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# RESEARCH PROFILE DEPARTMENT OF BOTANY

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Rayat Shikshan Santha's, Dada Patil Mahavidyalaya, Karjat



JULY 21, 2022  
DADA PATIL MAHAVIDYALAYA, KARJAT  
Dist. Ahmednagar



### C. Equipment Available

Name of Equipment	Status	Quantity
Centrifuge	Functional	01
Vis- Spectrophotometer	Functional	01
UV-Vis Spectrophotometer	Functional	01
Analytical Balance	Functional	01
Hot air oven	Functional	01
Desiccators	Functional	01
Laminar air flow cabinet	Functional	01
Autoclaves	Functional	01
Shaker	Functional	01
Water bath	Functional	01

### D. Selected Research Publications

Sr. No.	Author Names	Title of Paper	Name of Journal	Vol.	Page Nos.	Year
1.	Kshirsagar PR, Sandeep R. Pai*, Vyavahare GD, Bapat VA, Desai NS.	Prospecting alternative source of shikimic acid from clusiaceae of Western Ghats, India and evaluating discrepancies with reference to seasonal variation, developmental stage and sex of <i>Mammea suriga</i> .	Industrial Crops and Products.	149	112354	2020
2.	Kshirsagar PR, Chavan JJ, Gaikwad NB, Sandeep R. Pai, Bapat VA,	Metabolite profiling, antioxidant potential and RP-UFLC determination of bioactive molecules from eight <i>Swertia</i> species,	Biocatalysis and Agricultural Biotechnology	23	101479	2020
3.	Hegde S, Sandeep R. Pai, Bhagwat RM, Saini A, Rathore PK, Jalalpure SS, Hegde HV, Sugunan AP, Gupta VS, Kholkute SD, Roy S,	Population genetic and phytochemical dataset of <i>Saraca asoca</i> : A traditionally important medicinal tree,	Data in Brief	14173		2020

4.	Kshirsagar PR, Pawar NV, Patil SP, Nimbalkar MS*, Sandeep R. Pai*	Quantification of zerumbone, a potent tumour suppressor sesquiterpene from eleven accessions of <i>Curcuma longa</i> using RP-HPLC analysis.	Indian Journal of Pharmaceutical Sciences.	80	1159-1165	2020
5.	Hegde S, Sandeep R Pai, Bhagwat RM, Saini A, Rathore PK, Jalalpure SS, Hegde HV, Sugunan AP, Gupta VS, Kholkute SD, Roy S.	Genetic and phytochemical investigations for understanding population structures of <i>Saraca asoca</i> to develop conservation strategies.	Phytochemistry	156	43-54	2020
6.	Chavan JJ, Mugganavar SA, Kshirsagar PR, Sandeep R. Pai, Pawar NV,	Micropropagation, metabolite profiling, antioxidant activities and chromatographic determination of bioactive molecules across in vitro conditions and subsequent field cultivation stages of 'Shampoo Ginger' ( <i>Zingiber zerumbet</i> L. Roscoe ex Sm)	Biocatalysis and Agricultural Biotechnology.	16	79-89	2020
7.	Kshirsagar P.R., Gaikwad N.B., Panda S., Hegde H.V., Sandeep R. Pai*	RP-UFLC-DAD quantification of anticancerous and antidiabetic drug mangiferin from eleven species of <i>Swertia</i> from India.	Pharmacognosy Magazine.	12(45); Supp 1:	32-36.	2017
8.	B.S Mali, S.A. Palve and P.A. Shelar	Effect of various Chloride and Sulphate salt concentrations on seed germination of <i>Trianthema portulacastrum</i> L. growing on man-made saline soil.	Ecology, Environment and Conservation Paper	25	1907-1910	2016

9.	Sangita Kulkarni & Abhijit Kulkarni	Mycofloral Diversity In Soils Of <i>Cajanus Cajan</i> (Pigeon Pea) From Ghospuri, Ahmednagar (Maharashtra)	Journal of Research & Development' Peer Reviewed Journal,	Volume-11, Issue-26	86-89.	2021
10.	S.V. Hajare A.A. Kulkarni S. A. Kulkarni	Nutritional and Nutraceutical significance of finger millet ( <i>Eleusine coracana L. Gaertn</i> ): A Review.	Journal of Research & Development' Peer Reviewed Journal,	Volume-11, Issue-26	90-94.	2021
11.	S.A. Kulkarni A. A. Kulkarni S.V. Hajare	Study of Cellulolytic Fungi Associated with Soils of Casuarinas from Maharashtra	Wesleyan Journal of Research,	Vol.14 No.25	92-96	2021
12.	Wadavkar D. S., Gadhav S. R., Palave S. A. and Chavan S. J.	Plant mediated synthesis of silver nanoparticles from <i>Leonotis nepetifolia L.</i> and its antibacterial property	World Journal of Pharmaceutical and Life Sciences	6	137- 141	2016
13.	Kadam A. B. and B. M. Gaykar	Assessment of Contraceptive Methods And Substitution With Plant Products.	Journal of Basic Sciences	Special issue on BioIPPF,	84-87	2016
14.	Kadam A. B. and B. M. Gaykar	A Review On Medicinal Plants Exhibiting Antifertility And Contraceptive Activities.	Journal of Basic Sciences	2	89-95	2016
15.	Kadam A. B. and B. M. Gaykar	HPLC Analysis Of Ethynyl Estradiol From Seed Extract Of <i>Moringa oleifera Lam.</i>	Journal of Medicinal Plants Studies	5	140-142.	2016
16.	Kadam A. B. and B. M. Gaykar	Quantitative HPTLC Analysis Of Diosgenin From Methanol Extracts Of <i>Moringa oleifera Lam.</i>	Asian Journal of Applied Science and Technology	1	215-218	2016

17.	Kadam A. B. and B. M. Gaykar	A Review on Present ,Traditional and Prospective Contraceptive	International Journal of Flora and Fauna	23	303-310	2015
18.	Kadam A. B. and B. M. Gaykar	Assessment Of Acute Oral Toxicity Of Synergistic Formulation Extract Of Traditional Contraceptive Plants	International Journal of Pharmacognosy and phytochemical Research	9	313-318	2015
19.	Kadam A. B. and B. M. Gaykar	Pregnane - A Parent of Progesterone from Trigonella foenum - graecum Linn	International Journal of Pharmaceutical Sciences and Research	8	194-198	2017
20.	Kadam A. B. and B. M. Gaykar	Phytochemical Analysis of Some Traditional Contraceptive Plants	International Journal of Flora and Fauna	23	160-168	2015
21.	Kadam A. B. and B. M. Gaykar	Immobilization effect of Contraceptive Plants on Human Sperm	Indo Global Jour of Pharmaceutical Sciences	8	21-25	2015
22.	Kadam A. B. and B. M. Gaykar	Development of Molecular Condom by Using Anti-Fertility Phytochemical.	Indo Global Jour of Pharmaceutical Sciences	9	63-68	2015
23.	Kadam A. B.* and B. M. Gaykar	Synergistic Effect Of Some Plant Seed Extracts On Body And Organ Weight Of Female Wistar Rats- A Contraceptive Approach.	European Journal Of Pharmaceutical And Medical Research	8(4)	51 9-523	2021
24.	Kadam A. B.* and B. M. Gaykar	A Review on Intellectual Property Challenges in the Field of Agriculture and Pharmaceuticals.	Multidisciplinary Research Journal of Ajanta.	3(9)	11 4-125	2020

25.	Kadam A. B.* and B. M. Gaykar	Can Plant Products be Substitute for Artificial Oral Contraceptive Pills?	International Research Journal of Plant Science.	11(1)	1 -4	2020
26.	Kadam Asha B.	Dr. Babasaheb Ambedkar's Contribution in the field of Education	Aayushi International Interdisciplinary Research Journal	84	210-215	2021
27.	A. B. Kadam and S. V. Gaikwad	Studies On Antioxidant Properties And Inhibition Of Monoamine Oxidase Abilities Using Coconut Water (Cocos Nucifera Linn.)	Journal of the Maharaja Sayajirao University of Baroda	55, 1(VI)	182-187	2021
28.	Kadam A. B.* and B. M. Gaykar	Phytochemical Screening Of Seed Extract Of <i>Crotalaria Juncea</i> With Respect To antifertility Agents	Journal of the Maharaja Sayajirao University of Baroda	55, 1(XI)	69-77	2021
29.	Powar, P. S. and Wadavkar, D. S.	Study of Macro-Fungal Diversity From Karjat Area of Ahmednagar District, MS, India.	<i>Journal of the Maharaja Sayajirao University of Baroda,</i>	55, No.1(XI)	39-46.	2021
30.	Powar, P. S., Kadam A. B. and Gaikwad, D. K. (2021).	Antigenotoxic Effect of Mangrove Bark.	Journal of the Maharaja Sayajirao University of Baroda,	55, 1(VII)	145 -160	2021
31.	Powar, P. S. and Gaikwad, D. K.	Bio ceramics: New Material from Mangrove Bark	<i>Advices in Materials Letters</i>	11(11)	1-4	2020
32.	Powar, P. S. and Gaikwad, D. K.	Bioactive Compounds from Mangrove Bark.	<i>International Journal of Creative Research Thoughts.</i>	8(7)	1671-1675.	2020

33.	Powar P. S. and D. K. Gaikwad	Study of Anti-Inflammatory Potential of Some Mangrove Bark.	Parishodh Journal.	9	4938-4945.	2020
34.	Powar P. S. and D. K. Gaikwad	GC-MS Analysis of Bioactive Compounds of <i>Aegiceras corniculatum</i> bark.	Indian Journal of Plant Sciences Online International Journal	5	13-17	2016
35.	Powar, P. S., Gaikwad D. K. and Bhoite, A. S.	Antibacterial Activity of Mangrove Bark Against Plant Pathogenic Bacteria.	<i>Indian Journal of Advances in Plant Research,</i>	<b>1(3)</b>	12-14	2014
36.	Powar, P. S. and Gaikwad, D. K.	Quantification of Phytochemicals from Some Mangrove Bark.	<i>Indian Journal of Advances in Plant Research</i>	<b>1(1)</b>	5-9	2014
37.	Powar, P. S. and Gaikwad, D. K.	Antimicrobial Activity of Methanolic Standard Extract of Mangrove Bark.	<i>International Journal of Pharma and Bio Sciences,</i>	<b>4(3)</b>	149-152	2013
38.	Powar, P. S., Gaikwad, D. K. and Chavan, S. R.	Antifungal Activity of Mangroves Bark.	<i>International Journal of Pharma and Bio Sciences</i>	<b>2(4)</b>	484- 488.	2011
39.	Powar, P. S.; Gaikwad, D. K. and Chavan, P. D.	Antibacterial Activity of Mangroves Bark.	<i>Bioinfolet</i>	<b>6(4)</b>	365-367.	2009



### E. Research Projects by faculties

Name of the Investigator	Title of the project and duration	Amount sanctioned (Rs.)	Funding Agency
Dr. S. R. Pai	Chlorophyllin Nanohybrid: New Horizons in Microbiological Safety of Fresh-Cut Produce Through Photodynamic Decontamination	19,00,000/-	ICMR, New Delhi
Dr. S. R. Pai	Separation of Curcuminoids from Curcuma Longa	25,000/-	Biomax, Mumbai
Dr. S. R. Pai	Production of gum for drilling fluids using biotechnological approach	23,41,000/-	Gumpro Drilling fluids, Mumbai
Dr. S.R. Pai	Separation of Phycocyanin from Spirulina powder	10,000/-	Algene Biotech, Gujrat
Dr. S.R. Pai	Phytochemical and antioxidant analysis of some medicinal plants	15,000/-	SEED Money, Dada Patil Mahavidyalaya, Karjat
Dr. P.N. Nagane	Phytochemical study of some mangroves	15,000/-	SEED Money, Dada Patil Mahavidyalaya, Karjat
Dr. P.N. Nagane	“Qualitative Analysis of Common Mangroves”	15,000/-	SEED Money, Dada Patil Mahavidyalaya, Karjat
Dr. A.B. Kadam	Phytochemical Screening of Seed Extract of Crotalaria Juncea With Respect To Antifertility Agents.	15,000/-	SEED Money, Dada Patil Mahavidyalaya, Karjat
Dr. A.B. Kadam	Analysis of Potent Phytochemicals with respect to Contraceptive Activity in Advancement of Female Contraception	15,000/-	SEED Money, Dada Patil Mahavidyalaya, Karjat