

B. Name of the Programme: M. Sc. (Ag.) Agricultural Chemicals

6.4.1. Brief History of the Programme:

The discipline of Agricultural Chemicals was very much in existence since 1970's under the then Department of Agricultural Chemistry & Soil Science, Faculty of Agriculture. The Department of Agricultural Chemicals was established in the year **2000** with the recommendation of Government of West Bengal and accord sanction of teaching and non-teaching staffs.

Specific Objectives:

- Teaching, research and extension activities in the field of crop protective chemicals, especially in the areas of naturally occurring and synthetic pesticides.
- To develop skills, knowledge and on hand training for future absorption in different Government and Private Sectors.

Accomplishment:

- During the last five years 15 nos. of students were awarded the degree in M.Sc. (Ag) in Agricultural Chemicals.
- Student (5 nos.) finds suitable position in different sectors Viz. Central Govt service, State Govt. service, Nationalized Bank and Multi National Company.
- Six students enrolled in Ph. D programme in BCKV.
- Sayan Pan was awarded **2nd best oral presentation** on his M. Sc. (Ag.) Thesis "Occurrence of Pesticide Residues in Rice Grown under Organic and Conventional Farming in West Bengal" in a theme area of "Soil Pollution and environmental contamination: Status, Problem and Mitigation" at the *All India Post Graduate Students' Research Convention in Soil Science* held at Bihar Agricultural University, Sabour, Bhagalpur, Bihar during March 15-16, 2019.

6.4.2. Faculty Strength

SL. No.	Type of Faculty	Sanctioned Faculty	Faculty in place	Vacant position	Faculty recommended by ICAR
1.	Professor	1	1	0	
2.	Associate Professor	1	0	1	1
3.	Assistant Professor	3	2+2*	1	2

Note: * Faculties from AINP on Pesticide Residues



6.4.3. Technical and Supporting staff

SL. No.	Type of Technical and Supporting Staff	Sanctioned	Staff in place	Vacant position	No. of Staff recommended by the ICAR
1.	Technical Assistant	1	0	1	2 (Lab Assistant)
2.	Junior Assistant	1	0	1	1 (Assistant)
3.	Office Assistant				
4.	Laboratory Attendant	2	1	1	
5.	Junior Storekeeper	1	1	0	
6.	Field Worker		1		
7.	Field Assistant				1 (Field Assistant)

6.4.4. Classrooms and Laboratories:

6.4.4.1. Number of Classroom:

One with dimension of 10.30 m x 2.92m, having 25 sitting capacity

6.4.4.2. Number of Functional Laboratories:5

SI No.	Name of Laboratory/ Facility	Area (square metre)	No. of Supporting Staff Attached
1.	UG Laboratory	60.08 (30 students)	2
2.	PG Laboratory-I	60.08 (20 students)	
3.	PG Laboratory-II	60.08 (10 students)	
4.	PG Analytical Laboratory	46.62 (5 students)	
5.	Agrochemical Formulation Laboratory	93 (30 students)	1

6.4.4.3. List of major equipments, laboratories, farm facilities, workshops and other instructional units

SL. No.	Name of Laboratory/ Facility	List of major equipments and facilities
1.	UG Laboratory	Hot air oven, Double distillation set (glass), Water bath, Soxhlet apparatus, TLC set, Suction filter, Knapsack sprayer (Aspire make), Balance.
2.	PG Laboratory-I	Hot air Oven, Water bath, Soxhlet apparatus (Local Make), Rotary evaporator (Labard Instrument), Plain balance, Solvent distillation, Reflux, Separating funnel, Carbon disulfide apparatus, Melting point, Vortex, Refrigerator



6.4.4.3. Cont..List of major equipments, laboratories, farm facilities, workshops and other instructional units

SL. No.	Name of Laboratory/ Facility	List of major equipments and facilities
3.	PG Laboratory-II	GLC, Model – 7890B (Agilent), GLC, Model - Trace 1110 (Thermo Fisher), GLC , Model - M-1000 (Chemito), HPLC , Model - 1220 Infinity (Agilent), HPLC, Model - PU-2080 Plus (Jasco), HPLC, Model - SPD-M10A VP (Shimadzu), HTPLC; Model – Linomat-5 (Camag), Centrifuge, Model -5804R (Eppendorf), UV-Vis spectrophotometer; Model – UV-2700 (Labomed)
4.	PG Analytical Laboratory	GC & HPLC (Agilent make), Refrigerator,
5.	Agrochemical Formulation Laboratory	MPLC (Sepacore System, Buchi); Rotary Vacuum Evaporator (R-3, Buchi); Extruder 20 & Spheronizer 75; Karl Fischer Titrator (Lab India); Tissue Homogenizer (IKA); Balance (Metler); pH Meter (Systronics); Ball Mill; Magnetic Stirrer.

6.4.4.4. Justify whether these facilities are sufficient to meet the course curricula requirement:

For successful accomplishment of the programme in respect of practicals as per the recommended syllabus of V Deans’ Committee, the present facilities can be used at a satisfactorily level.

6.4.4.5. Number of theory batches for the Degree Programme- 1

6.4.4.6. Number of Practical Batches for the Degree Programme-1

6.4.5. Conduct of Practical and Hands-on-Training:

The practical classes are being conducted in the functional laboratories of the Department as per the recommended syllabus of V Deans Committee in M. Sc. (Ag.) in **Agricultural Chemicals**

Course No.	Semester	Course Title
AC-502	1 st	Plant Chemistry-I
AC-503	1 st	Basic Chemistry-I
AC-504	1 st	Chemical Laboratory Techniques
AC-505	1 st	Synthetic Agrochemicals for Insect and Mite Management
AC-551	2 nd	Synthetic Agrochemicals for Fungi and Nematode Management
AC-552	2 nd	Synthetic Agrochemicals for Weed Management
AC-553	2 nd	Spectroscopic and Chromatographic Techniques
AC-554	2 nd	Pesticide Residue Chemistry



6.4.6. Supervision of students in PG Programme:

6.4.6.1. Total Number of Students pursuing the Degree at Present: 10

6.4.6.2. Total Number of faculties supervising the Students: 5

Particulars	Academic Year				
	2016-17	2017-18	2018-19	2019-20	2020-21
Total No. of Students pursuing the degree	1	4	8	11	10
Total Number of eligible faculties	5	5	5	5	5

Eligible Criteria to become a PG Advisor:

(Clause 4.08 of the BCKV Regulations regarding Masters' Degree Programme, 2019)

4.08 Advisement:

A Chairperson shall be assigned to each student by the Head of the department in consultation with the Board of Studies (BOS) from amongst the internal member of BOS in which the student is registered. The chairperson must be associated with regular post graduate teaching program of the concerned department. The students should be allotted to the Chairpersons following the norm as laid down below.

- (i) Head of the department, in consultation with the Board of Studies, will prepare a list of eligible teachers according to seniority, keeping continuity of the previous years.
- (ii) Student will not be allotted to the teachers having less than (2) two years of regular service in the Viswavidyalaya at the time of allotment of the student.
- (iii) Student will not be allotted to a teacher when he /she is on lien.

* Documentary evidence attached as annexure-I

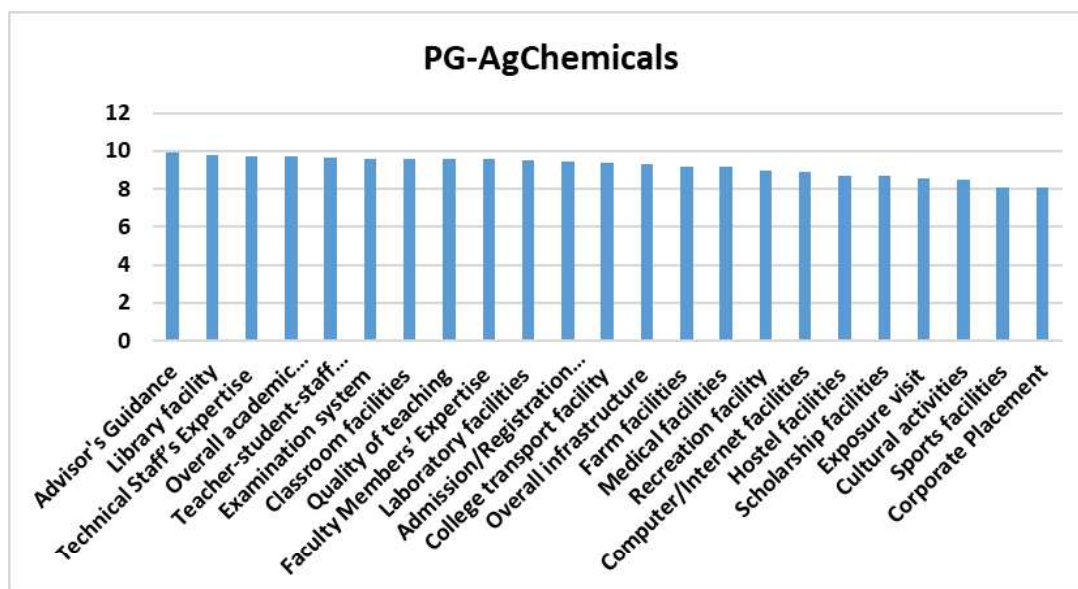
6.4.7. Feedback of stakeholders:

6.4.7.1. Mention the feedback mechanism

Feedback from the students was conducted in Google Forms using standard questionnaire (24 questions) developed on the basis of comprehensive dimension of Agricultural Education in BCKV campus. The dimension covered all the physical and academic facilities provided by the University. The responses were collected on a 10-point scale (1 denotes poorest facility and 10 denotes excellent facility) from the students of this programme. Individual responses were analyzed statistically (by computation of weighted average of every facility as perceived by the students) for the programme and the result was graphically presented in the SSR. As a documentary evidence, individual responses collected



from the students' email ID through Google Forms have been stored in our computer (Google Drive). On demand, of ICAR Peer Review Team, the link for the individual responses can be shared.



Comments: Masters' degree students of Ag. Chemicals Programme are extremely happy with nearly all the facilities provided by the University. Though, facilities like Corporate Placement and Sports Facilities have scope for improvement.

6.4.7.2. What action the University has taken to address the issues raised in the feedback?

Action taken

The feedback reports were shared with concerned sections of the university. Students responded very positively with regards to majority of the facilities provided by the university. However, with respect to timely publication of results and corporate placement, there are ample scope of improvement. Considering this feedback, the university has taken administrative actions for publication of results within stipulated period as reflected in the circulars of the concerned authorities. As corporate placement, to a great extent, is beyond the purview of the university itself, the Placement Cell continuously in touch with the potential employers to utilize the vacancies in favour of BCKV.

Impact

We are expecting very positive impacts in near future on these issues as some steps have already been taken in recent times as mentioned above.



6.4.8. Student intake and attrition in the programme for last five years:

Academic Year	Sanctioned strength	Actual intake	Attrition (%)
2016-17	5	2	50**
2017-18	5	3	0
2018-19	5	6*	16.6
2019-20	5	6*	0
2020-21	5	4	0

* Readmission of one student failed in previous year

** One student got job and left

6.4.9. ICT Application in Curricula Delivery: (ICT tools used in theory and Practical Class; whether these are sufficient):


The systematic use of ICT tools in classroom instruction makes the teaching learning process more effective and highly interactive. Generally, in the pre-pandemic condition the use of ICT in our faculty was limited to classroom lecture through power point presentation using LCD projector. The use of ICT tools became more dominant as the pandemic situation started. The Department carries out the teaching and learning process completely in distance mode via electronic networks. The ICT tools used for the curriculum delivery for different theory and practical classes are tabulated below:

Theory	Practical
1. Google meet has been used for taking regular classes	1. Use of Google meet for practical purposes.
2. E-mail, WhatsApp etc. has been used for giving lecture notes.	2. Use of Internet of Things (IoT) for sensor based experiments.
3. University website is being used for uploading the video lecture	
4. Use of Google form for taking Quiz and End Term using camera.	

I, the **Dean, Prof. Subhendu Bikash Goswami**, hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Place: Mohanpur

Date: 02-11-2021


Dean
Faculty of Agriculture
Bidhan Chandra Krishi Viswavidyalaya
Mohanpur, Nadia, West Bengal

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(Signature of Dean of the Faculty with Date & Seal)

