



DEPARTMENT OF HORTICULTURE
SINDH AGRICULTURE UNIVERSITY, TANDOJAM

Mr. Naseer Alam Khan
Secretary
NAEAC Secretariat
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Subject: **Accreditation Inspection Committee's (AIC) Report
(Department of Horticulture, Faculty of Crop Production SAU Tandojam)**

Dear Sir:

In response to the letter number Dy.862 /NAEAC / HEC 2013 Islamabad March, 08-2013 visited and conducted the accreditation of department of Horticulture Faculty of Crop Production SAU, Tandojam. Through review meetings, interviews individuals meetings, groups consultation and visited of the location as per schedule specified in the letter of TOR in March-19, 20-2013. The report of accreditation and evaluation of the department and degree offered are prepared and final draft of the report is submitted herewith for your information and further necessary action.

Kindly acknowledge the report.

With regards,

Prof. (Rtd) Dr Abdul Fatah Baloch
C/o House No. 128-D/2,
Raja Ram Street,
Ghareebabad, Sukkur

Muhammad Khan Baloch
Post Harvest, Horticulturist,
SHRI, Mirpur Khas

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EXECUTIVE SUMMARY

The Department of Horticulture, Faculty of Crop Production, Sindh Agriculture University Tandojam was visited and relevant information and facilities were reviewed by the NAEAC committee constituted vide order No: Dy. No.862 / NAEAC / HEC-2013 Islamabad March 08-2013 held on 19,20 March 2013.

The committee was briefed by the Chairman of the department regarding history, main features degree program offered Lab facilities, availability of equipment and books, faculty strength and profile of the department The committee after evolution came on the following conclusion and findings.

The department has well qualified and experienced faculty with strong leadership for achieving the academic and research activities. Horticulture being a very important discipline of Agriculture attracting the interest of students as having more opportunities for carriers in various organizations.

Being a most important dicipline. The department must be facilitated in Providing Laboratories space fully equipped with Multimedia, LCD etc, class rooms, faculty offices, Seminar room, green house through support of granting funds by HEC.

Vacant ports of faculty and supporting staff be filled on priority basis to facilitated academic program.Sufficient funds be allocated for purchaser of equipments, glassware, books, chemicals and provision may be made for awarding sufficient Scholarships and financial aids for students to facilitated them for their higher studies i-e Master and PhD.

Introduction

1. Department of Horticulture, Faculty of Crop Production SAU, Tandojam

1.1 History and Main Features

The department of Horticulture was established in Agriculture College during the year 1939 at Sakrand. The Agriculture College was shifted from Sakrand to Tando Jam during the year 1954 to 1956. The department of Horticulture was offering the Bachelor Program offer B.Sc in Agriculture. On revision of curriculum program B.Sc (Hons) degree program in Horticulture the year 1954. Later the department offered M.Sc (Hons) degree program, in Horticulture during the year 1958.

This was the 1st department who has produced only trained manpower but has helped a lot in popularizing and establishing fruit gardens and familiarizing most popular varieties of Mango, Banana, Chiku, Date palm and other fruits. Through the efforts of this department the technical knowhow and training program the grower and nursery men were trained for nursery production and orchard establishment program.

Number of graduate and postgraduate (Last Three Years)

B.Sc (Graduate)	90 no.
M.Sc (Postgraduate)	65 no.

Degree Program of Department

- B.Sc (Agri.) Hon's in Horticulture
- M.Sc (Agri.) Hon's in Horticulture
- Ph.D in Horticulture

2. **Criterion Analysis**

Criteria I. Strength and Quality of Faculty:

The staff member of Horticulture department (FCPD) SAU Tandojam are highly qualified trained and acquainted with modern technological knowhow and well skilled to train and teach the students in the field of Horticulture for their Jobs to face the problem and emerging challenges in Horticulture. Currently, the position of staff members is as below.

<u>Position</u>	<u>Number</u>	<u>Higher Qualification</u>
Professor	02	Vacant
Associate Professor	02	One (PhD)
Assistant Professor	04	One (PhD)
Lecturer (program)	02	Two (abroad on PhD)

- One of faculty member as Assistant professor has completed diploma program in the field of vegetable production from the Netherland.
- Two faculty members have also completed 03 months training program in vegetable production from Egypt.
- Two faculty members have completed 20 days training program in the field of tropical fruits from China.
- Two lecturers has been doing PhD for last 2 years, (one is in Bangladesh and 2nd one is in China)

Criteria- II Curriculum Design and Development:

Horticulture department Faculty of Crop Production SAU Tando Jam is offering introductory courses to the students of B.Sc Agri P-1 and P-11 in three faculties (i-e CPD ,CPT and FASS) and institute (IFST). The department is offering B.Sc Hons, M.Sc Hons and PhD degree program in the field of Horticulture. Realizing the need of globally emerging techniques the curriculum is revised periodically to incorporate modern aspect of Horticulture. The revision of curriculum is also done as per HEC policy.

The revision of curriculum is continued by the concerned department to add most recent development for higher studies. As per recommendation of text books in curriculum are available but however there is need to procure the latest edition Books for main library. As the department has no separate budget for purchase of books and journals, therefore emphasis is given to allocate the separate budget for department.

Students are aware and well known about course program admission policy, enrolment and withdrawal. Courses file verified by the AIC are well maintained. Proper BOS of the department meeting held regular and record has been verified. QEC team of the University has evaluated teachers, course satisfaction and teacher evaluation by the students.

Criteria- III Infrastructure and Learning Resources:

The department has only 03 laboratories and no lecture room. The size of the Lab is not enough to accommodate the increasing number of students every year. The laboratories are also short of required equipment for conduct of practical and research, whatever the equipment are available are insufficient and some of them are out of order. There is a need for procurement of Hi-Tech equipments and some equipment related for post harvest technology aspects are given priority. Separate budget OR research grants are required items be made available. The department has its orchard and experimental area on 40 acres. The orchard has been developed on three sections: (i) landscaping and ornamental area (ii) collection and maintain of germplasm of mango, date

palm , chiku, guava, jujube, citrus, banana, papaya other miscellaneous fruits, (iii) vegetable and their seed production.

Five number of research journals, some of them are international repute has been subscribed by the department. Occasionally some international journal such as American Journal of Horticulture Society are also received by membership program.

Criteria-1V Students Support and Progression:

The department offers general course in B.Sc P-I to the newly admitted students which are admitted on merit and as per admission policy of the university. The department admission to the students majoring in Horticulture is given on their choice basis and test is conducted for their eligibility. The total yield index of the department is 96% and drop out rate is 4%. Average pass percent of B.Sc Hons is 68%, M.Sc Hons 70% and Ph.D 67%. Scholarships are given to the students in merit and need basis through the funds provided by USAID, JAICA, Distt: Government, MORA, Zakat council etc. The students are granted loan without interest by all commercial Bank including NBP. The university has made 11 Hostels accommodating, for 300 girls and 4500 boys. To award degrees, the university organized convocation almost every year. There is good atmosphere for co-curricular activities with adequate sport facilities. The students show their presence in attending classes to achieve 75% to 80% to make them eligible for appearing in examination. Record of student attendance has been verified by AIC. The University has been established very good medical facilities for students which are available round the clock. Two Ambulance for students have also been made available to facilitate the emergency services. A quite good system of transport fleet of 10 Buses is running to bring and drop the students from campus to Hyderabad, Mirpurkhas, Matyari and Tando Allahyar. There is need to establish computing facilities for student for their academic and research work.

Criteria V Research Consultancy Activities:

The department has completed one research project founded by HEC Islamabad. Three projects has been submitted and are in pipeline for approval. The department has published 15 publications in national and international Journals. The quality of research is relevant to the farmers' problems. The department is extending its advisory services and consultancies to farming communities and other stake holders. The department has developed nurseries from where certified plant of true to type can be obtained. The department has also organized training on de-sapping of mango fruit which is one of the best practices.

Criteria VI Governance and Leadership:

The University has a well defined organizational setup administration and governance. Chairman is performing its administrative powers to provide facilities and support to the faculty, student and organized smooth functioning of academic activities. The Chairman is also given powers to provide necessary material by utilizing funds available in the budget.

The maintenance of student record is well kept. The efforts have been made by the department to upkeep student alumni record. Graduates produced by the department are discharging their services at public and private sectors both nationally and internationally. Activities annual calendar is well developed at the department.

Criteria – VII Recent Innovation and Best Practices:

The research carried out by faculty and students is farmers oriented problem and helps in overcome these issues. The research publication has been published by Journals of good impact factor. The department has succeeded to aware framers for adopting improved practices in post harvest handling of fruits and vegetables.

SWOT ANALYSIS OF THE DEPT DEGREE PROGRAMS

STRENGTH

- Faculty is well qualified and well versed with knowledge and experience with strong leadership.
- Strong linkages with stake holder's i-e farmers, exporters, industries, NGO'S and public organization for new programs.
- Participation in conferences and workshops at national and international levels.

WEAKNESS

- Insufficient labs and lab equipment/class rooms space for academic activities and faculty offices.
- Lack of trained supporting staff for the Laboratories.
- Unavailability of current international journals and latest editions of text books periodicals for students and faculty and inadequate internet facilities.
- Budget constraints affecting research activities.

OPPORTUNITIES

- Horticulture being an important component attracting the interest of students.
- More opportunities for in land and aboard trainings, scholarships financial aids from HEC and other international organization.
- Filing of vacant posts of faculty.

THREATS

- Lack of modern equipment /machinery for value addition of Hort produce.
- Financial constraints for Chemicals and Glassware.
- Difficulties in release of Department Budget.

3. RECOMMENDATION

ACTIONABLE POINT EMERGED FROM DISSCUSION

- Acute shortage of space for Laboratories and faculty offices needs to be solved by granting special funds by HEC to over come the issue.
- Vacant posts of the faculty be filled on priority basis for effective academic activity.
- Supporting staff i-e lab assistant and technician be appointed.
- Seminar room, library and facility for computer with internet facility be established in Department.
- Sufficient budget for chemical, Glassware, books and other facilities be provided.
- Green house with mist propagation facilities be developed in the orchard for research purpose.

- Scholarships and financial aid, facilities be increased for students.
- Research grant for Ph.D students be provided.
- Realizing the current scope of Horticulture in various aspects there is a need to up grade the department to the level of institute along with modern technological equipments which will help in boosting the economy of the province and country as a whole through value addition and maximizing the export of the produce.
- To motivate the faculty and students for participating in conferences, seminars and workshops is needed to get them familiar with other scientist and share their technical know how but unavailability of funds which major constraints restricting their participation which is to be resolved.


4. FINAL RECOMMENDATION

On the basis of the inspection / evaluation, the team recommends accreditation / rating of the degree programs of Department of Horticulture, Sindh Agriculture University, Tandojam, Pakistan in the Middle band (72%) of “X” category of National Agriculture Education Accreditation Council/ HEC.

INTRODUCTION

(Annex-I)

The Composition of the Accreditation Inspection Committee (AIC) and the TOR were given in the following letter from NAEAC, Islamabad.

	<p>National Agriculture Education Accreditation Council NAEAC Secretariat, Room# N-2, N-Block, Old Comsats building, HEC, H-8/1, Islamabad Ph# 051-90802681, Fax#051- 90802682 website: www.naeac.org Email: infonaeac@yahoo.com</p>
	<p>Dy .No.862/NAEAC/HEC-2013 Islamabad: March 08, 2013</p>

Subject: **Accreditation Inspection Committee (AIC) for Accreditation of Degree Programs**

Chairman Department of Horticulture, Sindh Agriculture University Tando jam has offered degree programs of his department of external assessment and accreditation. Chairman National Agriculture Education Accreditation Council (NAEAC) has constituted an Accreditation Inspection Committee (AIC) of the following Experts/program Evaluators.

- Dr Abdul Fatah Baloch, Professor (Rtd) Convener
 Department of Horticulture Sindh Agriculture University, Tando jam

ii. Mr.Muhammad Khan Baloch
Post Harvest, Horticulturist, SHRI, Mirpur Khas

Member

2. The Accreditation Inspection Committee shall have the following TORs:
To validate the self-assessment report (SAR) of the program (B.Sc and M.Sc (Hons)) prepared by the department/discipline.
To carryout external evolution of the degree program in a transparent, neutral, holistic and participatory manner for accreditation and rating of degree programs **based on evolution criteria of NAEAC**.
To submit synthesized and concise analytical report (7-8 pages) consisting of short introduction, brief criterion-wise analysis **self-explanatory SWOT Analysis and explicit actionable recommendation** based on the validation of SAR and interaction with the Chairman, Faculty Members, Students and Support Staff and alumni as well as detail on-site visit of physical infrastructure, facilities and other teaching-learning resources available for the offering of degree programs.
To submit clear, precise and justified actionable accreditation and rating recommendations about the degree program to the Chairman NAEAC.
3. The AIC shall carryout the accreditation process from March 19-20,2013. The draft report may be submitted to Secretary NAEAC with in a period of wo weeks of the on-site visit. The Expert/Program Evaluators shall be offered an honorarium of Rs.5,000/- per day during the on-site accreditation visit of the degree programs besides TA/DA as per HEC rules.

With best regards,

Your Sincerely,
Naseer Alam Khan
Secretary NAEAC

Distribution:

- i Dr Abdul Fatah Baloch, Professor (Rtd) Department of Horticulture SAU, Tando jam
ii Mr.Muhammad Khan Baloch , Post Harvest ,Horticulturist, SHRI, Mirpur Khas
Cc: Prof. Dr. Muhammad Ayub Baloch, Chairman, Deptt. Of Horticulture, SAU,Tando jam.

List of Faculty and supporting Staff

(Annex-II)

<u>S.No</u>	<u>Name</u>	<u>Designation</u>	<u>Date of 1st Appointment</u>	<u>Qualification</u>	<u>Experience</u>	<u>Field of Specialization</u>	<u>No of Pub:</u>
01	Mr.Muhammad Ayub Baloch	Chairman/ Associate Professor	1983	M.Sc(Hort)	29	Horticulture	24
02	Dr.Saba Ambreen Memon	Associate Professor	1996	Ph.D (Hort)	16	Horticulture	5 N 07 INT
03	Mr. Majeeduddin Solangi	Assistant Professor	1989	M.Sc(Hort)	23	Horticulture	00
04	Mr. Qadir Bux Baloch	Assistant Professor	1989	M.Sc(Hort)	23	Horticulture	12 N 4 INT

05	Mr. Mujahid Hussain Leghari	Assistant Professor	1996	M.Sc(Hort)	16	Horticulture	26
06	Dr.Noor-un-Nisa Memon	Assistant Professor	1996	Ph.D(Hort)	16	Horticulture	14
07	Ms.Tanvir Fatima	Lecturer	2003	M.Sc(Hort)	09	Horticulture	09
08	Mr.Niaz Ahmed Wahoocho	Lecturer	2008	M.Sc(Hort)	04	Horticulture	07

Supporting Staff

<u>S.NO.</u>	<u>NAME</u>	<u>DESIGNATION</u>
1.	Mr. Gul Muhammad Khaskheli	Field Assistant
2.	Mr. Abdul Rauf Shaikh	Lab: Assistant
3.	Mr. Sarfaraz Khan Pathan	Junior Clerk
4.	Mr. Ali Murad Khaskheli	Jamadar
5.	Mr. Samiullah Shaikh	Jamadar
6.	Mr. Ghulam Hussain Unner	Jamadar
7.	Mr. Altaf Ahmed Rajput	Lab. Attendant
8.	Mr.Zulfaqar Ali Panhwar	Lab. Attendant
9.	Mr. Badurddin	Lab. Attendant
10.	Mr. M. Aslam Nizamani	Malhi
11.	Mr. M. Ibrahim Detho	Malhi
12.	Mr. Nisar Ahmed Shaikh	Malhi
13.	Mr. Hussain Bux Mirjatt	Malhi
14.	Mr. Parvez Akhtar Kumbhar	Malhi
15.	Mr. Toto Mirjatt	Beldar
16.	Mr. Ghulam Qadir Samo	Beldar
17.	Mr. Qurban Ali Khaskheli	Labour
18.	Mr. Habibullah Khaskheli	Labour
19.	Mr. Khadim Hussain Khaskheli	Labour
20.	Mr. Hauran Marjatt	Labour
21.	Mr. Lakha Dino Vadoo	Labour
22.	Mr.Ramesh Kumar	Labour
23.	Mr.Ali Akbar Khaskheli	Labour
24.	Mr.Allah Bachayo Khaskheli	Labour

(Annex-III)

Inventory of apparatus/equipment and number of recommended text books
Available laboratory equipments and results

- ❖ Refractrometer
- ❖ Spectrometer
- ❖ Analytical weighing balances
- ❖ Oven for drying
- ❖ Glassware
- ❖ Muffle furnace
- ❖ Desicator
- ❖ Microscope
- ❖ Electronic Microscope
- ❖ Refrigeration
- ❖ Deep freezer
- ❖ Slide Projector
- ❖ Over head Projector
- ❖ Cane sealer
- ❖ Shaking Machine
- ❖ Top loading Balance

Purchasing process

- ❖ pH meter
- ❖ EC meter
- ❖ Vortex mixer

- ❖ Hot plate with magnetic stirrer
- ❖ Distillation unit

BOOKS RECOMMENDED:

1. Hartmann, H.T., D.E. Kester, F.T. Davies and R.L. Geneve (1997). Plant Propagation-Principles and Practices. Prentice-Hall Inc., New Jersey.
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24. Fordhan .A. and A.G Biggs, 1985. Principles of vegetable crop production. Lollins and Grafton street, London.

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26. Edmond J.A and G.R Ammerman. 1971. Sweet Potato.
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29. Bose, T.K. and S. K. Mitra 1990. Fruits; Tropical and Subtropical. Naya Prokash, Calcutta-Six.
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McDonald, M.B. and L.O. Copeland 1998. Seed Production – Principles and Practices. CBS Publishers & Distributors, New Delhi.
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Last three years completed and on going research project

(Annex-IV)

1. Strengthening of Horticulture research laboratory (completed)