

BIO CHEMISTRY - (DEPARTMENT FACULTY)

Name	Dr. Nilesh J. Patel
Qualification	Ph. D.
Specialization	Biochemistry
Experience	31 Years
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Current Affiliation

Professor (P), Department of Biochemistry,
B. A. College of Agriculture, Anand Agricultural University, Anand-388 110.

Qualifications

Undergraduate Studies: B. Sc. (Chemistry), S. P. University

Postgraduate Studies: M. Sc. (Biochemistry), Gujarat Agricultural University, S. K. Nagar

Ph. D. (Biochemistry), Anand Agricultural University

Experience

Teaching, Research & Extension experience for 31 years

Teaching

Polytechnic Teaching: Sheth D. M. Polytechnic in Horticulture,
Anand Agriculture University, Vadodara

UG Teaching: B. A. College of Agriculture, Anand Agriculture University, Anand.

PG Teaching: B. A. College of Agriculture, Anand Agriculture University, Anand.

Postgraduate students who obtained degree M. Sc.: 06 Ph. D.: 01

Postgraduate students working at present M. Sc.: 01

Scientific Involvement

Research		
Sr. No.	Particulars	Total No.
1	Recommendations (Farmer + Scientific)	10
2	Associated with release variety proposal	25
3	Seminar/Conference attended	6
4	Training/Course attended	4
5	Awards	2
6	Resource person in training Programme	2
Publications		
1	Number of research Paper Published	40
2	Book Published	03
3	Popular Articles in Vernacular Language	02
Membership of Scientific Organization		
1	Member of scientific community: GAAS	
2	Life Member Ship Indian J of Agricultural Biochemists, Kanpur.	
Completed Other Agency Projects		
1	GSBTM : Working as a Co-PI in this Project “Biochemical and molecular characterization of T. durum Cultivars for its end product processing quality”	
Other Activities		
1	Presently working as a PG Academic in charge of BACA from 2022	
2	Acted as a Seminar Coordinator for 2 Years	
3	Acted as a Chairman of SRC 3 Years	
4	Acted as Member of SRC for 1 Year	

Research Paper List

Sr. No.	Title
1	Patel, N. J. , Vakharia, N., Kandolia, U. K. & Parameswaran, M. (1993). Influence of Drought on Pod Yield and Kernel Composition of Groundnut with Reference to. <i>Advances in Plant Biotechnology & Biochemistry.</i> , 157.
2	Vakharia, D. N., Kandolia, U. K. Patel, N. J. , and Parmeswaran, M. (1997). Effect of drought on leaf metabolites relationship with pod yield in groundnut. <i>Plant Physiology and Biochemistry.</i> , 102-105.
3	Patil, H. E., Mahatma, M. K., Patel, N. J. , Bhatnagar, R. & Jadeja, G. C. (2005). Differential response of pearl millet hybrids to water stress in relation to antioxidant enzymes and proline. <i>Indian Journal Of Plant Physiology.</i> , 10(4): 344-348.
4	Patil, H. E., Patel, N. J. , Sutar, V. & Jadeja, G. C. (2006). Diversity analysis of commercial pearl millet [<i>Pennisetum glaucum</i> (L.) R Br.] hybrids based on RAPD markers. <i>International Journal of Plant Sciences.</i> , 1(2): 252-255.
5	Shukla, Y. M., Dhruve, J. J., Patel, N. J. & Pandey, R. N. (2010). Biochemical alterations in cinnamic acid 4-hydroxylase and phenylalanine ammonia lyase in chickpea infected with <i>Fusarium oxysporum</i> f. sp. <i>ciceri</i> . <i>Journal of Mycology and Plant Pathology.</i> , 40(2): 260.

6	Litoriya, N. S., Dilraj, Kaur, Patel, N. J. and Talati, J. G. (2010). Varietal identification of chilli (<i>Capsicum annum</i> L.) by electrophoretic technique. <i>Indian J Agric Biochem.</i> , 23(1): 36-40.
7	Modi, A. R., Shukla, Y. M., Litoriya, N. S., Patel, N. J. & Narayan, S. (2011). Effect of gibberellic acid foliar spray on growth parameters and stevioside content of <i>ex vitro</i> grown plants of <i>Stevia rebaudiana</i> Bertoni. <i>Medicinal Plants.</i> , 3(2): 157-160.
8	Suthar, K. P., Bhatnagar, R., Shukla, Y. M., Patel, N. J. , Suthar, V. P. and Patel, J. P. (2012). Assessment of genetic diversity among chickpea genotypes using RAPD, protein profiling and isozyme markers. <i>Indian Journal of Agricultural Biochemistry.</i> , 25(1): 25-30.
9	Suthar, K. P., Bhatnagar, R., Shukla, Y. M., Suthar, V. P., Kadam, S. D. & Patel, N. J. (2012). Genetic diversity assessment in chickpea genotypes using STMS. <i>Legume Research.</i> , 35(4): 285-293.
10	Ginoya, C. M., Gohel, N. M. & Patel, N. J. (2014). Effect of fruit rot [<i>Alternaria alternate</i> (Fr.) Keissler] disease on biochemical parameters in chilli varieties with different levels of resistance. <i>Trends in Biosciences.</i> , 7(24): 4452-4457.
11	Galani, J. H., Gupta, P. H., Shah, A. K., Patel, N. J. & Talati, J. G. (2015). Profiling of StvacINV1, Bam1 and INH2 α expressions in relation to acid invertase and β -amylase activities during development to cold-induced sweetening in Indian potato (<i>Solanum tuberosum</i> L.) tubers. <i>American Journal of Potato Research.</i> , 92: 603-608.
12	Gandhi, K., Chaudhary, N., Litoriya, N., Patel, N. J. & Talati, J. G. (2015). Identification of Cotton (<i>Gossypium herbaceum</i> L.) Genotypes using electrophoretic techniques. <i>Indian Journal of Agricultural Biochemistry.</i> , 28(2): 122-127.
13	Hubert, G. Y. J., Gupta, P. H., Patel, N. J. , Shah, A. K., Acharya, R. R. & Talati, J. G. (2015). Molecular characterization of Indian potato (<i>Solanum tuberosum</i> L.) Varieties for cold-induced sweetening using SSR markers. <i>Journal of Plant Sciences.</i> , 3(4): 191-196.
14	Kandoliya, U. K., Marviya, G. V., Patel, N. J. , Vakharia, D. N. & Golakiya, B. A. (2015). Effect of drought at different growth stage on carbohydrates and lipids composition of groundnut (<i>Arachis hypogaea</i> L.) pod. <i>International Journal of Current Research and Academic Review.</i> , 3: 281-287.
15	Patel, N. J. , Kandoliya, U. K. & Talati J. G. (2015). Induction of phenol and defence-related enzymes during wilt (<i>Fusarium udum</i> Butler) infestation in pigeonpea. <i>International Journal of Current Microbiology and Applied Science</i> , 4(2): 291-299.
16	Pooja H. Gupta, Mounil C. Mankad, Jayant G. Talati, Nilesh Patel and Armi Patel (2015). Identification and quantification of seed protein fractions from maize inbred lines by differential solubility. <i>Green Farming.</i> , (6): 1219-1222.
17	Galani, J. H., Gupta, P. H., Patel, N. J. , Shah, A. K. & Talati, J. G. (2016). Effect of storage temperature on carbohydrate metabolism and development of cold-induced sweetening in Indian potato (<i>Solanum Tuberosum</i> L.) Varieties. <i>Journal of Food Biochemistry.</i> , 40(1): 71-83.
18	Kotecha, A.V., Dhruve, J. J., Patel, N. J. & Vihol, N. J. (2016). Influence of micronutrients and growth regulators on the performance of cabbage quality. <i>Adv. Res. J. Crop Improv.</i> , 7(1): 46-51.
19	Mayank C. Boghara, Haresh L. Dhaduk, Sushil Kumar, Mithil J. Parekh, Nilesh J. Patel , Ramavtar Sharma (2016). Genetic divergence, path analysis and molecular diversity analysis in clusterbean (<i>Cyamopsis tetragonoloba</i> L. Taub.). <i>Industrial Crops and Products.</i> , 89: 468-477.
20	Galani, J. H. Y., Mankad, P. M., Shah, A. K., Patel, N. J. , Acharya, R. R. & Talati, J. G. (2017). Effect of storage temperature on vitamin C, total phenolics, UPLC phenolic acid profile and antioxidant capacity of eleven potato (<i>Solanum tuberosum</i>) varieties. <i>Horticultural Plant Journal.</i> , 3(2): 73-89.
21	Galani, J. H., Patel, J. S., Patel, N. J. & Talati, J. G. (2017). Storage of fruits and vegetables in refrigerator increases their phenolic acids but decreases the total phenolics, anthocyanins and

	vitamin C with subsequent loss of their antioxidant capacity. <i>Antioxidants.</i> , 6(3): 59.
22	Patel, J. S., Japda, A. R., Dhruve, J. J. & Patel, N. J. (2017). Antioxidant Enzymes in leaves of susceptible and resistant okra genotypes against YVMV. <i>International Journal of Current Microbiology and Applied Sciences.</i> , 6(2): 1540-1550.
23	Kanjariya, K. G., Parihar, A., Patel, N. J. & Hadiya, R. G. (2017). Joint analysis of qualitative and molecular diversity provides new insights on the genetic variability of the wild species of tomato (<i>Solanum section lycopersicum</i>) for quality attributes. <i>Int J Pharmacogn Phytochem Res.</i> , 6: 421-426.
24	Joseph H.Y. Galani, Nilesh J. Patel , Jayant G. Talati (2017). Acrylamide-forming potential of cereals, legumes and roots and tubers analyzed by UPLC-UV. <i>Food and Chemical Toxicology</i> , 108: 244-248.
25	Patel, J. S., Japda, A. R., Dhruve, J. J. & Patel, N. J. (2017). Antioxidant Enzymes in Leaves of Susceptible and Resistant Okra Genotypes against YVMV. <i>Int. J. Curr. Microbiol. App. Sci.</i> , 6(2): 1540-1550.
26	Dhruv, J. J., Patel, N. J. & Talati, J. G. (2019). Impact of benzyl adenine on metabolic activities of wheat under PEG induced water stress. <i>Indian Journal of Agricultural Biochemistry.</i> , 32(1): 115-121.
27	Dhruv, J. J., Patel, N. J. & Parmar, S. (2019). Nutraceutical Importance of Vegetables and Their Use for Human Health: A Review. <i>Indian Journal of Agricultural Biochemistry.</i> , 32(2): 132-142.
28	Choudhary, R. N., Suthar, K. J. and Patel, N. J. (2020). Effect of seed priming and foliar spray of bioregulators on biochemical properties of chickpea (<i>Cicer arietinum</i> L.) under conserved moisture condition of Bhal region of Gujarat. <i>International Journal of Chemical Studies.</i> , 8(6): 1678-1682.
29	Choudhary, R. N., Suthar, K. J. and Patel, N. J. (2020). Effect of Seed Priming and Foliar Spray of Bio-regulators on Yield and Yield Attributes of Chickpea (<i>Cicer arietinum</i> L.) under Conserved Moisture Condition. <i>International Journal of Current Microbiology and Applied Science.</i> , 9(11): 2051-2057.
30	Patel, K. H., Parmar, P. K., Patel, M. B., Varma, H. S., Singh, S. K., Mehta, P. V., Patel, N. J. & Patel, V. J. (2021). Production of Baby corn hybrid as influenced by nitrogen and phosphorus in rabi season. <i>The Pharma Innovation Journal.</i> , 10(12): 712-715.
31	Shekhada, R. R., Macwan, S. J., Patel, N. J. & Gajbhiye, N. A. (2022). Role of growth regulators on quality and yield of Kalmegh (<i>Andrographis paniculata</i> nees). <i>International Journal of Economic Plants.</i> , 9(4): 294-298.
32	Choudhary, R. N., Suthar, K. J. & Patel, N. J. (2023). Effect of chemicals and PGRs on quality parameters of durum wheat under rainfed conditions of Bhal region of Gujarat. <i>The Pharma Innovation Journal.</i> , 12(2): 711-715.
33	Patel, K. H., Parmar, P. K., Patel, M. B., Varma, H. S., Mehta, P. V. & Patel, N. J. (2023). Production of baby corn hybrid as influenced by nitrogen and phosphorus in kharif season. <i>The Pharma Innovation Journal.</i> , 12(8): 2153-2156.
34	Sneha D. Patel., Nilesh J. Patel. , Amar A. Sakure., Sushil Kumar and J. J. Dhruv. (2023). Detection of the potential of seed kernel for food industries through biochemical evaluation of diverse mango cultivars. <i>Obstbau.</i> , 65: 2427-2436.
35	Dobaria, J. D., Dhruv, J. J., Parmar, S. R. and Patel, N. J. (2023). Effect of exogenous silicic acid on germination and seedling establishment in brinjal. <i>Indian J Agric Biochem.</i> , 36(2): 177-182.
36	Diwan, S., Saiyad, M., Patel, N. J. & Talati, J. G. (2024). Biochemical Analysis of Different Wheat Varieties Grown under Various Zones of India. <i>Indian Journal of Agricultural Research.</i> , 58(6).

37	Sodhaparmar, H. R., Patel, N. J. & Bedse, T. J. (2024). Biochemical characterization of wheat and their anti-nutritional composition. <i>International Journal of Advanced Biochemistry Research.</i> , 8(1): 87-93.
38	Adbhai, A., Talati, J. G., Kumar, S., Sakure, A., Acharya, R. R. & Patel, N. J. (2025). Study of galactomannan content, gum viscosity and rheological properties and diversity analysis through biochemical traits and simple sequence repeat (SSR) markers in cluster bean. <i>Genetic Resources and Crop Evolution.</i> , 1-13.
39	Antala, P. A., Patel, N. J. , Kumar, S., Pandya, H., Bariya, K. & Dobariya, J. (2025). Jasmonic acid as a metabolic switch for eugenol biosynthesis and floral volatile enhancement in <i>Ocimum basilicum</i> . <i>International Journal of Advanced Biochemistry Research.</i> , 9(7): 763-775.
40	Antala, P. A., Patel, N. J. , Dhruv, J. J. & Patel, K. V. (2025). Improving Nutraceutical Potential of Sweet Basil through Jasmonic Acid-induced Phytochemical Accumulation. <i>Journal of Advances in Biology & Biotechnology.</i> , 28(7): 1036-1048.