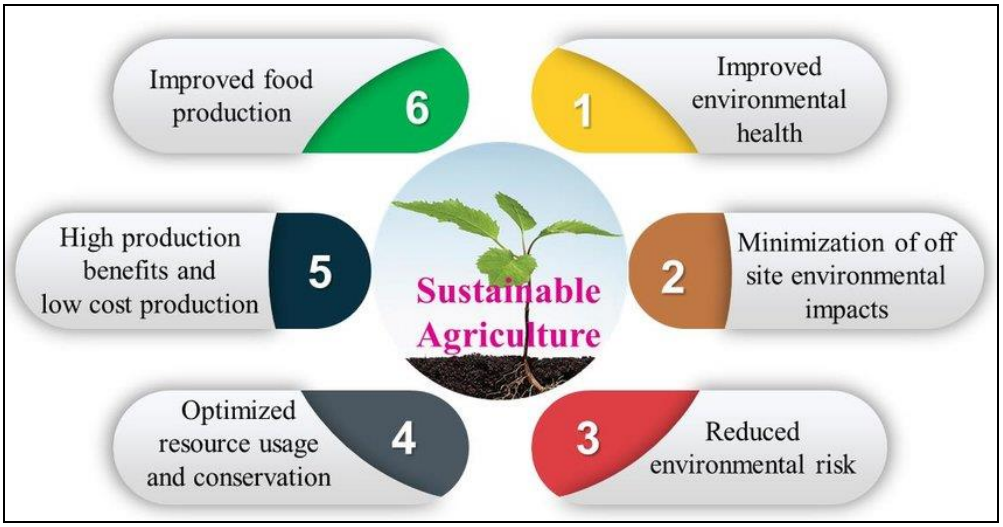
Title : Agro-based activities for Sustainable Agriculture

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 a**gro-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.

D. P. BHOSALE COLLEGE KOREGAON

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

D.P. BHOSALE COLLEGE KOREGAON

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 hydrophonics, 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,
D. P. Bhosale College,
Koregaon.

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

'Education through self-help is our motto'
Founder : Karmaveer Bhaurao Patil

ASCI
Agriculture Skill Council of India

FALI

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 (Hydrophonics, 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

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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 organizedprogram 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

D. P. BHOSALE COLLEGE KOREGAON

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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)

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 arc 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 beforethe 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 and90 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 inthree 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 90thdays. **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 dayof 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 internal 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 sulphatewith 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 micronutrientsMacronutrients

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 Filed 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 andSporangia.

Management-

- Crop rotation with other crops viz., pulses and oilseeds.
- Avoid the secondary spread of the disease by roguing out the infected plantssince 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 Zineblkg/ha.

Leaf blight Exerohilumturcicum 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 darkmargins. The straw colouredcentre 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

Anthracnose 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 marbeled appearance.

Management-

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

Rust-Pucciniapurpurea
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 telisori, which are darker and loniger 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- *Sphacelothecasorghi*

Symptoms-

The individual grains are replaced by smut sori. The sori are oval or cyclindrical and arecovered 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 - Sphaceliasorghi

Symptoms-

The disease is confined to individual spikelets. The first symptom is the secretion ofhoney 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 Crerebellasorghivulgaris 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 withLegume 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 -Sesamiainferens

Symptoms-

This pest is mainly observed in fields where rice-wheat cropping pattern is Practiced. It generally attacks the wheat crop at seedling stage. Thelarva bore into thestem 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 –Raphalosiphunru fiabdominalis

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 Chloropyriphos 20 EC ha with irrigation water at 21days 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. Satara (Maharashtra)

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 subsequentcrops.

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. Avoidplanting 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 followedby 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 isbaled 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 castern Oregon, where limited late-seasonmoisture has a strong negative impact on seed yield. A laboratory germination study incombination with field trials in Oregon showed germination beginning at 41°F orhigher. 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 Ascochytarabiei, also known as Didymellarabiei or Phomarabiei, 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:

Fusariumoxysporum 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 swathing 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)

Add on Course

Goat Farming Management

Objectives:-

- Discuss the significance of goats, the characteristics that differentiate them fromother 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 goal diseases and how to prevent them
- Determine the supplies needed for goats

D. P. Bhosale College, Koregaon

Department of B. Voc.

(Sustainable Agriculture)

Goat Farming Management

Time Table- 2019-20Theory & 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

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.

D. P. Bhosale College, Koregaon

Department of B. Voc.

(Sustainable Agriculture)

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

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

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 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

D. P. Bhosale College, Koregaon

Department of B. Voc.

(Sustainable Agriculture)

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

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.

D. P. Bhosale College, Koregaon

Department of B. Voc.

(Sustainable Agriculture)

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 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 Poultry farming and its management.

D. P. Bhosale College, Koregaon

Department of B. Voc.

(Sustainable Agriculture)

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 chlorpyriphos20EC4ml 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 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-Raphalosiphumr ufiabdominalis

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 withmanagement 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)

D. P. Bhosale College, Koregaon

Department of B. Voc.

(Sustainable Agriculture)

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 worshiping 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

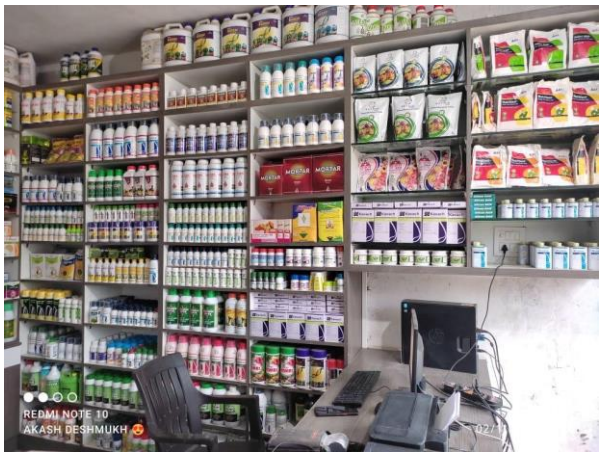
World Soil Day is celebrated all across the world to create awareness about dangerous of soil loss and to give attention to sustainable management of soil resources and to highlight importance of sustaining healthy ecosystem and human well-being to improving soil health. It has been estimated that, 1000 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 citiesPune, Mumbai, Belgavi etc.
- Increasing use of livestock farming such as Poultry, Fishery, Sericulture, Apiculture



D.P. BHOSALE COLLEGE KOREGAON

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 benefitsinclude; improved crop maturity and quality, higher tolerance to disease and pest damage, and increased growth. Limestone applications are of particular importanceon 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 areworking under the guidance of their teachers for P^H, EC, OC, P, N, S andMicronutrients 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 todetermine soil parameters and helpful to advice to farmers regarding their soil health profile.

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

D. P. BHOSALE COLLEGE KOREGAON

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 cropinsurance among farmers.
- Reluctancy of farmers in responding due to meagre land, scarcity offinancial resources and migration towards metro cities for survival.
- Many farmers are deprived of government schemes and finance from banksdue to the lack of takeover documents from the generation of forefathers.

D. P. BHOSALE COLLEGE KOREGAON

PRINCIPAL,
D. P. Bhosale College,
Koregaon.