Shri Shivaji Education Society's
Board for Higher Education Vidyanagar Karad

YASHWANTRAO CHAVAN COLLEGE OF SCIENCE, KARAD

Department Of Chemistry

Year 2022-23

Name of activity- "Determination of organic carbon from Soil."

Index

Sr. No.	Name
1.	Mrunal Patil
2.	Muskan Shaikh
3.	Dhanashri Ghadage
4.	Shruti Ghatake
5.	Rutuja Patil
6.	Aishwarya Jagtap
7.	Pratiksha Jadhav
8.	Nilam Jadhav
9.	Tabassum Bardol
10.	Vaishnavi Chavan
11.	Sanika Tapase
12.	Ankita Pisal
13.	Vishakha Sabale
14.	Samruddhi Patil
15.	Sayali Yadav
16.	Kanchan Waghmare
17.	Apurva A Babar
18.	Anjali Mugutrao Patil

Head
Department of Chemistry
Yashwantrao Chavan College of Science, Karad

Yashwantrao Chavan College of Science CHEMISTRY Karad

Principal
Yashwantrao Chavan College of Science, Karad

Yashwantrao Chavan College of Science, Karad

Department of Chemistry

Extension Activity 2022-23

Name of activity- "Determination of Organic Carbon from Soil."

Purpose:	**Environmental Awareness:** Increase awareness about the role of soil carbon in environmental processes, such as carbon sequestration, greenhouse gas mitigation, and soil health. **Agricultural Implications:** Highlight the relevance of soil carbon measurements for agriculture, including its impact on soil fertility, nutrient cycling, and overall crop productivity. **Practical Application:** Illustrate how knowledge of soil carbon can be practically applied in making informed decisions regarding land management, sustainable agriculture, and environmental conservation.
No. of beneficiaries:	18
Outcome/ success achieved:	**Practical Skills:** Proficiency in soil carbon determination techniques, including various methods, sample preparation, and data interpretation. **Theory-to-Practice Connection:** Bridging theoretical knowledge with practical application, demonstrating the application of scientific principles in real-world scenarios. **Carbon Sequestration Benefits:** Awareness of the potential for agriculture to contribute to carbon sequestration, mitigating the effects of climate change through soil carbon management.
Teachers involved in the activity	Prof. Dr. S. H. Burungale, Prof. Dr. A. V. Mali, Mr. A. N. Bhingare, Dr. R.S. Patil, Mr. B. E. Mahadik, Mr. G. B. Dhake, Dr. U. P. Lad, Mr. S. D. Karande, Dr. S. D. Jadhav, Mrs. P. P. Patil, Mrs. S. R. Veer, Mrs. M. B. Jagadale

Head
Department of Chemistry
Yashwantrao Chavan College of Science, Karad

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Principal,
Yashwantrao Chavan College of Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil

Date - 23-01-2023

Sr. No	Name of Students	Address	Mobile No.	Sign
1.	Patil Mrunal	At Post-Kale	7620702872	
2.	Muskan Shaikh	Mujawar Colony Karad	8308955861	
3.	Ghadage Dhanashri	At-Targaon Tal-Koregaon	9503785987	
4	Ghatake Shruti	At.Post.Charegav Tal.karad, Stara	8263984483	
5	Patil Rutuja	At Post-Malharpeth, Tal-Patan, sata	9322656152	R.A.Patil
6.	Jagtap Aishwarya	At Post-Vadgaon H. Tal-Karad Dist-Satara	8010343145	A.S.Jagtap
7.	Jadhav Pratiksha	A/P Shere, Tal-Karad, Dist satara	9309183013	
8.	Jadhav Nilam	A/P Shere [illegible] Tal-Karad Dis-Satara	9359984247	
9.	Bagdol Tabassum	A/P. Rethare BK II Tal-Karad Dist-Satara	7387846450	
10.	Chavan Vaishnavi	A/P-Vanwasmachi Tal-karad dis-satara	7559157999	
11.	Tapase Sanika	160, Budhwar Peth karad dis-satara	7385793614	
12	Pisal Ankita	At post-Karwadi Tal-karad	7058122352	
13.	Sabale Vishakha	A/P-Maldan Tal-Patan Dist-Satara	8180917553	
14)	Patil Samruddhi	A/P Gudhe-Tal-Patan Dist Satara	8421978541	
15)	Yadav Sayali	A/P. Narayanwadi Tal-Karad Dist-Satara	9834488585	
16)	Waghmare Kanchan	A/P Tasawade Tal-Karad Dist-Satara	7028319304	
17)	Babar Apurva A	A/P Kapil tal Karad dist Satara	8080835438	
18.	Patil Anjali Mugutrao	At.Post-Vihe, Tal-Patan, Dist-Satara	8983514738	

Head
Department of Chemistry
Yashwantrao Chavan College of Science, Karad

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23/1/2023

Name of Students- Tapase Sanika Rajendra

Address – 160, Budhwar Peth Karad.

Blank Titration	Back Titration
1. 20 ml	1. 18 ml
2. 21 ml	2. 18 ml
3. 22 ml	3. 19 ml
CBR = $\frac{63}{3}$ = 21 ml	CBR = $\frac{55}{3}$ = 18.3 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

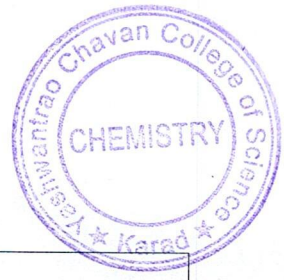
Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

$$\% C = \frac{(x-y) \times N \times 0.003}{\text{Amount of soil sample in gm}} \times 100$$

$$= \frac{(21-18.3) \times 0.5 \times 0.003}{1} \times 100$$

$$= 0.40\ \%$$



Conclusion - In the soil contain 0.40% carbon

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil

23/1/2023

Name of Students- Tapase Sanika Rajendra

Address – 160, Budhwar Peth, Karad.

% of Organic Carbon in Soil is : 0.40 %.

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23/1/2023

Name of Students- Yadav Sayali Pandit

Address – A/P. Narayanwadi Tal. karad, Dist. Satara

Blank Titration	Back Titration
1. 33 ml	1. 31 ml
2. 33 ml	2. 30.5 ml.
3. 32 ml	3. 31 ml
CBR = 33 ml	CBR = 31 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic Carbon in soil = $\frac{(X-Y)\times N\times 0.003}{\text{Amount of soil sample in gm}} \times 100$

$= \frac{(33-31)\times 0.5\times 0.003}{1} \times 100$

$= 0.3\ \%$

Yeshwantrao Chavan College of Science ★ CHEMISTRY ★ Karad

Conclusion - In this soil Contain 0.3% Carbon

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil

Date / 23-1-2023

Name of Students- Yadav Sayali Pandit

Address – A/P Narayanwadi Tal. Karad, Dist. Satara

% of Organic Carbon in Soil is : 0.3 %

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of
Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23-01-2023

Name of Students- WAGHMARE KANCHAN BABAN

Address – A/P- Tasgaon Tal. Karad. Dist- Satara

Blank Titration	Back Titration
1. 33 ml	1. 31 ml
2. 32 ml	2. 30 ml
3. 33 ml	3. 31 ml
CBR = 33 ml	CBR = 31 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic Carbon in Soil = $\frac{(x-y) \times N \times 0.003}{\text{Amount of soil sample in gm}} \times 100$

$= \frac{(33-31) \times 0.5 \times 0.003}{1} \times 100$

$= 0.3\%$

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Conclusion - In this soil contain 0.3 % Carbon

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil

Name of Students- WAGHMARE KANCHAN BABAN

Address – A/P Tasgaole, Tal- Karad, Dist- Satara.

% of Organic Carbon in Soil is : 0.31.

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

Yashwantrao Chavan College of Science * Karad * CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of
Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23-01-2023

Name of Students- Babar Apurva Abasaheb.

Address – A/P. Kapil Tal. Karad Dist. Satara.

Blank Titration	Back Titration
1. 32	1. 31 ml
2. 31	2. 30.5 ml
3. 32	3. 31 ml
CBR = 32 ml	CBR = 31 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

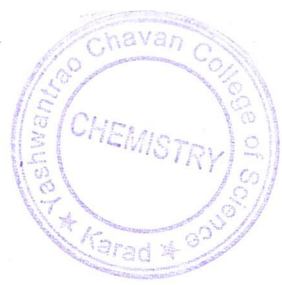
Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic Carbon in soil = $\frac{(x-y) \times N \times 0.003}{\text{Amount of soil sample in gm}} \times 100$

$= \frac{(32-31) \times 0.5 \times 0.003}{1} \times 100$

$= 0.15\ \%$



Conclusion - In this soil contain 0.15% carbon.

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil

Name of Students- Babar Apurva Abasaheb. Date:- 23-1-2023

Address – A/P Kapil tal. Karad dist. Satara.

% of Organic Carbon in Soil is : 0.15 %

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of
Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23/1/23

Name of Students- Muskan Javid Shaikh

Address – Mujawar Colony Karad

Blank Titration	Back Titration
1. 21 ML	1. 17 ML
2. 20 ML	2. 18 ML
3. 20 ML	3. 20 ML
CBR = 20 ML	CBR =

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

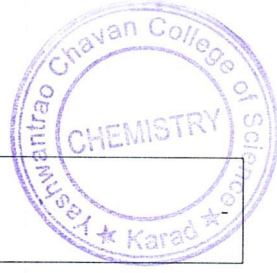
0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in soil = $\frac{(x-y) \times N \times 0.003}{\text{Amount at soil sample in gm}} \times 100$

$= \frac{(20-18.83) \times 0.5 \times 0.003}{1} \times 100$

$= 0.2\%$

Conclusion - This soil contant 0.2% Corbon



Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil

Name of Students- Muskan Javid Shaikh

Address – Mujawar colany karad

% of Organic Carbon in Soil is :

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of
Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23-1-23

Name of Students- Patil Mrunal Suryakant

Address – At. Post - Kale, Tal- Karad, Dist- Satara.

Blank Titration	Back Titration
1. 20 ml	1. 17 ml
2. 21 ml	2. 18 ml
3. 21 ml	3. 20 ml
CBR = 21 ml	CBR = 18.33

% of Organic Carbon in Soil = $\frac{(X-Y)*N*\ 0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

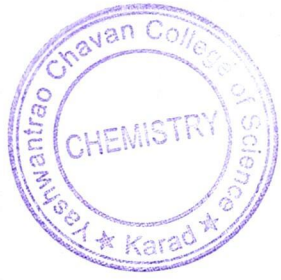
Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic Carbon in Soil = $\frac{(x-y) \times N \times 0.003}{\text{Amount of Soil Sample in gm}} \times 100$

$= \frac{(21-18.33) \times 0.5 \times 0.003}{1} \times 100$

$= 0.4\%$



Conclusion - This Soil Contain 0.4% Carbon.

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil

Name of Students- Patil Mrunal Suryakant

Address – At. Post - Kale, Tal - Karad, Dist. Satara.

% of Organic Carbon in Soil is : 0.4%

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23/01/2023

Name of Students- Chavan Vaishnavi Vishwas

Address – A/P - Vanwasmachi , Tal - Karad , dist - satara .

Blank Titration	Back Titration
1. 26 ml	1. 21 ml
2. 27 ml	2. 22 ml
3. 29 ml	3. 24 ml
CBR = 27.33 ml	CBR = 22.33 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*\ 0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

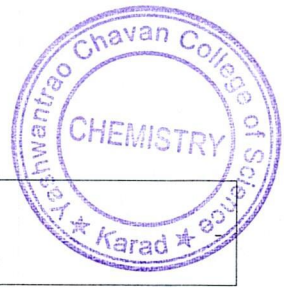
0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

$$\% \text{ of organic carbon in soil} = \frac{(X-Y) \times N \times 0.003}{\text{Amount of soil sample in gm}} \times 100$$

$$\frac{(27.33)-(22.33) \times 0.5 \times 0.003}{1} \times 100$$

$$= 0.75\ \%$$

Conclusion - This soil contain 0.75 % carbon



Extension Activity 2022-23

Department of Chemistry

Date - 23/01/2023

Aim - Determination of organic carbon from Soil

Name of Students- chavan vaishnavi vishwas.

Address – A/P - Vanwasmachi, Tal - karad. dist - satara.

% of Organic Carbon in Soil is : 0.75 %.

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of
Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23/1/23

Name of Students- Patil Rutuja Arvind

Address – At Post. Malharpeth Tal-Patan, Dis:-Satara.

Blank Titration	Back Titration
1. 23 ml	1. 12 ml
2. 19 ml	2. 12 ml
3. 25 ml	3. 10 ml
CBR = 22 ml	CBR = 11. ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

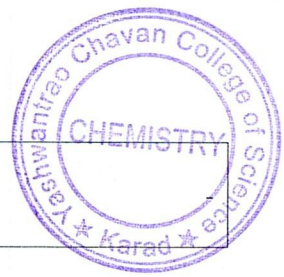
% of organic carbon in soil = $\frac{(X-Y)N \times 0.003}{\text{amount of soil sample in gm}} \times 100$

$= \frac{(26-(22-11) \times 0.5 \times 0.003}{1} \times 100$

$= \frac{(11) \times 0.5 \times 0.003}{1} \times 100$

$= 1.65\%$

Conclusion - The soil carbon contain = 1.65%.



Extension Activity 2022-23

Department of Chemistry

23/1/23

Aim - Determination of organic carbon from Soil

Name of Students- Patil Rutuja Arvind.

Address – At Post - Malharpeth, Tal- Patan, Dist. Satara.

% of Organic Carbon in Soil is : 1.65%.

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23-1-2023

Name of Students- Ghatake Shruti Bajirav

Address – At. Post. Chregav. Tal. Karad. Dist, Satara

Blank Titration	Back Titration
1. 25 ml	1. 12 ml
2. 19 ml	2. 10 ml
3. 21 ml	3. 9 ml
CBR = 21	CBR = 11

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

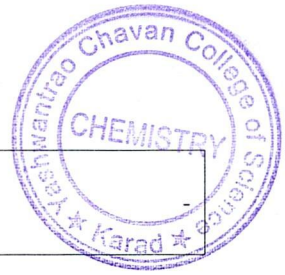
0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in Soil = $\frac{(X-Y)\,N \times 0.003}{\text{amount of soil sample in gm}} \times 100$

$= \frac{(21-11)\,0.5 \times 0.003}{1} \times 100$

= 1.5 %

Conclusion - This soil contain 1.5% carbon



Date = 23-1-2023

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil

Name of Students- Ghatake shruti Bajirav

Address – At. Post. chregav . Tal. Karad, Dist. Satara

% of Organic Carbon in Soil is : 1.5 %.

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23/01/2023

Name of Students- Jagtap Aishwarya Shankar.

Address – At post - Vadgaon Haveli, Tal - Karad. Dist - Satara.

Blank Titration	Back Titration
1. 24 ml	1. 15 ml
2. 20 ml	2. 15 ml
3. 26 ml	3. 17 ml
CBR = 23 ml	CBR = 15 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

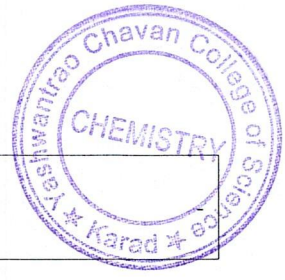
% of organic carbon in soil = $\frac{(X-Y)\ N \times 0.003}{\text{amount of soil sample in gm}} \times 100$

$= \frac{(23-15) \times 0.5 \times 0.003}{1} \times 100$

$= \frac{8 \times 0.5 \times 0.003}{1} \times 100$

$= 1.2\ \%$

Conclusion - The soil carbon contain = 1.2%



Extension Activity 2022-23

Department of Chemistry

Date - 23/01/2023

Aim - Determination of organic carbon from Soil

Name of Students- Jagtap Aishwarya Shankar.

Address – At Post- Vadgaon Haveli. Tal-karad . Dist-Satara

% of Organic Carbon in Soil is : 1.2%.

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of
Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23/1/23

Name of Students- Patil Anjali Muguttrao.

Address – AT. Post - Vihe, Tal - Patan, Dist.- Satara.

Blank Titration	Back Titration
1. 21 ml	1. 17 ml
2. 22 ml	2. 18 ml
3. 22 ml	3. 20 ml
CBR = 22 ml	CBR = 18.33 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*\ 0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

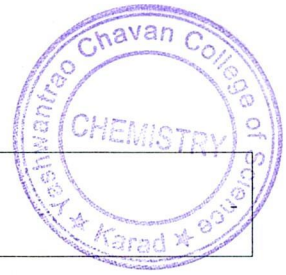
Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of Organic Carbon in Soil = $\frac{(x-y) \times N \times 0.003}{\text{Amount of soil sample in gm}} \times 100$

$= \frac{(22-18.33) \times 0.5 \times 0.003}{1} \times 100$

$= 0.5\ \%$



Conclusion - This soil contain 0.5 % Carbon.

Extension Activity 2022-23

23/1/23

Department of Chemistry

Aim - Determination of organic carbon from Soil

Name of Students- Patil Anjali Mugutrao.

Address – AT. Post - Vihe, Tal.- Patan, Dist.- Satara.

% of Organic Carbon in Soil is : 0.5 %.

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of
Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23-1-2023

Name of Students- Bardol Tabassum Moula

Address – A/P. Rethare BK11, Tal- Karad, Dist – Satara

Blank Titration	Back Titration
1. 26 ml	1. 24 ml
2. 27 ml	2. 23 ml
3. 29 ml	3. 21 ml
CBR = 27.33	CBR = 22.66

% of Organic Carbon in Soil = $\frac{(X-Y)*N*\ 0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in soil = $\frac{(x-y)\times N\times 0.003}{\text{amount of soil sample in gram}} \times 100$

$= \frac{(27.33) - (22.66) \times 0.5 \times 0.003}{1} \times 100$

$= 0.7\ \%$

Conclusion - This soil contain 0.7 % Carbon

Extension Activity 2022-23

Department of Chemistry

23-1-2023

Aim - Determination of organic carbon from Soil

Name of Students- Bardol Tabassum Moula

Address – A/P. Rethare BK, Tal- Karad, Dist – Satara

% of Organic Carbon in Soil is : 0.7 %

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of
Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23/1/2023

Name of Students- Pisal Ankita Prakash

Address – AT Post - karawadi , Tal- karad , Dist- Satara.

Blank Titration	Back Titration
1. 25 ml	1. 22 ml
2. 26 ml	2. 23 ml
3. 25 ml	3. 22 ml
CBR = 25 ml	CBR = 22 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*\ 0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in soil = $\frac{(X-Y)\times N\times 0.003}{\text{Amount of soil sample in gm}} \times 100$

$= \frac{(25-22)\times 0.5\times 0.003}{1} \times 100$

$= 0.45\ \%$

Yashwantrao Chavan College of Science Karad CHEMISTRY

Conclusion - In this soil cantain 0.45% carbon.

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil

Date - 23/1/2023

Name of Students- Pisal Ankita Prakash

Address – At Post - Karawadi , Tal- Karad , Dis - Satara

% of Organic Carbon in Soil is : 0.45%

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of
Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23-1-2023

Name of Students- Jadhav Nilam Ganesh

Address – A/P Sheee Hoedhmalee Tal-Karad Dist-Satara

Blank Titration	Back Titration
1. 36 ml	1. 26 ml
2. 34 ml	2. 28 ml
3. 35 ml	3. 30 ml
CBR = 35 ml	CBR = 28 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of oeganic carbon in soil $= \frac{(x-y) \times N \times 0.03}{\text{amount of soil sample in gm}} \times 100$

$= \frac{(35-28) \times 0.5 \times 0.003}{1} \times 100$

$= 1.05\ \%$

Conclusion - This soil contain 1.05 % carbon

Yashwantrao Chavan College of Science * Karad * CHEMISTRY

Extension Activity 2022-23

Department of Chemistry

23-1-2023

Aim - Determination of organic carbon from Soil

Name of Students- Jadhav Nilam Ganesh

Address – A/P Sheee Thoedhmala Tal-Karad Dist-Satara

% of Organic Carbon in Soil is : 1.05 %

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Yashwantrao Chavan College of Science * Karad * CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of
Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date : 23-01-2023**

Name of Students- Sabale Vishalcha Vishwas

Address – ATP-Maldan, Tal- patan, Dist- Satara.

Blank Titration		Back Titration	
1.	27 ml	1.	20 ml
2.	26 ml	2.	21 ml
3.	27 ml	3.	21 ml
CBR =	27 ml	CBR =	21 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in soil = $\frac{(X-Y)\times N\times 0.003}{\text{Amount of soil sample in gm}} \times 100$

$= \frac{(27-21)\times 0.5\times 0.003}{1} \times 100$

$= 0.9\ \%$

Conclusion - In this soil contain 0.9% carbon

Extension Activity 2022-23

23/01/2023

Department of Chemistry

Aim - Determination of organic carbon from Soil

Name of Students- Sabale Vishakha Vishwas

Address – AT/P- Maldan, Tal- Patan, Dist -Satara.

% of Organic Carbon in Soil is : 0.9 %

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23/01/2023

Name of Students- Patil Samruddhi Sachin

Address – At. Post Gudhe, tal: Patan, Dist: Satara.

Blank Titration	Back Titration
1. 26 ml	1. 23 ml
2. 26 ml	2. 23 ml
3. 27 ml	3. 22 ml
CBR = 26 ml.	CBR = 23 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*\ 0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

$$= \frac{(X-Y) \times N \times 0.003}{\text{Amount of soil sample in gm}} \times 100$$

$$= \frac{(26-23) \times 0.5 \times 0.003}{1} \times 100$$

$$= 0.45\ \%$$

Conclusion - In this soil contain 0.45 % carbon.

Yashwantrao Chavan College of Science Karad CHEMISTRY

Extension Activity 2022-23

Department of Chemistry

Date = 23/01/2023

Aim - Determination of organic carbon from Soil

Name of Students- Patil Samruddhi Sachin.

Address – At Post Gudhe, tal: Patan, Dist: Satara.

% of Organic Carbon in Soil is : 0.45 %

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of
Science, Karad

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23/1/2023

Name of Students- Jadhav Pratiksha Ramchandra

Address – AlPshere Tal-Karad, Dist-Satara

Blank Titration	Back Titration
1. 34 ml	1. 25 ml
2. 33 ml	2. 27 ml
3. 35 ml	3. 29 ml
CBR = 34.33 ml	CBR = 27 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic Carbon in Soil = $\frac{(X-Y)\times N\times 0.003}{\text{Amount of soil sample in gm}} \times 100$

$= \frac{(34.33)-(27)\times 0.5\times 0.003}{1} \times 100$

$= 1.09\%$

Conclusion - The soil contain 1.09% Carbon

Extension Activity 2022-23

29/1/2023

Department of Chemistry

Aim - Determination of organic carbon from Soil

Name of Students- Jadhav Pratiksha Ramchandra

Address – A/P shere Tal-Karad, Dist – Satara

% of Organic Carbon in Soil is : 1.09%

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Yashwantrao Chavan College of Science Karad CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Ch... ...ge of
Science, ...

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 23-01-2023

Name of Students- Dhanashri Sanjay Ghadage

Address – At. Targaon Tal-Koregaon Dist. Satara

Blank Titration	Back Titration
1. 24 ml	1. 15 ml
2. 20 ml	2. 15 ml
3. 26 ml	3. 17 ml
CBR = 23 ml	CBR = 15 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

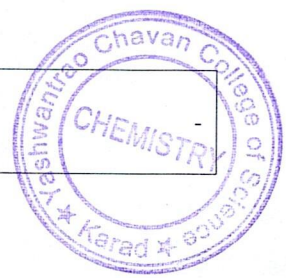
% organic Carbon in soil = $\frac{(X-Y)N \times 0.003}{\text{amount of soil sample in gm}} \times 100$

$= \frac{(23-15)0.5 \times 0.003}{1} \times 100$

$= \frac{8 \times 0.5 \times 0.003}{1} \times 100$

$= 1.2\ \%$

Conclusion - This soil contain 1.2% carbon



Date - 23-01-2023

Extension Activity 2022-23

Department of Chemistry

Aim - Determination of organic carbon from Soil

Name of Students- Dhanashri Sanjay Ghadage

Address – At. Targaon Tal-Koregaon Dist. Satara

% of Organic Carbon in Soil is : 1.2 %

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Yashwantrao Chavan College of Science ★ Karad CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of
Science, Karad