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National Agriculture Education Accreditation Council

Report of the Accreditation Inspection Committee (AIC)

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ACKNOWLEDGEMENTS

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We are also thankful to the NAEAC for their assistance guidelines and logistic support during the assessment process. The support provided by Chairman NAEAC and Mr. Naseer Alam Khan (Secretary), NAEAC Secretariat is highly acknowledged.

*Accreditation Inspection Committee (AIC)
NAEAC*

General

NAEAC Inspection Team

The Chairman NAEAC nominated an Accreditation Inspection Committee (AIC) for the evaluation of Deptt. Of Entomology, Faculty of Agriculture, Gomal University, DIK for accreditation. The committee comprised of the following members who undertook a visit to the said institution.

1. Prof. Dr. Muhammad Afzal (Convener)

Dean

Faculty of Agriculture,

University of Sargodha

2. Prof. Dr. Muhammad Naeem (Member)

Chairman,

Department of Entomology,

PMAS-Arid Agriculture University,

Rawalpindi

The Accreditation Inspection Committee shall have the following **TORs**:

- To validate the self-assessment report (SAR) of the degree programs (B.Sc (Hons.) and M.Sc (Hons) prepared by the Department of Entomology, Faculty of Agriculture, Gomal University, DIK.
- To carryout external evaluation of the degree programs in a transparent, neutral, holistic and participatory manner for accreditation and rating **based on evaluation criteria given in the Evaluation Manual**.
- To submit a synthesized and concise analytical report, consisting of SWOT Analysis and actionable recommendations based on the interactions with the Dean, Chairman, Faculty Members, Students and Support Staff and alumni as well as detail visit of physical infrastructure, facilities and other teaching- learning resources available for the degree programs.
- To submit clear, specific and justified degree programs accreditation and rating recommendations to the Chairman-NAEAC.

Executive Summary

The Accreditation Committee was given a detailed briefing by Dean, Faculty of Agriculture and Chairman Department of Entomology, regarding its history, mandate/vision, mission statement, program goals and objectives, faculty, students, research and future plans. They also mentioned major achievements of Department of Entomology and its role in the national economy.

The Department of Entomology was established in 1982. The degree program of B.Sc. (Hons.) Agriculture, with specialization in Entomology was started in 1982 and M.Sc.(Hons.) in 1986. Three (03) Students of B. Sc. (Hons.) Agriculture with specialization in Entomology have been passed out so far while two (02) batches are currently studying consisting of (02) students in 2011 and (03) in 2012 for their B.Sc. (Hons.) degree in discipline of Entomology. Five (05) students were enrolled in 2010 and they had completed their degree in M.Sc.(Hons.), while enrollment for MSc. (Hons.) Entomology in 2011 and 2012 is 5 and 2, respectively. The department also started Ph.D. programme in 2003, Six (06) students were enrolled in the degree program in 2010 but now they are supervised by other departments (Horticulture, Agronomy and Food Technology). Recently, Ph.D programme has been seized due to lack of Ph.D faculty in the Department of Entomology.

The Department of Entomology has six (06) full time faculty members, of which only one holds Ph.D qualification. Five (05) lecturers are also working as full time faculty members. After friendly discussion with faculty members, the external evaluation and accreditation team observed that the faculty members are satisfied with the working environment but they are suffering from non-availability of adequate budget, lack of library facilities and deficiency of senior staff. The curriculum developed by HEC through its Curriculum Review Committee (CRCs) has not been adopted by the discipline. The Quality Enhancement Cell (QEC) of the University has satisfactory mechanism to improve the standards.

The department has two main research and one teaching laboratories. The equipments are inadequate to perform efficient field work. Students have inadequate opportunities for scholarships but have satisfactory medical and hostel facilities. The sports and transport facilities are also reasonable to fulfill the requirement of the students.

There is need to be the separate annual operational budget allocation to the department for maintenance and operation of labs. The experimental area of the farm is adequate. There is no departmental library and need a separate budget for the departmental library as well. In review meetings, the committee recommended that there is need of senior faculty member, budget for department and research laboratories, classrooms and faculty offices.

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MAJOR CRITERIA

1. Strength and Quality of Faculty

The Faculty members at the Deptt. of Entomology, Gomal University are competent having current knowledge and skills in their field of specialization. Presently they are 06 full time faculty members, comprising of 1 Assistant Professors, 5 Lecturers (only one is PhD) and 3 lab. assistents. The range of the experience of the faculty members is mostly from 2-6 years. According to the HEC requirement for a separate department, more faculty members should be recruited in the department.

The Faculty members have published 37 research papers in peer reviewed journals during last three years. However, no research results have been published in the form of extension/recommendation brochures for transfer of findings to the stakeholders. The faculty members are satisfied with their jobs and agreed that salary package is fair and reasonable. Students are generally satisfied with lectures and practicals.

2. Curriculum Design and Development

The Department of Entomology is undertaking teaching and research for 4 years B.Sc. (Hons.) and 2 years M.Sc.(Hons.) degree programs. Curriculum developed by HEC through its Curriculum Review Committee (CRCs) is not implemented properly. The curricula has gone under major revision during the last five years through brainstorming by University Professors, Research and Extension Scientists and Business community related to agriculture. Therefore the current curricula nearly fulfill the national and international market demands. However, this should be implemented through faculty board of studies, academic council and university syndicate.

The students are not so satisfied with the academic programs and existing contents of the curricula. There is lack of a proper mechanism to get feedback of stakeholders. The faculty members of the department are also involved in serving in various fields at national and international levels.

3. Infrastructure and Learning Resources

Laboratories, class rooms and their capacity:

There is two research laboratories, which is spacious and but not equipped with safety arrangements, having equipments such as Rotaory evaporator, Humidifier, Pocket weather tracker, Knapsack sprayer, Pheromones traps, Microtom, Dessicator, Binocular stereoscopic microscopes, Rearing chambers Oven, and Multimedia projector. Available equipments are partially operational and utilized. However, these equipments are unable

to meet the need of every student. There is only one teaching laboratory and no greenhouse facility in the Department. The experimental area of the research form is sufficiently large and with poor management. The field area is easily approachable for the students.

Library:

Presently, there is no departmental library facility, however some of the recommended HEC curriculum books are available in the main library along with sufficient supporting books which meet present requirements.

The main library contains around 250 entomological books. In addition to this few journals, relating to various disciplines in agriculture including entomology and allied subjects are also present. However, the main college library needs further improvement and fresh arrivals of journals and books. The library is need to be linked with diegital library developed by Higher Education Commission of Pakistan, where, over 15000 full text journals and 25000 abstracted journals are available free of cost.

Experimental Farm:

A farm of five acres is not maintained which should be utilized for both undergraduate and postgraduate research. It needs more agricultural equipments for the improvement. The Agricultural inputs are shared and centralized with the college and Agricultural Farm of the university.

MINOR CRITERIA

4. Students Support and progression

Reportedly, students from the entomology department are polished in terms of developing their attitude to accept present day challenges in the field of agriculture along with teaching and research activities.

The faculty provide schedule for lectures of theory and practical classes in the beginning of each semester. The course instructor provide handouts, references of the book and related websites to the students. Multimedia facility is also available in the department. There is lack of resources for the students to get financial assistance from various sources. Facilities are partially available but need more for Entomological students to get financial assistance from the University. The sport facilities are existing in the University

for both outdoor and indoor games. Reasonable buses are plying in town and within the university to facilitate transportation of students.

Medical facilities for students are appropriate. The hostels facility is provided both for male and female students. Student's perception about the degree is considered to be positive because of ample employment opportunities both in public and private sectors, especially in pesticide in companies.

5. Research and Consultancy Activities

The Amount of research grant received during last two years is very small. There is no allocated departmental budget to meet the routine necessities of the department. Although 37 research papers are published by the faculty members but more effort is needed to maintain the quality.

6. Governance and Leadership

The administration power of the University is well defined like other Public sector Universities. The chairman is responsible for all administrative and management matter of the Department under the supervision of Principal. Defined and documented rules and regulations are being implemented in day to day Governance.

There is need to be maintained necessary records of Alumni and a continual interaction for improvement through feedback mechanism. Annual Calendar of activities is prepared with the help of the faculty and staff. Course files are not properly maintained.

7. Recent Innovations and Best practices

During past three years the department has no specific innovation in its account. However, the department has been performing some good practices and its linkages with farmers and some other organizations is one of the examples of such practices. Farmers are being benefitted from the advisory services of the faculty members.

SWOT ANALYSES:

Major strengths:

- The Department posses dedicated hard working young faculty

- Sufficient land and cheap labour is available both for faculty and students
- Irrigation system is excellent at farm area
- Consultancy services are appropriate

Major Weaknesses:

- Low intake of B.Sc.(Hons.) and M.Sc.(Hons.) students
- Shortage of the senior faculty
- Lack of supporting staff for the department
- Limited laboratory, class rooms and faculty offices
- Shortage of recurring budget for conducting research and maintenance of laboratories
- The program lacks basic and modern research equipments.
- There is no departmental library.
- Lack of green house/Insectary facility
- There is need for allocation of separate budget for Entomology department
- Availability of limited numbers of the books in main library.

Major Opportunities:

- Opportunities for increasing faculty members and provision of training newly appointed faculty members.
- Bright chance of Scholarships for Post-doc. and promotion of faculty members to higher vacant positions.
- Making arrangement for getting the laboratories support staff trained
- Graduates of this department compete well for government and private jobs especially in urban and rural areas of Punjab.
- Awareness creating both for farmers and local community in pest management

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- Opportunities to develop well equipped laboratories

Major Threats:

- Lack of Senior faculty
- Intake of the students is decreased due to limited facilities
- Lack of coordination with other universities.
- Insufficient rooms for laboratories and offices
- Lack of well equipped Research Laboratory
- Decline in quality and standard of research due to inadequate facilities in laboratories

Final Recommendation:

- There is an immediate need to strengthen the department with senior faculty, laboratories and library.
- There is need to be strengthen the Ph.D faculty because entomology students are doing Ph.D under the supervision of Horticulture, Agronomy and Food Technology faculty members
- The department needs a strengthening project for its infrastructure from HEC.
- The department needs equipments like Soxlet apparatus, Rearing chambers, Micropipettes, Ph Meter, Digital autoclave, Incubators, Orbital shaker, UV Visible spectro-photo meter, Thermal cycle, Real time PCR, Fume hood, camera-fixed stereomicroscope, high magnification stereomicroscope, drying cabinets, ovens, cool incubators, desiccators, electrophoresis, high speed centrifuge and growth chambers.
- A green house and insectary is required for research at post-graduate level.
- The faculty needs training in modern molecular and biotechnological areas.
- The capacity of young faculty members may be enhanced through short term and long term training abroad.

- Need for establishment of separate entomology laboratories such as Insect Molecular Lab, Stored Grain Management Lab, IPM lab, Bio-control Lab.
- Faculty should be provided computers facilities
- Department must have separate supporting staff and Training Lab. staff
- Establishment of Departmental library and increased budget for purchasing books
- Funds should be arranged for faculty members to regularly participate in conferences, seminars and workshops at national and international level.

Final Recommendation

The team unanimously declared the Department of Entomology, Faculty of Agriculture, Gomal University, D.I.Khan, Pakistan in the “Y2” category of National Agriculture Education Accreditation Council.

Prof. Dr. Muhammad Afzal (Convener) _____
Dean
Faculty of Agriculture
University of Sargodha

Prof. Dr. Muhammad Naeem (Member) _____
Chairman, Department of Entomology
PMAS-Arid Agriculture University,
Rawalpindi

Evaluation Criteria Weightage for Agriculture Degree Programs

Sr. No.	Program Evaluation Criteria	Points Assigned	Points Awarded
			M.Sc (H) & B.Sc (H)
Major Criteria			
1	Strength and Quality of Faculty	200	128
2	Curriculum Design and Development	150	80
3	Infrastructure and Learning Resources	200	122
4	Students Support and progression	150	87
Sub - Total (a)		700	417
Minor Criteria			
5	Research and Consultancy Activities	150	79
6	Governance and Leadership	100	54
7	Recent Innovations and Best practices	50	32
Sub - Total (b)		300	165
Grand Total (a+b)		1000	582

Name and Designation

Signature of Program Evaluator