



AIC Report

Dr. Muhammad Jafar Jaskani

March 18, 2015

Department of Horticulture
BZU Bahadar Campus, Layyah

Acknowledgment

The undersigned appreciate the support and cooperation of the Principal, Project Director, Faculty and Staff of BZU Bahadur Campus, Layyah. The active help, guidance and logistic support of Mr. Naseer Alam Khan (Secretary) and other staff of NAEAC Secretariat is highly acknowledged.

Executive summary

Bahadur Sub Campus Layyah of Bahauddin Zakaria University Multan has recognition in the community. In Horticulture, presently, three Ph.D. Assistant Professors {TTS (2); interim placement (1)} are working at this campus. They are teaching various introductory and major courses at undergraduate level. The entire faculty is recruited recently and are at first year of their employment; however, one research project funded by HEC, Pakistan is on their credit. Faculty own independent offices but for student's one classroom and a shared laboratory are available in Horticulture major. Moreover, students and staff are facilitated with internet and a computer laboratory with enough number of computers. More than 100 books (hard copy and e-books) covering different aspects of horticulture are available in the campus library. There are 10 students in Horticulture as major subject and hence teacher student ratio is 1:3.3; however, the faculty also teaches introductory horticulture courses in each semester. The students are satisfied and hopeful for improvement in the academic and extra-curricular programs after shifting in new campus building. Field trips/tours are generally arranged for the classes. Experimental field area exists for faculty research and students training. Transport facility for faculty and students is offered for experimental farms.

The Horticulture major program at the Bahadur Campus, Layyah is in its first year and has several weaknesses. No senior faculty, Professor or Associate Professor, is recruited in Horticulture. Board of Studies for Horticulture program is not constituted. There is no departmental library and independent laboratory, and only one lecture room in this discipline. Similarly lab technicians and field assistants are not deployed. Experimental research area is underdeveloped and under staffed. There is need to establish orchards and nurseries to work as field labs and community services.

Keeping in view the teaching facility and the available faculty it is recommended that Horticulture major may be continued conditionally at the Bahadur Campus but the weaknesses highlighted here may be addressed accordingly within a stipulated time frame.

Introduction

The Accreditation Inspection Committee (AIC) visited Bahadur Campus of BZU, Multan at Layyah on March 18, 2015 with the objective to examine the facilities for ongoing B.Sc. (Hons.) Agriculture in Horticulture at Bahadur Campus, Layyah.

Criterion Wise Analysis

Strength and Quality of Faculty

There are four faculty members in Horticulture and out of which three are Ph.D., two on TTS and one on HEC interim placement program, and are Assistant Professors. One is the visiting faculty. The faculty is quite young and recruited during last 6 months. One of the faculty members in horticulture has HEC funded project. The faculty also has good number of research papers on their credit. However, there is no senior faculty as mentor. The first session of 10 students in Horticulture major is in 6th semester. The faculty is capable of to continue major in Horticulture but senior faculty is direly needed. The student-teacher ratio is good. The faculty follows laid out teaching and learning methods, and observe professional code of ethics. But the participation of the faculty members in professional seminars/ conferences/ workshops inland is nominal.

Infrastructure and Learning Resources

There is one class room of 50 student's capacity solely for Horticulture but two other rooms are commonly shared by all disciplines. This facility is sufficient at the moment but with the next session as horticulture major, more space will be needed. However, new campus at Hafizabad is under construction to meet the future needs. One laboratory, which is shared with Entomology is available and is meager for Horticulture major. However, the laboratory has some basic practical facility and apparatus/equipments. There are about 121 books (hard and e-books) in the library, out of which more than 100 books are related to Horticulture. Some of the books serve the basic knowledge in agriculture, statistics, seed biology etc. Six local journals including indexed, in the form of hard copy, are subscribed. Library environment is quite suitable.

There is proper sitting facility for current faculty but insufficient when senior faculty will in place; however, shifting in new block can fetch the needs. Computers and internet facilities are available for faculty, and need to be further expanded to bring in reach of students.

The Campus has ample facility of experimental research area, just started to develop and is facilitated with canal irrigation water, field machinery and basic implements. Few trials on peas, grapes and olive germplasm evaluation are under progress. The area is located away from the current campus building; however, it is on walking distance from the new building of the campus, which is expected to handover to campus authorities soon.

SWOT Analysis

1. Strengths

- The faculty (3 Assist. Prof.) in Horticulture are PhD having exposure and experience of training abroad.
- Enthusiastic faculty who is ambitious for growth in their careers.
- More than 100 books related to horticulture in main library.
- Access to online journals through HEC digital library. Also subscription of six local journals, mostly indexed.
- One funded research project with recently hired TTS faculty.

2. Weaknesses

- Absence of senior faculty in Horticulture discipline.
- Underdeveloped experimental orchards.
- Less number of basic field tools and implements.
- No separate and well-equipped lab for horticulture.
- Less number of lecture rooms.
- No departmental library.
- No lab. technicians and field assistants.
- No independent Board of Studies.

3. Opportunities

- Ambitious and enthusiastic faculty
- Availability of land for new campus
- Construction of new building blocks
- Agricultural background of the area
- Interest of stakeholders

4. Threats

- Delay in construction of main building
- Delay in recruitment of senior faculty
- Unavailability of equipped labs.
- Non establishment of orchards and nurseries

Actionable Recommendations

- Some faculty may also be appointed on regular basis for the sustainability of the program.
- Senior faculty, Professors and Associate Professors, may be recruited on full time basis.
- Horticulture may have an independent Board of Studies.
- The Experimental Field Area may be developed especially establishment of orchards and nursery. This will not only help to train students in production, propagation and multiplication of plants but also be a source of community services through supply of nursery plants to growers/farmers.
- Establish independent well-equipped and functional horticulture labs for Pomology, Olericulture and Floriculture.
- Lab. Technicians/Field Assistants/supporting staff may be recruited for facilitation of faculty and training of students.
- Accreditation of Horticulture program may be placed under probation; subject to meet the criteria set by NAEAC thereof.

Final Recommendation

Horticulture is an important major subject and may be conditionally allowed to continue; subject to recruitment of senior faculty, establishment of equipped research/teaching labs, orchards and nursery. However, the accreditation of the B.Sc. (Hons.) Horticulture Program may be placed on probation for one year and re-evaluated by NAEAC.

Dr. Muhammad Jafar Jaskani
Professor
Institute of Horticultural Sciences
University of Agriculture, Faisalabad.

Name, Qualification and experience of faculty and support staff in Horticulture

Faculty:

Sr. No.	Name	Qualification	Teaching Experience	Field of Specialization
1	Dr. Umbreen Shahzad	Ph.D	2 Year	Pomology
2	Dr. Tahira Abbas	Ph.D	2 Year	Olericulture
3	Dr. Muhammad Saleem	Ph.D	2 Months	Floriculture
4	Miss Pakeeza Batool	M.Sc(Hons)	2 Months	Plant Tissue Culture

Technical staff:

No staff

Supporting staff:

8 Beldar

Annexure-II

LIST OF BOOKS PERTAINING TO THE SUBJECT OF HORTICULTURE

S.No.	Author Name	Book Title
1	C.R. Adams	Principles of Horticulture
2	S.P. Simson	Basics of Horticulture
3	D.K. Sharma	Horticultural, medicinal and Aromatic plants
4	G.F. Wilson	Horticultural Pests Detection and Control
5	S.P. Simson	Management of Horticultural Crops
6	Parasad Kumar	Floriculture
7	Sohn Mason	Nursery Management
8	S.P. Singh	Fruit and Vegetable Biotechnology
9	A.T. George	Vegetable Seed Production
10	H.F. Linskens	Vegetables and Vegetables Products
11	George Acquaah	Horticulture principles and Practices
12	H.E. Reiley	Introductory Horticulture
13	B.R. Choudhry	Production Technology of Vegetables
14	S. Sen	Quality Seed Production of Vegetable Crops
15	R. Arun Kumar	Objectives of Vegetable Sciences
16	Subir Sen	Seed Technology and Sciences
17	M.K. Reddy	Horticulture Farming
18	Shagufta	Horticulture
19	S. C. Oey	Vegetable Growing
20	U.S. Singh	Seed Technology and Pathology
21	A.K.Khan	The Gardner
22	P. Geethrani	Seed Technology of Horticultural Crops
23	S.C. Dey	Indoor Gardening
24	R.C. Upadhaya	Post Harvest Technology of Horticultural Crops
25	Hartman	Plant Propagation–Principles and Practices (7 th Ed.)
26	H.E. Reily	Introductory Horticulture (6 th Ed.)
27	Reddy	Horticulture
28	R.R. Sharma	Propagation of Horticultural Crops: Principles and
29	G. Acquaah	Horticulture: Principles and Practices (4 th Ed.).
30	T.K. Chottopadhyay	A Textbook on Pomology, Vol. II: Tropical Fruits
31	B.M. Dugger	Plant physiology with Special Reference to Plant
32	N.P. Singh	Basic Concepts of Fruit Science
33	V.R. Gardener	The Fundamentals of Fruit Production (5 th Ed.)
34	R. Fordham	Principles of Vegetable Crop Production
35	P. Hazra	Vegetable Science
36	D. N. Maynard	Knott's Handbook of Vegetable Growers. 5 th edition
37	J.S. Arora	Introductory Ornamental Horticulture (4 th Ed.).
38	A.Laurie	Floriculture: Fundamentals and Practices
39	S.K. Bhattacharjee	Advances in ornamental Horticulture
40	R.R. Sharma	Propagation of Horticultural Crops: Principles and
41	R.R. Sharma	Plant Propagation and Nursery management

LIST OF EQUIPMENTS AVAILABLE IN THE HORTICULTURE LAB

S.No.	Name of Equipment/Tools/Facility
	Equipments
1.	Distillation Unit W016057- P21701
2.	Magnetic Stirrer/Hotplate 112MECO GmbH
3.	Digital Balance UX420H
4.	Gel Doc System GVMC20
5.	Steromicroscope IM-SZ-210
6.	UV Transilluminator BXT-15S
7.	Ultra Low Freezer -80 WUF-300- WiseCryo
8.	Bio Safety Cabinet- BMS 11231BBC86
9.	Microcentrifuge CF-10
10.	Horizontal Gel Electrophoresis ME10-7-10
11.	Power Supply Gel MINI-300
12.	Autoclave WAC-47
13.	Digital Orbital Shaker SHO-2D
14.	Oven Haier E32100 EGS
15.	Microscope (IRMCO) IM-SZ-210
	Glassware
16.	Pipette Set (4)
17.	Beakers/ Petri plates and other glassware
	Tools
18.	Budding Knives
19.	Pruning Knives/ Scissors
	Teaching aids
20.	Projector
21.	Digital Camera

FACULTY PUBLICATIONS, BOOKS, SEMINAR/CONFERENCES

Sr. No.	Name	Publications	HEC recognize Journal	Books	Conferences/Seminars	Trainings
1	Dr. Umbreen Shahzad	9	5.8	-	12	11
2	Dr. Tahira Abbas	13	7.48	-	4	10
3	Dr. Muhammad Saleem	10	5.62	-	12	-
4	Miss Pakeeza Batool	-	-	-	-	-

Terms of References of the Committee (TORs)

Members of AIC visited the Bahadur Campus, Layyah, on March 18, 2015. The objective was:

- To validate the requisite information for external assessment and accreditation of degree programs.
- To carryout external evaluation of the degree programs in a transparent, neutral, holistic and participatory manner for accreditation and rating of degree programs **based on evaluation criteria of NAEAC**.
- To submit synthesized and concise analytical report (3-4) pages only consisting of short introduction, brief criterion-wise analysis, **self-explanatory SWOT Analysis and explicit actionable recommendations** based on the validation 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 programs to the Chairman NAEAC.