जीव रसायन विभाग
आचार्य नरेंद्र देव कृषि एवं प्रौद्योगिक विश्वविद्यालय,
कुमारगंज, अयोध्या–224229 (उ०प्र०), भारत

Department of Biochemistry
Acharya Narendra Deva University of Agriculture and Technology,
Kumarganj, Ayodhya-224229 (U.P.), India

ABOUT THE DEPARTMENT: The Department of Biochemistry was established in 1978 with the establishment of College of Agriculture. P.G. program in Biochemistry was started in the year 1983 and Ph.D. program started in 1986. This is one of the premier departments of the faculty of Agriculture and has been making significant contribution to knowledge of various aspects of Biochemistry, as well as in field of teaching, research and farmers-oriented extension programmes since 1978.

The teaching activity includes course towards B.Sc. (Ag.), B.Sc. (Hort.), B.Sc. (Comm. Sci.), M.Sc. (Ag.) and Ph.D. degree programmes. Most of the students of the department are well placed in either national or international research institutions, state departments of agriculture and in the private sectors and have continued to exhibits high standards of performance and excellence.

VISION: Our goal is to ensure food and nutritional security of the present and future generations. The vision of the department is to become a premier and recognized centre of excellence in teaching and research. The faculties of the department are actively engaged in providing quality education to the students for transforming their lives, and making them future professionals and academicians.

MISSION: The mission of the Department of Biochemistry is to advance excellence in teaching, research, innovation, and outreach in agricultural and applied biochemistry, with a focus on understanding the biochemical and molecular processes underlying plant growth, crop productivity, nutritional quality, and stress tolerance. The department aims to develop skilled human resources, generate scientific knowledge, and provide innovative, science-based solutions to agricultural and nutritional challenges, particularly those relevant to Uttar Pradesh and the farming community.

OBJECTIVES:

- To produce, scientifically and technically sound Post graduate human resource, who could take over responsibility and challenges of Biochemistry in future.
- To work out the role of Biochemical Parameters in Cereals, Oilseeds, Pulses & Millets.
- To develop trained manpower in the area of Biochemistry.
- To use the biochemical and nutritional approaches for development of nutritional rich varieties for malnourish people.

FACULTY STRENGTH:

S. No	Name of faculty	Designation	Department
1	Dr. R. N. Kewat	Professor and Head	Department of Biochemistry
2	Dr. Pratibha Singh	Professor	Department of Biochemistry
3	Dr. Ramesh Pratap Singh	Associate Professor	Department of Biochemistry
4	Dr. Diwakar Singh	Associate Professor	Department of Biochemistry
5	Dr. S. K. Viswakarma	Assistant Professor	Department of Biochemistry
6	Dr. Ajay Tripathi	Assistant Professor	Department of Biochemistry

Faculty Profile



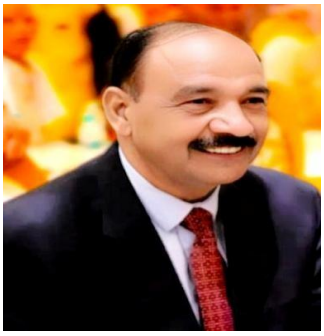
Prof. Raj Narayan Kewat
Professor& Head,
Biochemistry
rnkfzd73@gmail.com
Mob.No. 9415917101

Designation: Professor & Head, Biochemistry
Research Interests & Expertise: Nutritional Biochemistry
Qualifications: PG: M. Sc. (Ag.) Biochemistry, Ph.D. (Biochemistry)
Experience: Teaching: 24 Years and Research: 24 Years
Publications: Research Paper: National & International: 60
Books-01,
Book Chapters: 10
Achievements: Research Projects -05 (As a Co-PI)
Awards & Recognitions: 02
Students Guided: Ph. D. - 04, M. Sc. -31



Prof. Pratibha Singh
Professor
drpratibhasingh12@gmail.com
Mob.No. 9415917101

Designation: Professor, Biochemistry
Research Interests & Expertise: Nutritional Biochemistry
Qualifications: PG: M. Sc. (Biochemistry), Ph.D. (Biochemistry)
Experience: Teaching: 34 Years and Research: 34 Years, Extension: 34 Years
Publications: Research Paper: National & International: 130 **Books-02**
Book Manuals: 03
Book Chapters: 10
Achievements: Research Projects -03 (As a Co-PI)
Awards & Recognitions: 05
Students Guided: Ph. D. - 14, M. Sc. -37



Dr. Ramesh Pratap Singh
Associate Professor
singhrpbiotech@gmail.com
Mob.No. 9919952547

Designation: Associate Professor, Biochemistry
Research Interests & Expertise: Nutritional Biochemistry
Qualifications: PG: M. Sc. (Ag) Biochemistry, Ph.D. (Biochemistry)
Experience: Teaching: 27 Years and Research: 27 Years
Publications: Research Paper: National & International: 45
Books-03
Book Chapters: 10
Awards & Recognitions: 09
Students Guided: Ph. D. - 02, M. Sc. -21



Dr. Diwakar Singh
Associate Professor
drdiwakarbiochem@gmail.com
Mob.No9979246301

Designation: Associate Professor, Biochemistry

Research Interests & Expertise: Plant Biochemistry, Nutritional Biochemistry and Plant Molecular Biology

Qualifications: PG: M. Sc. (Ag) Biochemistry, Ph.D. (Biosciences), NET

Experience: Teaching: 27 Years and Research: 27 Years

Publications: Research Paper: National & International: 47

Paper Presented in Conference: 46

Research Projects Completed: 09

Research Projects Ongoing: 02

Patent:02

Books-07

Book Chapters: 10

Awards & Recognitions: 09

Students Guided: Ph. D. - 02, M. Sc. -20



Dr. Shivendra Kumar Vishwakarma
Assistant Professor
shivendrabiochem@gmail.com
Mob.No: 9651477474

Designation: Assistant Professor, Biochemistry

Research Interests & Expertise: Handling & Post Harvest, Shelf Life, Waste Product Utilization, Minor Fruits and Millets.

Qualifications: PG: M. Sc. (Ag) Biochemistry, Ph.D. (Biochemistry)

Experience: Teaching: 03 Years and Research: 05Years

Publications: National & International: 25

Paper Presented in Conference: 03

Research Projects: 01

Book Chapters: 03

Awards & Recognitions: 02

Students Guided: M. Sc. -02



Dr. Ajay Tripathi
Assistant Professor
tripathiajay17@gmail.com
Mob.No: 9519661676

Designation: Assistant Professor, Biochemistry

Research Interests & Expertise: Plant Biochemistry, Nutritional Biochemistry, Micronutrient, secondary nutrient and heavy metals analysis in soil, plant and human, Quality analysis in fruit and vegetables crops.

Qualifications: M. Sc. Biochemistry, Ph.D. (Biochemistry)

Experience: Teaching: 03 Years and Research: 11 Years

Research Paper: National & International: 40

Conference Paper: National:4; International:01

International Exposure: 01 Country Visited

Research Projects: 05

Books-05

Book Chapters: 6

Awards & Recognitions: 03

Students Guided: M. Sc.-04

PROGRAMMES OFFERED

- **M.Sc. (Ag.) Biochemistry**
- **Ph.D. Biochemistry**

PG and Ph.D. Courses:

S. No.	Course Code	Course Title	Credit Hours
P.G. Programme1st Semester			
1	BIOCHEM-501	Basic Biochemistry	4(3+1)
2	BIOCHEM-502	Intermediary Metabolism	3 (3+0)
3	BIOCHEM-503	Enzymology	3(2+1)
4	BIOCHEM-509	Nutritional Biochemistry	3(2+1)
5	BIOCHEM 599	Master's Research	variable
IInd Semester			
1	BIOCHEM 505	Technique in Biochemistry	4(2+2)
2	BIOCHEM 507	Plant Biochemistry	3(2+1)
3	BIOCHEM-508	Animal Biochemistry	3 (2+1)
4	BIOCHEM 599	Masters Research	variable
IIIrd Semester			
1.	BIOCHEM 599	Master's Research	variable
IVth Semester			
1	BIOCHEM 599	Master's Research	variable
2	BIOCHEM 591	Master's Seminar	1(1+0)
Ph.D. Programme Ist Semester			
1.	BIOCHEM 601	Advanced Enzymology	3(2+1)
2.	BIOCHEM 603	Biochemistry of Biotic and Abiotic Stresses	3(3+0)
3	BIOCHEM-606	Biomembrane	2 (2+0)
3.	BIOCHEM 699	Doctoral Research	variable
Ph.D. Programme 2nd Semester			
1.	BIOCHEM 602	Advanced Molecular Biology	3(3+0)
2.	BIOCHEM 607	Application of Techniques in Biochemistry	3(1+2)
3.	BIOCHEM 699	Doctoral Research	Variable

List of Major equipment Available in the Department

S. No.	Name of equipment	No.
1.	Spectrophotometer	01
2.	Centrifuge	01
3.	Hot Air Ovens	01
4.	Refrigerators.	01
5.	Gel Electrophoresis Unit	01
6.	Electronic Weighing Balance	01
7.	Water Distillation Unit	01
8.	pH Metre	01
9.	Soxhlet extraction unit	01

Ongoing Research Projects

S. No	Title of The Project	Amount	Funding agency	Duration
1.	Establishment of Tissue Culture Laboratory for Mass Multiplication of Quality Planting Material of Banana for Increasing the Income of Farmers.	874.71 Lakh	State Agriculture Produced Market Board, U.P.	-
2.	Establishment of Tissue Culture raised Plantlet Facility	190Lakh	AER Section Govt. of U.P.	03 Years
3.	Development of Iron, Zinc and Protein rich rice varieties through biochemical and molecular approaches for eastern Uttar Pradesh.	81.60 Lakh	AER Section Govt. of U. P.	05 Years
4.	Phytochemicals, minerals and antioxidant profiling of Neolamarckiacadamba (Roxb.) fruits, its products development and testing for Neutraceuticals and shelf-life properties of developed products	15.36 Lakh	CSTUP	03 Yrs.

Major Achievements the Department (Teaching, Research, Extension)

Sr. No	Major Achievement
1	Project ongoing-04
2	Research Paper -250
3	Books-07
4	05 students are selected for Ph.D. in higher Institution *e.g*. IARI, PAU *etc*.
5	Faculties received Award/recognition-05

Distinguished Alumni of the Department

Sr. No	Name of Alumni	Designation and Address	Degree
1.	Dr. Pratibha Singh	Ex Dean, College of Agriculture, ANDUA&T, Kumarganj Ayodhya	M.Sc. and Ph.D.
2.	Dr. Ajay Singh	Director, Canada	M.Sc. and Ph.D.
3.	Dr. Mir Latif Mossavi	Chief Scientist, Iran	M.Sc.
4.	Dr. A. B. Singh	Principle Scientist and Ex In charge-Director ICAR- IISS, Bhopal	M.Sc. and Ph.D..
5.	Dr. Rudra Pratap Singh	Professor & Ex. Head, Department of Biochemistry	M.Sc. and Ph.D.
6.	Dr. Neelam Pathak	Professor and DSW, RML Awadh University Ayodhya	M.Sc. and Ph.D
7.	Dr. Ranjeet Ranjan Kumar	Professor and Head, Department of Biochemistry, IARI, New Delhi	M.Sc.
8.	Dr. Lokesh Mishra	Professor, CAU Imphal	M.Sc. and Ph.D.
9.	Dr. Rajendra Pratap Singh	Senior Scientist, USA	M.Sc.
10.	Dr. R. N. Kewat	Professor & Head, Department of Biochemistry	M.Sc. and Ph.D.

Photographs of Different Activities

