

L. Name of the Programme: M. Sc. (Ag.) Plant Physiology

6.4.1. Brief History of the Programme:

The programme of **M. Sc. (Ag.) in Plant Physiology** has been being offered under the Faculty of Agriculture by the Department of Plant Physiology since the year 1999 after its establishment on 15th February, 1999 consequent upon the quadri-partitioning of the erstwhile Department of Genetics and Plant Breeding.

Objectives:

- To develop an academic program and ambiance for learning plant physiology in general and crop physiology in particular.
- To impart education to develop theoretical understanding of functional biology and technical ability for its applied field
- To orient and equip the students for perusing scientific research in the field of crop physiology.

Accomplishments:

- About 80 students earned post graduate degree in this program.
- One student succeeded to represent the nation in the 5th Hope meeting with Nobel Laureates in the Life Sciences organized by J.S.P.S* in Tokyo, Japan in 2013.
- One student of this program subsequently succeeded to earn an enviable posting in USDA, USA.
- 10 pass out students successfully qualified in National Eligibility Test (NET) under Agricultural Research Service (ARS) regularly.
- A good number of PG students succeeded to earn prestigious fellowships at All India level like INSPIRE Fellowship, National Fellowship for Higher Education (NFHE) of SC and ST students, Maulana Azad National Fellowship for Minority Students, National Fellowship for students of OBC and Swami Vivekananda Single Girl Child Scholarship for Research in Social Sciences for pursuing Ph. D. degree.
- The students of PG program have been placed in several prestigious jobs as Scientist in USDA (1), Faculties in the Agricultural Universities/Colleges (6), Assistant Botanist in West Bengal Agricultural Service (Research) (5), Assistant Director of Agriculture (4), WBAS (1) etc.
- The students of the master degree program have published their research findings of PG thesis as research articles (25 in nos.) in standard journals with NAAS rating over 5.00 during last five years.



6.4.2. Faculty Strength

SL. No.	Type of Faculty	Sanctioned Faculty	Faculty in place	Vacant position	Faculty recommended by ICAR
1.	Professor	1	0	1	
2.	Associate Professor	1	0	1	
3.	Assistant Professor	5	2	3	1

Note: a) The service of the retired Professors of the Department has been taken of (Document 1 & 2).
b) The voluntary assistance of the Ph. D. students has been taken for practical classes (Document 3).

(See Annexure VII, VIII, IX)

6.4.3. Technical and Supporting staff

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

Note: The service of the retired Technical Assistant of the Department has been taken as and when required for conducting practical classes (Document 4).

(See Annexure X)

6.4.4. Classrooms and Laboratories:

6.4.4.1. Number of Classroom: 2 (24.53 m²each) with 10 sitting capacity

6.4.4.2. Lecture Hall: 1 (45 m² with 35 sitting capacity)

6.4.4.2. Number of Functional Laboratories: 3

Sl. No.	Name of Laboratory/ Facility	Area (Square-metre)	No. of Supporting Staff Attached
1.	PG Practical Laboratory	120	2
2.	PG Laboratory I	45	
3.	PG Laboratory II	45	
4.	PG Laboratory III	25	
5.	Inoculation –cum-culture Room	25	



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.	PG Practical Laboratory	Table Top Lab. Centrifuge (One No.), Systronics visible Spectrophotometer – (One No.) Model 105, Hot Air Drying oven with thermostatic control (two nos.), Hot water bath, Soxhlet apparatus with heating arrangement, Dhona Single Pan Balance (one), Electronic Balance –two, Remi High Speed Cooling Centrifuge-one, Horizontal Shaker, Seed Germinator, Students’ Monocular Microscope Kyowa-Getner (2 Nos.), +12 microscopes, Laboratory Willey Mill, Laboratory Refrigerator, BOD incubator, Autoclave For Physiological Sterlization, Distillation set, Portable photosynthesis system CI-340 Hand Held, Biovis Leaf Portable Leaf Area Meter,
2.	Plant Tissue Culture Laboratory	Laminar Air Flow, Culture Racks
3.	PG Laboratory I	Table Top Lab. Centrifuge (One No.), Systronics visible Spectrophotometer –(One No.) Model 105, Hot Air Drying oven with thermostatic control (one), Hot Water Bath with thermostat control (one), DhonaElectical Balance, Electronic balance, Metal distillation set, Refrigerator
4	PG Laboratory II	Digital pH meter, Sartorius Analytical Balance Model : QUINTIX213-10IN, Systronics UV-VIS single beam spectrophotometer (200-1000 nm) Type 118, Digital Conductivity Meter, Spectrophotometer Model –NV-503, Refrigerator, Gel Electrophoresis System-(casting unit and power pack)
5	PG Laboratory III	Visible range Spectrophotometer Systronics 104, Laboratory Refrigerator, Hot Air Drying oven with thermostatic control (one), Hot water bath with thermostat control (one), Metal distillation set, Dhona Electical Balance, Table top centrifuge

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

The students of the program have access to spectrophotometers (both visible and UV-VIS), centrifuges (both Table Top & Cold), pH meters, balances (electrical/electronic), Hot air drying ovens, Horizontal shaker, seed germinator, monocular microscopes, refrigerator, distillation set, paper chromatography sets, Laminar Air flow, Hot water bath, Gel electrophoresis system, Portable photosynthetic system, conductivity meter, Autoclave, portable leaf area meter etc. Further, as and when required the students can access the facilities



of other department also. So, as a whole the available facilities are sufficient to meet the curricula requirement.

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

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

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

Major part of the practical syllabus can be successfully done with the available facilities. Facilities can be given to at least 10 students to make them skillful enough for the entire practical.

Post Graduate Practical Manual:

PG Practical Manual Part-1: For the courses PPH 501, PPH 502 & PPH 503.

6.4.6. Supervision of students in PG Programme:

6.4.6.1. Total Number of Students pursuing the PG Degree at Present: 7

6.4.6.2. Total Number of faculties supervising the Students: 2

	2016-17	2017-18	2018-19	2019-20	2020-21
No. of students pursuing the degree	1	10	10	8	7
No. of eligible faculty	2	2	2	2	2

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.

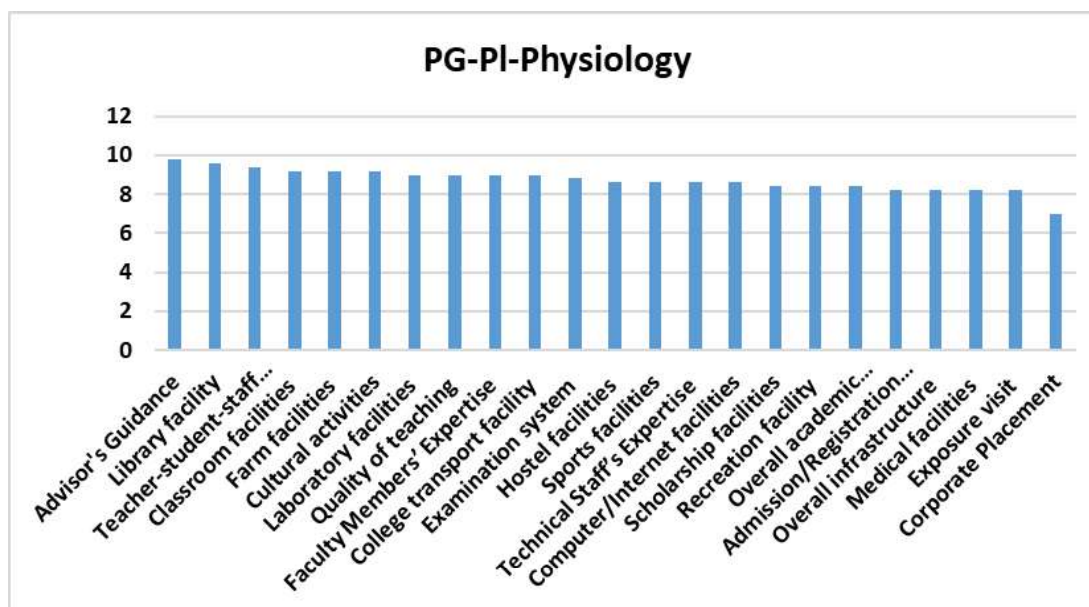
* Documentary evidence attached as annexure -I



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.



Comment: Masters' degree students of Plant Physiology Programme are happy with nearly all the facilities provided by the University. Though, Corporate Placement has 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	6	1	0
2017-18	7	6	0
2018-19	6	4	0
2019-20	6	4	0
2020-21	6	3	0

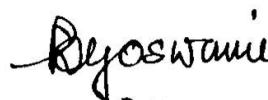
6.4.9. ICT Application in Curricula Delivery: Whether these are sufficient:

LCD Projectors and computers for teaching. All the classes are taken using power point presentation. During covid-19 period all the theory classes, seminars, viva-voce are being conducted in online mode in Google meet platform. Examinations are conducted in the Google form.

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)

