

### Central Lab facilities

	Lab NO.	Facility Name	Facility In-Charge
Ground floor	01	Cytogenetic Facility	Dr. Ummara Waheed
	02	Molecular Diagnosis Facility	Dr. Hasan Riaz
	03	Agro Climatology Lab	Dr. Habib ur Rehman
	04	DNA Analysis Facility	Dr. Zulqurnain
	05	Sample Storage Facility	Dr. Baqir Hussain
	06	Analytical Facility	Dr. Abid Hussain
	07	Food Processing and Value Addition Lab	Dr. Shabbir Ahmad
	08	Sample Preparation Lab	Mr. Asif Mahmood Arif
First floor	101	Insect Rearing Facility	Dr. Unsar Naeem Ullah
	102	Insect Ecology and Biodiversity	Dr. Unsar Naeem Ullah
	103	Transformation Facility	Mrs. Plosa Khanum
	104	Molecular Analysis Facility	Dr. Abu Bakar
	105	Cloning Facility	Dr. Nadia Iqbal
	106	Post-Harvest and Processing Facility	Dr. Sami Ullah
	107	Physiology Lab	Dr. Faheem Nawaz / Dr. Muhammad Shakeel
	108	Diagnosis Facility	Dr. Arslan Khan
	109	Microbiology Facility	Ms. Afshan Shafi

**Lab 01****Cytogenetic Facility**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Microscopes	15
2.	Horizontal Laminar Flow Hood	4
3.	Digital Stereoscope	1
4.	Zoom Stereo microscope	1

**Lab 02****Molecular Diagnosis Facility**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Horizontal gel apparatus	6
2.	Gel Documentation system	2
3.	PCR	4
4.	ELISA Reader	1
5.	Analytical Balance	3
6.	Zoom Stereo microscope	1
7.	Spectrophotometer	1

**Lab 03****Agro Climatology Lab**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Growth Chamber	1
2.	Seed germinator	1
3.	Weather Station	1
4.	Climate Test Chamber	1
5.	SPAD	2
6.	Leaf Porometer	2
7.	Pressure Chamber	1
8.	Rain Gauge Digital	3
9.	Handheld GPS device	1
10.	Portable Photosynthesis System	1

**Lab 04****DNA Analysis Facility**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Nano drop Spectrophotometer	1
2.	NGS system	1
3.	qPCR	1
4.	Analytical Balance	4
5.	Electroporator	1
6.	Vortex machine	1
7.	DNA thermal cycler 96 wells	1

**Lab 05****Sample Storage Facility**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Ultra-low freezer (-80 °C)	2
2.	Ultra-low freezer (-20 °C)	2
3.	Refrigerator	1
4.	Ice flaking machine	1
5.	Incubator	1
6.	Lab Refrigerator Double French Door	1
7.	Refrigerator: Double door	1

**Lab 06****Analytical Facility**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Atomic Absorption	1
2.	Micro Centrifuge	1
3.	GC-MS	1
4.	Hot air oven	1
5.	Vortex mixer	2
6.	Moisture analyzer	1
7.	Analytical Balance	2
8.	Spectrophotometer	2
9.	Dual Channel flame photometer	1
10.	Moisture Probe	3
11.	Standard Soil Hydrometer	1

**Lab 07****Food Processing and Value Addition Lab**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Abrasive peeler	1
2.	Dough mixer	1
3.	Three series Baking oven	1
4.	Rose head juice extractor	1

5.	Cheese vet	1
6.	Micro mill	1
7.	Cream Separator	1
8.	Desiccator	1
9.	Homogenizer	1
10.	Analytical Balance	1
11.	Variable Speed Laboratory Blender	1
12.	Cake Mixer	1
13.	Microwave Oven	1
14.	pH Meter	1
15.	Visco meter	2
16.	Bench top model, micro mill	2
17.	Iron Trolley Tables	10

## Lab 08

## Sample Preparation Lab

Sr. No.	Equipment	Quantity
1.	Autoclave	4
2.	Water Distillation Unit	2
3.	Deionized Water System	1
4.	Soxhlet apparatus	1
5.	Kjeldhal Apparatus	2
6.	Gerber machine	1
7.	Hot air oven	1

8.	Muffle furnace	1
9.	Rotary evaporator	1
10.	Spectrophotometer	1
11.	Chemical fume hood	1

**Lab 101****Insect Rearing Facility**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Growth Chamber	1
2.	Refrigerator	1

**Lab 102****Insect Ecology and Biodiversity**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Hot air oven	1
2.	Microwave oven	1
3.	Weighing balance	1
4.	pH meter	2
5.	Humidifier	1
6.	Data logger	5
7.	Microscope	3
8.	Digital Stereoscope	1
9.	Zoom Stereo microscope	1
10.	E.C. Meter	2
11.	Electronic Aspirator	2
12.	GPS Recorder	1
13.	Hand held refractometer	3
14.	Hybridization oven	1
15.	iPhone Camera Lens	2

16.	Insect Rearing Chamber	1
17.	Onset HOBO, Data logger	2
18.	Portable 60 kg balance	1
19.	Solar Light Trap with battery backup	1
20.	Solar Power Supply	1
21.	Stereoscope with digital & video monitoring system & accessories	1
22.	Water Proof Data loggers	3

**Lab 103                      Transformation Facility**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Autoclave	1
2.	Refrigerator	1
3.	Hot plate magnetic stirrer	1
4.	pH Meter	1
5.	Electric balance	2
6.	Heat Air oven	2
7.	Horizontal Laminar Flow Hood	2
8.	E.C. meter	1
9.	Analytical Balance	1
10.	Micropipette Set of 05 pipettes	1
11.	Micro Centrifuge	2



12.	Humidifier	1
13.	Dry Sterilizier	1
14.	DNA thermal cycler 96 wells	1
15.	Hamilton Calibrated Glass Syringe	1

**Lab 104**

**Molecular Analysis Facility**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	UV. Trans illuminator	1
2.	Refrigerated Centrifuge	1
3.	Microwave oven	3
4.	Vortex mixer	2
5.	Refrigerator	1
6.	Top loading balance	1
7.	Analytical balance	2
8.	Water bath	1
9.	Disease Specimen Box	1
10.	Digital Stereoscope	1
11.	Zoom Stereo microscope	1
12.	Spectrophotometer	1
13.	Tissue Lyser	1
14.	Portable 60 kg balance	1

**Lab 105****Cloning Facility**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Thermo cycler	2
2.	Incubator	1
3.	Gel documentation system	2
4.	Horizontal gel apparatus	2
5.	Ice flaking machines	1
6.	Micro centrifuge	2
7.	Deionized water system	1
8.	Water Bath (3 in 1)	1
9.	Ultra-low temperature Freezer (-80 <sup>0</sup> C)	1
10.	Real time PCR	1
11.	PCR	2
12.	Shaking Incubator	1
13.	Adjustable pipette set	2
14.	Acid base titration Apparatus	2
15.	Digital camera DSLR	1
16.	Digital Handheld Pocket Refractometer	2
17.	Digital Probes	5
18.	Digital Thermometer	1

19.	Digital vernier caliper	3
20.	Self Refilling Syringes	4
21.	Sieve 2mm Mesh size	5
22.	Soil Moisture Sensor	1
23.	Soil sampling probes	5
24.	Stopwatch (Digital)	10
25.	Insulated buckets	2
26.	Liquid nitrogen cylinders	2
27.	Magnifying Glass (10X)	25

**Lab 106****Post-Harvest and Processing Facility**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Water bath	1
2.	Muffle furnace	1
3.	Microwave oven	1
4.	Magnetic hot plate	1
5.	Hot air oven	1
6.	Ultra-low freezer (-80)	1
7.	Ultra-low freezer (-20)	1
8.	Digital Penetrometer	1
9.	Analytical Balance	1
10.	Ethylene Generator	1
11.	pH Meter	1
12.	CIRAS	1
13.	Vacuum filtration apparatus	1
14.	I-button Temperature Data loggers	15
15.	Stand mounted Digital Penetrometer	1

**Lab 107****Physiology Lab**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	HPLC	1
2.	Flame photometer	1
3.	Digestion plate	1
4.	Centrifuge machine	1
5.	Hydrometer	1
6.	Weighing balance	1
7.	Sonicator	1
8.	Analytical Balance	1
9.		
10.	Micro Digester Complete	2
11.	pH Meter	1
12.	Spectrophotometer	2

**Lab 108****Diagnostic Facility**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Horizontal Laminar Flow Hood	1
2.	Digital Stereoscope	1
3.	Microscope	2
4.	Analytical balance	1
5.	Cooling Incubator	1
6.	Micro Centrifuge	1
7.	Microwave oven	1
8.	Water bath	1
9.	Refrigerated Centrifuge	1
10.	pH meter	2
11.	UV illuminator	1
12.	Disease Specimen Boxes	1
13.	Zoom Stereo microscope	1
14.	Stereoscope with digital & video monitoring system & accessories	1
15.	Dry thermal Bath	1

**Lab 109****Microbiology Facility**

<b>Sr. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Micro Centrifuge	2
2.	Microplate photometer	1
3.	Incubator	2
4.	Hot air oven	1
5.	Water bath	1
6.	Colony counter	1
7.	Microscope	7
8.	Horizontal Laminar Flow Hood	1
9.	Orbital Shaker	1
10.	Weighing balance	1
11.	Microwave	1
12.	Vortex mixer	2
13.	Micropipette Set of 05 pipettes	1
14.	Zoom Stereo microscope	1
15.	pH Meter	1
16.	Orbital Shaking Incubator	1