

**GOVERNMENT OF INDIA  
MINISTRY OF AYUSH**

**LOK SABHA  
UNSTARRED QUESTION NO. 4959  
TO BE ANSWERED ON 01<sup>ST</sup> APRIL, 2022**

**RESEARCH ON MEDICINAL PLANTS**

**4959. SHRI PATEL HASMUKHBHAI SOMABHAI**

Will the Minister of **AYUSH** be pleased to state:

- (a) whether the research is being undertaken on various aspects of medicinal plants in the country;
- (b) if so, the details thereof, State/UT-wise; and
- (c) the details of institutions involved in such research work, State/UT-wise including Gujarat?

**ANSWER  
THE MINISTER OF AYUSH  
(SHRI SARBANANDA SONOWAL)**

(a) & (b) Yes Sir, the researches on medicinal plants are being supported by different Ministries/Departments of Government of India *viz.* Ministry of Ayush, Ministry of Agriculture & Farmers' Welfare, Department of Biotechnology (DBT) etc. under their concerned schemes/programmes.

Research Councils *viz.* Central Council for Research in Ayurvedic Sciences (CCRAS), Central Council for Research in Unani Medicine (CCRUM), Central Council for Research in Homoeopathy (CCRH) and Central Council for Research in Siddha (CCRS) autonomous organizations under the Ministry of AYUSH are engaged in research & development activities on medicinal plants used in their respective system of medicine. In addition, the National Medicinal Plants Board (NMPB), Ministry of Ayush, under its Central Sector Scheme on 'Conservation, Development and Sustainable Management of Medicinal Plants' provides project based support to carry out research & development activities on various aspects of medicinal plants to government as well as private universities/research institutions/organizations across the country. Details are placed at **Annexure-I.**

c) The state wise details of the institutions involved in such research work are placed at **Annexure-II.**

**State-wise details of research projects which are being undertaken on various aspects of medicinal plants:****1. Central Council for Research in Ayurvedic Sciences (CCRAS)**

CCRAS, Ministry of Ayush is involved in research activities such as medicinal plant research (Medico-ethno botanical survey, pharmacognosy and tissue culture), Drug Standardization, Pharmacological Research, Clinical Research, Literary Research & Documentation. These activities are carried out through 30 institutes/ Centres/ Units located all over India and also through collaborative studies with various universities, hospitals and institutes.

<b>S.No.</b>	<b>Discipline/Aspects</b>	<b>Details</b>	<b>Number of projects</b>
1.	Clinical Research	1. No. of projects undertaken	107 (71 completed & 36 ongoing)
		2. Classical drug validated for safety & efficacy	52
		3. New Drug developed	03
2.	Medicinal Plants Research	1. No. of projects undertaken	48 projects (21 projects completed and 27 are under progress)
		2. Pharmacognostical standards developed	12 projects
		3. Cultivation and in-vitro propagation	4 project
		4. Medico-Ethno Botanical Survey conducted	5 projects
3.	Drug Standardisation & Phyto-Chemistry	1. No. of projects undertaken :	Total Projects -30
		2. No. of quality standard developed	80
4.	Fundamental & Literary Research	1. No. of projects undertaken:	29 projects (16 projects completed)
		2. No. of books translated/ Published	44 books and 8 booklets out of which 08 books based on Fundamental/ Literary Research have been published and 02 translations of Classical Ayurveda books have been published
		3. No. of diagnostic tool developed	07
5.	Pharmacological studies/Biological Activities and Safety studies	1. No. of projects undertaken	13 completed & 24 ongoing
		2. No. of Toxicity Studies conducted	9 completed & 21 ongoing
		3. No. of Safety Studies conducted	9 completed & 13 ongoing

## **2. Central Council for Research in Unani Medicine (CCRUM)**

CCRUM is undertaking research on various aspects of medicinal plants used in Unani System of Medicine. A total number of 206 projects on preclinical safety and toxicity studies, 193 projects under clinical research programme including clinical validation/New drug development/ fundamental research are supported. These Projects cover 1229 formulations and 298 single drugs under Drug standardization programme including development of National Formularies of Unani Medicine by inclusion of Unani Classical formulations, Physico-chemical Standards of Unani Formulations, Unani Pharmacopoeia of Single drugs and Compound Formulations and Chemical Investigation of Unani single drugs. 146 projects related to Literary Research Programme. More than 9,500 Folklore claims have been documented & published in the form of 09 volumes of Books.

## **3. Central Council for Research in Homoeopathy (CCRH)**

There are 04 institutes of CCRH which are working on the various aspects of medicinal plants and details thereof –

<b>S. No.</b>	<b>State</b>	<b>Institutes/Units</b>	<b>Type of Research work undertaken</b>
1.	Uttar Pradesh-	Dr. D.P. Rastogi, Central Research Institute for Homoeopathy (DDPRCRI), Noida (Uttar Pradesh).	Drug standardization work in following aspects: 1. Pharmacognostical studies 2. Physico chemical studies 3. Pharmacological studies
2.	West Bengal	Dr. Anjali Chatterjee Regional Research Institute (H), Kolkata	Drug standardization work in following aspects (from 2019 onward): 1. Physico chemical studies 2. Pharmacological studies
3.	Tamil Nadu	Centre of Medicinal Plants Research In Homoeopathy, Ooty	Cultivation, survey, collection and maintenance of germplasm of exotic and indigenous plants used in homoeopathy as well as developing agro-techniques for the same.
4.	Telangana	Drug Standardization Unit (H), Hyderabad	Drug standardization work in following aspects: 1. Pharmacognostical studies 2. Physico chemical studies (till 2019)

## **4. Central Council for Research in Siddha (CCRS)**

CCRS, Ministry of Ayush is conducting research in Siddha system of medicine focusing clinical research including safety and efficacy studies of Siddha drugs, validation of the fundamental principles, drug standardization and quality control, survey and cultivation of medicinal plants and literary research through Intra Mural Research (IMR) projects. A total number of 31 IMR projects, 03 projects have been completed and rest of 28 are on-going.

### **5. National Medicinal Plants Board (NMPB)**

During last 05 years (2017-18 to 2021-22), NMPB has supported 60 projects based major research activities on various aspects such as:

<b>Sr. No.</b>	<b>Research areas</b>	<b>State</b>	<b>Number of projects</b>
1.	Survey, identification, characterization and conservation of medicinal plants.	Delhi	1
		Himachal Pradesh	2
		Karnataka	1
		Kerala	1
		Madhya Pradesh	1
		West Bengal	1
<b>Total</b>			<b>07</b>
2.	Post-harvest Management, assessment of heavy metals and integrated pest management	Jammu & Kashmir	1
		Madhya Pradesh	1
		Uttar Pradesh	2
		Karnataka	2
		Tamil Nadu	1
		West Bengal	1
<b>Total</b>			<b>08</b>
3.	Varietal development and prospect of marketing	Assam	2
		Gujarat	1
<b>Total</b>			<b>03</b>
4.	Genotype Identification, genetic improvement and germplasm collection & conservation	Andaman and Nicobar Islands	1
		Karnataka	2
		Kerala	1
		Uttarakhand	1
		Tamil Nadu	1
<b>Total</b>			<b>06</b>
5.	Development of agro techniques, standardization of nursery techniques and cultivation practices	Chandigarh	1
		Jammu & Kashmir	1
		Kerala	2
		Uttarakhand	1
		West Bengal	1
<b>Total</b>			<b>06</b>
6.	In-vitro propagation studies, micro-propagation chemical & molecular profiling and phyto-chemicals evaluation	Arunachal Pradesh	1
		Himachal Pradesh	3
		Jammu & Kashmir	1
		Puducherry	1
		Punjab	2
		Karnataka	1
		Kerala	1
		Uttarakhand	1
		Uttar Pradesh	1
		West Bengal	1
<b>Total</b>			<b>13</b>
7.	Bioactivity guided fractionation studies	Delhi	1
		Himachal Pradesh	1

		Kerala	1
		Telangana	1
		West Bengal	1
<b>Total</b>			<b>05</b>
8.	Intercropping and sustainable production technology	Gujarat	1
<b>Total</b>			<b>01</b>
9.	Documentation and development of geo-tag digital library	Assam	1
		Himachal Pradesh	1
		Rajasthan	1
<b>Total</b>			<b>03</b>
10.	Finding out substitute and authentication of raw drugs	Gujarat	2
		Himachal Pradesh	1
		Kerala	2
		Maharashtra	1
		Odisha	1
		Punjab	1
<b>Total</b>			<b>08</b>
<b>Sub Total</b>			<b>60</b>

## **6. Indian Council of Agricultural Research**

ICAR-Directorate of Medicinal and Aromatic Plants Research (ICAR-DMAPR), Anand, Gujarat conducts basic, applied and adaptive research on medicinal and aromatic plants on 11 mandated crops viz. Aloe vera, Guggal, Senna, Isabgol, Aswagandha, Giloe, Safed musli, Lemongrass, Palmarosa, Salaparni and Satavari. Presently, DMAPR is maintaining 2168 germplasm accessions of 16 species of MAPs and 331 accessions of Betelvine as given in Table 1. In addition, 3915 number of accessions of 46 medicinal and aromatic plants are being maintained at 26 ICAR-All India Coordinated Research Projects (ICAR-AICRP) centres at different Agro-ecological Zones of the country. These centres develop Good Agricultural Practices (GAP) of medicinal plants which are brought under cultivation and commercially important.

## **7. Department of Biotechnology (DBT)**

The DBT has been implementing a programme on Translational Research for Developing Products and Processes from Medicinal and Aromatic Plants by funding R&D projects at various institutions / universities / other organizations with an objective to utilize the tools and techniques of biotechnology for identification of elite material and their multiplication, chemical and molecular characterization, production of secondary metabolites, developing standardized, efficacious and safe herbal products (both in AYUSH mode as well as phytopharmaceutical drugs), isolation and characterization of novel bioactives with therapeutic potential, generating genomic resources and studying biosynthetic pathways in important medicinal and aromatic plants.

**State/UT-wise details of the institutions where research are being carried out-****1. Central Council for Research in Ayurvedic Sciences (CCRAS)**

The Council is conducting research activities through 30 peripheral research institutes including Gujarat as-

S.No	State	Name of the Institutes/Centres/Units
1.	Andhra Pradesh	Regional Ayurveda Research Institute, Vijayawada-520015
2.	Arunachal Pradesh	Regional Ayurveda Research Institute, Itanagar -791111
3.	Andaman & Nicobar Islands	Regional Ayurveda Research Institute, Port Blair – 744101
4.	Assam	Central Ayurveda Research Institute Beltola, Guwahati-781028
5.	Bihar	Regional Ayurveda Research Institute, D Block, Rajindra Memorial Res., Institute Building, AgamKuan, Patna-800007
6.	Delhi	Central Ayurveda Research Institute, Road No.66, Punjabi Bagh, New Delhi - 110026
7.	Goa	Regional Ayurveda Research Institute for Mineral and Marine Medicinal Resources, Goa
8.	Gujarat	Regional Ayurveda Research Institute Asarwa, Ahmedabad- 380016
9.	Himachal Pradesh	Regional Ayurveda Research Institute, Gandhi Bhawan, Mandi-175001
10.	Jammu & Kashmir	Regional Ayurveda Research Institute, JDA Housing Colony, Ban Talab, Rajender Nagar, Jammu-181123
11.	Karnataka	Central Ayurveda Research Institute, Bengaluru
12.	Kerala	National Ayurveda Research Institute for Panchakarma, Cheruthuruthy- 679531
13.		Regional Ayurveda Research Institute,Poojapura, Trivandrum-695012
14.	Madhya Pradesh	Regional Ayurveda Research Institute, Amkho, Gwalior-474009
15.	Maharashtra	Raja RamdeoAnandilalPodar (RRAP) Central Ayurveda Research Institute, RA Podar College, Worli, Mumbai-400018
16.		Regional Ayurveda Research Institute, NIT Complex, Nandanwan, Nagpur-440009
17.		Regional Ayurveda Research Institute, Pune- 411038
18.	Nagaland	Regional Ayurveda Research Centre, Dimapur (Nagaland) - 797112
19.	Orissa	Central Ayurveda Research Institute, Bharatpur, Bhubaneswar, Odisha-751003
20.	Punjab	Central Ayurveda Research Institute, MotiBagh Road, Patiala-

		147001
21.	Rajasthan	M.S. Regional Ayurveda Research Institute, Indira Colony, Bani Park, Jhotwara Road, Jaipur-302016.
22.	Sikkim	Regional Ayurveda Research Institute, Tadong, Gangtok -737102
23.	Tamil Nadu	Dr. AchantaLakshmiapati Regional Ayurveda Research Institute, VHS Campus, TTTI Post, Chennai-600113
24.		Captain Srinivasa Murthy Central Ayurveda Research Institute, Chennai - 600106.
25.	Telengana	National Centre of Indian Medical Heritage, Hyderabad - 500036
26.	Tripura	Regional Ayurveda Research Centre, 135, Ramnagar Road, No. 4 Opp. of Raj Bhandar, Agartala, Tripura - 799002
27.	Uttar Pradesh	Regional Ayurveda Research Institute, Indira Nagar, Lucknow-226016
28.		Regional Ayurveda Research Institute , Jhansi - 284003
29.	Uttarakhand	Regional Ayurveda Research Institute , Thapla, Ranikhet– 263645
30.	West Bengal	Central Ayurveda Research Institute, 4 CN Block, Sector V, Bidhan Nagar, Kolkata-700091

## **2. Central Council for Research in Unani Medicine (CCRUM)**

The Council is having a network of 22 Institutes/Centres/Unit for carrying out research activities as-

<b>S. No.</b>	<b>State</b>	<b>Name and address of the institutes</b>
1.	Andhra Pradesh	Clinical Research Unit , Dr. Abdul Haq Unani Medical College, 40/23,Park Road,Kurnool-518 001 (Andhra Pradesh)
2.	Assam	Regional Research Centre (RRC), S.M. Dev Civil Hospital, Silchar - 788 001(Cachar) Assam
3.	Bihar	Regional Research Institute of Unani Medicine, Guzri, Patna City, Patna– 800 008 (Bihar)
4.	Delhi	Regional Research Institute of Unani Medicine, D-11/1, AbulFazal Enclave, Jamia Nagar, Okhla, New Delhi – 110 025.
		(Extension Centre of RRIUM, New Delhi) Unani Medical Centre, Dr. RML Hospital, New Delhi - 110 001
		(Extension Centre of RRIUM, New Delhi) Unani Speciality Centre, Dr.DeenDayalUpadhaya Hospital, New Delhi – 110 064
		(Extension Centre of RRIUM, New Delhi) Unani Medical Centre, Safdarjung Hospital New Delhi - 110 029
		AUYSH wellness Center, President Estate, New Delhi 110004
		Integrated AYUSH Clinic All India Institute of Ayurveda, SaritaVihar New Delhi-110076
5.		Hakim Ajmal Khan Institute of Literary and Historical Research in Unani Medicine, Dr. M. A. Ansari Health Centre, JamiaMilliaIslamia, Okhla, New Delhi – 25

6.		Drug Standardization Research Unit, 61-65 Institutional Area Opp. D Block Janakpuri New Delhi
7.	Jammu & Kashmir (UT)	Regional Research Institute of Unani Medicine, University of Kashmir Campus, Hazrat Bal, Srinagar – 190 006 (Jammu &Kashmir)
8.	Kerala	Clinical Research Unit (Unani), Kurupatil Nina Memorial, Near Panchayat Office, P. O. Edathala (N) – 683 564, Alweye, Kerala
		Extension Research Centre for Unani (Clinical Research Unit, Edathala) Pattiam Gram Panchayat, Kannur, Kerala
9.	Karnataka	Clinical Research Unit (Unani),National Institute of Unani Medicine, Kottigepaliya, Magadi Main Road, Bengaluru – 560 091 (Karnataka)
10.	Madhya Pradesh	Clinical Research Unit (Unani), Department of Pharmacology, Gandhi Medical College, Bhopal – 462 001 (M.P.)
11.		Clinical Research Unit (Unani), S. H. Unani Tibbiya College, Ganpati Naka, Burhanpur – 450 331 (M.P.)
12.	Maharashtra	Regional Research Institute of Unani Medicine Plot No.38/39 , Sector-18 , Kharghar, Navi Mumbai (Maharashtra)- 410210
		Extension Centre of RRIUM , Mumbai at J.J. Hospital Compound,(Behind Eye Bank), Byculla, Mumbai – 400 008 (Maharashtra)
13.	Odisha	Regional Research Institute of Unani Medicine, Chandbali Bypass Road, Near Rural Police Station, Bhadrak – 756 100 (Orissa)
14.	Tamil Nadu	Regional Research Institute of Unani Medicine,1, West Meda Church Street Royapuram, Chennai – 600 013 (Tamil Nadu)
15.	Telangana	National Research Institute of Unani Medicine for Skin Disorders (Erstwhile Central Research Institute of Unani Medicine) Opp. E.S.I., Hospital, A.G. Colony Road, Erragadda, Hyderabad – 500 8
16.	Uttar Pradesh	Central Research Institute of Unani Medicine, Post & village, BasahaKursi Road, Lucknow – 226 026 (Uttar Pradesh)
17.		Regional Research Institute of Unani Medicine, Shah Jahan Manzil, Aligarh Muslim University, Aligarh – 202 001 (Uttar Pradesh)
18.		Drug Standardization Research Institute, PLIM, Building, Opp. ‘M’ Block, Sector-23, Kamla Nehru Nagar, Ghaziabad (Uttar Pradesh)
19.		Regional Research Centre (RRC), B-501/4, G.T.B. Nagar, Opp. Dulhan Palace, Kareli, Allahabad – 211 016 (Uttar Pradesh)
20.		Clinical Research Unit (Unani), Cantonment General Hospital (Sotiganj) Begum Bridge, Meerut (Uttar Pradesh)
21.		Chemical Research Unit, Department of Research in Unani Medicine Near Office of Dean, Faculty of Science, A.M.U. Aligarh - 202002
22.	West Bengal	Regional Research Institute of Unani Medicine,First Floor, 250A/29, G.T. Road (North) Near Jaiswal Hospital, Liluah, Howrah - 711201



### **3. Central Council for Research in Homoeopathy (CCRH)**

There are 04 institutes of CCRH which are working on the various aspects of medicinal plants and details thereof -

S.No.	State	Institutes/Units
1.	Uttar Pradesh-	Dr. D.P. Rastogi, Central Research Institute for Homoeopathy (DDPRCRI), Noida (Uttar Pradesh).
2.	West Bengal	Dr. Anjali Chatterjee Regional Research Institute (H), Kolkata
3.	Tamil Nadu	Centre of Medicinal Plants Research In Homoeopathy, Ooty
4.	Telangana	Drug Standardization Unit (H), Hyderabad

### **4. Central Council for Research in Siddha (CCRS)**

a. Institutes-wise details of Intra Mural Research (IMR) on medicinal plants (Completed Projects)-

S.No.	State	Institute
1.	Tamil Nadu	Siddha Central Research Institute, Chennai
		Siddha Medicinal Plants Garden, Mettur Dam

b. Institutes-wise details of Intra Mural Research (IMR) on medicinal plants (On-going Projects)-

S.No.	State UT-wise	Institute
1.	Delhi	Siddha Clinical Research Unit, New Delhi
2.	Karnataka	Siddha Clinical Research Unit, Bengaluru, Karnataka
3.	Kerala	Siddha Regional Research Institute, Thiruvananthapuram
4.	Puducherry	Siddha Regional Research Institute, Puducherry
5.	Tamil Nadu	Siddha Central Research Institute, Chennai
		Siddha Medicinal Plants Garden, Mettur Dam
		Central Council for Research in Siddha, Chennai

### **5. National Medicinal Plants Board (NMPB)**

During last 05 years, State/UTs-wise details of institutes involved in research under supported project as-

S.No	State	Details of Institutions
1.	Andaman & Nicobar Islands	ICAR Central Island Agricultural Research Institute, Garacharma, Port Blair, South Andaman, Andaman and Nicobar Islands-744105
2.	Arunachal Pradesh	Natural Product Chemistry Section, CSIR-North East Institute of Science and Technology (formerly R.R.L.), Branch Itanagar G-Sector, Naharlagun, Arunachal Pradesh – 791110
3.	Assam	CSIR-NIEST (RRL), Jorhat, PIN 785006.

4.		Central Ayurveda Research Institute (CARI), Guwahati (Assam),
5.	Chandigarh	ICAR-IISWC RC, Plot No 3A, Sector 27 A, Chandigarh-160019
6.	Delhi	Tissue Culture and Cryopreservation Unit, ICAR- National Bureau of Plant Genetics Resources, New Delhi- 110012.
7.		Centre for Interdisciplinary Research in Basic Sciences, Jamia Milia Islamia, JamiaNagar Delhi -110025.
8.	Gujarat	Department of Horticulture, Institute of ICAR-DMAPR, Anand, Gujarat - 387310.
9.		ICAR-Directorate of Medicinal and Aromatic Plants Research, Boriavi, Anand Gujarat-387310.
10.		Department of Botany, The Maharaja Soyairao University of Baroda, Sayagigunj, Vadodara - 390002.
11.		Govt. Science Collage, Bhilad, Zaroli-Mission Road, Bh. ITI Collage, Gujarat, India.
12.	Himachal Pradesh	Himalayan Forest Research Institute, Conifer Campus Panthaghati, Shimla- 171013.
13.		ICAR- NBPGR, Regional Station, Phagli, Shimla, H.P., 171004.
14.		Department of Botany, Akal Collage of Basic Science, Eternal University, Baru Sahib, District Sirmour, Himachal Pradesh.
15.		Department of Animal Sciences (Zoology) School of Life Sciences, Central University of Himachal Pradesh Shahpur Campus, Kangra, Himachal Pradesh PIN: 176206
16.		Dr YS Parmar- University Of Horticulture And Forestry, ,Neri ,Hamirpur,Himachal Pradesh-177001
17.		CSIR-Institute Of Himalayan Bioresource Technology, (CSIR-IHBT), Palampur, Kangra, Himachal Pradesh-176061
18.	Jammu & Kashmir	School of Biotechnology, University of Jammu, Jammu and Kashmir (J&K). Jammu-180006.
19.	Ladakh	National Research Institute of Sowa-region, Leh, Ladakh.
20.	Madhya Pradesh	ICAR- Central Institute of Agricultural Engineering, NabiBagh, Berasia Road, Bhopal, Madhya Pradesh
21.		Jawaharlal Nehru KrishiVishwaVidhalya, Jabalpur, Madhya Pradesh-482004
22.	Maharashtra	Department of Pharmaceutical Sciences, RashtrasantTukadojiMaharaj Nagpur, University, Nagpur, Mahashtra - 440033
23.	Rajasthan	Department of Food and Biotechnology, JyotiVidyapeeth Women's University, Jaipur – 303122, Rajasthan
24.	Kerala	Kerala Forest Research Institute, Peechi, Thrissur, kerala-680653.
25.		Collage of Horticulture, Kerala Agriculture University, KAU P.O, Thrissur District. PIn 680656
26.		Collage of Veterinary and Animal Science, Mannuthy Pin 680651
27.		Department of Botany, University of Kerala, Kariavattom, pin-695581, Thruvananthapuram.
28.		Biotechnology And Bioinformatics Division Jawaharlal Nehru Tropical Botanic Garden & Research Institute,Palode, Thiruvananthapuram - 695 562 Kerala
29.		Vaidyaratnam Ayurveda College, Ollur, Kerala University Of Health Sciences, Thaikattusery, Thrissur ,Kerala-680306
30.		Center of Medicinal Plant Research Arya Vaidya Sala, Kottakkal, Kerala-676503
31.	Karnataka	College of Forestry, UAS Dharwad, SIRSI, Uttra Kannada, Karnataka

		- 581401, telephone: 9448933680.
32.		Ashoka Trust for Research in Ecology and the Environment Conservation Genetics Lab, Royal Enclave Srirampura, Jakkur PO Bengaluru 560064 (ATREE),
33.		Indian Institute of Horticultural Research Hessarghatta lake (P.O) Bangalore-89, PIN 560089.
34.		Institute of wood Science and Technology, 18th Cross Malleshwaram, Bangalore-560003.
35.		Institute of Wood Science and Technology , 18th Cross, Malleshwaram, Bangalore- 560003
36.		Department of Research and Development , Natural Remedies Pvt. Electronic City, Bangalore, Karnataka.
37.	Odisha	Regional Plant Resource Centre IRC Village, Nayapalli, Bhubaneswar, Khordha, Odisha-751015
38.	Punjab	Department of Pharmaceutical Science & Technology, Maharaja Ranjit Singh Punjab Technical University, Bathinda, Punjab.
39.		Department of Natural Products, National Institute of Pharmaceutical Education and Research, SAS Nagar, Punjab
40.		Department Of Pharmacognosy ISF College Of Pharmacy Ghal Kalan Moga Punjab-142001
41.	Puducherry	Department of Botany, Kanchi Mamunivar Centre for postgraduation studies, Puducherry, India PIN-605008 .
42.	Tamil Nadu	Department of forestry, land use and climate change division, P.B. No. 1061, forest Campus, R. S. Puram, Coimbatore, Tamil Nadu - 641002.
43.		Department of Medicinal and Aromatic Crops, Tamil Nadu Agricultural University- Coimbatore-641003 TNAU.
44.	Telangana	CEO, Telangana". Agricultural college, Aswaraopet, Khammam (District), Telangana-507301,
45.		Department of Animal Biology, School of Life Sciences, Gachibowli, Hyderabad, Telangana-500046
46.	Uttar Pradesh	Banaras Hindu University, Department of Botany, Institute of Science, B.H. U., Varanasi, Uttar Pradesh
47.		CSIR-Central Institute Of Medicinal And Aromatic Plants, PO CIMAP, Lucknow, Uttar Pradesh-22601
48.	Uttarakhand	Non-Wood Forest Products Division, Forest Research Institute-P.O. New Forest Dehradun, Uttarakhand-248006
49.		Forest Pathology Division, Forest Research Institute, Dehradun-248006
50.		G. B. Pant National Institute of Himalayan Environment and Sustainable Development (GBPNIHESD)Garhwal Unit, Srinagar Garhwal - 246174
51.	West Bengal	Uttar BangaKrishiViswaVidyalaya (UBKV), Regional Research Satation (HZ), Kalimpong, Darjeeling, West Bengal -734301.
52.		Department of Instrumentation & Electronics Engg., Jadavpur University, Salt Lake Campus, Block LB, Sector III, Kolkata-700098
53.		Department of Agricultural Meteorology and Physics, Bidhan Chandra KrishiViswavidayalaya, P.O KrishiVishwavidayalaya, Mohanpur, Nadia, West Bengal-741252.
54.		Center for Advanced Studies, Department of Botany, Calcutta University, 35, Ballygunge circular road, Kolkata Pin-700019

## 6. Indian Council of Agricultural Research (ICAR)

Under ICAR there is one Institute named as ICAR-Directorate of Medicinal and Aromatic Plant Research (ICAR-DMAPR), Anand, Gujarat. Besides, following 26 ICAR-All India Coordinated Research Project on MAP are also working at different centres in India.

S.No.	State	Name of Institution
1.	Andhra Pradesh	Dr. Y. S. Rajasekhara Reddy Horticulture University (Dr. YSRH)
2.	Arunachal Pradesh	Central Agricultural University (CAU)
3.	Assam	Assam Agricultural University (AAU)
4.	Bihar	Dr. Rajendra Prasad Central Agricultural University (DRPCA)
5.	Gujarat	Anand Agricultural University (AAU)
6.	Haryana	C. C. S. Haryana Agricultural University (CCSHAU)
7.	Himachal Pradesh	Dr. Y. S. Parmar University of Horticulture and Forest (YSPUHF)
8.	Jharkhand	Birsa Agricultural University (BAU)
9.	Karnataka	ICAR - Indian Institute of Horticultural Research (IIHR)
10.	Kerala	Kerala Agricultural University (KAU)
11.	Madhya Pradesh	Indira Gandhi Krishi Vishwavidyalaya (IGKV)
12.	Madhya Pradesh	Jawaharlal Nehru Krishi Vishwavidyalaya (JNKVV)
13.	Madhya Pradesh	Rajmata Vijayraje Scindia Krishi Vishwavidyalaya (RVSKVV)
14.	Maharashtra	Dr. Panjabrao Deshmukh Krishi Vidyapeeth (PDKV)
15.	Mahashtra	Mahatma Phule Krishi Vidyapeeth (MPKV)
16.	Odisha	Orissa University of Agriculture and Technology (OUAT)
17.	Rajasthan	Maharana Pratap University of Agriculture and Technology (MPUAT)
18.	Tamil Nadu	Tamil Nadu Agricultural University (TNAU)
19.	Uttar Pradesh	N. D. University of Agriculture and Technology (NDUAT)
20.	Uttarakhand	Uttarakhand University of Horticulture & Forestry (UUHF)
21.	West Bengal	Bidhan Chandra Krishi Vishwavidyalaya (BCKV)
22.	West Bengal	Bihar Agricultural University (BAU)
23.	West Bengal	Uttar Banga Krishi Vishwavidyalaya (UBKV)

### **Voluntary Centres under AICRP on MAP**

S.No	State	Name of Institution
24.	Rajasthan	Agriculture University (AU)
25.	Uttar Pradesh	Banda University of Agriculture and Technology (BUAT)
26.	Jammu & Kashmir	Sher-e-Kashmir University of Agricultural Sciences and Technology (SKUAST)

## 7. Department of Biotechnology (DBT)

Details of institutions involved in research work are as-

S.No.	State	Name of the Institute
1.	Assam	Assam Agricultural University, Assam
2.		Institute of Horticulture Technology, Mandira, Kamrup, Assam
3.		National Institute of Pharmaceutical Education and research (NIPER), Guwahati
4.		Institute of Advanced Study in Science and Technology (IASST), Guwahati, Assam
5.		North East Institute of Science And Technology, Jorhat, Assam
6.	Bihar	BalajiUtthanSansthan, Patna
7.		ICMR-Rajendra Memorial Institute of Medical Sciences (RMIMS), Patna
8.	Delhi	Hamdard University, New Delhi
9.		ICMR-National Institute of Malaria Research, New Delhi
10.	Gujarat	Zandu Foundation for Health Care (ZFHC), Valsad, Gujarat
11.	Haryana	Translational Health Science and Technology Institute (THSTI), Faridabad
12.	Jammu & Kashmir	CSIR-Indian Institute of Integrative Medicine (IIIM), Jammu
13.	Karnataka	The University of Trans-Disciplinary Health Sciences and Technology (TDU), Bengaluru
14.		College of Forestry, Sirsi
15.		IISc, Bangaluru
16.		Institute for Stem Cell Science & Regenerative Medicine, Bangalore
17.		National Center for Biological Sciences-TIFR (NCBS-TIFR), Bangalore
18.	Kerala	Rajiv Gandhi Centre for Biotechnology (RGCB), Thiruvananthapuram
19.		ICAR-Indian Institute of Spices Research, Kozhikode – 673012, Kerala
20.	Manipur	Institute of Bio-resource and Sustainable Development (IBSD), Imphal, Manipur
21.	Odisha	Centre of Biotechnology, Siksha-O-Anusandhan University, Bhubaneswar
22.		High Altitude Research Station, Odisha University of Agriculture & Technology, Pottangi, Koraput, Odisha
23.		Kalinga Institute of Industrial Technology (KIIT), Bhubaneswar
24.		Institute of Life Science (ILS), Bhubaneswar
25.	Tamil Nadu	Periyar University, Dharmapur, Tamil Nadu
26.		Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Avadi, Chennai
27.		Kalasalngam Academy of Research and Education (KARE) (Deemed to

		be University), Virudhunagar
28.	Uttar	Bennett University, Greater Noida
29.	Pradesh	GLA University, Mathura
30.		CSIR-Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow
31.		Fragrance and Flavour Development centre (FFDC) FFDC Campus, Makarand Nagar Kannauj
32.		Bundelkhand University, Jhansi
33.	Uttarakhand	G.B. Pant National Institute of Himalayan Environment & Sustainable Development, Almora
34.	West Bengal	Jadavpur University, Kolkata