



Mula Education Society's
Arts, Commerce & Science College, Sonai

Department of Botany
DBT Star College Scheme

Proforma for submission of yearly report 2018 – 19.

- 1) **Name of Department:** Botany
- 2) **Duration of Report:** June 2018 to April 2019
- 3) **No. of Participating students:**
 - i. F.Y. B.Sc. - 60
 - ii. S.Y.B.Sc. - 59
 - iii. T.Y. B.Sc. - 18

Total – 137

4) **Information of regular Faculty in Department:**

Sr. No.	Full name of faculty	Qualification	Specialization	Contact No.	Address
1.	Prin. Dr. Laware S. L.	M.Sc., Ph.D.	Cytogenetic and Plant Breeding	9822742384	A/p- Sonai Tal – Newasa Dist – Ahmednagar
2.	Dr. Tuwar A. R.	M.Sc., Ph.D.	Mycology	9975390410	A/p- Sonai Tal – Newasa Dist – Ahmednagar
3.	Dr. Darandale V. E.	M.Sc., Ph.D.	Plant Physiology	9766706551	A/p- Sonai Tal – Newasa Dist – Ahmednagar
4.	Prof. Tuwar D. A.	M.Sc., SET, PET	Medicinal Plants	9923761150	A/p- Khedle Parmanand Tal – Newasa Dist – Ahmednagar
5.	Prof. Arangale K. B.	M.Sc.	Seed Technology	9975850262	A/p- Panegaon Tal – Newasa Dist – Ahmednagar
6.	Prof. Kulkarni K. U.	M.Sc.	Mycology	9420790184	A/p- Newasa Tal – Newasa Dist – Ahmednagar
7.	Prof. Devmalkar V. S.	M.Sc.	Plant Physiology	7620999126	A/p- Sonai Tal – Newasa Dist – Ahmednagar
8.	Prof. Nagpure S. B.	M.Sc.	Seed Technology	8788764271	A/p- Chanda Tal – Newasa Dist – Ahmednagar

5) List of Projects undertaken by Students:

Sr. No.	Name of Student	Class	Name of Project	Name of Faculty guide
1.	Miss. Damale Punam S.	S.Y.B.Sc.	Organic Farming Beneficial than Chemical farming.	Prof. Tuwar D. A.
2.	Mr. Patare Tushar B.	T.Y.B.Sc.	Preparation of Herbal Weedicide from Wild Plants.	Prof. Tuwar D. A.
3.	Mr. Bankar Ganesh N.	S.Y.B.Sc.	Survey and Analysis of Organic Waste in College Campus.	Prof. Arangale K. B.
4.	Mr. Borde Shubham J.	T.Y.B.Sc.	Collection of Soil Sample and Isolation of Fungi.	Prof. Arangale K. B.
5.	Miss. Lokhande Shivani A.	F. Y. B. Sc.	Isolation and Characterization of <i>Falicularius</i> fungi from Sonai Village.	Prof. Kulkarni K. U.
6.	Miss. Jawale Amruta C.	T.Y.B.Sc.	Study of Phytoremediation potential of <i>Portulaca umbraticola</i> .	Prof. Kulkarni K. U.

6) Student Participation in Exhibition :-

The T. Y. B. Sc. Students were participated in Science Exhibition on 28 Feb. 2019. In this program of exhibition Participated students gave information to other Visitor students about equipment's which is purchase under DBT Star scheme. In that they gave information about working of the instruments, handling and its applications in science.

7) Guest Faculty Invited:

Sr. No.	Name of Guest	Designation	Host Institute/ Address	Date of Visit	Topic of Lecture/ Practical
1.	Prof. Dr. K. N. Dhumal	Former Professor	Savitribai Phule Pune University, Pune.	02/02/2019	Lecture on Organic Farming
2.	Dr. Rajkumar Barmukh	Assistant Professor	Modern College, Pune.	21/01/2019	Workshop on Plant Industries and Entrepreneurship

8) List of new Practicals/demonstrations introduced in last one year

Sr. No.	Name of new practical	Beneficiary/ Target group
1.	Sterilization of Glassware's and Equipment's	F.Y.B.Sc.
2.	Process of Media Preparation	F.Y.B.Sc.
3.	Inoculation techniques	F.Y.B.Sc.
4.	Selection of Plot	F.Y.B.Sc.
5.	Collection of samples for Fungi isolation	T.Y.B.Sc.
6.	Workshop on "Plant Industries and Entrepreneurship."	F.Y.B.Sc.
7.	Water and Soil Analysis	S.Y.B.Sc.
8.	Selection of crop of Application of Bio fertilizer	S.Y.B.Sc.
9.	Collection and Segregation of Organic Waste	T.Y.B.Sc.
10.	Processing on Organic Waste for Solid state fermentation.	T.Y.B.Sc.
11.	Isolation of fungi of collected sample	T.Y.B.Sc.

9) List of Lectures Taken/ arranged :

Sr. No.	Class	Date	Name of Topic	Faculty
1.	F.Y.B.Sc.	12/08/2018	Introduction to Plant Tissue culture	Prof. Tuwar D. A
2.	F.Y.B.Sc.	19/08/2018	Concept and Process of Sterilization and Media Preparation	Prof. K. U. Kulkarni
3.	F.Y.B.Sc.	07/09/2018	Inoculation techniques	Prof. Arangale K. B.
4.	F.Y.B.Sc.	18/09/2018	Importance of Organic Fertilizers for crop improvement	Prof. Tuwar D. A
5.	T.Y.B.Sc.	13/08/2018	Collection of samples for Fungi isolation	Prof. K. U. Kulkarni
6.	T.Y.B.Sc.	20/08/2018	Introduction to Isolation of fungi	Prof. Dr. Tuwar A. R.
7.	F.Y.B.Sc.	21/12/2018	Biocontrol agents for plant disease management	Prof. Arangale K. B.
8.	F.Y.B.Sc.	21/12/2018	Media Composition for Plant Tissue Culture	Prof. Kulkarni K. U.
9.	S.Y.B.Sc.	02/02/2019	Organic farming	Prof. Dr. Dhumal K. N.
10.	S.Y.B.Sc.	17/01/2019	Introduction and Types of Bio fertilizers	Prof. Tuwar D. A
11.	S.Y.B.Sc.	28/02/2019	Methods of Applications of Bio fertilizers.	Prof. Tuwar D. A
12.	T.Y.B.Sc.	04/01/2019	Role of Secondary Metabolites in Plants	Prof. Arangale K. B.
13.	T.Y.B.Sc.	04/01/2019	Mechanism of list of Secondary Metabolites	Prof. Arangale K. B.
14.	T.Y.B.Sc.	07/02/2019	Basic Techniques in Plant Tissue Culture	Prof. Kulkarni K. U.

10) Details of Practicals / Workshop arranged:

Sr. No.	Class	Date	Name of Practical's	Faculty
1.	F.Y.B.Sc.	14/08/2018	Sterilization of Glassware's and Equipment's	Prof. Tuwar D. A
2.	F.Y.B.Sc.	20/08/2018	Process of Media Preparation	Prof. K. U. Kulkarni
3.	F.Y.B.Sc.	08/09/2018	Inoculation techniques	Prof. Arangale K. B.
4.	F.Y.B.Sc.	19/09/2018	Selection of Plot	Prof. Tuwar D. A
5.	T.Y.B.Sc.	13/09/2018	Collection of samples for Fungi isolation	Prof. K. U. Kulkarni
6.	F.Y.B.Sc.	22/01/2019	Workshop on "Plant Industries and Entrepreneurship."	Dr. Rajkumar Barmukh
7.	S.Y.B.Sc.	10/01/2019	Water and Soil Analysis	Prof. Tuwar D. A
8.	S.Y.B.Sc.	14/02.2019	Selection of crop of Application of Bio fertilizer	Prof. Tuwar D. A
9.	T.Y.B.Sc.	25/01/2019	Collection and Segregation of Organic Waste	Prof. Arangale K. B.
10.	T.Y.B.Sc.	08/02/2019	Processing on Organic Waste for Solid state fermentation.	Prof. Arangale K. B.
11.	T.Y.B.Sc.	15/02.2019	Isolation of fungi of collected sample	Prof. Arangale K. B.

11) Tour/Visit to industry/ institution/research center: Nil**12) List of Chemicals/Glassware's/Equipment Purchased under scheme:****I) Details of Equipment purchased from DBT Grant**

Sr. No.	Name of Item	Nos./ Quantity	Cost in Rs.	Company	Date of Purchase	Installation Report
1	Weighing balance CAH 223	1	19600	Contech	22/01/2019	Working
2	Visible Spectrophotometer 106 340-960 nm	1	39072	Systronics	22/01/2019	Working
4	Autoclave (16" x24") BTI 02	1	54331	Biotechnics	22/01/2019	Working

	(90 Lit.)					
5	Autoclave (12" x20") BTI 02 (35 Lit.)	1	30615	Biotechnics	22/01/2019	Working
6	Optional accessories for Autoclave 1. Digital Tempt. Controller 2. Water level cut off system 3. pressure cut off system	1 1 1	12073 4655 7480	Biotechnics	22/01/2019	Working
7	Camera Lucida prism type	5	5935		22/01/2019	Working
8	Hot Air Oven 45X45X45 cm	1	25578	Metalab	22/01/2019	Working
9	Optional accessories for Oven 01. Digital Tempt. Controller 02. Air circulation fan	1 1	4275 4275	Metalab	22/01/2019	Working
10	Hot Plate with magnetic stirrer 2 MLH (2 Lit.)	2	11368	Remi	22/01/2019	Working
11	Hot Plate Round 8 inches	2	4312	Biotechnic	22/01/2019	Working
12	Water distillation unit BTI 59 4 Lit.	1	5978	Biotechnic	22/01/2019	Working
13	Dissecting microscope	24	28224	Metzer	22/01/2019	Working
14	Student microscope KG 3	24	76440	Micron	22/01/2019	Working
15	Research Microscope CH 20	2	66640	Olympus	22/01/2019	Working
Total:			400851			
GST 18%			72152			
Total			473003			

II) List of Chemicals:-

SN	Equipment	Packing Qty.	Order	Make
1.	NaOH (Sodium hydroxide pellets)	500g	500 gm	Qualigens
2.	HCL	500ml	500 ml	Qualigens
3.	2,4,D	100g	500 gm	Qualigens
4.	Agar Agar	500g	500gm	Qualigens
5.	Ammonium nitrate	100g	50gm	Qualigens
6.	BAP	10 gm	1gm	Qualigens
7.	Boric acid	500g	500gm	Qualigens
8.	Bovine Serum Albumin	5 g	10 g	Qualigens
9.	Calcium chloride	500g	500 gm	Qualigens
10.	Cobalt chloride	100g	100gm	Qualigens
11.	Copper sulphate	500g	500gm	Qualigens
12.	Dextrose	500g	500 gm	Qualigens

13	di-potassium hydrogen phosphate	500g	500 gm	Qualigens
14	Ferrous sulphate	500g	500gm	Qualigens
15	GA3	1g	10 gm	Qualigens
16	Glucose	500gm	1 Kg	Qualigens
17	Glycine	250gm	250 gm	Qualigens
		500 g	500 g	Qualigens
18	IAA	5g	5gm	Qualigens
19	IBA	5g	5gm	Qualigens
20	Kinetin	1g	2gm	Qualigens
21	Manganese sulphate	500g	500gm	Qualigens
22	Myoinositol	25g	25gm	Qualigens
23	Sodium Potassium tartarate	500g	500 gm	Qualigens
24	Na ₂ CO ₃ (Sodium carbonate)	500g	500 gm	Qualigens
25	NAA (1 – Naphthylacetic acid)	100gm	100gm	Qualigens
26	Nicotinic acid	100 g	50 gm	Qualigens
27	HgCl ₂ (Mercuric chloride)	25g	50 gm	Qualigens
		100 g	100 g	Qualigens
28	Peptone	500g	500 gm	Qualigens
29	Phenolphthalein indicator	125ml	125 ml	Qualigens
30	Potassium chloride	500g	500 gm	Qualigens
31	Potassium hydroxide	500g	500gm	Qualigens
32	Potassium iodide	25g	50 gm	Qualigens
		250 g	250 g	Qualigens
33	Potassium nitrate	500g	500gm	Qualigens
34	Pyridoxine –HCL	25g	25 gm	Qualigens
35	Sodium molybdate	100g	100 gm	Qualigens
36	Sodium nitrate	500g	500 gm	Qualigens
37	Sucrose	500g	500 gm	Qualigens
38	Thiamine-HCL	25g	25gm	Qualigens
39	Zinc sulphate	500g	500gm	Qualigens
40	Yeast Extract	500g	1 Kg	Qualigens
41	Ethyl methyl sulphonate	10g	10 ml	Qualigens
42	Sodium azide	100g	100 gm	Qualigens
43	2,3,5 triphenyltetrazolium chloride	25g	25gm	Qualigens
44	Acetone	2.5Ltr.	2.5 Ltr	Qualigens
45	Formaldehyde Solution	5.0Ltr	5ltr	Qualigens
46	Methanol	2.5Ltr.	2.5 Ltr.	Qualigens
47	Chloroform	2.5Ltr.	2.5 Ltr.	Qualigens
48	EDTA	500g	500 gm	Qualigens
49	Acetic Acid	2.5Ltr.	2.5 Ltr.	Qualigens
50	Sodium Chloride	500g	500 gm	Qualigens
51	Orcein for Microscopy	5g	5 gm	Qualigens
52	Carmine for Microscopy	5g	5 gm	Qualigens

53	Perchloric acid	500ml	500 ml	Qualigens
54	Diphenylamine	250g	250 gm	Qualigens
55	Sodium citrate	500g	500 gm	Qualigens
56	Sulfuric acid	500ml	1 Ltr.	Qualigens
57	Ferrous chloride	500g	500 g	Qualigens
58	Petroleum Ether	2.5Ltr	2.5 Ltr.	Qualigens
59	Calcium Carbonate	500g	500 gm	Qualigens
60	Oxalic acid	500g	500 gm	Qualigens
61	Mayer's reagent	125ml	100 ml	Qualigens
62	Wagner's Reagent	100ml	100 ml	Qualigens
63	Benedict's Reagent	500ml	100 ml	Qualigens
64	Dragendorff's reagent	125ml	125 ml	Qualigens
65	Barfoed's reagent	250ml	250 ml	Qualigens
66	Moore's reagent	100ml	100 ml	Qualigens
67	Manganese sulphate	500g	500 gm	Qualigens
68	Potassium iodide	100g	100 gm	Qualigens
69	Sodium thiosulphate pentahydrate	500gm	1 Kg	Qualigens
70	Safranine	25g	50 gm	Qualigens
71	Lactophenol (Cotton Blue) For Microscopy	500ml	500 ml	Qualigens
72	Light green	25g	25 gm	Qualigens
73	Eosin Staining Solution (2% W/V)	125ml	500ml	Qualigens

III) List of Glassware:

Sr. No.	Description of Glassware's	Qty.
01.	Beaker 50ml	100
02.	Beaker 100ml	100
03.	Beaker 250ml	24
04.	Beaker 500ml	12
05.	Beaker 1000ml	06
06.	Conical Flask 50ml	24
07.	Conical Flask 100ml	48
08.	Conical Flask 250ml	24
09.	Conical Flask 500ml	24
10.	Conical Flask 1000ml	06
11.	Measuring Cylinder 5ml	06
12.	Measuring Cylinder 10ml	06
13.	Measuring Cylinder 25ml	06
14.	Measuring Cylinder 50ml	12
15.	Measuring Cylinder 100ml	12
16.	Measuring Cylinder 250ml	06
17.	Measuring Cylinder 500ml	06
18.	Measuring Cylinder 1000ml	03
19.	Pipette with Bulb 1ml	06
20.	Pipette 2ml (Volumetric Pipette)	06

21.	Pipette with Bulb 5ml (Volumetric Pipette)	06
22.	Pipette with Bulb 10ml (Volumetric Pipette)	12
23.	Petri Plates 15x90mm (S-Line)	48
24.	Petri Plates 15x100mm	48
25.	Petri Plates 6"	24
26.	Test Tube 18x150mm	100
27.	Test Tube 25x150mm	50
28.	Culture Tube 15x150mm	50
29.	Funnel (Glass) 3"	24
30.	Burette with Teflon stop cock 10ml	24
31.	Glass Rod 12"	06
32.	BOD Bottle 300ml	12

13) List of Books & Journals subscribed

Sr. No.	Name of Book/ Journal	Publisher	Date of Purchase	Amount
1.	Plant Propagation	Pantries Hall of India New Delhi	12/03/2019	595
2.	Essestional cell Biology	Garland Publications New York	12/03/2019	1845
3.	Life on Earth	Pantries Hall of India New Delhi	12/03/2019	4255
4.	Study Guide life on Earth	Pantries Hall of India New Delhi	12/03/2019	1921
5.	Biotechnology	Scientific international Pvt. Ltd. Delhi	12/03/2019	1105
6.	Principles of Biochemistry with MCQ supplement	Scientific international Pvt. Ltd. Delhi	12/03/2019	920
7.	Biochemistry (set of 3Books)	Plenum press New York	12/03/2019	6686
8.	Elementary statistics	MC graw Hill Delhi	12/03/2019	1505
9.	Molecular Biotechnology	ASM Press Washington	12/03/2019	3232
10.	Genetics	Scientific international Pvt. Ltd. Delhi	12/03/2019	457
11.	Nursery Management	Pantries Hall New Jursay	12/03/2019	1845
12.	Seed Technology	Oxford & IBS New Delhi	12/03/2019	624
13.	Statistical Method of Agricultural Science	MT Scientific international New Delhi.	12/03/2019	457
14.	Hand Book of Agricultural Science	Kalyani Publication New Delhi	12/03/2019	254
15.	Sustainability through Organic Farming	Kalyani Publication New Delhi	12/03/2019	231
16.	Genetics of Plants	MT Scientific international New Delhi.	12/03/2019	365
17.	Bio fertilizer Technology	Agri Horti Press New Delhi	12/03/2019	2307
18.	Plant Breeding and Genetics	Book Inclave Jaipur	12/03/2019	1665
19.	Horticulture	MJP Publications Chennai	12/03/2019	323
Total :				32868/-

Departmental activity-

A. Descriptive Report of Semester I

In department of Botany under DBT Star College Scheme Lectures given for F.Y.B. Sc. and T.Y.B.Sc. Students during 12/08/2018 to 18/09/2018. This was conducted by Dr. Tuwar A. R. Prof. Tuwar D. A. Prof. K. U. Kulkarni, Prof. Arangale K. B. Total students participated are 133. In this lectures -Introduction to Plant Tissue culture, Concept and Process of Sterilization and Media Preparation, Inoculation techniques, Importance of Organic Fertilizers for crop improvement were explained.

The add on Practical for F.Y.B.Sc. Students entitled 1. Sterilization of Glasswares and Equipments 2. Process of Media Preparation, 3. Inoculation techniques 4. Selection of Plot were conducted by Prof. Tuwar D. A. Prof. K. U. Kulkarni, Prof. Arangale K. B. In this In this practical demo was given first and then students were done that. Students have performed above mention practicals individually. The students of T.Y.B.Sc. also performed practical entitled "Collection of samples for Fungi isolation" were conducted. Prof. Kulkarni K. U. by explaining and demonstrating the experiment and students were performed the practical.

Outcome:-

All the F.Y.B. Sc. and T.Y.B.Sc. Students have benefited by this lectures and practicals . the F.Y.B. Sc. Students learned about the sterilization procedures of glassware and chemicals , how to prepare media for plant tissue culture and inoculation of explants in tissue culture tube. They also learned about selection of plot for field experiment.

B. Descriptive Report of Semester II

In department of Botany under DBT Star College Scheme Lectures given for F.Y.B. Sc., S.Y.B.Sc and T.Y.B.Sc. Students during 21/12/2018 to 28/02/2019. This was conducted by Prof. Tuwar D. A. Prof. K. U. Kulkarni, Prof. Arangale K. B. Total students participated are 113. In this lectures - Biocontrol agents for plant disease management, Introduction and Types of Bio fertilizers, Methods of Applications of Bio fertilizers, Role of Secondary Metabolites in Plants, Basic Techniques in Plant Tissue Culture were explained. The Special lecture conducted on Organic farming by visiting faculty, Prof. Dr. K. N. Dhumal (Former professor, Department of Botany Savitribai Phule Pune University, Pune, for S.Y.B.Sc Students.

The add on **Practical** for F.Y.B. Sc., S.Y.B.Sc and T.Y.B.Sc. Students entitled:-

1. Collection and Segregation of Organic Waste
2. Processing on Organic Waste for Solid state fermentation were conducted by Prof. Arangale K. B. In this practical demo was given first and then students were done that.
3. Water and Soil Analysis were conducted by Prof. Tuwar D. A. in Department of Chemistry with the help of Chemistry faculty prof. Mahesh Jangale, In this practical demo was given first and then students were done that. Students have performed above mention practicals individually.

The Workshop on “Plant Industries and Entrepreneurship.” Arranged for F.Y.B.Sc students the Dr. Rajkumar Barmukh (Assistant Professor, Modern College, Pune) was a resource person for this workshop.

Outcome:- All the F.Y.B. Sc., S.Y.B.Sc and T.Y.B.Sc. Students have benefited by this lectures and practicals. The F.Y.B.Sc students known about Entrepreneurship in Plant Industries. The S.Y.B. Sc. Students learned about Organic Farming the Soil parameters and Analysis of Water and Soil and T.Y.B. Sc. Students learned about the Collection of Organic Waste and how to segregate it and they also learned about Processing on Organic Waste for Solid state fermentation.

C. Details of activity:

S.N	Date	Time/ Duration	Name of Coordinator	Speaker/Experts				No of Participants			
				Name	Designation	Contact No	Institute	Teachers		Students	
								M	F	M	F
1	12/08/2018	12am to 01pm	Dr. V. E. Darandale	Prof. Tuwar D. A	Assistant Professor	9923761150	ACSC Sonai	-	-	24	36
2	19/08/2018	12am to 01pm	Dr. V. E. Darandale	Prof. K. U. Kulkarni	Assistant Professor	9420790184	ACSC Sonai	-	-	24	36
3	07/09/2018	12am to 01pm	Dr. V. E. Darandale	Prof. Arangale K. B.	Assistant Professor	9975850262	ACSC Sonai	-	-	24	36
4	18/09/2018	12am to 01pm	Dr. V. E. Darandale	Prof. Tuwar D. A	Assistant Professor	9923761150	ACSC Sonai	-	-	24	36
5	13/08/2018	12am to 01pm	Dr. V. E. Darandale	Prof. K. U. Kulkarni	Assistant Professor	9420790184	ACSC Sonai	-	-	07	11
6	20/08/2018	12 am to 01 pm	Dr. V. E. Darandale	Dr. Tuwar A. R.	Assistant Professor	9975390410	ACSC Sonai	-	-	07	11
7	14/08/2018	2;30 pm to 5:30 pm	Dr. V. E. Darandale	Prof. Tuwar D. A	Assistant Professor	9923761150	ACSC Sonai	-	-	24	36
8	20/08/2018	2;30 pm to 5:30pm	Dr. V. E. Darandale	Prof. K. U. Kulkarni	Assistant Professor	9420790184	ACSC Sonai	-	-	24	36
9	08/09/2018	2;30 pm to 5:30pm	Dr. V. E. Darandale	Prof. Arangale K. B.	Assistant Professor	9975850262	ACSC Sonai	-	-	24	36
10	19/09/2018	2;30 pm to 5:30pm	Dr. V. E. Darandale	Prof. Tuwar D. A	Assistant Professor	9923761150	ACSC Sonai	-	-	24	36
11	13/09/2018	2;30 pm to 5:30pm	Dr. V. E. Darandale	Prof. K. U. Kulkarni	Assistant Professor	9420790184	ACSC Sonai	-	-	07	11
12	21/12/2018	12am to 01pm	Dr. V. E. Darandale	Prof. Arangale K. B.	Assistant Professor	9975850262	ACSC Sonai	-	-	10	45
13	21/12/2018	02 pm to 03 pm	Dr. V. E. Darandale	Prof. Arangale K. B.	Assistant Professor	9975850262	ACSC Sonai			10	45
14	02/02/2019	12am to 01pm	Dr. V. E. Darandale	Prof. Dr. Dhumal K. N.	former Professor	8999522728	SPPU Pune	4	2	22	37
15	17/01/2019	12am to 01pm	Dr. V. E. Darandale	Prof. Tuwar D. A	Assistant Professor	9923761150	ACSC Sonai	-	-	22	37
16	28/02/2019	12am to 01pm	Dr. V. E. Darandale	Prof. Tuwar D. A	Assistant Professor	9923761150	ACSC Sonai	-	-	20	37
17	04/01/2019	12am to 01pm	Dr. V. E. Darandale	Prof. Arangale K. B.	Assistant Professor	9975850262	ACSC Sonai	-	-	09	09
18	04/01/2019	02 pm to	Dr. V. E.	Prof. Arangale K. B.	Assistant	9975850262	ACSC			09	09

		03pm	Darandale		Professor		Sonai				
19	07/02/2019	12 am to 01 pm	Dr. V. E. Darandale	Prof. Kulkarni K. U.	Assistant Professor	9420790184	ACSC Sonai	-	-	09	09
20	22/01/2019	2:30 pm to 5:30 pm	Dr. V. E. Darandale	Dr. Rajkumar Barmukh	Assistant Professor		Modern College , Pune	4	2	10	50
21	10/01/2019	2:30pm to 5:30 pm	Dr. V. E. Darandale	Prof. Tuwar D. A	Assistant Professor	9923761150	ACSC Sonai	-	-	22	37
22	14/02/2019	2:30pm to 5:30 pm	Dr. V. E. Darandale	Prof. Tuwar D. A	Assistant Professor	9923761150	ACSC Sonai			22	37
23	25/01/2019	2:30pm to 5:30 pm	Dr. V. E. Darandale	Prof. Arangale K. B.	Assistant Professor	9975850262	ACSC Sonai	-	-	09	09
24	08/02/2019	2:30pm to 5:30 pm	Dr. V. E. Darandale	Prof. Arangale K. B.	Assistant Professor	9975850262	ACSC Sonai	-	-	09	09
25	15/02/2019	2:30pm to 5:30 pm	Dr. V. E. Darandale	Prof. Arangale K. B.	Assistant Professor	9975850262	ACSC Sonai			09	09

D. Photographs (Hands on Tools):



Hands on tools - Preparation of Media by Prof. K.U. Kulkarni.



Students performing Practical of preparation of Media.



Hands on Tools - Isolation of Fungi by Prof. K.U. Kulkarni



Hands on Tools - Isolation of Fungi by Prof. K.U. Kulkarni



Hands on Tools - Isolation of Fungi by Prof. K. B. Arangale



Hands on Tools - Isolation of Fungi by Prof. K.U. Kulkarni



Workshop on Plant Industries and Entrepreneurship by Dr. Rajkumar Barmukh, Modern College, Pune



Guest Lecture on Organic Farming by Prof. Dr. K. N. Dhumal, SPPU, Pune



Lecture on Biocontrol agents for plant disease management by Prof. Arangale K. B.



Lecture on Introduction and type of Bio fertilizers by Prof. Tuwar D. A.



Lecture on Basic Techniques in Plant Tissue Culture by Prof. K.U. Kulkarni



Hands on Tools - Processing on organic waste for solid state fermentation



Hands on Tools - Water and Soil Analysis



Inter Departmental activity with Department of Chemistry for hands on tools about soil and water analysis