

## OVERVIEW OF ACHIEVEMENTS OF FACULTIES/DEPARTMENTS/INSTITUTES/CENTERS/NEW CAMPUSES

This academic organization is aligned to impart education, conduct research and extension in various disciplines through different Faculties, Division and Departments. The Faculties are headed by Deans, the Division and Directorates by Directors and the Departments by one of the senior teachers of the Departments, called the Chairman.

The University is organized into six Faculties namely, (i) Faculty of Agriculture, (ii) Faculty of Agricultural Economics and Rural Sociology, (iii) Faculty of Agricultural Engineering and Technology, (iv) Faculty of Veterinary Sciences, (v) Faculty of Animal Husbandry, (vi) Faculty of Sciences, a Division of Education and Extension, four institutes including (i) National Institute of Food Sciences & Technology, (ii) Institute of Soil & Environmental Sciences, (iii) Institute of Horticultural Sciences, and (iv) Institute of Animal Nutrition & Feed Technology, Water Management Research Centre, College of Agriculture, Dera Ghazi Khan, two sub-campuses, one at Toba Tek Singh and the other at Depalpur which altogether comprise 55 Departments/Sections developed around various disciplines to provide the requisite infrastructure for the purpose of teaching and research in their respective areas of specializations. The University has developed flexible but comprehensive, purpose-oriented and updated curricula after critically assessing the qualitative as well as quantitative needs of

manpower training under the semester system, which was introduced in 1976 both at under- and post-graduate levels. It has ever since fairly well stabilized.

The opportunities during 2007-08 for availing research funds were comparatively better than the previous years. The Higher Education Commission, Islamabad, Pakistan Science Foundation, International Foundation for Science, Pakistan Agricultural Research Council (PARC) under Agricultural Linkages Program (ALP), MINFAL, Ministry of Health, Government of Pakistan, Punjab Agriculture Department, and Pakistan Academy of Sciences floated a number of programs for supporting research activities in universities and other R&D organizations. Along with HRD activities, the scientists of the university are engaged in their mandatory duties i.e. research activities and eminent scientists have won number of research projects on competitive basis from different funding agencies during the year 2005-2006 through Directorate of Research while a large number of projects have been submitted to different agencies for funding which are at the different stages of their processing. The consistent efforts of Directorate of Research enabled the scientists to get financial support for a number of research projects. At present, 122 projects are being implemented in all the faculties/institutes, the detail of which is as under:

### SUMMARY OF ON-GOING PROJECTS (2007-08)

Faculty/ Division/ Institute	PARC/ ALP/P&D Division	PSF	Promotion of Research	FDTPC Endowment Fund	National Cooperative Program (PARC)	FAO/ PFRI	Nat. / Int. Collaborative Projects	HEC	Pakistan Academy of Sciences	Govt. of the Punjab	Total
Agriculture	3	0	6	2	3	1	0	1 1	0	0	26
Vet. Science	6	5	2	3	0	0	0	5	0	0	21
Sciences	2	3	3	0	0	0	0	1 9	1	0	28
Agri. Engg. & Tech.	2	0	1	2	0	0	0	1	0	0	6
Agri. Econ. & R.S.	2	1	7	1	0	0	0	0	0	0	11
Animal Husbandry	1	0	0	2	0	0	0	0	0	0	3
Edu. & Ext.	0	0	3	0	0	0	0	1	0	0	4
Inst. of Soil & Environ. Sciences	0	0	1	3	0	0	0	3	0	0	7

Nat. Inst. of Food Sci. & Tech.	0	1	0	0	0	0	2	2	0	0	5
Inst. of Hort. Sci.	0	0	2	1	0	0	0	2	0	0	5
Inst. of Animal Nutr. & Feed Tech.	0	0	1	1	0	0	0	2	0	0	4
Directorate of Research	0	0	0	0	0	0	0	0	0	1	1
WMRC	0	0	0	1	0	0	0	0	0	0	1
Total Projects	16	10	26	16	3	1	2	46	1	1	122
<b>Total Amount (In million Rs.)</b>	<b>54.667</b>	<b>7.674</b>	<b>1.365</b>	<b>41.372</b>	<b>2.500</b>	<b>3.420</b>	<b>22.500</b>	<b>140.176</b>	<b>1.800</b>	<b>42.640</b>	<b>318.108</b>

## SUMMARY OF SUBMITTED PROJECTS (2007-08)

Amount in Million

Faculty/Division/ Institute	PARC/ALP	PSF	Endowment Fund	TWAS	WASA-FSD	HEC	CDA	IFS	PARB	MOST	COMSTECH/ ISESCO	G. O. Pb P&D	TOTAL
Agriculture	2	1	7	-	-	9	-	-	17	-	-	7	43
Vet. Science	1	-	3	-	-	5	-	-	-	-	-	3	12
Sciences	1	2	2	1	-	5	-	2	4	1	1	1	20
Agri. Engg. & Tech.	-	-	3	-	1	-	-	-	3	-	-	-	7
Agri. Econ. & R.S.	-	-	2	-	-	-	-	-	8	-	-	5	15
Animal Husbandry	-	-	5	-	-	2	1	-	1	-	-	2	11
Edu. & Ext.	-	-	-	-	-	2	-	-	-	-	-	-	2
Inst. of Soil & Environ. Sciences	1	-	4	-	-	2	-	-	3	-	-	2	12
Inst. of Food Sci. & Tech.	-	-	1	-	-	4	-	-	3	-	-	2	10
Inst. of Hort. Sci.	-	-	2	-	-	3	-	-	4	-	-	4	13
Inst. of Animal Nutr. & Feed Tech.	-	-	4	-	-	1	-	-	-	-	-	1	6
WMRC	-	-	1	-	-	-	-	1	-	-	-	-	2
Directorate of Research	-	-	-	-	-	1	-	-	-	-	-	-	1
UAF Sub-Campus Depalpur	-	-	-	-	-	-	-	-	1	-	-	-	1
<b>Total Projects</b>	<b>5</b>	<b>3</b>	<b>34</b>	<b>1</b>	<b>1</b>	<b>34</b>	<b>1</b>	<b>3</b>	<b>44</b>	<b>1</b>	<b>1</b>	<b>27</b>	<b>155</b>
<b>Total Amount</b>	<b>32.45</b>	<b>6.08</b>	<b>82.42</b>	<b>0.18</b>	<b>1.95</b>	<b>294.35</b>	<b>6.00</b>	<b>1.44</b>	<b>705.38</b>	<b>9.50</b>	<b>0.58</b>	<b>151.71</b>	<b>1292.04</b>

**NATIONAL COLLABORATIVE RESEARCH PROJECTS (2007-08)**

Name of Research Project	Duration	Collaborating Agency	Amount (million Rs.)	Date of Commencement
Collaborative research with Vita Pakistan Limited Dr. Faqir M. Anjum, Director, Inst. of Food Science & Tech., UAF	6 years	Vita Pakistan Ltd.	20.0	January 2005
Seasonal variation in chemical composition of pure fresh milk Dr. Nuzhat Huma (Dr. Tahir Zahoor), Nat. Inst. of Food Science & Technology	18 Months	Nestle Pvt. Ltd.	2.5	March 2008
Rehabilitating Lower Chenab Canal System Part-B Project (PK-P53) On Farm R&D Component Prof. Dr. Rai Niaz Ahmad, Director Water Management	60 Months	PIDA, Punjab Irrigation & Drainage Authority (JBIC)*	75.0	April 2008

\* Japan Bank for International Cooperation (JBIC)

**INTERNATIONAL COLLABORATIVE RESEARCH PROJECTS (2007-08)**

Name of Research Project	Duration	Collaborating Agency	Country	Amount (Million Rs.)	Date of Commencement
Establishment of Extrusion Center at Institute of Food Science & Technology, University of Agriculture, Faisalabad Dr. Faqir Muhammad Anjum, Institute of Food Science & Technology	Three Years	Pak-US Science and Technology Cooperative Program (USAID, MoST, HEC)	USA	22.792	January 2006
Biosaline Agro-forestry: Remediation of saline based lands through the production of biosaline biomass Dr. Javed Akhtar, Inst. Of Soil & Environ. Sciences	Three Years	European Union Donning Agency, PARC_ Coordinating Agency	European Union	2.46	February 2007

**SUMMARY OF FACULTY-WISE MANPOWER TRAINED DURING 2007-08**

Faculty/Division	Ph.D	M. Phil	M. Sc. (Hons.) / M.Sc./ MS (CS)/ MBA (Reg)/ MBA (Exec)/MBIT M. Com/MA	B.Sc. (Hons)/B.Sc. Home Econ/ B.Com. /BCS
Faculty of Agriculture	21	-	242	518
Faculty of Agri. Econ. & Rural Sociology	05	-	176	-
Faculty of Agri. Engg. & Technology	05	-	56	83
Faculty of Veterinary Science	06	-	63	08
Faculty of Animal Husbandry	03	-	21	04
Faculty of Sciences	14	77	646	-
Division of Education & Extension	02	-	34	-
Affiliated Colleges	-	-	-	747
<b>Total</b>	<b>56</b>	<b>77</b>	<b>1238</b>	<b>1360</b>

**FACULTY OF AGRICULTURE**

This Faculty, the largest of all academic units, is responsible for conducting research on all aspects of crop production. Teaching is undertaken at both under- and post-graduate levels by its various departments namely, Agronomy, Plant Breeding & Genetics, Plant Pathology, Agricultural Entomology, Forestry, Range Management & Wildlife and Crop Physiology. The faculty offers the undergraduate degrees of B.Sc. (Hons.) Agriculture and postgraduate degrees of M.Sc. (Hons.) and Ph.D in various disciplines of Agriculture.

A high quality exclusive computer and GIS Lab have been set up in the Faculty for the promotion of computer literacy among the students and staff. The students can learn remote sensing for the assessment of various crops, irrigation water situation as well as meteorological and environmental changes to better understand and plan crop production strategies. In order to implement a strong and successful Internship Program, a multipurpose well equipped Farmers' Syndicate Hall has been added to the Faculty.

**Techniques and methodologies standardized by the Faculty**

1. Rearing techniques of Biocontrol agents like *Chrysoperla carnea* and *Bracon* species.
2. Bed planting in wheat for enhancing water use efficiency in wheat.
3. Osmohardening; a new vigor enhancement tool for rice.
4. Modification of existing germination model.
5. Enhancement of direct seeded rice by seed priming.
6. Heat stress tolerance in cotton with foliar and with seed treatments.
7. Hormonal Priming: New seed invigoration technique under saline conditions.
8. Monitoring of Erwinias causing blackleg and soft rot of potato and screening of potato germplasm (HEC, Islamabad).
9. Screening of citrus cultivars against citrus canker and its management (ALP, PARC).
10. Strengthening of Nematology Lab (The Nematology lab has been upgraded and now had all the research facilities for students and staff willing to work).
11. Determination of incidence and species of root knot nematode (*Meloidogyne* spp.) associated with crops.
12. Survey of population densities of citrus nematodes and nematodes infesting Litchi orchards funded by Pakistan Science Foundation.
13. Wheat-Grow Model; for simulation of spring wheat.

14. PB-899, a high yielding water stress tolerant variety of cotton has been developed in the department of Plant Breeding and Genetics.

**Number of research papers published in national and international journals**

The faculty and the students have published 70 research papers in international and 112 in national journals during 2007-08.

**Manpower trained by the Faculty**

Ph.Ds	:	021
M.Sc.(Hons.)	:	242
B.Sc. (Hons.)	:	518

**FACULTY OF AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY**

After reorganization of the Faculty, the departments have been renamed as, Agricultural Economics, Development Economics, Marketing and Agribusiness, Environmental & Resource Economics and Rural Sociology. The Faculty has launched undergraduate degree of B.Sc. (Hons.) Agricultural and Resource Economics from the academic session 2004-2005. The Faculty offers courses in the subjects of Agricultural Economics and Rural Sociology at graduate and postgraduate levels. The Faculty offers supporting and minor courses for students enrolled in other faculties. M.Sc. and Ph.D degrees are offered by the Faculty in different disciplines. A Data Processing Centre also exists in the Faculty. A WTO cell has also been established in the Faculty under the supervision of the Dean. The Department of Agri. Economics, like other departments of the Faculty of Agriculture, has initiated Internship Program for B.Sc. (Hons.) students majoring in Agri. Economics.

**Number of research papers published in national and international journals**

The faculty and the students have published 42 papers in national journals during 2007-08.

**Manpower trained by the Faculty**

Ph. Ds	:	05
M.A./M.Sc./M.Sc.(Hons.)	:	176

**FACULTY OF AGRICULTURAL ENGINEERING AND TECHNOLOGY**

The Faculty includes departments of Structures and Environmental Engineering, Irrigation and Drainage, Farm Machinery & Power and Fibre Technology. The Faculty offers courses of studies, leading to the degrees of Bachelor of Science in Agricultural Engineering; M.Sc. in Fibre Technology, Agri. Engineering and Ph.D in Agri. Engineering. In B.Sc. Agricultural Engineering the same fundamental courses are taught as in other

engineering institutions with emphasis on agricultural problems, like water management, farm mechanization, food processing and environmental pollution etc. The Faculty offers supporting and minor courses (only in Food Technology) at undergraduate level for students enrolled in other Faculties.

#### **Techniques and methodologies standardized by the Faculty**

##### **Palletization Technique:**

As a part of the Ph.D research project, a Palletizer is developed by the Department. This constitutes a complete palletizing unit, which first of all grinds the sludge, dries it and finally converts the end product of compost into the pallets, thus converting it into an easily usable and easy to handle product. After the palletization, the product is packed and it is ready for marketing and sale.

##### **Number of research papers published in national and international journals**

The faculty and the students have published 8 research papers in international and 6 in national journals during 2007-08.

##### **Manpower trained by the faculty**

Ph. Ds	:	05
M.Sc. (Hons.)	:	56
B.Sc. (Hons.)	:	83

#### **FACULTY OF VETERINARY SCIENCE**

The Faculty includes the departments of Anatomy, Physiology and Pharmacology, Pathology, Parasitology, Microbiology, Clinical Medicine & Surgery and Animal Reproduction. More than 70% existing staff members of the Faculty are Ph.D degree holders. Candidates having a degree in biological sciences are considered for postgraduate admission in non-clinical subjects. In this Faculty, the students are enrolled for the degree of Doctor of Veterinary Medicine (D.V.M.), M.Sc., M. Phil and Ph.D degrees in various disciplines at postgraduate level. It also offers supporting courses for the students of other faculties.

#### **Techniques and methodologies standardized by the Faculty**

##### **Surf Field Mastitis Test (an internationally recognized technology)**

The most notable technology developed by the Department of Clinical Medicine and Surgery is the innovative Surf Field Mastitis Test (SFMT). This is a cheaper alternative to California Mastitis Test, which is used worldwide for the diagnosis of subclinical or hidden mastitis. The innovative test is an easy and inexpensive technique utilizing a household detergent viz.

Surf for farmer's level early detection of hidden (subclinical) mastitis.

##### **Discovery of successful treatment of glanders**

Glanders is a fatal bacterial disease of imposing antiquity, which affects horses, mules and donkeys. This disease is also communicable to man. The causative organism (*Burkholderia mallei*) of this disease is considered a potential biological weapon or bioterrorism agent. It has been used as a biological weapon in World War I & II and Russian-Afghan war. Heretofore, disease was considered incurable. It affects thousands of horses, mules and donkeys in countries like Pakistan, India, Iran, Iraq, UAE, China, Brazil, etc. These animals are often the only source of livelihood for millions of families in these countries. These families sometimes languish only because of fatal nature of glanders in their equines. The researchers at the Department of Clinical Medicine and Surgery have pioneered an applied research work demonstrating a successful chemotherapeutic cure of glanders.

##### **Number of research papers published in national and international journals**

The faculty and the students have published 71 research papers in international and 40 in national journals during 2007-08.

##### **Manpower trained by the Faculty**

Ph. Ds:	06
M.Sc. (Hons.):	63
DVM:	08

#### **FACULTY OF ANIMAL HUSBANDRY**

The Faculty consists of three departments and an Institute of Animal Nutrition and Feed Technology. The Departments including Animal Breeding and Genetics, Livestock Management, and, Poultry Science. Supporting courses for the students of D.V.M., B.Sc.(Hons.) Agriculture and B.Sc. (Home Economics) are also offered by the Faculty. This Faculty offers the major Animal Science to the B.Sc.(Hons.) Agriculture in 5<sup>th</sup> semester. This Faculty is also offering a degree of B.Sc.(Hons.) Poultry Science of four-year duration after the F.Sc. pre-medical at Sub-Campus, Toba Tek Singh. The training and research facilities concerning livestock, poultry and their products to various departments in the University and advisory services to livestock and poultry farmers are provided. Postgraduate courses leading to M.Sc. and Ph.D degrees are offered by all the departments and Institute of Animal Nutrition and Feed Technology. This Faculty operates many national and international projects in animal production sector and provides extension services

to different livestock industries at large and small scales to enhance output and reduce the poverty through improved animal production.

#### Number of research papers published in national and international journals

Seventeen (17) research papers of the faculty as well as of the students have been published in international journals while 19 papers were published in national journals during 2007-08.

#### Papers presented and/or published at national and international conferences

The faculty and the students have published 27 research papers in international and 23 in national journals during 2007-08.

#### Manpower trained by the Faculty

Ph. Ds	:	03
M.Sc. (Hons.)	:	21
B.Sc. (Hons.) A.H.	:	04

#### FACULTY OF SCIENCES

The Faculty includes the departments of Botany, Zoology and Fisheries, Chemistry and Biochemistry, Physics, Mathematics and Statistics, Business Management Sciences, Computer Science, Social Sciences & Humanities and Islamic Studies. The Faculty offers supporting undergraduate courses in physical, biological and social sciences and postgraduate degree programs in Botany, Zoology and Fisheries, Chemistry, Biochemistry, Physics, Statistics, Computer Science, Business Administration, Commerce, Business and Information Technology. The Faculty of Sciences is striving for the highest degree of academic excellence through recognition of first-rate post-graduate education, leading-edge research, and committed public service. Graduates of pure sciences from other institutions are eligible for admission to courses leading to M.Sc., M.Phil and Ph.D degree programs. Graduates having relevant Bachelor's degree may also seek admission to MBA, MBIT, MBA (Executive), M.Sc. (Computer Science), MS (Computer Science) and M.Com. degree programs.

#### Techniques and methodologies standardized by the Faculty

1. The methodologies and procedures for the enhanced production of the enzymes involved in sugar diagnostic kit have been standardized.
2. Gemmo modification of medicinal plants was made, anti-microbial activity of the gemmotherapeutically treated plants was observed. Moreover, the successful trials to prove gemmo neem and gemmo fennel as hepato protective agents were made.

3. Gas chromatographic methods/protocols have been standardized for the qualitative and quantitative analysis of fatty acid and essential oil profiles. NP-HPLC and RP-HPLC methods have also been developed for the analysis for tocopherol contents of vegetable oils. Optimized protocol has also been developed for the production and characterization of biodiesel. Experimental protocol has also been developed for enzyme assisted extraction of vegetable oil seeds.
4. Recycling of animals' wastes for efficient fish farming system.
5. Development of metal eco-toxicity indices in river and allied tributaries in Punjab regarding survival of fish fauna, predominantly the major carps, under heavy metal stressed conditions.
6. Growth parameters, in particular, the standardized feeding ratios for the growth performance of major carps.
7. Sustainable control methods for the inhibition of rodent pests in the crops using acute poisons and anticoagulants.
8. Some biological control methods have been evolved to control the bird predations in the agro-ecosystems.
9. Use of spiders as bio-control agents against insect pests in crops and orchards.
10. Role of soil biodiversity in agro-ecosystem.

#### Laurels (awards and allowances etc.) won

Research Productivity Allowance was won by the following faculty members during 2007

1. Prof. Dr. Muhammad Ashraf
2. Prof. Dr. Abdul Wahid
3. Dr. Amer Jamil
4. Dr. Nasir Amin
5. Dr. Farooq Anwar

#### Number of research papers published in national and international journals

The faculty and the students have published 56 research papers in international and 68 in national journals during 2007-08.

#### Manpower trained by the Faculty

Ph. Ds	:	14
M.Phil	:	77
M.Sc./MS/M. Com./MBIT/MBA/MBA (Exec)	:	646

#### DIVISION OF EDUCATION AND EXTENSION

The Division of Education and Extension consists of the departments of Agricultural Extension, Agricultural Education, Continuing Education and Rural Home Economics besides Agriculture Information Centre (AIC). In addition, there are two Laboratory High Schools (One each for boys and girls) and a Junior Laboratory School. The Division offers B.Sc.(Hons.) Home Economics four

years degree, supporting and minor courses (only in Agricultural Extension) for students enrolled in other faculties as well as postgraduate degrees in the discipline of Agri. Extension and M.Sc. Home Economics (Food and Nutrition). The Division organizes in-service training courses for personnel from the Agriculture Department, Education Department, Army (both at commissioned and non-commissioned levels), Banks, NGOs and other agencies responsible for agricultural and rural development. The Division also coordinates/manages short-term courses offered by different departments of the University. The division also publishes a quarterly magazine (Zarii Digest) and special issues on various agricultural aspects for the guidance and education of the farmers and general public.

Moreover, Department of Continuing Education is taking up the training of general masses in different areas including Agriculture, Animal Sciences and allied disciplines. Under this program, about 157 courses are at the approved list of the department, which are being offered as regular programs round the year. Some of the courses are offered during morning, while the most demand driven ones are offered as evening programs. The trained manpower through the short courses becomes potential enough to utilize the given resources and join the public, private and cottage industry as well. This program is directly inline with the objectives of the present Government to provide trained and skilled manpower to the existing and new industries being established as a result of investment friendly policies of the government. It is further worth mentioning that these "short courses programs" are helping the government in poverty alleviation and raising the skill level of the country. It is also in consonance with the vision and planning of the university to provide globally competitive trained manpower to the employers at public/private level and to provide equal opportunity and access to the male and female individuals of our society.

During the last five years, more than six thousand people have been trained through these short courses programs in the areas of Agriculture, Animal Sciences, General Sciences, Computer and Language. During 2007-08 different short-term training courses were offered and 1028 people were trained through this program. All the trained manpower is making the best use of their knowledge, techniques and skills by performing their jobs in a befitting manner in public and private sectors.

### Techniques and methodologies standardized by the Faculty

1. Individualized teaching methods be brought into progress instead of teacher's centered and group teaching methods. In this regard project method has been selected to be the most suitable one for the teaching of agriculture and allied subjects.
2. Courses on baking and Art & Craft are organized by the department so as to inculcate income generating skill in females.
3. The short-term training programs including interior designing, clothing and textiles, and nutrition and diet therapy were initiated.

### Number of research papers published in national and international journals

The faculty and the students have published 3 research papers in international and 23 in national journals during 2007-08.

### Manpower trained by the Division

Ph. Ds	:	02
M.Sc. (Hons.)	:	34
B.Sc. (Hons.) Home Economics	:	-

### AGRICULTURAL INFORMATION CENTRE (AIC)

Agricultural Information Centre (AIC) is an important component of the Division of Education & Extension which is playing a significant role in the transfer of agricultural technology to the end-users. It publishes agricultural material in Urdu language for the dissemination of modern agricultural technology and research in the form of Zarii Digest (a quarterly agricultural magazine) and special issues on various aspects of agriculture. It also participates in Kisan Melas, Agri. Exhibitions, Conferences and Seminars for displaying the agricultural material published by the Centre. During the year 2007-08 the AIC completed the following tasks:

### Publication of regular and special issues of Zarii Digest

Five issues of Zarii Digest including four regular and one special were published during the year under report. The regular issues covered the production and protection technologies of major crops, oilseeds, vegetables, green fodders, fruits besides poultry, livestock and other allied areas. In addition, the regular publications also covered the following special reports:

1. 16<sup>th</sup> Convocation of the Univ. of Agri, Faisalabad including the valuable address of the Worthy Chancellor/Governor Punjab Lt. Gen. (R) Khalid Maqbool. (Zarii Digest June/September 2007).

2. a) Meeting of the Academic Staff Association, University of Agriculture, Faisalabad with the Worthy Chancellor/Governor Punjab Lt. Gen. (R) Khalid Maqbool
- b) Initiation of the post-graduate medical courses in the Medical Universities and Colleges of the Punjab.
- c) Signing of the Memorandum of Understanding (MOU) Ceremony with Virtual University and UVAS Lahore, under the supervision of Chancellor/Governor of the Punjab.
- d) Visit of the Governor Punjab to UVAS, Lahore, (Zarii Digest June/September 2007).
3. Establishment of the National Institute of Food Science & Technology at University of Agriculture, Faisalabad (NIFSAT) (Zarii Digest June/September 2007).
4. Two-day International symposium entitled as "Opportunities for the Fruit & Vegetable Industry in Pakistan (Zarii Digest June/September 2007).
5. Past, present and future of the Sub-Campus University of Agriculture, Faisalabad at D. G. Khan (Zarii Digest June/September 07).
6. Six-day sports & cattle fair organized by Tehsil Municipal Administration (TMA) Iqbal Town, Faisalabad (Zarii Digest June/September 2007).
7. Water Conservation Technology (Private and Public Partnership is the need of the day) (Zarii Digest June/September 2007).
8. Visit of the Caretaker Prime Minister of Islamic Republic of Pakistan, Muhammad Mian Somroo to Faisalabad (Zarii Digest September 2007).
9. Two-day international seminar on "New Trends in Food Science and Technology (Zarii Digest December 2007).
10. An Introduction to Agri. Farms of University of Agriculture, Faisalabad (Zarii Digest December 2007).
11. Two-day cultural show at University of Agriculture in which Worthy Chancellor/Governor Punjab, Lt. Gen. (R) Khalid Maqbool graced the occasion (Zarii Digest, March 2008).
12. Two-day national seminar on the health of animal, jointly organized by Faculty of Veterinary Sciences, University of Agriculture, Faisalabad and Higher Education Commission (HEC), Islamabad (Zarii Digest, March 2008).
13. An introduction to modern poultry farming laboratory, University of Agriculture, Faisalabad (Zarii Digest March, 2008).
14. A permanent Agrivarsity News published in Zarii Digest covered the following events held at UAF during the year:
  - i. 16th Convocation of the University of Agriculture, Faisalabad.
  - ii. An introductory ceremony about the Degree of Agricultural Resource Economics.
  - iii. Titles/Awards of the University Teachers.
  - iv. The maiden speech of the newly appointed Vice Chancellor, Prof. Dr. Iqrar Ahmad Khan to the students and staff of the University.
  - v. Visit of the 12 member delegation of the University of Agriculture, Faisalabad to India.
  - vi. A research report about the family system in Pakistan.
  - vii. Inaugural ceremony of "Clinical Bio-Chemistry" Course for Registered Medical Practitioners.
  - viii. Activities of Senior Tutor Office, Directorate of Sports, Directorate of Students Affairs and Agrarian Society etc.
15. The editorials of Zarii Digest published during the period under report are as under:
  - 1 لوٹ بچھڑی کی طرف اے گزشتہ ایام تو! ایمانی زراعت، پائیدار زراعت (شمارہ جون/ستمبر 2007ء)
  - 2 زرعی شعبے کی ترقی ..... ترقیاتی انتظامیہ کی نئی نئی شاخیں (شمارہ دسمبر 2007ء فروری 2008ء)
  - 3 گندم کا بحران ..... مستقبل کے لئے منصوبہ بندی کی ضرورت (شمارہ مارچ 2008ء تا مئی 2008ء)

#### Zarii Digest Forums

1. Four years of Development and Prosperity under the supervision of the former Vice Chancellor Prof. Dr. Bashir Ahmad was conducted in November 2007 and published in December 2007.
2. Interview of the Worthy Vice Chancellor Prof. Dr. Iqrar Ahmad Khan (His Vision and Program to run the University) was also published (Zarii Digest, March 2008).

#### Submission of PC-1 for the Upgradation of Agriculture Information Centre to Farmers Services Centre (FSC)

A PC-1 for the up-gradation of AIC to Farmers Services Centre (FSC) has been submitted to the authorities of the University for inclusion into a mega project. The said project has been submitted to the HEC by the University administration for final approval. Four sections including Zarii Digest Section, Penaflex Section, FM Radio, and Media Production Laboratory are proposed in the proposed centre.

**LABORATORY GIRLS HIGH SCHOOL**

Laboratory Girls High School is a well known prestigious school of the city. It is recognized as a high level school due to its meritorious results and outstanding educational background. The guidance of the head, whole-hearted efforts of the staff and hard work of the students of this school lead to notable success. The prominent achievements of the school are striking.

It is worth-mentioning that the school has always tried to show excellent results and this year too it has maintained this tradition. The wonder-stuck performance of the students is astonishing. For the first time in the history of school 87 students got A<sup>+</sup> Grade.

In the Secondary School Examination 2008, 46 students appeared in English Medium Science Group. Out of them 37 students got A<sup>+</sup> Grade, 8 students got A Grade and only one student got B Grade. The following students got 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> positions in their group.

Name	Position	Marks obtained
Fatima Arshad	1 <sup>st</sup> in school 4 <sup>th</sup> position in BISE Faisalabad	804/850
Safeera Awan	2 <sup>nd</sup>	789/850
Hafsa Jamal	3 <sup>rd</sup>	787/850

In Urdu Medium Science Group 49 students appeared. Out of them 32 got A<sup>+</sup> Grade and 17 got A Grade. The following students got 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> Positions in their group.

Name	Position	Marks obtained
Hina Sharif	1 <sup>st</sup>	795/850
Fizza	2 <sup>nd</sup>	783/850
Sobia Farid	3 <sup>rd</sup>	777/850

In Arts Group, 42 students appeared. Out of them 18 students got A<sup>+</sup> Grade, 23 got A Grade and only one student got B Grade. The following students got 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> positions in their group.

Name	Position	Marks obtained
Sidra Ashraf	1 <sup>st</sup>	757/850
Iqrash Fatima	2 <sup>nd</sup>	756/850
Umaira Shakir	3 <sup>rd</sup>	751/850

In the middle standard examination 2008, 21 students appeared in scholarship examination.

All of them got excellent marks. It is an honour for the school that Zunaira Umar a student of class VIII got 1<sup>st</sup> position in the Faisalabad District by securing 741/800 marks. It is hoped that many students will get scholarship. The following students got 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> positions:

Name	Position	Marks obtained
Zunaira Umar	1 <sup>st</sup> in Faisalabad District	741/800
Hafsa Iqbal	2 <sup>nd</sup>	715/800
Ayesha Siddiqa & Marfa Mubeen	3 <sup>rd</sup>	704/800

Pakistan Science Foundation Islamabad held a competition of Inter-Boards Science Posters in March 2008. Asma Shahid, a student of class IX took part in this competition and got 2<sup>nd</sup> position among many schools and colleges of Faisalabad Board. It is a matter of great pleasure that this student has earned honor for the school and the University of Agriculture.

Recently, the students have participated in English Speech, Urdu Speech, Painting/Poster, Model Making, English and Urdu Essay writing competitions held in the University. Many students have got 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> positions due to their excellent performance.

It is also pertinent to mention that "Urdu Science Board", an institute of Ministry of Education, Government of Pakistan has decided to give a set of books containing 10 volumes of Science Encyclopedia to only those schools and colleges which have shown excellent results in the Faisalabad Board. We have been informed by this institute that the name of Laboratory Girls High School has been selected to give this set of Science Encyclopedia for showing excellent performance in the Faisalabad Board.

**LABORATORY BOYS HIGH SCHOOL****1. Matric results 2008**

Number of students	177 (Science Group)
Result percentage	99%
Maximum marks obtained	780/850
Number of students who got above 700 marks	29
Number of students who have A <sup>+</sup> grade	38
Number of students who have A grade	65

**2. Middle standard results 2008**

Number of Students	11
Result Percentage	100%

**JUNIOR LABORATORY SCHOOL**

Junior Laboratory School is a renowned school of Faisalabad city. It was established in 1967 and has a distinct importance because of its educational background and achievements. At present, approximately 1600 students are enrolled in various sections and there are 31 sections in the school. It is a matter of great pleasure that the school has provided two mediums of instructions i.e Urdu and English to the students.

It has maintained its distinction through good results and outstanding performance of the students in class v examination. The exceptional achievements of the school are as under:

This school has shown 100% result in the 5<sup>th</sup> class examination. This year (2007-2008) 60 students appeared in the center examination. Out of sixty, 21 students got "A+" grade, 38 students got "A" grade and only 1 student got "B" grade.

Farwa Humak got 1<sup>st</sup> Position in the school by securing 264/300 marks. Namrah Abid got 2<sup>nd</sup> position by securing 261/300 marks and Asma Shaheen got 3<sup>rd</sup> position by securing 260/300 marks.

UAF arranged various competitions on Environment. The students participated in these competitions and won merit certificates and cash prizes by the worthy Vice Chancellor.

Art and Drawing competition was held in Faisalabad Art Council and 35 schools participated in this competition. The students of the Junior Laboratory School participated in it and Maham Mukhtar was awarded 1<sup>st</sup> prize.

Iqbal Day, Quaid-e-Azam day, Defence day and Eid Milad-un-Nabi were also celebrated in the school with great zeal and zest. During these occasions, speeches were delivered and tableaus were presented by the students. The performance of the students was highly appreciable.

**WATER MANAGEMENT RESEARCH CENTRE**

The mission of the Centre is to develop efficient irrigation technologies for a sustainable use of water realizing the future needs of the country and which are suitable to adopt by the farming community in Pakistan. The mission of WMRC includes:

1. Adoption of resource conservation technologies like watercourse improvement, precision land leveling, High Efficiency Irrigation Techniques (HEIT).

2. Development of awareness about HEIT in the farming community through campaign for discouraging traditional low efficiency irrigation methods.
3. Promotion of sustainable irrigated agriculture and poverty alleviation in the country.

**Objectives:**

The Water Management Research Centre aims at developing solutions to the problem of poor performance of irrigation system. It means, a) developing a conceptual and theoretical basis for better understanding of irrigation system, b) production practices, methods and organizational reforms which can be used by irrigation agencies to improve system performance, and c) providing specific solutions to problems relevant to specific contexts. The major objectives of this Center are as follows:

1. To provide research results, which will prove useful to policy makers in the future planning and implementation of the On Farm Water Management Programme.
2. To strengthen research and training facilities at the University of Agriculture, Faisalabad in the field of water management through interdisciplinary approach and to increase faculty involvement in the solution of farmer's problems.
3. To conduct diagnostic and field oriented research studies in water management to find solutions of the problems faced in the field.
4. To develop appropriate water management technologies for improved irrigated agriculture through research verification and demonstration on farmer's fields for increasing crop production.
5. To organize seminars/symposia pertinent to research in the field of water management.

**Research carried out during 2007-08**

1. Yield and water management productivity comparison of Mung planting on beds with flat cultivation.
2. Genetic response of cotton (*G. hirsutum* L.) to irrigation at different levels of crop evapotranspiration.
3. Evaluation of raised bed sowing of wheat with variable furrow size for water saving.
4. Enhancing productivity of wheat and sugarcane through furrow irrigated raised bed planting system.
5. Genetic response of wheat (*Triticum aestivum* L.) genotypes to different irrigation regimes.

6. Effect of different number of irrigations, fertilizer doses and sowing methods on yield and water use efficiency of wheat.
7. Comparison of water saving in furrow-beds with basin irrigation of wheat for water productivity.
8. Comparison of vegetables production under mulch and non-mulch condition in tunnel farming.
9. On farm research and extension activities at Toba Tek Singh under technology transfer program of UAF.

#### **Techniques and methodologies standardized by the Faculty**

1. Raised Bed Technology
2. Sowing of wheat on raised beds using four-row wheat bed planting machine.
3. Sowing of maize on raised beds.
4. Sowing of cotton on raised beds.
5. Development of flow measuring device
6. Use of Raingun for irrigation

#### **Papers presented at national and international conferences**

One paper was presented at an international conference during 2007-08 by the Faculty.

#### **INSTITUTE OF HORTICULTURAL SCIENCES**

The Institute of Horticultural Sciences is recently upgraded from the department of horticulture. Higher education commission has provided funds for the up gradation of department. There are four sections in the institute i.e. Fruit crops, Vegetable crops, Floriculture and Landscape and Medicinal and aromatic plants. At present 27 students are enrolled in Ph.D and are working on various research projects. Many research projects funded by National and International agencies have been successfully completed while some projects are still in progress. Apart from teaching, research is becoming a very significant part of academic activities of this Institute. The Institute provides conducive environment for teaching and research. It is due to the presence of highly qualified faculty members, the availability of sophisticated research facilities and grant from the funding agencies. The Institute has well equipped laboratories for Citrus Sanitation lab., Plant Tissue Culture Cell, Pomology Lab., Olericulture Lab. and Mushroom Production Lab., alongwith well established Landscape Studio and Floriculture Lab., having all modish facilities for Landscape designing. There are two established orchids, Vegetable research area and green houses in the Institute to carry out the research on various aspects. There is a separate establishment of large green houses for the export quality rose production

project and laboratory for essential oil extraction from rose. The Institute has its own library which is equipped with handsome numbers of text and reference books to facilitate students to acquire current knowledge in the relevant subject. Few journals of International repute on Horticultural Sciences are also available in the library for reference. A significant number of books on the subject and research papers have been published in the Journals of International repute by the staff members and Ph.D students.

#### **Techniques and Methodologies Standardized by the Faculty**

1. Export Quality Cut Flower Production and Essential Oil Extraction of *Rosa*, at University of Agriculture Faisalabad.
2. Production of disease free citrus plants using micrografting
3. Producing out of season vegetables using plastic tunnels

#### **Laurels (awards and allowances etc.) won**

Dr. Muhammad Mumtaz Khan was awarded Civil Award (Izaz-e-Fazeelat 2007)

#### **Number of research papers published in national and international journals**

The faculty and the students have published 67 research papers in national journals during 2007-08.

#### **Papers presented in national and international conferences/ symposia/ proceedings**

Thirty five (35) papers of the Faculty were presented in proceedings of national and international conferences/symposia during 2007-08.

#### **INSTITUTE OF SOIL AND ENVIRONMENTAL SCIENCES**

Institute of Soil and Environmental Sciences was established in 2003 by upgrading the former department of Soil Science to the status of an institute. The Department of Soil Science was established in 1961 when the University of Agriculture, Faisalabad was created from the former Punjab Agricultural College and Research Institute that had been established in 1906 and which had developed a significant record of teaching, research and extension. Prior to 1961, Soil Science operated within the Section of Chemistry and Agricultural Chemistry.

The Institute of Soil and Environmental Sciences has an infrastructure, which is at par with the international standard. The institute has well qualified and dedicated teachers. Most of them are Ph.Ds having experience of working in foreign countries as postdocs/visiting scientists. They have developed good international linkages

through different research projects. The research laboratories of the institute are well-equipped with good facilities. The department/institute has, by now, produced about 950 B.Sc.(Hons.), 1090 M.Sc.(Hons.) and 50 Ph.D students.

The institute is actively engaged in research on different aspects of Soil Fertility and Plant Nutrition, Soil and Water Chemistry, Saline Agriculture, Soil Microbiology and Biochemistry, Soil Physics and Environmental Sciences. Advisory services to farmers are also rendered upon request. The department/institute by now has completed 50 research projects. At present, eleven research projects, funded by different national and international agencies, are in progress. The contribution and dedication of the staff towards research is reflected through the publication of 13 books, 15 book chapters, 10 monographs, 100 technical reports and over 700 research papers at foreign and local levels. The dedications of the faculty members have also been recognized by various national organizations, since a number of faculty members have won prestigious national awards (Pride of Performance, Tamgha-e-Imtiaz, Best Scientists in Agriculture and Best Teachers awards etc.).

The Institute of Soil and Environmental Sciences is intensively engaged in developing trained human resource base in soil and environmental sciences. Its Faculty conducts basic and applied research in the relevant field, and provides advisory service to farmers, NGOs and the relevant agro-based industry, and imparts short-term training to farmers and in-service Agri-personnel pertaining to the technological development and resource management.

#### **Laurels (awards and allowances etc.) won**

1. Dr. Muhammad Arshad: Best scientist in agricultural sciences, 2007 by the Third World Academy of Sciences (TWAS) and research productivity allowance 2007-08 from the Pakistan Council for Science & Technology, Ministry of Science & Technology, Islamabad.
2. Dr. Zahir A. Zahir: Research productivity allowance 2007-08 from Pakistan Council for Science & Technology, Ministry of Science & Technology, Islamabad.
3. Dr. Ghulam Murtaza: Got award for best project poster, Communicate 08 conference Cooperative Research Centre Contaminant Assessment and Remediation of the Environment (CRC CARE), South Australia.
4. Dr. Azeem Khalid: Got research productivity allowance 2007-08 from the Pakistan Council for Science & Technology, Ministry of

Science & Technology, Islamabad, and the HEC post-doctoral fellowship.

5. Dr. Muhammad Saqib: JSPS Fellowship, Japan.

#### **Number of research papers published in national and international journals**

The faculty and the students have published 36 research papers in international and 51 in national journals during 2007-08.

#### **NATIONAL INSTITUTE OF FOOD SCIENCE AND TECHNOLOGY**

The Department of Food Technology was established in 1959-60 in the then Punjab Agricultural College and Research Institute, Lyallpur. The first enrollment for B.Sc. and M.Sc. in Food Technology in Pakistan was started in September 1960. The specialization in Food Technology is in areas such as Food Chemistry, Nutrition, Microbiology and Engineering. The government has upgraded the Department of Food Technology, to National Institute of Food Science and Technology, to improve the quality of Food Science Education in Pakistan. The Institute of Food Science and Technology, comprises six sections namely, Grain Science and Technology, Dairy and Meat Technology, Fruits and Vegetables Technology, Sugar and Fat Technology, Food Microbiology and Biotechnology, and Food Safety and Nutrition.

The main thrust of the Institute is application of Food Science and Technology, to handle, processing and packaging of food to cope with the challenges of rapidly growing food industry. There has been a significant increase in establishment of food industry during the last two decades and consequently the demand for the Food Technology graduates has increased tremendously. The Institute has a strong interaction with the public and private sectors. The students of B.Sc.(Hons.) Agriculture majoring in Food Technology are sent to different research institutes and Food Industries for getting industrial training.

Presently, the Institute has 15 qualified, dedicated and hardworking Faculty members who are Ph.Ds and M.Sc.s and have experience of working overseas. The contribution and dedication of the staff towards research is reflected through a high number of research articles in foreign and local journals. The dedications of the faculty members have also been recognized by various national organizations, since a number of faculty members have won prestigious awards. The Institute is actively engaged in research on different aspects of Food Science and Technology including,

preservation, value addition, shelf life extension, food microbiology, food safety and nutrition. The Institute is also rendering services to the private sector.

The Institute of Food Science and Technology, is improving academic and research training facilities with a significant increase in the number and quality of professional manpower. This will help to address national and international issues pertaining to all aspects of food, which will ultimately contribute to provide safe, nutritious and wholesome food to masses.

#### **Techniques methodologies standardized by the Faculty**

1. Production of lactic acid from agro-industrial wastes.
2. Preparation of high protein cookies for earthquake affected people.
3. Utilization of soybean as a functional food.
4. Finger printing of Pakistani wheats.
5. Developed low calorie cakes and biscuits by the use of non-nutritive sweeteners.
6. Vitamin A fortified cookies by using RPO shortening.
7. Developed iron fortification technology for flour mills and chakkies to overcome iron deficiency anemia.
8. Delayed ripening of mangoes for 22 days to extend the export time.
9. Designed a model for the promotion of dairy products according to the directive of the honorable Governor of Punjab.

#### **Number of research papers published in national and international journals**

The faculty and the students have published 27 research papers in international and 12 in national journals during 2007-08.

#### **Books**

Awan JA 2007. Elements of food and nutrition. Unitech Communications, Fsd.

#### **INSTITUTE OF ANIMAL NUTRITION AND FEED TECHNOLOGY**

The Institute of Animal Nutrition and Feed Technology is pioneer in animal nutrition and feed technology research and teaching. This Institute has four divisions: Ruminant Nutrition, Non-ruminant Nutrition, Nutritional Biotechnology and Feed Technology. Research activities of the Institute focus on improvement of the nutritive value of low quality feedstuffs through chemical and biological treatments; nutritional evaluation of local forages, crop residues and low grade industrial by-products; efficient and economical ration formulations for quail, broiler and layers and ruminant livestock; detoxification of naturally

occurring toxins and anti-nutritional factors to improve the feeding value of indigenous feeds; production of single cell proteins and feed enzymes through bioconversion/fermentation; and recycling of animal excreta for small and large ruminants. The Institute has built up its capabilities to discharge its functions of teaching and research in the field of animal feed science and technology. This institute has extended knowledge and skill through its graduates that are serving in the compound feed industry. The Institute is credited for providing the leadership of technical executives at top and top middle positions both in the Avian and Ruminant feed industry. Teaching and research facilities in the Institute are comparable to international academic institutions. The analytical facilities in the laboratories have been greatly improved over the years. This Institute also works together with other sister organizations in public and private sectors for collaborative research in the field of poultry and animal nutrition.

The graduates from this Institute have a scope of employment in compound feed industry at top and middle management positions, quality control laboratories, research, planning and development. They are also capable of handling feeding system of large flocks of poultry birds and herds of ruminant animals, including sheep, goat, cattle and buffaloes. They are better able to guide the farmers for feeding livestock and poultry at farm level for increased productivity at reduced feeding cost.

#### **Techniques and methodologies standardized by the Faculty**

1. Conservation of forage/ fodder.
2. Nitrogen fixation techniques in wheat straw and corn cobs.
3. Development of DCAD techniques in buffaloes.
4. Combating heat stress in commercial chicken through dietary adjustments.

#### **Number of research papers published in national and international journals**

The faculty and the students have published 20 research papers in international and 28 in national journals during 2007-08.

#### **Number of research papers presented in national and international conferences**

Three papers of the Faculty were presented in international conferences while the same number of papers were presented in national conferences during 2007-08.

**Awards/Medals/Achievements/ Distinctions**

1. Prof. Dr. Muhammad Sarwar, Director of the Institute of Animal Nutrition and Feed Technology has been awarded Tamgh-e-Imtiaz on 14.8.2007.
2. Dr. Mahr-un-Nisa has been awarded presidential award "Izaz-e- Fazeelat"
3. Prof. Dr. Muhammad Sarwar got Research Productivity Allowance for the year 2006-07
4. Dr. Mahr-un-Nisa got Research Productivity Allowance for the year 2007-08

**COLLEGE OF AGRICULTURE  
DERA GHAZI KHAN**

The College of Agriculture, D.G. Khan established in 1999 is a constituent part of the University of Agriculture, Faisalabad. An area of 800 acres had been provided to the University of Agriculture, Faisalabad, for developing the college campus and research farms. The College has been shifted to its newly constructed building just opposite to the D.G. Khan Airport, 22km away from the main city. The old campus of the college in a rented building named 'Saadat Palace' on the Multan Road, D.G. Khan, is still under possession of the College. The classes of M.Sc. Rural Sociology, and MBA (Regular) are being taken at old campus and classes of B.Sc. (Hons.) and M.Sc. (Hons.) Agriculture are being taken at new campus. Another 200 acres have also been allocated to the College near D.G. Khan Cement Factory to develop a research farm in the area affected by hill torrents. These 1000 acres of land were taken by the Government free of cost. Five cusecs of irrigation water from D.G. Khan canal has also been approved for the College campus.

The College consists of six teaching sections 1) Plant Breeding and Genetics and Horticulture, 2) Agronomy, Soil Science and Forestry, Range Management & Wildlife, 3) Agricultural Entomology and Plant Pathology, 4) Animal Production and Health, 5) Agricultural Engineering & Technology, and 6) Social Sciences & Rural Development. Presently, the College is offering B.Sc. (Hons.) Agri. degree program with Agronomy, Agri. Entomology, Horticulture, Plant Breeding & Genetics and Soil Science, as major subjects. Masters degree programs in Agronomy, Agricultural Entomology

and Plant breeding & Genetics along with Rural Sociology and MBA (R) are also being offered at the College. At present, 11 of the staff members possess Ph.D, 27 M. Sc. (Hons.) and 02 M.Phil degrees in the respective disciplines and 05 staff members are at various stages of their Ph.D

The intake of students has been increased from 60 in the year 1999 to 124 in 2007-2008. Till now 860 students got admission to the College and 316 students have successfully been awarded the B.Sc. (Hons.) Agri. degree with two Silver and 1 Bronze medal. The number of students admitted in M.Sc. (Hons.) Agriculture, M.Sc. Rural Sociology and MBA (Regular) is 04, 21, and 50, respectively during the admission session 2007-08.

**UAF, SUB-CAMPUS, TOBA TEK SINGH**

The UAF Sub-Campus, T.T. Singh was established on June 5, 2005 as a constituent part of University of Agriculture, Faisalabad. The classes of B.Sc. (Hons.) Poultry Science at the Sub Campus are functioning in a building previously known as Tehsil Council Hall situated near the Railway Station, T.T. Singh. It was renovated by the district administration. Regarding the permanent building of the Sub-Campus, 76 acres of land in Chak Number 349-G.B. have been transferred to the University of Agriculture, Faisalabad, Sub-Campus Toba Tek Singh. The possession of the land has been taken and development work on it is in progress. PC-1 amounting to Rs.38.170 million has been approved by the Higher Education Commission for financial assistance of the UAF Sub-Campus Toba Tek Singh. At present, out of total 13 teaching faculty, three possess Ph.D, 9 M.Sc. (Hons.) and one B.Sc. (Hons.) degree.

**Degree programs**

The Sub-Campus, Toba Tek Singh offers B.Sc. (Hons.) Poultry Science degree program of four years duration (eight semesters) and two years Livestock Assistant Diploma Course (LAD). Necessary arrangements for equipping the analytical laboratory, library and computer laboratory are in progress.