

Central University of Himachal Pradesh

(ESTABLISHED UNDER CENTRAL UNIVERSITIES ACT 2009)

Dharamshala, Himachal Pradesh-176215



NAAC Criterion-I

Key Indicator –1.3.4 Number of students undertaking research

1.3.4 Evidences

projects



Department of Plant Science Central University of Himachal Pradesh, Dharamshala, Kangra



Central University of Himachal Pradesh

(ESTABLISHED UNDER CENTRAL UNIVERSITIES ACT 2009)
Dharamshala, Himachal Pradesh-176215



INDEX

Department of Plant Science

S.NO	DESCRIPTION	PAGE NO.
1	List of Number of students undertakes research projects	
2	Project completion Certificates of the students	4-64

विभागान्त्रमा, पादप विज्ञान विभाग Head, Department of Plant Sciences

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File No: Plant Science/2-3(Head File)/CUHP/21/492 Dated: 27/03/2023

1.3.4 Number of students undertaking field projects or research projects or internships

The following are the students who have completed their project work during the latest completed academic year (Batch 2020-2022)

S.	Roll No	Name of	Title	Place of
No.		Student		work
1	CUHP20PLS01	Aditi Himta	Ethnobotanical status of <i>Prunus armeniaca</i> Linn. In	CUHP,
			Tehsil Chaupal of District Shimla, Himachal Pradesh	Shahpur
2	CUHP20PLS03	Anjali	The effect of salicylic acid on growth and	
2	CUHPZUPLSUS	Alijali	biochemical characters in UV-C radiation stressed	CUHP,
			tomato plant (Solanum lycopersicum L.).	Shahpur
3	CUHP20PLS04	Ankita	Establishment of <i>in vitro</i> cultures of <i>Valeriana</i>	CUHP,
	COIII 201 L50+	Rana	jatamansi Jones using different plant growth	Shahpur
		Rana	regulators	Shanpar
4	CUHP20PLS05	Arti	Role of Anti-depressant agents derived from	CUHP,
		Chauhan	selected Flowering plants	Shahpur
5	CUHP20PLS06	Damini	The Use of Halotolerant Plant Growth Promoting	
			Rhizobacteria in Sustainable Agriculture	CUHP,
				Shahpur
6	CUHP20PLS07	Diksha	Effect of heavy metal stress on the morphology of	CUHP,
			Solanum nigrum growing under soil conditions	Shahpur
7	CUHP20PLS08	Diksha	Effect of mannitol induced seed priming in the	CUHP,
			salinity tolerance of brinjal (Solanum melongena)	Shahpur
			seeds.	
8	CUHP20PLS09	Isha	Ethnobotanical survey of <i>Ficus carica</i> among local	
		Kumari	residents of Tehsil Shahpur in District Kangra of	CUHP,
			Himachal Pradesh	Shahpur
9	CUHP20PLS10	Kajal	Ethnobotanical Status of Grewia optiva (J.R.	CUHP,
		Parihar	Drumm. ex Burret) as a Multipurpose Tree in Tehsil	Shahpur
1.0	GI II DAGET GEE	77 1	Shahpur of District Kangra (H.P.)	
10	CUHP20PLS11	Kanchan	Effect of osmopriming on salinity stress tolerance of	GUUD
			tomato variety golden seeds tomato vaishnavi 2082.	CUHP,
1.1	CITIDAGDI GAS	и Б,	D1: C1.	Shahpur
11	CUHP20PLS12	Km. Divya	Rhizofilteration as an Effective Approach for	CUHP,

		Pawar	Removal of Heavy Metal from Aqueous Environment	Shahpur
12	CUHP20PLS13	Kushal Thakur	A Review on the Botanicals in Organic Agriculture	CUHP, Shahpur
13	CUHP20PLS14	Madhvi Negi	Saussurea costus (Falc) Lipsch. A Review on Its Ethnomedicinal uses, Phytochemistry and Pharmacology	CUHP, Shahpur
14	CUHP20PLS15	Manu Choudhary	Elicitation approach for <i>in vitro</i> regeneration of <i>Salvia officinalis</i> L.	CUHP, Shahpur
15	CUHP20PLS16	Monika verma	Allelopathic effect of aqueous plant extracts Parthenium hysterophorus and Urtica dioica on seed germination and growth parameters of Capsicum annum variety –suraj mukhi.	CUHP, Shahpur
16	CUHP20PLS17	Nitin Sharma	Commercial Cultivation of Lavender in Salooni Valley: Current Scenario and its Future Prospectives	CUHP, Shahpur
17	CUHP20PLS18	Pallvi	Study on Kangra Tea and "Why it is not Famous"	CUHP, Shahpur
18	CUHP20PLS19	Pitamber	Effect of proline induced seed priming on seedling growth and biochemical parameters of brinjal under salinity salt stress	CUHP, Shahpur
19	CUHP20PLS20	Pooja Thakur	Media manipulative approaches for <i>in vitro</i> propagation of <i>Rhynchostylis retusa</i>	CUHP, Shahpur
20	CUHP20PLS22	Priya Verma	A systematic review on ethnobotany, pharmacology and phytochemical constituents of <i>Lonicera japonica</i>	CUHP, Shahpur
21	CUHP20PLS23	Rakesh Kumar	A Review on the Phytochemical, Ethnobotanical, and Pharmacological Studies of <i>Thymus linearis</i>	CUHP, Shahpur
22	CUHP20PLS24	Saroj Kumari	Effects of Plant Growth Regulators and Explant Type on <i>in vitro</i> multiplication of <i>Viola odorata</i> L.	CUHP, Shahpur
23	CUHP20PLS25	Shivani	Effect of proline seed priming on growth and biochemical characters of tomato(<i>Solanum lycopersicum</i> L.) under salinity stress	CUHP, Shahpur
24	CUHP20PLS26	Simran	Ethnobotanical Study on Noxious Weeds: <i>Ageratum conyzoides</i> L. and <i>Parthenium hysterophorus</i> L. in Tehsil Shahpur of District Kangra of Himachal Pradesh.	CUHP, Shahpur
25	CUHP20PLS27	Sushma Kumari	Ethnobotanical Status of <i>Nasturtium officinale</i> in Tehsil Shahpur of District Kangra (H.P.)	CUHP, Shahpur
26	CUHP20PLS28	Swati	Seed priming with proline improved the photosynthetic pigment composition and growth of okra(<i>Abelmoschus esculentus</i>) under salinity stress	CUHP, Shahpur
27	CUHP20PLS29	Swati	Synthesis of zinc oxide mediated nanoparticles from Rhizome of <i>Costus speciosus</i> (J.Koenig) Sm.	CUHP, Shahpur
28	CUHP20PLS30	Udaypal Pal Verma	Standardization of Bio-Ethanol Production Under Different Laboratory Conditions	CUHP, Shahpur

29	CUHP20PLS31	Vikash Mirdha	The comparative study of physicochemical parameters and phytoplankton diversity of Dal Lake and Khajjiar Lake in Himachal Pradesh	CUHP, Shahpur
30	CUHP20PLS32	Vineeta Kaundal	In vitro regeneration of <i>Origanum majorana</i> L. – an endangered medicinal herb	CUHP, Shahpur
31	CUHP20PLS33	Wajid Hussain	Effect of seed priming by mannitol on biochemical and morphological parameters of capsicum under salinity stress	CUHP, Shahpur

विभागायान, पादप विज्ञान विभाग Head, Department of Plant Sciences हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय पर्पशाला Central University of Himachai Pradesh, Dharamshala PO Box 21, Dharamshala, Himachai Pradesh - 176215

Ethnobotanical status of *Prunus armeniaca* Linn. In Tehsil Chaupal of District Shimla, Himachal Pradesh

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial

Fulfillment of the degree of

Masters of Science in Plant Science

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of

Prof. Pardeep Kumar

By

Aditi Himta

(CUHP20PLS01)

June 2022



Central University of Himachal Pradesh

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Dated: 30-June -2022

Department of Plant Sciences (Botany) School of Life Sciences

Central University of Himachal Pradesh, Dharamshala [Established under the Central Universities Act 2009] Dharamshala, District Kangra, Himachal Pradesh [India]-176215

This is to certify that the dissertation entitled "Ethnobotanical status of Prunus armeniaca Linn. in Tehsil Chaupal of District Shimla, Himachal Pradesh" submitted by Aditi Himta CUHP20PLS01 D/O Sh. Santosh Himta to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of the degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Prof. Raideep Kumar

Supervisor

Dr. Paraleen Sharma

External Examiner

Head

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Dean of School

Dean, School of Life Science

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The Effect of Salicylic Acid on Growth and Biochemical Characters in UV-C Radiation Stressed Tomato Plants (Solanum lycopersicum L.)

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial

Fulfillment of the degree of

Masters of Science in Plant Science

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of

Dr. Divya V. Nair

By

Anjali

Roll No. CUHP20PLS03

June, 2022

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

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This to certify that the dissertation entitled "The Effect of Salicylic Acid on Growth and Biochemical Characters in UV-C Radiation Stressed Tomato Plants (Solanum lycopersicum L)". submitted by Anjali (CUHP20PLS03) D/O Yashpal to the Central University of Himachal Pradesh, Dharamshala in partial fulfilment of the requirements for the award of degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Dr. Parveon Sharma

External Examiner

Supervisor सहायक्-प्राप्यापक/Assistant Professor

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Establishment of *in vitro* cultures of *Valeriana jatamansi*Jones using different plant growth regulators

A dissertation

Submitted to the Central University of Himachal Pradesh for the partial fulfillment of the degree of

Masters of Science in Plant Science (Botany)

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of Dr. Munish Sharma

by

Ankita Rana (CUHP20PLS04)



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This to certify that the dissertation entitled "Establishment of in vitro cultures of Valeriana jatamansi Jones using different plant growth regulators" submitted by Ankita Rana (CUHP20PLS04) D/O Sh. Karnail Rana to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of degree of Master of Science in Plant Science (Botany) has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

(Dr. Munish Sharma)

Supervisor

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अस्थार शेशांगक खाँड, शाहपुर Temporary Academic Block, Shahpur (Prof. Pandeep Kumar) Head of the Department **External Examiner**

Prof. Parveen Sharma

Dean of Senot of Life Sciences

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अस्थाया शक्षाणक अण्ड/Temporary Academic Side शाहपुर, कांगडा (हि.प्र.)/Shahpur, Kangra (H.P.)-176206

A Review on the "Role of Anti-depressant Agents derived from selected Flowering Plants"

Submitted to the Central University of Himachal Pradesh for the Partial

Fulfilment of the degree of

Masters of Science in Plant Science

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of

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Ву

Arti Chauhan

Roll No. CUHP20PLS05

June, 2022



CENTRAL UNIVERSITY OF HIMACHAL PRADESH

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Dharamshala, District Kangra,

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This to certify that the dissertation entitled "A Review on Role of Antidepressant agents derived from selected Flowering Plants" submitted by Arti Chauhan (CUHP20PLS05) D/O Sh. Surender Kumar to the Central University of Himachal Pradesh, Dharamshala in partial fulfilment of the requirements for the award of degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in

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Dr. Parveen Charma

External Examiner

Superior प्रियमिक / Assistant Professor प्राप्त विज्ञान विभाग / Department of Plant Science ज़ीब विज्ञान ान /School of Life Sciences.

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Dean of Sono of Life Sciences अधिष्यसा, जैविक विज्ञान स्वरूल

Dean, School of Life Science हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय

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The Use of Halotolerant Plant Growth Promoting Rhizobacteria in Sustainable Agriculture

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial

Fulfillment of the degree of

Masters of Science in Plant Science

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of

Dr. Ashun Chaudhary

By

Damini

Roll No. CUHP20PLS06

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This is to certify that the dissertation entitled "The Use of Halotolerant Plant Growth Promoting Rhizobacteria in Sustainable Agriculture" submitted by Damini (CUHP20PLS06) D/O Sh. Narender Pal to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of the degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Dr. Ashun Chaudhary

स्क्रिकि प्रिक्ति में Assistant Professor पर्य क्रियान विभाग/Department of Plant Sciences प्रेम क्रियान स्कूल/School of Life Sciences क्रियामल प्रदेश केन्द्रीय विश्वविद्यालय Central University of Himachal Pradesh

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Dr. Ponveen Shanma

External Examiner

Effect of Heavy Metal Stress on the morphology of Solanum nigrum growing under soil conditions

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial Fulfillment of the degree of

Masters of Science in Plant Science (Botany)

In the School of Life Sciences
In the Department of Plant Science



Under the Supervision of Dr. Munish Sharma

By

Diksha (CUHP20PLS07)



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(Established under Central Universities Act 2009) Dharamshala (HP) - 176215

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Dated: 30-6-2022

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This to certify that the dissertation entitled "Effect of heavy metal stress on the morphology of Solanum nigrum growing under soil conditions" submitted by Diksha (CUHP20PLS07) D/O Sh. Jagat Ram to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of degree of Master of Science in Plant Science (Botany) has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Supervisor

सहायक प्राप्तापक / Assistant Professor पारप किल्ला विभाग / Department of Plant Sciences जीव विकास महल / School of Life Sciences

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Head of the Department

Dean of School Life Scient

अधिष्ठाता, जैविक विज्ञान Dean, School of Life Science हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh अस्थायी शैक्षाणिक खण्ड/Temporary Academic Block Pr. Mchahnur, Kangra (H.P.)-176206

Effect of Mannitol Induced Seed Priming in the Salinity Tolerance of Brinjal (Solanum melongena) Seeds

A Dissertation

Submitted to the Central University of Himachal Pradesh for the Partial

Fulfillment of the Degree of

Master of Science in Plant Science

In the School of Life Sciences
In the Department of Plant Science



Under the Supervision of

Dr. Divya V. Nair

By

Diksha

June ,2022



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This to certify that the dissertation entitled "Effect of Mannitol Induced Seed Priming in the Salinity Tolerance of Brinjal Seeds (Solanum melongena)" submitted by Diksha (CUHP20PLS08) D/O Sh. Ravinder Kumar to the Central University of Himachal Pradesh, Dharamshala in partial fulfilment of the requirements for the award of degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Dr. Divya V. Nair

Dr. Pasiveen Shasima

External Examiner

क प्राच्यापक / Assistant Professor TOP Department of Plant Sciences जीव बिरुएर

Interest of Life Sciences Fruit. र्भाग विश्वविद्यालय Avversity of Minachal Pradesh

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Head OF

Dean of School

अधिष्ठाता. जैविक विज्ञान स्कूल Dean, School of Life Science हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh अस्थायी शैक्षणिक खण्ड/Temporary Academic Block SHELL STREET OF IT MENABOUT KANEGA (H.P. 1-176705

Ethnobotanical survey of *Ficuscarica* among local residents of Tehsil Shahpur in District Kangra of Himachal Pradesh

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial

Fulfillment of the degree of

Masters of Science in Plant Science

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of

Prof. Pardeep Kumar

By

ISHA KUMARI

Roll No. - CUHP20PLS09

June, 2022



Central University of Himachal Pradesh

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Date- 30 | JUNE 2022

Department of Plant Science (Botany)

School of Life Sciences

Central University of Himachal Pradesh, Dharamshala [Established under the Central Universities Act 2009] Dharamshala, District Kanga, Himachal Pradesh [India]-176215

This is to certify that the dissertation entitled, "Ethnobotanical survey of Ficus carica among local residents of Tehsil Shahpur in Kangra District of Himachal Pradesh". submitted in partial fulfillment of the requirements for the award of the degree of Master of Science (Plant science) in the Central University of Himachal Pradesh, Dharamshala is a bonafide research work carried out by ISHA KUMARI under my supervision and that no part of this thesis has been submitted for any other degree or diploma.

The assistance and help received during the course of this investigation have been

fully acknowledged.

Dean of Schadkof Life Spi

Dean, School of Life Science हिमायल प्रदेश केन्द्रीय विश्वविद्यालय

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Ethnobotanical Status of *Grewia optiva* (J.R. Drumm. ex Burret) as a Multipurpose Tree in Tehsil Shahpur of District Kangra (H.P.)

A Dissertation

Submitted to the Central University of Himachal Pradesh for the Partial

Fulfillment of the Degree of

Masters of Science in Plant Science

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of

Prof. Pardeep Kumar

By

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June, 2022



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Dharamshala, District Kangra,
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This is to certify that dissertation entitled "Ethnobotanical Status of Grewia optiva (J.R. Drumm. ex Burret) as a Multipurpose Tree in Tehsil Shahpur of District Kangra (H.P.)" submitted by Kajal Parihar (CUHP20PLS10) D/O Mr. Sunil Parihar to the Central University of Himachal Pradesh. Dharamshala in partial fulfillment of the requirements for the award of degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

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Dr...P.akueen Sharma External Examiner

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Dean of S

अधिकार, जीविक विकास स्पर्ध Dean, School of Life Science

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Effect of osmopriming on salinity stress tolerance of Tomato variety - Golden Seeds Tomato Vaishnavi – 2082

A Dissertation

Submitted to the Central University of Himachal Pradesh for the partial Fulfillment of the Degree of

Masters of Science in Plant Science

In the school of Life Sciences
In the Department of Plant Science



Under the Supervision of Dr. Divya V. Nair By

Бу

Kanchan

(CUHP20PLS11)

June, 2022



CENTRAL UNIVERSITY OF HIMACHAL PRADESH

(Batablished under central universities act 2009)

Dharamshala (HP) = 176215

CERTIFICATE

Dated 30 June 2022

Department /Centre

School of Life Sciences

Central University of Himachal Pradesh, Dharamshala

[Established under the Central Universities Act 2009]

Dharamshala, District Kangra,

Himachal Pradesh [India]-176215

This to certify that the dissertation entitled "Effect of osmopriming on salinity stress tolerance of Tomato variety – Golden Seeds Tomato Valshnavi-2082" submitted by Kanchan (CUHP20PLS11) D/O Sh. Pawan Kumar to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Dr. Divya V. Nair

Supervisor

Dr. Pariveen Sharma

External Examiner

Head of the Department

grateen Kung

Dean of School of Lile Shienger

हिमावल प्रदेश केन्द्रीय विश्वविद्यालय Central University of Himachal Pradesh अस्यारी मेहाणिक सुण्डिंग emporary Academic Block भारत्तर, क्रीनुड (टिझे) Mahainpur, Kangra (U.C.)-17620€

Rhizofilteration as an Effective Approach for Removal of Heavy Metals from Aqueous Environment

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial Fulfillment of the degree of

Masters of Science in Plant Science (Botany)

In the School of Life Sciences
In the Department of Plant Science



Under the Supervision of Dr. Munish Sharma

By

KM Divya Pawar (CUHP20PLS12)



CENTRAL UNIVERSITY OF HIMACHAL PRADESH

(Established under Central Universities Act 2009) Dharamshala (HP) - 176215

CERTIFICATE

Dated: 30-june-22

Department of Plant Science (Botany) School of Life Sciences Central University of Himachal Pradesh, Dharamshala [Established under the Central Universities Act 2009] Dharamshala, District Kangra, Himachal Pradesh [India]-176215

This to certify that the dissertation entitled "Rhizofilteration as an Effective Approach for Removal of Heavy Metal From Aqueous Environment" submitted by KM Divya Pawar (CUHP20PLS12) D/O Sh. Manoj Kumar to the Central University of Himachal Pradesh, Dharamshala in partial fulfilment of the requirements for the award of degree of Master of Science in Plant Science (Botany) has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

(Dr. Munish Sharma)

Supervisor Professor . . . ISIT RINT / Decarment of Plant Sciences

: श्रीप । विद्यार ersity of Himaci: - Pradesh

ः शस्त्रिक खण्ड, शाहपूर Temporary Academic Block, Shahour

External Examiner brof Parween charma

Head of the Department

Dean of School of Life Sciences

अधिच्यता, जैविक विज्ञान स्कूत Dean, School of Life Science हिमावल प्रदेश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh अस्थायी शैक्षणिक रूप्ड/Temporary Academic Block

शाहपर, कांगडा (दि.प.)/Shanpur, Kangra (H.P.)-176206

A Review on the Botanicals in Organic Agriculture

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial

Fulfillment of the degree of

Masters of Science in Plant Science

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of

Dr. Ashun Chaudhary

By

Kushal Thakur

Roll No. CUHP20PLS13

June, 2022



CENTRAL UNIVERSITY OF HIMACHAL PRADESH

(Established under central universities act 2009)

Dharamshala (HP) - 176215

CERTIFICATE

Dated: 36/06/2022

Department /Centre
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Central University of Himachal Pradesh, Dharamshala
[Established under the Central Universities Act 2009]
Dharamshala, District Kangra,
Himachal Pradesh [India]-176215

This is to certify that the dissertation entitled "Botanicals in Organic Agriculture" submitted by Kushal Thakur CUHP20PLS13 S/O Karan Singh to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of the degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Dr. Ashun Chaudhary

Supervisor

Dr. Parveen Sharma

External Examiner

Head of the Department

Dean of School of Life Sciences

अधिष्ठाता, जैविक विज्ञान स्कूल Dean, School of Life Science हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय Central University of Himachal Pradesh अस्थायी शैक्षणिक खण्ड/Temporary Academic Block शाहपुर, कांगदा (हि.प्र.)/Shahpur, Kangra (H.P.)-176206

Saussurea costus (Falc) Lipsch. A Review on Its Ethnomedicinal uses, Phytochemistry and Pharmacology

A dissertation

Submitted for the purpose to fulfill

The Requirement

Of the degree of

Master of Science in Plant Science

In the school of life Sciences

In the department of Life Science



Under the guidance of

Dr. Ashun Chaudhary

By

Madhvi Negi

(Roll No. CUHP20PLS14)

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

(TAB) SHAHPUR Dist. Kangra, Himachal Pradesh-176206 (2021)

i



CENTRAL UNIVERSITY OF HIMACHAL PRADESH

(Established under Central Universities Act 2009) Dharamshala (HP) - 176215

CERTIFICATE

Dated: 30 06 2022

Department /Centre

School of Life Sciences

Central University of Himachal Pradesh, Dharamshala

[Established under the Central Universities Act 2009]

Dharamshala, District Kangra,

Himachal Pradesh [India]-176215

This to certify that the dissertation entitled "Saussurea costus (Falch) Lipsch: A Review on its Ethnomedicinal uses, Phytochemistry and Pharmacology". submitted by Madhvi Negi (CUHP20PLS14) D/O Jaspal Singh Negi to the Central University of Himachal Pradesh, Dharamshala in partial fulfilment of the requirements for the award of degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

shun Chaudhary

उर्गानि प्राणितिक /Assistant Professor

विज्ञान रहन /School of Life Sciences क्नाचल प्रवश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh ভাৰমাই মন্দিক অত্য, সাভ্যুং Temporary Academic Block, Shahpur

Dr. bareen Sharma

External Examiner

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अधिष्ठाता, जैविक विज्ञान स्कूल

Dean, School of Life Science हिमावल प्रदेश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh

अस्थायी शैक्षणिक राण्ड/Temporary Academic Block शाहपुर, कांगडा (डि.प्.)/Shahpur, Kangra (H.P.)-17620€

Elicitation approach for in vitro regeneration of Salvia officinalis L.

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial Fulfillment of the degree of

Master of Science in Plant Science (Botany)

In the School of Life Sciences
In the Department of Plant Science



Under the Supervision of Dr. Munish Sharma

 $\mathbf{B}\mathbf{y}$

Manu Choudhary (CUHP20PLS15)



CENTRAL UNIVERSITY OF HIMACHAL PRADESH

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CERTIFICATE

Dated: 30 -6-2022

Department of Plant Science (Botany)
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[Established under the Central Universities Act 2009]
Dharamshala, District Kangra,
Himachal Pradesh [India]-176215

This to certify that the dissertation entitled "Elicitation approach for in vitro regeneration of Salvia officinalis L." submitted Manu Choudhary (CUHP20PLS15) D/O Sh. Balbir Singh to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of degree of Master of Science in Plant Science (Botany) has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

(Dr. Munish Sharma)

Supervisor

सहावक्-प्राप्यापक /Assistant Professor प्रदेप विज्ञान विपान /Department of Plant Sciences जीव विज्ञान काल /School of Life Sciences किमाना / । केन्द्रीय विश्वविद्यालय Central University of Himachal Pradesh अस्थाई कैसणिक खण्ड, शावपुर Temporary Academic Block, Shahpur External Examiner

Dean of School of Life Sciences

Head of the Department

अधिष्ठाता, जैविक विज्ञान स्कूल Dean, School of Life Science हिमावल प्रदेश केन्द्रीय विश्वविद्यालय Central University of Himachal Pradesh अस्थायी शेक्षणिक राण्ड/Temporary Academic Block कारण कोग्रास हिन्स विशासकार, Kanara (K.P.)-176205 "Allelopathic effect of aqueous leaf extract of *Parthenium* hysterophorus and *Urtica dioica* on the seed germination and growth parameters of *Capsicum annum* variety – Suraj mukhi"

A dissertation

submitted to Central University of Himachal Pradesh

for the partial Fulfillment of the degree

MASTERS OF SCIENCE IN PLANT SCIENCE

In the School of Life Sciences
In the Department of plant science



Under the Supervision of Dr. Divya V. Nair

By

MONIKA VERMA

(CUHP20PLS16)

June 2022



Central University of Himachal Pradesh

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Dated .0.5/07/2022

Department/ Centre School of life Sciences

Central University of Himachal Pradesh, Dharamshala [Established under the Central Universities Act 2009] Dharamshala, District Kangra, Himachal Pradesh [India] - 176215

This is to certify that the dissertation entitled, "Allelopathic effect of aqueous leaf extract of Parthenium hysterophorus and Urtica dioica leaves on the seed germination and growth parameters of Capsicum annum Variety - Suraj mukhi" submitted by Miss MONIKA VERMA (CUHP20PLS16)) D/o Sh. PARMOD KUMAR to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of the degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Dr. Divya

External Examiner

Supervisor

सहायक्-प्राप्यापक/Assistant Professor प्रदेप विज्ञान विभाग /Department of Plant Science

जीव विकास :

nool of Life Sciences

Central University of Himachal Prades!

अस्याई शैक्षणिक खण्ड, शाहपुर Temporary Academic Block, Shahpur

Dean of School

अधिन्नता, जैविक विज्ञान स्कूल

Dean, School of Life Science हिमावल प्रदेश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh अस्थायी शैक्षणिक खण्ड/Temporary Academic Block

शाहपुर, वार्गाउ (वि.प.)/Shahpur, Kangra (H.P.)-176206

Commercial Cultivation of Lavender in Salooni Valley: Current Scenario and its Future Prospectives

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial

Fulfilment of the degree of

Masters of Science in Plant Science

In the School of Life Sciences
In the Department of Plant Science



Under the Supervision of

Prof. Pardeep Kumar

By

Nitin Sharma

CUHP20PLS17

June, 2022



Central University of Himachal Pradesh (Established under Central Universities Act 2009) Dharamshala (HP) - 176215

CERTIFICATE

Dated: 30/06/2022

Department of Plant Science
School of Life Sciences
Central University of Himachal Pradesh, Dharamshala
[Established under the Central Universities Act 2009]
Dharamshala, District Kangra,

Himachal Pradesh [India] - 176215

This is to certify that dissertation entitled "Commercial Cultivation of Lavender in Salooni Valley: Current Scenario and its Future Prospectives" submitted by Nitin Sharma (CUHP20PLS17) S/0 Sh. Mool Raj to the Central University of Himachal Pradesh. Dharamshala in partial fulfilment of the requirements for the award of degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Dr. Parveen Shanna

External Examiner

Supervisor

Head of the Department

Dean of School of Life Sciences

अधिष्ठीता, जीविक विज्ञान स्कूल Dean, School of Life Science

हिमायल प्रदेश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh अस्थायी शैक्षणिक राण्ड/Temporary Academic Block शाहपुर, सांगदा (हि.म.)/Shahpur, Kangra (H.P.)-176206

A SURVEY ON KANGRA TEA AND ITS IMPORTANCE

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial

Fulfillment of the degree of

Master of Science in Plant Science

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of

Dr. Pardeep Kumar

By

Pallvi

Roll No. CUHP20PLS18

June, 2022

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

Dharamshala, Himachal Pradesh



CENTRAL UNIVERSITY OF HIMACHAL PRADESH

(Established under central universities act 2009)

Dharamshala (HP) - 176215

CERTIFICATE

Dated: 30/06/2022

Department of Plant Science (Botany)

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Central University of Himachal Pradesh, Dharamshala

[Established under the Central Universities Act 2009] Dharamshala, District Kangra, Himachal Pradesh [India]-176215

This is to certify that the dissertation entitled "A survey on Kangra Tea and its importance" is submitted by Pallvi (CUHP20PLS18) D/O Sh. Trilok Chand to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of the degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Supervisor

External Examiner

Brof Porveen Shoome

Head of the Department

Dean of School of Life Seignces अधिष्ठाता. 🔊

Dean, S (hool of Life Science) हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh अस्थायी शैक्षणिक खण्ड/Temporary Academic Block शाहपुर, कांगडा (हि.प्र.)/Shahpur, Kangra (H.P.)-17620६

"Effect of Proline Induced Seed Priming on Seedling Growth and Biochemical Parameters of Brinjal Under Salinity Stress"

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial Fulfillment of the

Degree of

Master of Science in Plant Science

In the School of Life Sciences
In the Department of Plant Science



Under the Supervision of Dr. Divya V. Nair

By
Pitamber
(Roll No. CUHP20PLS19)
June 2022

CENTRAL UNIVERSITY OF HIMACHAL PRADESH



CENTRAL UNIVERSITY OF HIMACHAL PRADESH (Established under central university act 2009) Dharamshala (HP) - 176215

CERTIFICATE

Dated 29/06/2022

Department /Centre
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Central University of Himachal Pradesh, Dharamshala
[Established under the Central Universities Act 2009]
Dharamshala, District Kangra,
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This is to certify that the dissertation entitled "Effect of Proline Induced Seed Priming on Seedling Growth and Biochemical Parameters of Brinjal Under Salinity Stress" submitted by Pitamber (CUHP20PLS19) S/O Rakesh Kumar to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of the degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in dollaboration with an External Examiner.

Dr. Divva V. Nair

Dr. Parveen Sharma

External Examiner

अस्याई सैक्षणिक खण्ड, शाइपुर Temporary Academic Block, Shahpur

Head of the Department

Dean of School of Life Science

अधिष्ठाता, जैविक विज्ञान स्वरूल
Dean, School of Life Science
हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय
Central University of Himachal Pradesh
अस्थायी शैवणिक खण्ड/Temporary Academic Block
शासपुर, कोगडा (हि.प्र.)/Shahpur, Kangra (H.P.)-176206

Media manipulative approaches for *in vitro* propagation of *Rhynchostylis retusa*

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial Fulfillment of the degree of

Masters of Science in Plant Science (Botany)

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of Dr. Munish Sharma

Ву

Pooja Thakur (CUHP20PLS20)

CENTRAL UNIVERSITY OF HIMACHAL PRADESH June, 2022



CENTRAL UNIVERSITY OF HIMACHAL PRADESH

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CERTIFICATE

Dated: 30/06/2022

Department of Plant Science (Botany)

School of Life Sciences

Central University of Himachal Pradesh, Dharamshala [Established under the Central Universities Act 2009] Dharamshala, District Kangra, Himachal Pradesh [India]-176215

This to certify that the dissertation entitled "Media manipulative approaches for in vitro propagation of Rhynchostylis retusa" submitted by Pooja Thakur (CUHP20PLS20) D/O Sh. Om Prakash to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of degree of Master of Science in Plant Science (Botany) has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

(Dr. Munish Sharma)

Supervisor

सहायक्-प्राप्यापक / Assistant Professor पारप विज्ञान विभाग / Department of Plant Sciences . School of Life Sciences जीव विता

रेन्द्रीय विश्वविद्यालय eversity of Himachal Pradesh FOUT जस्यार शैक्षणिक खण्ड, शाहपुर

Temporary Academic Block, Shahpur

External Examin

Parveen Shama

Dean of Sthool of Life Se अधिष्ठाता, जीवेक विज्ञान

Head of the Department

Dean, School of Life Science हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh अस्थायी शैक्षानिक सण्ड/Temporary Academic Block

प्राचन कांगल (दि.प MS/4/four, Kangra (H.P.)-17620€

A Systematic Review on Ethnobotany, Pharmacology and Phytochemical Constituents of *Lonicera japonica*

A dissertation Submitted for the purpose to fulfill

The Requirement

Of the degree of

Master of Science in Plant Science
In the School of Life Sciences
In the Department of Plant Science



Under the guidance of

Dr. Ashun Chaudhary

By

Priya Verma

(Roll No. CUHP20PLS22)

CENTRAL UNIVERSITY OF HIMACHAL PRADESH (TAB) SHAHPUR Dist. Kangra, Himachal Pradesh- 176206

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

(Established under central universities act 2009) Dharamshala (HP) - 176215

CERTIFICATE

Dated: 30 06 2022

Department /Centre

School of Life Sciences

Central University of Himachal Pradesh, Dharamshala

[Established under the Central Universities Act 2009]

Dharamshala, District Kangra,

Himachal Pradesh [India]-176215

This to certify that the dissertation entitled "A Systematic Review on Ethnobotany, Pharmacology and Phytochemical Constituents of Lonicera japonica submitted by Priya Verma (CUHP20PLS22) D/O Sh. Pawan Kumar to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Dr. Ashun Chaudhary

Dr. Proveen Sharma

External Examiner

- Superivised Assistant Professor पूर्व विज्ञान विल्लान / Department of Plant Sciences

जीत तिन

rool of Life Sciences

ंच विश्वविद्याजन अस्याई शैक्षणिक खण्ड. शाहपुर Temporary Academic Block, Shangur

Dean of Schoold

अधिद्याता, जैविक विज्ञान स्कूल Dean, School of Life Science

हिमावल प्रदेश केन्द्रीय विश्वविद्यालय Central University of Himachal Pradesh

अस्थायी शैक्षांगिक खण्ड/Temporary Academic Block

शाहपुर, कांगडा (हि.प्र.)/Shahpur, Kangra (H.P.)-176206

A Review on the Phytochemical, Ethnobotanical, and Pharmacological Studies of *Thymus linearis*

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial

Fulfillment of the degree of

Masters of Science in Plant Science

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of

Dr. Ashun Chaudhary

By

Rakesh Kumar

Roll No. CUHP20PLS23

June, 2022

CENTRAL UNIVERSITY OF HIMACHAL PRADESH



CENTRAL UNIVERSITY OF HIMACHAL PRADESH

(Established under central universities act 2009)

Dharamshala (HP) - 176215

CERTIFICATE

Dated 30-6-2022

Department /Centre

School of Life Sciences

Central University of Himachal Pradesh, Dharamshala [Established under the Central Universities Act 2009] Dharamshala, District Kangra, Himachal Pradesh [India]-176215

This is to certify that the dissertation entitled "A Review on the Phytochemical, Ethnobotanical, and Pharmacological Studies of Thymus linearis" submitted by Rakesh Kumar (CUHP20PLS23) S/O Sh. Govind Ram to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of the degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Han Chaudhary

Dr. Parveen Shooma

External Examiner

Assistant Professor सिभाग /Department of Plant Sciences

जीव विज्ञान रक्त / School of Life Sciences हिनाबल भरेश केन्द्रोय विश्वविद्यालय

Central University of Himachal Pradesh अस्पाई श्रेमणिक खण्ड, श्राहपुर Temporary Academic Block, Shahpur Head of the Departmer

Dean of School of Life

अधिष्यता, जैविक विज्ञान स्कूल

Dean, School of Life Science हिमायल प्रदेश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh अस्यायी शैक्षणिक खण्ड/Temporary Academic Block

शासपर कांगता (डि.प)/Shahour, Xangra (H.P.)-17620६

ii

Effects of Plant Growth Regulators and Explant Type on *in vitro* multiplication of *Viola odorata* L.

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial Fulfillment of the degree of

Masters of Science in Plant Science (Botany)

In the School of Life Sciences
In the Department of Plant Science



Under the Supervision of Dr. Munish Sharma

By

Saroj Kumari (CUHP20PLS24)

CENTRAL UNIVERSITY OF HIMACHAL PRADESH June, 2022



CENTRAL UNIVERSITY OF HIMACHAL PRADESH

(Established under Central Universities Act 2009) Dharamshala (HP) - 176215

CERTIFICATE

Dated: 30/06/22

Department of Plant Science (Botany)

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Central University of Himachal Pradesh, Dharamshala [Established under the Central Universities Act 2009] Dharamshala, District Kangra, Himachal Pradesh [India]-176215

This to certify that the dissertation entitled "Effects of Plant Growth Regulators and Explant Type on in vitro multiplication of Viola odorata L." submitted by Saroj Kuamri (CUHP20PLS24) D/O Sh. Ravinder Kumar to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of degree of Master of Science in Plant Science (Botany) has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

(Dr. Munish Sharma)

सहाया श्रीमा (Assistant Professor प्रमान विभाग /Department of Plant Sciences जीव विज्ञान स्कूल /School of Life Sciences हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय Central University of Himachal Pradesh अस्थाई शैक्षणिक खण्ड, शाहपुर Temporary Academic Block, Shahpur

A TELAMOTERA

Head of the Department

External Examiner

Prof Parvier Sharma

Dean of Scho

Dean, School of Life Science हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh

"Effect of Proline Seed Priming on Growth and Biochemical Characters of Tomato (Solanum lycopersicum L.) under Salinity Stress."

A Dissertation

Submitted to the Central University of Himachal Pradesh for the Partial

Fulfilment of the Degree of

Master of Sciences in Plant Science

In the School of Life Sciences
In the Department of Plant Sciences



Under the Supervision of

Dr. Divya V. Nair

By

Shivani

(CUHP20PLS25)

June, 2022

Central University of Himachal Pradesh



Central University Of Himachal Pradesh

(Established under Central University Act 2009)

Dharamshala (HP) - 176215

CERTIFICATE

Dated 29 06 .2022

Department / Centre of Plant Sciences

School of Life Sciences

Central University Of Himachal Pradesh, Dharamshala

[Established under the Central University Act 2009]

Dharamshala, District Kangra,

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This is to certify that the dissertation entitled "Effect of proline seed priming on growth and biochemical characters of tomato(Solanum lycopersicum L.) under salinity stress "submitted by Shivani (CUHP20PLS25) D/o Rameshwar Dutt to the Central University of Himachal Pradesh, Dharamshala in partial fulfilment of the requirements for the award of degree of Master of Science in Plant Sciences has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Dr. Divya V. Nair

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जीब बिज्ञान रकृत /School of Life Sciences हिमाचतः अस्य केन्द्रीय विश्वविद्यालय Central Laborersity of Himachal Pradesh

Central University of Himachal Pradesh अस्पाई शक्षणिक खण्ड, शाहपुर Temporary Academic Block, Shahpur Head of the Department

Prof. Purchen Kupnar

Dean of School of Life Sciences अधिरहाता, जैविक विज्ञान स्कूल

Dean, School of Life Science हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh अस्थारी शैक्षणिक सण्ड/Temporary Academic Block

शाहपुर, कांगड़ा (हि.प्र.)/Shahpur, Kangra (H.P.)-176206

Ethnobotanical Study on Noxious Weeds: Ageratum conyzoides L. and Parthenium hysterophorus L. in Tehsil Shahpur of District Kangra of Himachal Pradesh.

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial

Fulfillment of the degree of

Masters of Science in Plant Science

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of

Prof. Pardeep Kumar

By

Simran

Roll No. - CUHP20PLS26

June, 2022

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

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Central University of Himachal Pradesh

(Established under central universities act 2009)

Dharamshala (H.P.) - 176215

CERTIFICATE

Dated: 30/06/22

Department of Plant Science (Botany)

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Central University of Himachal Pradesh, Dharamshala [Established under the Central Universities Act 2009] Dharamshala, District Kangra, Himachal Pradesh [India]-176215

This to certify that the dissertation entitled "Ethnobotanical Study on Noxious Weeds: Ageratum conyzoides L. and Parthenium hysterophorus L. in Tehsil Shahpur of District Kangra of Himachal Pradesh" submitted by Simran (CUHP20PLS26) D/O Sh. Mohinder Singh to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Prot/Paydo

External Examiner

Prof. Parveen Sharma

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Dean of school of Liberton

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Central University of Himachal Pradesh

शाहपुर, कांगहा (हि.प्र.)/Shahpur, Kangra (H.P.)-176206

Ethnobotanical Status of Nasturtium officinale in Tehsil Shahpur of District Kangra (II.P.)

A Dissertation

Submitted to the Central University of Himachal Pradesh for the Partial

Fulfillment of the Degree of

Masters of Science in Plant Science (Botany)

In the School of Life Sciences

In the Department of Plant Science (Botany)



Under the Supervision of
Prof. Pardeep Kumar
By
Sushma Kumari
Roll No. CUHP20PLS27
June, 2022

CENTRAL UNIVERSITY OF HIMACHAL PRADESH,



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CERTIFICATE

Dated: 30/06/2022

Department of Plant Science (Botany)

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Central University of Himachal Pradesh, Dharamshala

[Established under the Central Universities Act 2009]

Dharamshala, District Kangra,

Himachal Pradesh, India – 176215

This to certify that dissertation entitled "Ethnobotanical status of Nasturtium offcinales in Shahpur tehsil of District Kangra (H.P.)" submitted by Sushma Kumari (CUHP20PLS27) D/0 Mr. Sham Lal to the Central University of Himachal Pradesh. Dharamshala in partial fulfillment of the requirements for the award of degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Supervisor

External Examiner

Prof. Porreen & harma

Dean of School of Life Sciences

Cafficolar, जैविक धिज्ञान स्वरूत Dean, School of Life Science

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STEATED UNIVERSITY OF HIMACIAN Pracessing Steated Pracessing Steamporary Academic Block शाहपुर, वर्मगही (हि.प्र.) 33 जिल्लामा स्वतहाव (स.Р.)-176206

"Seed Priming with Proline Improved the Photosynthetic Pigment Composition and Growth of Okra (*Abelmoschus esculentus*) under Salinity Stress."

A Dissertation

Submitted to the Central University of Himachal Pradesh for the partial

Fulfilment of the Degree of

Masters of Science in Plant Science

In the school of Life Sciences

In the Department of Plant Science



Under the Supervision of

Dr.Divya V.Nair

By

Swati

(CUHP20PLS28)

June, 2022

CENTRAL UNIVERSITY OF HIMACHAL PRADESH



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CERTIFICATE

Dated 29/06/2022

Dr. Paryon Shanna

External Examiner

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Central University of Himachal Pradesh

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Himachal Pradesh (India)-176215

This to certify that the dissertation entitled "Seed priming with proline improved the photosynthetic pigment composition and growth of okra (Abelmoschus esculentus) under salinity stress" submitted by Swati (CUHP20PLS28) D/O Pardeep Kumar to the central university of Himachal Pradesh Dharamshala in partial fulfilment of the requirements for the award of degree of Master of Science in Plant Science in collaboration with external examiner.

Dr. Divva V.Nair

Supervisor

सहाबक-प्राप्यापक/Assistant Fibre sor प्रत्य कियान विभाग/Department of Plant Science भीष विज्ञान स्कूर / School of Life Sciences िनाचल प्रदेश केन्द्रीय विश्वविद्यालय Prof. (Paratep Kinglad Central University of Himachal in adesh अत्थाई शेशणिक खण्ड, शास्प्रर Temporary Academic Block, Shahpur

Hend of the department

Prof. Phrdkepik

Dean of School of Life Sciences

अधिष्ठाता, जैविक विद्यान स्कूल Dean, School of Life Science हिमाचरी प्रदेश केन्द्रीय विश्वविद्यालय Central University of Himachal Pradesh

अस्टारी शैक्षणिक शाण्ड/Temporary Academic Block

शाहपुर, क्रोगझ (१३-५)/Shahpur, Kangra (११.१.)-17620ह

Synthesis of Zinc Oxide mediated Nanoparticles from Rhizome of *Costus speciosus* (J. Koenig) Sm.

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial Fulfillment of the degree of

Masters of Science in Plant Science (Botany)

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of Dr. Munish Sharma

Ву

Swati (CUHP20PLS29)

CENTRAL UNIVERSITY OF HIMACHAL PRADESH June, 2022



CENTRAL UNIVERSITY OF HIMACHAL PRADESH

(Established under Central Universities Act 2009) Dharamshala (HP) - 176215

CERTIFICATE

Dated: 30 06 22

Department of Plant Science (Botany) School of Life Sciences Central University of Himachal Pradesh, Dharamshala [Established under the Central Universities Act 2009] Dharamshala, District Kangra,

Himachal Pradesh [India]-176215

This to certify that the dissertation entitled "Synthesis of zinc oxide mediated nanoparticles from rhizome of Costus speciosus (J.Koenig) Sm." Submitted by Swati (CUHP20PLS29) D/O Sh.Prem Singh to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of degree of Master of Science in Plant Science (Botany) has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

सहायेश्व प्रितियोपेकी/Assistant Professor पूर्प विज्ञान विभाग/Department of Plant Sciences . "Col of Life Sciences ्राप विश्वविद्यालय

versity of Himachal Pradesh अस्थाइ शेक्षणिक खण्ड, भारपुर

Head of the Department

Prof. Parveen Sharma

Dean of School of Life Science

हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय Central University of Himachal Pradesh

अस्थारी शैक्षणिक राण्ड/Temporary Academic Block

STANDARDIZATION OF BIO-ETHANOL PRODUCTION UNDER DIFFERENT LABORATORY CONDITIONS

A Dissertation

Submitted to the Central University of Himachal Pradesh for the Partial Fulfillment of the Degree of

Masters of Science in Plant Science

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of Dr.Ashun Chaudhary

By

UDAYPAL

June, 2022

CENTRAL UNIVERSITY OF HIMACHAL PRADESH



Central University of Dimachal Pradesh (Established under Central Universities Act 2009) Dharamshala (HP) - 176215

CERTIFICATE

Date: 30 300.2022

Department of Plant Science
School of Life Sciences
Central University of Himachal Pradesh, Dharamshala
[Established under the Central Universities Act 2009]
Dharamshala, District Kangra,
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This to certify that the dissertation entitled "Standardization of bio-ethanol production under different laboratory conditions" submitted by UDAYPAL (CUHP20PLS30) S/o VINOD KUMAR to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Dr.Ashur Chaudhary

Supervisor

Dr. Parnsen Sharma
External Examiner

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Dean of School of Life Sc

अधिष्ठाता, जैविक विज्ञान स्कूल

Dean, School of Life Science हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh अस्थायी शैक्षणिक खण्ड/Temporary Academic Block शाहपुर, कांगजा (हि.स.)/Shahpur, Kangra (H.P.)-176206

"The comparative study of physicochemical parameters and phytoplankton diversity of Dal Lake and Khajjiar Lake in Himachal Pradesh"

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial Fulfillment of the Degree of

Master of Science in Plant Science

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of

Dr. Ashun Chaudhary

by

Vikash Mirdha

(Roll No. CUHP20PLS31)

June 2022

CENTRAL UNIVERSITY OF HIMACHAL PRADESH



हिमाचल प्रदेश के केंद्रीय विश्वविद्यालय CENTRAL UNIVERSITY OF HIMACHAL PRADESH (Established under central university act 2009)

Dharamshala (HP) = 176215

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Department / Centre School of Life Sciences

Central University of Himachal Pradesh, Dharamshala [Established under the Central Universities Act 2009] Dharamshala, District Kangra, Himachal Pradesh [India]-176215

This is to certify that the dissertation entitled "The comparative study of physicochemical parameters and phytoplankton diversity of Dal Lake and Khajjiar Lake in Himachal Pradesh" submitted by Vikash Mirdha (CUHP20PLS31) S/O Suresh Kumar Mirdha to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of the degree of Master of Science in Plant Science has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Dr. Ashum Chaudhary

Supervisor

Dr. Pasween Sharma

External Examiner

Dean of School of Dife Sciences

अधिफाता, जैविक विद्यान स्वरूप Dean, School of Life Science हिमावल प्रदेश केन्द्रीय विश्वविद्यालय Central University of Himachal Pradesh अस्थाबी शैक्षणिक सण्ड/Temporary Academic Block शाहपुर, कांगदा (हि.प्र.)/Shahpur, Kangra (H.P.)-176206

Départment

In vitro regeneration of Origanum majorana L. – an endangered medicinal herb

A dissertation

Submitted to the Central University of Himachal Pradesh for the Partial Fulfillment of the degree of

Masters of Science in Plant Science (Botany)

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of Dr. Munish Sharma

By

VineetaKaundal (CUHP20PLS32)

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

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CENTRAL UNIVERSITY OF HIMACHAL PRADESH

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This to certify that the dissertation entitled "In vitro regeneration of Origanum majorana L. an endangered medicinal herb" submitted by Vineeta Kaundal (CUHP20PLS32) D/O Sh. Khem Chand to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of degree of Master of Science in Plant Science (Botany) has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

(Dr. Munish Sharma)

Supervisor तहावक-प्राप्यापक/Assistant Professor पादप विज्ञान विभाग/Department of Plant Sciences जीव विज्ञान क्ला /School of Life Sciences हिमान देश केन्द्रीय विश्वविद्यालय Centra University of Himachal Pradesh अस्थाई शैसणिक खण्ड, साहपुर Temporary Academic Block, Shahpur

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Dean, School of Life Science हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय Central University of Himachal Pradesh

अस्थायी शैक्षणिक खण्ड/Temporary Academic Block T. //Shahpur, Kangra (H.P.)-176206

Effect of seed priming by mannitol on biochemical and morphological parameters of Capsicum under salinity stress

A Dissertation

Submitted to the Central University of Himachal Pradesh for the Partial Fulfilment of the Degree of

Masters of Science in Plant Science

In the School of Life Sciences

In the Department of Plant Science



Under the Supervision of

Dr. Divya V. Nair

By

WAJID HUSSAIN

JUNE, 2022

CENTRAL UNIVERSITY OF HIMACHAL PRADESH



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This to certify that the dissertation entitled "Effect of seed priming by mannitol on biochemical and morphological parameters of Capsicum under salinity stress" submitted by Mr. Wajid Hussain (CUHP20PLS33) D/o/ S/o Mr. Khursheed Ahmed to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of degree of Master of Science in Botany has been approved by the committee after an oral examination of the student in collaboration

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with an External Examiner.

Dr. Divya V. Nair

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जीव विज्ञान स्कूल / School of Life Sciences हिमान्नतः । केन्द्रीय विभवविद्यालय Central University of Himachai Pradesh अस्थाई रोसणिक खण्ड, शाहपुर

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अधिष्टाता, जैविक विज्ञान स्कूल Dean, School of Life Science हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh अस्थायी शैक्षणिक राण्ड/Temporary Academic Block शाहप्र, कांगडा (165)/Shahpur, Kangra (H.P.)-176206