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**National Agriculture Education Accreditation Council**

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**Confidential**

**NATIONAL AGRICULTURE EDUCATION ACCREDITATION COUNCIL**

**Report of the  
Accreditation Inspection Committee (AIC)**

**DR. Ghulam Jilani**

**Prof. Dr. Muhammad Naeem**

**Department of Agriculture Entomology,  
University College of Agriculture,  
University of Sargodha**

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## **ACKNOWLEDGMENT**

The assessment Team is grateful to the Worthy Vice Chancellor, University of Sargodha, for providing cooperation and facilitation.

We are also thankful to the NAEAC for their assistance guidelines and logistic support during the assessment process. The support provided by Mr. Naseer Alam Khan (Secretary), and Malik Muhammad Kashif Anwar (IT Coordinator), 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 Agri. Entomology, University of Sargodha for accreditation. The committee comprised of the following members who undertook a visit to the said institution on May 7-8, 2012.

1. **Dr. Ghulam Jilani** (Convener)  
Chief Scientific Officer (Rtd.),  
NARC, Islamabad
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 Agri. Entomology, University of Sargodha
- To carryout external evaluation of the degree programs in a transparent, neutral, holistic and participatory manner for accreditation and rating **based on seven (7) evaluation criteria given in the Evaluation Manual.**
- To submit a synthesized and concise analytical report (4-5 pages only) 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.

## 1. INTRODUCTION

## Deptt. Of Agri. Entomology, University College of Agriculture, University of Sargodha,

### • DEPARTMENT HISTORY & MAIN FEATURES

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

University College of Agriculture established in October, 2005. Initially the college was started In-Service Training Institute, Sargodha but later shifted in private building and now it has its own building. Agriculture Entomology as major subject was started in 2007, and M.Sc.(Hons.) and Ph.D. program started in 2009. The Department is presently offering three degree programs viz; B.Sc. (Hons.), M. Sc (Hons.) and PhD in Agri. Entomology. The department is engaged in producing highly skilled and technically sounds man power to solve the problems relating to insect pests in field crops, horticultural crops and transferring technologies to various stakeholders. The Deptt. of Agri. Entomology has produced 37 graduates of B.Sc. (Hons.) and 6 M.Sc. (Hons.). Currently 5 students are enrolled in Ph.D.

### • DEGREE PROGRAMS OFFERED

- B.Sc. (Hons.) (Four years)
- M.Sc. (Hons.) (Two years)
- Ph.D. (3-5 years)

## 2. CRITERION WISE ANALYSIS

### Criterion I: Strength and Quality of Faculty

The Faculty members at the Deptt. of Agri. Entomology, University of Sargodha are competent having current knowledge and skills in their field of specialization. Presently they are 9 in number comprising of 1 Professor, 4 Assistant Professors, 2 Lecturers and 2 Teaching Assistant (**Annexure # 1**). Four have Ph.D. degrees, and two faculty members are in the process of completing his PhD at abroad. One faculty member availed post-doc. fellowship. One post of Associate Professor has been advertised. The range of the experience of the faculty is from 2-20 years. This makes reasonable expertise to meet the needs of an independent Department to fit into the HEC requirements. However, the faculty composition at present is 1:0:4:2., which should need to be in shape of HEC requirements. The teacher student ratio is 1:20. The dept. is in deficient of supporting staff according to standard criteria. The teaching load (credit hours/week) consist of 3, 9 and 12 credit hours + additional assignments for Professor, Assistant Professor and Teaching Assistant respectively. Only one supporting staff is present. Deptt. has produced 37 B.Sc. (Hons.), 06 M.Sc.(Hons.), and 5 students of Ph.D. are in progress.

**The faculty members are publishing regularly their research papers both in National and International journals.** Most of the faculty members are satisfied with their jobs and agreed that salary package is fair and reasonable. Students are generally satisfied with lectures and practical's. The entire faculty has membership of various national and international professional societies.

## **Criteria II: Curriculum Design and Development**

The Department of Agri. Entomology at University of Sargodha is undertaking teaching and research for 4 years B.Sc. (Hons.), 2 years M.Sc.(Hons.) and 3-5 years Ph.D. degree programs. 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. The revised curricula approved by HEC have been in vogue since July, 2011. Therefore the current curricula are in line with national and international market demands. This has been implemented through department board of studies, faculty board of studies, academic council and University syndicate. The courses are revised on the basis of market demand, field issues and new research techniques as per HEC recommendation.

Majority of the students are satisfied with the academic programs, contents of the curricula and their practical's. A regular internship program is being held for eight semester of B.Sc.(Hons.). The parents get information regarding education of the students and jobs opportunities offered. They are satisfied. As a result students are well equipped with current knowledge and skills. The faculty members of the department are also involved in serving in various fields at national and international levels. Graduate have brought good name to the programs by rendering services to pesticides companies, agriculture research and extension departments, Argi. Universities and various other fields.

## **Criteria III: Infrastructure and Learning Resources**

There is only one research laboratory, which is spacious and working capacity of the lab. is 60. The safety arrangements are not observed in lab. The scientific equipments available in the lab is Binocular microscope, Trinocular stereo-zoom microscope, Compound microscope, Electronic balance, Oven, Cooling cabinet and Multimedia projector. There are two special classrooms and one central seminar room for all departments. There is no greenhouse facility in the Department. The experimental area of the research form is adequate. As per requirement on seasonal basis, the area is allotted to various departments for their research work. The field area is easily approachable for the students. The apiary is well maintained, and the production of honey is reasonable at the initially stage.

Presently there is no departmental library, however, Thesis and Dissertation of its qualified students are present. There is only a faculty library and around 300 entomological books, most of which are very old version. In addition to this few journals, relating to various disciplines of agriculture including entomology and allied subjects are also present. However, the faculty library needs further improvement and fresh arrivals of journals and books. The library is linked with digital library developed by Higher Education Commission of Pakistan, where, over 15000 full text journals and 25000 abstracted journals are available free of cost which is access to all students. The space for students in the library is sufficient. A central computer lab. facility is provided which consist of 50 functional computers. There is no specific computer lab. at departmental level. The internet access is provided to at least graduate students. The regular meetings (board of faculty and board of studies) are being held. The course files by the teachers are often maintained. There is no provision of adequate budget for the purchase of chemicals and glassware.

## **Criteria IV: Students Support and Progression**

The entry response of the students in B.Sc.(Hons.) Agri. Entomology program is overwhelming. There is lack of resources for the students to get financial assistance from various sources. Facilities are not available for Entomological students to get financial assistance from the University. The sport facilities are existing in the College for both outdoor and indoor games. Reasonable buses are plying in town and within the university to facilitate transportation of students.

A week student-teacher interaction exists through tutorial meetings, department/faculty seminars, and workshops. First aid and medical facilities for students are appropriate. Residential facilities in the College hostels are not available for boys. Student's perception about the degree program is positive because of ample employment opportunities both in public and private sectors, especially in pesticide companies. The average CGPA of the graduates from the last years are more than 3 for both M.Sc.(Hons.) and B.Sc.(Hons.).

#### **Criteria V: Research and Consultancy Activities**

The Amount of research grant received during last five years is amount Rs. 0.5 million. There is no allocated departmental budget to meet the routine necessities of the department. The findings and outputs of the research of the faculty members and graduates are regularly published in HEC approved/impact factor journals. The department has effective academic and research collaboration with different agricultural research institutes, farmers both at National and International level.

#### **Criteria VI: Governance and Leadership**

The administration power of the College is well defined like other Public sector Institutions. The Chairman of the department is responsible for all administrative and management matter of the Department. Defined and documented rules and regulations are being implemented in day to day Governance.

Placement bureau and alumni association has not been up till now established. The Deptt graduates are performing well in public service commission and pvt sector in and abroad. Annual Calendar of activities is prepared with the help of the faculty and staff. Course files are nearly maintained. Regular news bulletin is issued by the University and department of Agri. Entomology.

#### **Criteria VII: Recent Innovations and Best Practices**

(To be obtained from Deptt. of Agri. Entomology)

A Quality Enhancement Cell (QEC) has been established to ensure the quality of degree programs. The students-teachers evaluation is well adopted and functioned throughout questionnaires provided by QEC as per HEC directions. The allocation of courses is well balanced in terms of theory and practical classes. Developed apiary of 20 colonies is maintained for the first time in college. They are also publishing "DOAAB" in urdue which has good impact on local farmer community. They have also undertaken through studies the mites of Sargodha which are important pests affecting major crops. A regular annual activity of "Kissan Mela" is being done by the college. This is very useful for the farmers.

### **3. SWOT ANALYSIS OF THE DEPT DEGREE PROGRAMS**

(A brief SWOT of the deptt. of Agri. Entomology, University of Sargodha)

#### **STRENGTHS**

- The entire faculty is highly skilled, Out of 9 faculty members 3 hold Ph.D, 1 hold Post-doc. degree and remaining 3 are abroad for Ph.D. study. They have expertise in different fields of entomology (Biosystematics, Toxicology, biological control, insect physiology and IPM).
- The admission response in entomology is overwhelming.
- Sufficient land for on-farm research is available for faculty and students.

- Research base is fairly good; they have obtained only one projects worth 0.5 million during last three years.
- More than 280 research papers have been published, of which 213 in national and 70 in international journals.
- Develop apiary first time in college.

### **WEAKNESS**

There are certain areas regarding faculty, equipment and manpower which needs further improvements.

- The program lacks basic and modern research equipments.
- There is no departmental library and computer lab.
- Inadequate faculty offices and Inexperienced faculty associated staff.
- Budget of the department is not yet been allocated.
- Lack of green house facility
- There is need to fill the post of Associate Professor

### **OPPORTUNITIES**

- Bright chance of Scholarships for Post-doc. and promotion of faculty members at higher vacant positions.
- Graduates of this department compete well for government and private jobs especially in urban and rural areas of Punjab.
- Some of the students have availed national and international competitive grants for higher studies.
- Facilities are available to get projects from national and international agencies.

### **THREATS**

- There is no residential facilities for teachers and students, therefore young teacher are lacking for better facility in other institution or abroad.
- Intake of the students is very low in M.Sc.(Hons.).
- Violation of merit in admission

## **4. ACTIONABLE RECOMMENDATIONS**

- There is an immediate need to strengthen departmental labs. and library.
- Vacant posts should be filled immediately.
- Three qualified supporting staff should be appointed.
- The department needs more space for faculty offices.
- A computer lab. should be established at departmental level.
- Latest editions of the text books should be purchased.
- The department needs equipments like Micropipettes, PH Meter, 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 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.
- Merit policy should be followed.
- Post-graduate research should be expanded to molecular and bio-technological level.
- Funds should be arranged for faculty members to regularly participate in conferences, seminar and workshops at national and international level.

Signature: \_\_\_\_\_

Name: Ghulam Jilani

Designation: Ex CSO/Sr. Director, (Rtd),  
PARC, Islamabad

## Evaluation Criteria for Agricultural Degree Programs

Sr No	Criteria	Points Assigned	Points Awarded	
			M.Sc. (Hons.)	B.Sc. (Hons.)
<b>Major Criteria</b>				
1	Strength and Quality of Faculty	250	193	193
2	Curriculum Design and Development	150	126	126
3	Infrastructure and Learning Resources	200	106	106
4	Students Support and Progression	100	62	65
Sub-Total (a):		700	487	490
<b>Minor Criteria</b>				
5	Research and Consultancy Activities	150	103	103
6	Governance and Leadership	100	68	68
7	Recent Innovations and Best Practices	50	35	35
Sub-Total (b):		300	206	206
Grand Total (a+b):		1000	693	696

**Dr. Ghulam Jilani**

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Name and Designation

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Signature of Program Evaluator

## Final Recommendation

- The team unanimously declared the Department of Agri. Entomology, Faculty of Agriculture, University College of Agriculture , University of Sargodha, Pakistan in the “ X<sub>3</sub> ” category of National Agriculture Education Accreditation Council.

1. **Dr. Ghulam Jilani** (Convener) \_\_\_\_\_

Chief Scientific Officer (Rtd.),

NARC, Islamabad

2. **Prof. Dr. Muhammad Naeem** (Member) \_\_\_\_\_

Chairman,

Department of Entomology,

PMAS-Arid Agriculture University,

I agree with the observations and recommendations made by the peer team in this report.

Chairman Department of Agri. Entomology.

**Annex -1**

- **Area of specialization and sections/labs in the department**

Faculty	Faculty with Ph.D. Degree	Specialization	Status	
			Regular	Contract
Prof. Dr. Muhammad Afzal ( Professor & Chairman)	Ph. D ( Pak.) Post-doc. (UK)	Systematics & IPM	Regular	
Dr. Abu Bakar M. Raza ( Assistant Professor)	Ph.D ( Pak.)	Systematics & Biodiversity	Regular	
Dr. Muhammad Kamran ( Assistant Professor)	Ph. D (Pakistan) Ex. Pak. Leave	IPM & Acarology	Regular	
Dr. Muhammad Anjum Aqueel ( Assistant Professor)	Ph. D ( London)	Tritrophic Interaction		<b>Contract</b>
Mr. Asim Riaz (Assistant Professor)	M.Phil (France)	Insect Toxicology	Regular	
Mr. Zeeshan Majeed (Lecturer)	M.Sc. (Hons.) (Pakistan) Abroad for study leave	IPM	Regular	
Mr. Irfan Ullah (Assistant Professor)	M.Sc.(Hons.) (Pak.) Study leave	IPM	Regular	
Mr. Hannan Ahmad (Teaching Assistant)	M.Sc.(Hons) (in process)	IPM		<b>Contract</b>
Mr. Mubashar Sohail (Teaching Assistant)	M.Sc.(Hons) (in process)	Insect Physiology		<b>Contract</b>
<b>Total</b>			<b>6</b>	<b>03</b>

**Annexure # 2 : Area of specialization and sections/labs in the department**

<b>S.#</b>	<b>Laboratory</b>	<b>Laboratory Assistant</b>	<b>Laboratory Attendant</b>	<b>Required</b>
<b>1</b>	Muhammad Riaz	-	1	2 lab. Assistant 1 Lab. Attendant

**Annex-3**

**Annexure # 3 : List of scientific lab. equipments in the department**

1	Binocular microscope
2	Trinocular sterio-zoom microscope
3	Compound microscope
4	Electronic balance
5	Cooling cabinet
6	Oven
7	Multimedia projector