



National Agriculture Education Accreditation Council

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

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Section -1 General

1.1 NAEAC Inspection Team

As per clause 10 subsections (d) and (l) of the byelaws of National Agriculture Education Accreditation Council (NAEAC), the Chairman NAEAC constituted an Accreditation Inspection Committee (AIC) for the inspection of the Degree Programs of Entomology Department, Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi (PMAS AAUR) for external evaluation rating and accreditation. The committee consisted of the following members who visited the university on April 13-14, 2009.

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| i) Prof. Dr. Muhammad Naeem
Dean, Faculty of Plant Protection
NWFP Agricultural University
Peshawar. | Convener |
| ii) Dr. Muhammad Faheem Malik
Associate Professor & Former Dean
Faculty of Crop & Plant science
Lasbela University of Agriculture
Water & Marine Sciences, Uthal, Balochistan. | Member |
| iii) Dr. Muhammad Athar Rafi
Program Leader, National Insect Museum
National Agricultural Research Center (NARC)
Islamabad. | Member |

1.2: Terms of Reference of the Committee

The team visited the university from April 13-14, 2009 as per itinerary at annexure-I.

- To validate the Self-Assessment Report and Peer Team Report of the Entomology Degree Programs.
- To carryout external evaluation of the academic programs for rating and accreditation.
- To synthesize and submit consolidated report on the basis of interaction with Dean, Chairman, Faculty Members and students as well as detailed visits of infrastructure and facilities.
- To submit rating and accreditation recommendations to Chairman NAEAC.

1.3 The Entomology Department

The Accreditation Committee was briefed by Chairman Department of Entomology, Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi (PMAS AAUR), about the history, faculty, students, research projects and future plans of the department. He also elaborated the contribution of the entomologists produced by the department, to the economy of Pakistan since 1986. Now-a-days, the department is a respected seat of learning and is honored as one of the top ranking departments of the University. The department pursues specific mission and objectives given as under.

Mission statement

“Strengthening and implementation of a solid teaching and research system in the field of Entomological Sciences based on the knowledge, expertise and vision for the award of Bachelor, Master and Ph.D degrees.”

Objectives

- Develop high caliber human resources in the discipline of Entomology
- Undertake research to protect our food and fiber from insect pests with special reference to barani ecology.
- Undertake research to augment the services and value of beneficial insects.

The committee was informed that the Department was established in 1980 in the Barani Agriculture College, Rawalpindi. In the beginning, department used to offer minor courses of Entomology for the students of B.Sc. (Hons.) Agriculture specializing in disciplines other than Entomology. The college was upgraded as University of Arid Agriculture in 1994. The Department started its B.Sc. (Hons.) degree program in 1986. M.Sc. (Hons) and Ph.D degree programs were initiated in 1997 and 1998 respectively. The Department of Entomology has produced 5 Ph.D's, 58 M.Sc (Hons) and 151 BSc (Hons). Currently 28 students in B.Sc (Hons), 24 students in M.Sc (Hons) and 13 in Ph.D are enrolled.

1.4 Academic Programs

The Department is presently offering three degree programs as per following details.

- i) BSc (Hons) Agriculture Entomology
- ii) M.Sc (Hons) Agriculture Entomology
- iii) PhD in Entomology.

Program Mission

To produce professionally skilled and academically sound entomologists to resolve the challenges relating to the insect pests infesting field crop, stored commodities which ensure to crop production as well as improved plant health, thereby help develop agricultural and industrial economy, and producing useful products directly and to improve quality of the human life and economy of the country indirectly.

Program Objectives

- To equip the graduates with necessary theoretical and practical knowledge relating to the field of Entomology and to enable them to apply this knowledge of degree programs professionally and productively.
- To train and prepare the students about application of the latest techniques of IPM (Integrated Pest Management) program, so that they may contribute in reduction of environmental pollution and uplifting of human health.
- To ensure application of entomological knowledge in a systematic way to reduce cost incurred on plant protection techniques especially on pesticides.
- To prepare the graduates to work in an R&D environment effectively.
- To prepare graduates for higher studies in any international university of high repute.
- To enable the graduates to be a good human being and an efficient, job oriented and dedicated worker with a reasonable earning to lead a prosperous life.

Section -2 Criterion wise Analyses

2.1 Criterion-I. Curriculum Design and Development

Curriculum design of any degree program plays a key role in the expected learning outcomes. It must be an index of the aspiration and needs of a society. Curriculum design and development continues as a dynamic process. Also, it should be supportive and consistent with program goals and objectives. The curriculum of the degree awarding academic programs is reviewed by HEC through a Curriculum Review Committee representing various Higher Education Institutions (HEIs) in Pakistan. There exists a system of review at the department, faculty and university levels through Board of Studies, Board of Faculty and Academic Council respectively. The objective is to ensure the representation of all stakeholders.

The curriculum for degree Programs of Entomology department are those approved by Higher Education Commission (HEC).

Academic Programs: Department is presently offering three degree programs

- i) B.Sc (Hons) Agriculture Entomology, Eight semesters degree requirement is 161 credit hours, including 15 credit hours internship in the eighth semester.
- ii) M.Sc (Hons) Agriculture Entomology and four semesters with 36 credit hours course work and research thesis.
- iii) PhD in Entomology, Details are at annexure-III.

The academic curriculum is supportive of program objectives. At post-graduate level, the flexibility (option of courses) exists. Curriculum is revised when needed minimum after five years as per HEC guidelines by the faculty board. The Curriculum is need based and revised in the light of national, HEC and international requirements and is market oriented.

Majority of the students were satisfied with the academic programs and contents of the curricula. Maximum effort has been made to make it outcome oriented. The curriculum helps promote teaching – learning process. The curricula have been developed in such a way that these develop generic as well as professional skills among the graduate students. The curricula also broaden faculties of mind and hands in the students. The teachers were found committed and passionate in designing curricula and its teaching

2.2 Criterion-II. Strength and Quality of Faculty

The evaluation committee met individually all faculty members (professors, associate professors, assistant professors and lecturers) in the department to discuss their academic and professional background, areas of research interest, opinion about the academic programs & students and peers, opportunities for professional growth besides research opportunities, facilities available, teacher-student relationship, teaching load and strengths and weaknesses of the degree programs.

Presently there are 8 members, including one professor, one associate professor, three assistant professors and three lecturers. Three members are abroad for higher studies (PhD level). Among assistant professor and lecturer positions, one assistant professor and one lecturer are working on regular basis while rests of 3 positions are project positions/leave vacancies. Faculty qualification, status and teaching experience is given at annexure-II. The degree programs of Entomology may face acute shortage of teaching faculty in near future due to the retirement of sr. faculty and termination of project position of lecturers working in the department.

Area of specialization of Faculty

Specialization	Faculty with Specialization	Faculty with Ph.D. Degree	Faculty Status	
			Regular	Contract
IPM	05	01	03	02
Bio-ecology	01	01	00	01
Taxonomy	02	02	01	01
Total	08	04	04	04

Considering future needs of the faculty with regard to gradual increase in enrollment at graduate and post-graduate levels and the number of students per teacher basis following the HEC standards, it becomes imperative to induct more faculty members in the department on permanent basis. In the prevailing setup, it would be an enormous opportunity to induct the faculty members working on project positions in the department as regular staff members which would bring a dual advantage, as strengthening the faculty through provision of better human resource and enhancing the sense of job security in these teachers.

Student-Teacher ratio is as per following detail

Professor= 14:1, Associate Professor= 14:1, Others= 16:1

Most of the faculty members were of the opinion that salary package is reasonable but looking forward for relatively better financial benefits. Most of the students expressed satisfaction

over the cooperation and assistance provided to them by the teachers. Students were also of the view that there was a good interaction with the teachers. Overall teachers are satisfied with their job. However, the faculty members already working on project positions in the department are worried about their job security.

Department conducts seminars on regular basis. In other activities department arranges Kisan Mela, lectures on Pesticides, Pollution and on the Cottage Industries of Pakistan etc.

The Professor is supervising about 5 Ph.D. and 8 M.Sc. (Hons) students, the Associate Professor about 5 Ph.D. and 6 M.Sc. (Hons) students, and other teachers are supervising at least 4 /master level students on an average which seems quite heavy workload.

A lot of useful research has been carried out under research projects completed in the department. The findings of these research studies/projects were printed in the form of research papers, leaflets and brochures in Urdu as well in English for the use of researchers, community and extension workers in the Barani areas by arranging Kisan Melas and field days etc.

The faculty has been duly recognized and has earned different national awards on account of its performance. Graduate students of the department have secured top positions in the university.

Faculty by Program Areas in Entomology

Program area of Specialization	Courses in the area & Average number of students per year	Number of faculty members in each area	Faculty with Ph.D Degree
General Entomology	18	03	-
Stored product Entomology	07	01	01
Insect Biosystematics	05	01	01
Applied Entomology	02	02	01
Total	32	07	03

Faculty members are provided with different academic, research and training facilities as per availability in the university system. Research supervisors are offered incentives for implementing different laboratory and field experiments to promote high standard research activities.

Motivation and encouragement are among the main tools for the better performance of the faculty team members. Faculty members are contented with the initiatives undertaken by the management in this regard. Formal and informal coaching by the senior faculty

members, different entertainment events, field visits and excursions etc. play a vital role in motivating the young faculty members.

2.3 Criterion-III. Students Support and Progression

The Evaluation committee was informed that students were provided lecture material in the class containing topic wise data and for the given class and semester. The curricula are properly presented in the form of handbooks for Bachelor, M.Sc and Ph.D programs. Courses were mainly those approved by Higher Education Commission (HEC).

Students from B.Sc(Hons) are sent to various research institutes for internship throughout the province where they acquire practical training and submit a formal report. A few internship reports were checked and found of good quality. Students were questioned to judge their knowledge in different disciplines of entomology and were found knowledgeable.

To resolve students' issues regarding provision of guidance and information in various social and educational matters, Directorate of Students Affairs provides an effective support. University organizes various cultural activities and study tours/visits to broaden the students knowledge and experience to be utilized in their practical life. The university has also established a directorate of student's employment. This directorate is actively guiding and introducing the graduates of the university to different job opportunities.

The committee was also informed by the students that department is without a formal library, Computer lab, common room facility. However, gymnasium at university level for indoor games such as table tennis, badminton, basketball is available without any swimming facility. Medical facility, Hostel facility and student transport exist but need improvement. Financial support is only available semester wise in some cases to needy students if they have extra ordinary performance. Ample opportunities for interest free loans and merit scholarship scheme are hardly in place.

All of the courses are designed/ tailored to address the teaching needs in an effective way. In this regard teaching staff and students are consulted periodically to get the feedback for further improvement. Along with theoretical aspects of the courses, practical work is also done in fields/laboratories while students are also oriented to tackle their professional needs through different assignments and submission of reports. They are attached with various institutions/organization to get updated knowledge and insight for addressing their future needs.

- Keeping in view the feedback from students and teachers, courses are structured and updated in the board of studies meeting.
- It is common and general practice to maintain an effective interaction between students and faculty.

Students are guided properly in relation to their on-going educational programs at university and also focusing their future needs.

- Entomology discipline has developed full harmony among the faculty members and students especially the pos-graduate ones. Management has made all sorts of efforts to update their knowledge and information source.
- Students are informed about the program requirements through the office of the head of the department.
- Their information records related to their studies are regularly updated through teacher-students interaction.
- Directorate of Placement bureau also helps in communication and exploring jobs for the university graduates.

2.4 Criterion-IV. Infrastructure and Learning Resources

- **Research and Teaching Labs.**

There are five laboratories, four in the Department of Entomology and one at the Kount farm Rawat. Laboratories are not spacious and are without Ac facilities, safety arrangements and security plan. Staff position of teaching labs is as follows.

Staff position of Laboratories of Entomology

S #	Laboratory	Laboratory Assistant	Laboratory Attendant	Required
1.	Bio-systematics	01	01	-
2.	Stored Grain Research Lab.	01	01	-
3.	Biological Control	-	-	Lab. Assit.= 01 Lab. Atten.=01
4.	Insect Toxicology	-	-	Lab. Assit.= 01 Lab. Atten.=01
5	Apiculture	-	-	Lab. Assit.= 01 Lab. Atten.=01

Laboratory Equipment: Equipment like incubator, stereoscopes, camera fixed stereoscopes, slide microscopes, digital camera for capturing insect images, digital balance, insect rearing cages, desiccators, HPLC and GLC to cater the need of present level of enrolment of postgraduate and Ph.D levels.

More spacious and well equipped laboratories to fulfill the contemporary level of research/ education are necessitated for better output.

Laboratory manuals are not available. The department library has not all the relevant books. However, individual teachers have their books. The equipment are out date and out of order. Equipment regards molecular approaches are lacking e.g. Stereoscope, centrifuge (slow and ultr), PAG-Electrophoresis apparition, PCR, Spectrophotometer, NPLC, relevant software, chemicals and bio-chemicals.

Laboratories are maintained by only one laboratory assistant (equipment, glassware, chemicals, material etc). Three laboratories attendant assist the students in practical as well as cleaning and washing.

- To upgrade the prevailing education facilities, separate class rooms are needed as presently classes (lectures) are taken in laboratories.
- Computing facilities support not available to all faculty members and the post graduate students.
- Safety arrangements: There is not proper safety arrangement and no security plans are in place in case of emergency. The department is located on the 2nd floor; there is no emergency exit for the labs. No fire extinguishers have been installed in any laboratory. No first aid kits/facilities provided in the laboratories/department.

Greenhouses and Experimental Fields

Greenhouse: Department is without any green house facility.

Experimental field: The department was provided with an experimental area allotted by the university at its Kount farms at Chakwal road. At this farm, construction work on Apiculture Lab. of the department is in progress.

- **Departmental and Main Library**

Departmental Library: Department Library does not exist. There are only 122 books in the department which were inadequate. There is no budget for the purchase of books.

Central library: There is a central library which is centrally air-conditioned and contains 1212 books in addition to the journals, relating to the various disciplines in agriculture including entomology and allied subjects. However, the central library needs further development and up-gradation to meet growing requirements of a university.

The library is linked with digital library developed by he Higher Education Commission of Pakistan, where, over 15000 full text journals and 25000 abstracted journals are available free of cost. The library also has good electronic media equipment including internet, multimedia, and other facilities.

Computer Lab: Department is without any computer lab. Well equipped computer lab for post-graduate students is essential.

Classrooms: There are only three classrooms for under and post graduate students each with 3312 sq.ft of size. There is serious shortage of classrooms. Increasing number of students results in the congestion of classrooms which affects adversely the quality of teaching.

Multimedia: There is only one multimedia in the department.

Faculty Offices: Only four (04) faculty offices are available. Faculty offices were with out computer and telephone facilities.

2.5 Criterion-V. Research and Consultancy Activities

Adequate facilities are available to conduct research in various areas of Entomology such as Biosystematics, Insecticide resistance, stored grain pests, IPM in rain-fed areas, Bio-ecology etc. Faculty has published more than 200 research papers besides conference proceedings and popular articles. Almost 50% of the publications are in HEC' approved journals and about 24 and 12 papers are published in the international and impact factor journals respectively. Senior faculty is supervising post-graduate research. Presently, five projects are on-going whereas a few are in the pipeline. Salient research findings are translated into urdu for distribution among farmers.

Consultancy services are offered to various clients both in the private and public sector. Farmers' awareness campaigns are executed to educate the farmers about insect-pest problems. Participation in the Farmers Melas, exhibitions and field days is obligatory. Leaflets, Bulletins and flyers are distributed and displayed for the information of farming community.

2.6 Criterion-VI. Governance and Leadership

Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi (PMAS AAUR) is an autonomous body having its own charter of functions as per University Ordinance 1979. The highest governance authority is the Vice Chancellor assisted by the Registrar, Treasurer, and Controller of Examinations, Director of Board of Studies and Director Quality Control. There are four faculties of Agricultural sciences/subjects and a competent/experienced scientist is the Dean of each faculty. There are various departments in each faculty headed by a senior professor and assisted by a number of teaching staff.

Vice Chancellor is the overall controlling authority of the University. He performs his functions through bodies including the Syndicate, the Senate, Academic Council, Advance Studies & Research Board, Finance & Planning Unit, and directorates of Student Affairs, Quality Control & Placement Bureau. All these bodies function within the frame work of rules & regulations and guidance defined by HEC. Funds are provided by HEC for regular activities and specific research & special programs. There is a good

working relationship between faculty members and the management; however, some operational constraints have been experienced. This is attributed to the governance system prevailing in the country. The budget allocation for operational expenses and research are very low as compared to the expectations. Efforts are also underway for generating finances which may ease out problems for operating expenses.

There is a useful exchange of knowledge and experiences with related institutions like Pakistan Agriculture Research Council (PARC), Barani Agricultural Research Institute (BARI), University of Agriculture, Faisalabad (UAF), etc through periodical seminars, workshops and field visits. The team observed that good leadership has emerged at university level which shall improve / up-grade the status of the University. Contacts are also maintained with senior Alumni to benefit from their experience. The students are encouraged to become members of professional and scientific bodies to have interaction with the senior members and benefit from their experiences.

The university has a placement bureau which is operational – exploring employment opportunities for the students to guide them in their career buildings.

2.7 Criterion-VII. Innovative Practices

- The department has established linkages with leading pesticides companies and fertilizer firms. Collaborative field studies are carried out to evolve strategies to eliminate resistance in pests. Seminars, field days and Farmers moots are organized for dissemination of research findings. Farmers' queries are responded as and when received from the field.
- Alumni of this department working in various companies remain in contact with department and arrange financial support for organization of exhibitions and training workshops etc.
- Organization and conduct of training workshops for Research and extension workers.

Section -3 SWOC Analysis

3.1 Major Strengths of Academic Programs

- Highly qualified and competent faculty for Degree Programs with foreign Ph.D and Post-doctorate experience. One faculty member is HEC approved Ph.D supervisor.
- There are five laboratories and one experimental farm. Laboratories are equipped with needed apparatus and equipment (HPLC, GLC, stereomicroscope, slid microscopes and incubator) for undergraduate and post-graduate teaching and research.
- Faculty as well as students have earned national awards and recognition. Entomology discipline is generally the first preference of the students. The graduates of the degree programs are working as research managers, administrators and educationists.
- Collaboration with R&D as well as Educational Institutions such as National Agricultural Research Centre (NARC), Pakistan Museum of Natural History (PMNH) and Universities local and abroad.
- The Degree Programs have produced 151 BSc (Hons), 58 MSc (Hons) and five PhD's, recently, the enrolment in the degree programs has increased significantly.

3.2 Major Weaknesses of Academic Programs

- Lack of spacious and controlled conditioned laboratories with unsatisfactory safety arrangements and security plan. Greenhouse facility is also required. More equipment such as Microtome, growth chambers and PCR are required.
- Insufficient class rooms, faculty offices and sitting places for PhD scholars.
- Department is without library facility, however main library of the university caters the general need of the students. Lack of books, national and international journals in different disciplines of entomology.

- The department lacks common room and non availability of state of the art computer lab for junior faculty and graduate students. Insufficient multimedia facility for class rooms.
- Laboratories with inadequate and un-trained supporting staff i.e. laboratory technicians/assistants, and instrument engineers.

.3 Major Opportunities for Academic Programs

- The department has recently implemented HEC funded Rs.33 million project for the strengthening of its infrastructure. It may develop another replacement project to upgrade the facilities not covered under the HEC project.
- An informal alumni association of the Entomology graduates is in place. The alumni participate in the curricular and extra-curricular activities of the department. The association may assist the department in the up gradation of its physical, human and financial resources.
- Strong linkages exist with various countrywide pesticides and fertilizer companies. These companies may provide financial support for organizing seminars/workshops and conferences.
- In view of the qualification and strength of faculty, it may initiate short training courses for various target groups such as researchers and extension workers.

.4 Major Challenges for Academic Programs

- Consequent upon the retirement of current chairman and termination of project lecturers, the department may face acute shortage of teaching faculty. Therefore, there is a need to induct more teaching staff to meet the future needs.
- The department needs to establish an insect rearing lab besides the expansion of existing one. At least two small green houses are also required.
- The department faces the challenge of establishing state of the art computer lab for post-graduate students and young faculty.

- Serious efforts are required to enhance the operational budget of degree programs to meet repair and maintenance expenditure of lab equipment and apparatus.

3.5 Stakeholders View Point

Parents Viewpoint

Mostly parents visit the department to seek information for their son/daughter regarding their education/job opportunities and for further higher education. Some parents are satisfied with education and job opportunities.

Students

Students realize that the computer knowledge of under-graduate and post-graduates students was inadequate; the communication and presentation skills were weak. They also need more training to use modern laboratory equipment. Internship and practical training should be a regular feature for all students with a view to develop a strong and effective academic program

Employers Feedback

Employers' survey indicated that Entomologists produced by the department were mostly employed and their employers are satisfied with their technical and communication skills. However, they need more training to use modern laboratory equipment.

Alumni Survey

Survey showed that old students possess sound knowledge, very good communication skill and some of them good management and leadership qualities. Alumni association at the department level is also functional and need to be organized and further strengthened.

Section -4 Salient Findings and Recommendations

4.1 Salient Findings

- The department has the required qualified faculty although only a few have higher qualification from abroad. The main strength of the department is its ability to undertake research in the fields of insect biosystematics, stored grain insect pests, biological control, insect toxicology and apiculture. At present, the department has laboratories/ equipment to cater the need of present level of enrolment of postgraduate and Ph.D levels.
- Substantial amount of useful research was carried through research projects and by the post-graduate students in the department. The findings of these research studies/projects were printed in the form of research papers, leaflets and brochures in Urdu as well in English for the use of researchers' extension specialists and farmers of the Barani areas.
- Large number of students showed interest in entomology as their major subject which is an indicator of preference this discipline. With the implementation of funded HEC project department should be able to enroll double the number of under-graduate and post-graduate students.

4.2 General Recommendations

There are certain areas in terms of Infrastructure, equipment and manpower which need improvement.

- The department needs additional working space; one laboratory & three class rooms for graduate and undergraduate classes and 5 faculty offices with internet facilities
- Shortcoming in computing infrastructure: at present only one computer is available for 11 students. Keeping in view the large number of post-graduate students, more computers with printers and internet facilities are required..
- Presently, department has very useful and valuable equipment like incubator, stereoscopes, camera fixed stereoscopes, slide microscopes, digital camera for capturing insect images, digital balance, insect rearing cages, desicators, HPLC and GLC which needs to be maintained and utilized to the fullest extent for which allocation of funds should be available on recurrent basis.
- For Post-graduate level research/ experiment, at least a medium size glasshouse (30x20 ft) and a plastic tunnel (40x25 ft) is needed.
- An insect rearing facility is required for bio-ecological and toxicological studies.
- The faculty would need some training in techniques such as molecular techniques.

- The capacity of young faculty members may be enhanced through short-term and long-term (doctoral and post-doctoral) training abroad.
- A capacity building project may follow the project “Strengthening of Department of Entomology” which will culminate on 30th June, 2009.
- The department library should be enriched with induction of books, local & international journals, literature and computers on continuous basis.
- Considering future needs of the faculty with regard to gradual increase in enrollment at graduate and post-graduate level, it becomes imperative to induct more faculty members in the department on permanent basis. In the prevailing setup, it would be an enormous opportunity to utilize both the distinctive and professional knowledge/skills of the faculty members and staff already working on project positions in the department may be regularized to enhance the faculty.
- Safety arrangements and security plans are not in place. The department is located on the 2nd floor. Emergency exits may be arranged. The laboratories should also be well equipped in first aid kits/facilities.
- Three multimedia are strongly recommended for each classroom.
- Two Photostat machines are required; one for departmental library and one for office and post-graduate students.
- To broaden the view of the students and teachers, more linkages should be developed with school and institutions of higher learning both at national and international level.
- Participation of faculty members in conferences, seminars and workshops may be encouraged to improve exposure and interaction with peer groups worldwide.

4.3 Final Recommendation

The main strengths of the academic Programs of the entomology discipline are insect biosystematics, stored grain insect pests, biological control, insect toxicology and apiculture. At present, the department has laboratories/equipment to cater the need of present level of enrolment of postgraduate and PhD levels of the above mentioned entomological disciplines.

On the basis of the inspection/evaluation, the team unanimously recommends Accreditation of the Degree Programs of Department of Entomology, Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi (PMAS AAUR) in the “X” category of National Agriculture Education Accreditation Council/HEC with scope for up-gradation to category “W” after appropriate improvements in due course of time.

4.4 Comments and Signatures of Chairman

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

Chairman

4.5 Signatures of AIC Members

Name and Designation

Signatures

Prof. Dr. Muhammad Naeem
Dean, Faculty of Plant Protection,
NWFP Agricultural University, Peshawar.

(Convener)

Dr. Muhammad Faheem Malik
Associate Professor & Former Dean,
Faculty of Crop & Plant science
Lasbela University of Agriculture, Water
& Marine Sciences, Uthal, Balochistan.

(Member)

Dr. Muhammad Athar Rafi
Incharge Insect Museum, NARC,
Islamabad.

(Member)

Dated: 14th April, 2009