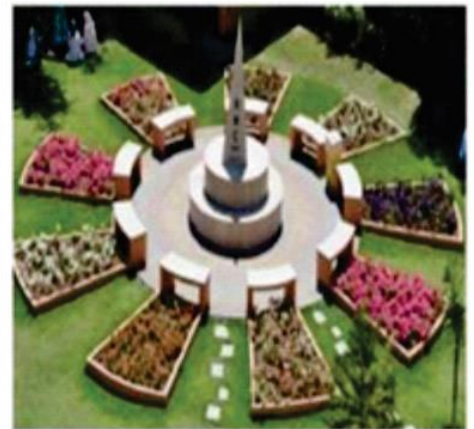




Clean and Green Initiative



Rawalpindi Medical University & Allied Hospitals

MESSAGES



Trees play a critical role to our existence on earth. They provide us with numerous products that we utilize in our daily lives, from food to furniture, paper to cosmetics and a host of products in between. Their aesthetic appeal is universal, and they make our world a much more beautiful space.

With ever growing zeal and zest, the Government of Pakistan has started National Planation Campaign according to vision of honorable Prime Minister Mr. Imran Khan. And I am particularly pleased

that this year, Rawalpindi Medical University is focusing on the role of trees in mitigating the negative effects of climate change.

Sustainable development is a catchword that we all need to become acquainted with, and to practice, so that all our children and their children for generations to come, can reap the benefits of this beautiful land we call home.

Indeed, the trees we plant, once properly maintained, will benefit our country tomorrow. May they thrive, and provide both hope and shade for many years to come.

VICE CHANCELLOR RMU / ALLIED HOSPITALS



It gives great pleasure to write this message for Clean and Green Initiative, of Rawalpindi Medical University. RMU is showing its excellence not ONLY just in the field of education & patient care but also in horticulture.

In the wake of National Plantation Campaign initiated by Prime Minister Mr. Imran Khan, RMU establish Green Task Force to ensure lush green outfields, and planting hundreds of trees. The Global Climate Risk Index has

placed Pakistan on the fifth spot on the list of countries most vulnerable to climate change in its annual report for 2020. RMU is playing its parts by conducting plantation campaigns, with zealous involvement of students & faculty. All allied hospitals, medical college, RMU colony are decorated with different varieties of plants.

PROF. MUHAMMAD UMAR

PRESEDENT GREEN & CLEAN INITIATIVE (NEW GREEN TASK FORCE)



"The true meaning of life is to plant trees; under whose shade you do not expect to sit." Being a Rawalian Myself and Chairman of Green task Force, gives me great pleasure to be able to communicate and write on the importance of a topic that can change our Country and coming generations.

I will be sharing with you 6 Lessons and words of wisdom spread across centuries that will enable you to grasp the significance and importance of Planting Trees.

Lesson 1: Our Prophet told us to:

The Messenger of Allah, Muhammad (PBUH), has ordered us to plant trees even as the world comes to an end, "If the end of the world approaches and one of you has a seedling (or plant) in his hand, if he can plant it before the end comes, let him do it." He also says, "If a Muslim plant a tree or sow's seeds, and then a bird, a person or an animal eats from it, it is regarded as a charitable gift for him until the Day of Judgment."

Lesson 2: Any Time is the Best time to Plant a Tree

"The best time to plant a tree was 20 years ago. The second-best time is now."

Lesson 3: It is the best Service we can do for our Nation

"A nation that destroys its soils destroys itself. Forests are the lungs of our land, purifying the air and giving fresh strength to our people."

Lesson 4: Planting A Tree means you are a Man of Action not of Talk, planting a Tree teaches you to go out of your way to make it happen.

"Until you dig a hole, you plant a tree, you water it and make it survive, you haven't done a thing. You are just talking."

Lesson 5: It is our Gift to the Next Generation

"A man doesn't plant a tree for himself. He plants it for coming Generation."

Lesson 6: Trees teach us a lot of lessons including Serving others, having deep roots, reaching for sky and much more

"We can learn a lot from trees: they're always grounded but never stop reaching the sky."

And with these words I will again recommend you to plant a tree whenever you can, it is going to be a source of everlasting constant Sadqa Jaria for you.

PROF. MUHAMMAD ASLAM CHAUDRY

SECRETARY GREEN & CLEAN INITIATIVE (NEW GREEN TASK FORCE)



I have been involved in tree plantation at RMU & Allied Hospitals for last two decades. Our aim was to provide a healthy environment to patients as well as doctors. For last seven years, under the leadership of worthy Vice Chancellor, we are working with new zeal and enthusiasm. In Monsoon 2020 alone, we planted about 200 plants. I hope in future, we can contribute positively to Prime Minister initiative of Clean and Cream Pakistan.

PROF. JAHANGIR SARWAR KHAN

AIMS & OBJECTIVES

1. Availability of clean drinking water at highest priority.
2. Conservation of water and energy
3. Clean energy adoption
4. Clean environment and plantation

CLEAN & GREEN RMU

Task 01: Clean Drinking Water

- In Pakistan, 40% illnesses are related to use of unsafe water
- Impurities in water: Bacteria, Viruses, Protozoan
- Dissolved salts, heavy matter and fluoride
- Chlorination, Reverse osmosis, ultra-filtration and nano-filtration are the methods of water purification
- Single filtration plant having capacity 2000L/h can provide water to 2000-3000 people

Task 01.a: Cost of Filtration Plants

Plant with capacity	Cost
Chlorination/dechlorination system (2m ³ /hr)	0.5 Million +taxes
Reverse osmosis(2m ³ /hr)	1.5Million +taxes
Ultrafiltration (UF) (2m ³ /hr)	1.5Million + taxes
Ionization for Arsenic Removal (2m ³ /hr)	0.5Million + taxes

Task 02: Water Conservation for Campuses

- Declining availability of water, a major concern among developing countries.
- Effective strategy/technology through which water can be conserve.
 - Tube Well Automation
 - Wudu water reuse

Task 02.a: Tube Well Automation

- Conserve water which otherwise be wasted in manual operation.
- Tube well automation was implemented by UET Lahore.
- **Results:** ~ save 30kW of load and 0.5M gallons of water per year.

Task 02.b: Wudu water reuse

- 01 person uses 12L of water per prayer
- Average 700 person use water for Wudu in a mosque
- Approximately daily water consumption for Wudu is: 700x12L=8400L per mosque /day

- Greywater
- Compose of high amount of easily degradable organic matters
- Safe to reuse to irrigate both food and non-food producing plants.

Task 03: Energy Conservation

- Energy crisis a Challenging Issue.
- Adversely affect country's economy.
- Efficient and effective management of consumption demand (immediate solution).

Task 03.a: Energy Conservation Strategy by CERAD UET in Collaboration with PEECA

Main Aim:

- Lowering net energy demand by
- Solar energy feasibility
- Energy saving strategies

Execution Process:

- Walk through audits and retrofitting recommendation for various institutes and commercial sector buildings.

Task 03.a: Energy Saving Potential & Energy Conservation Retrofits

Fast return Retrofits	Percent total load	Percentage reduction of total load	Payback (years)	Expected product life (years)
Lighting	-17%	-9.5%	<2 years	-5 years
Fan	-15%	-6.8%	<3 years	-10 years
CRTs	-0.65%	-0.4%	<1.5 years	-10 years
Traditional ACs	-30%	-15%	<7 years	-10 years

Task 04: Solar Energy

- Renewable, free and inexhaustible energy resource.
- Reduced dependence on fossil fuels.
- Environmental Advantages
- Utilization of solar energy by *Solar PV System Installation*.
- **Sample Design:**
 - Solar PV system of capacity 100kWp each is installed in multiple institutes.
- **Outcome:**
 - Accumulative capacity of PV systems installed in multiple institutes is ~1.8 MW.
 - Generation is ~2.9 million kWhs per annum.
- **Possible modes of execution for Solar PV Installation:**
 - Power purchase agreement
 - Build operate and transfer

Task 04: Plantation Drive

- Encourage tree plantation.
- Organize plantation campaign.

Benefits:

- Prevent soil erosion.
- Lessen global warming effects.
- Maintain ecological balance.

CLEAN AND GREEN PLANTATION DAY



"CLEAN AND GREEN PAKISTAN"



PLANTATION CAMPAIGN



PROFESSOR YASMIN RASHEED
MINISTER OF HEALTH PUNJAB



SOHAIL AMMAN
AIR CHIEF MARSHAL PAKISTAN



Prof. Tariq Banuri
CHAIRMAN HIGHER EDUCATION COMMISSION

DETAILS OF PLANTS IN RMU & ALLIED HOSPITALS

S.NO.	DEPARTMENT	TOTAL
1	RMU Old Campus	351
2	RMU New Campus	28
3	Holy Family Hospital	875
4	Benazir Bhutto Hospital	654
5	District Headquarter Hospital	344
6	RMU staff colony & Girls Hostels	695



OTB 17 NTB 08



OTB 26 HFH 07



Silver Rose Plant OTB 09 DHQ 06



OTB 01 BBQ 01



HFH 07 Colony/Hostel 07



HFH 181 BBH 82



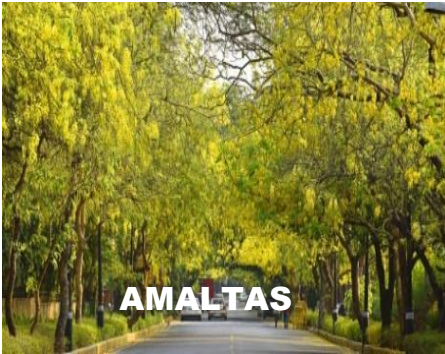
HFH 09 BBH 26



HFH 07 Colony/Hostel 01



BBH 03 DHQ 03



OTB 32 Colony/Hostel 06



HFH 38 BBH 06



BBH 03 Colony/Hostel 20



BBH 02 Colony/Hotel 25



HFH 68 BBH 165



HFH 57 BBH 69



OTB 23



HFH 12



HFH 07



BBH 01



BBH 01



BBH 04



OTB 23



BBH 07



BBH 55



BBH 04



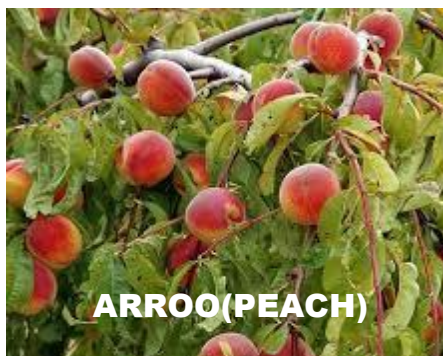
DHQ 02



Colony/Hostel 03



Colony/Hostel 05



DHQ 05



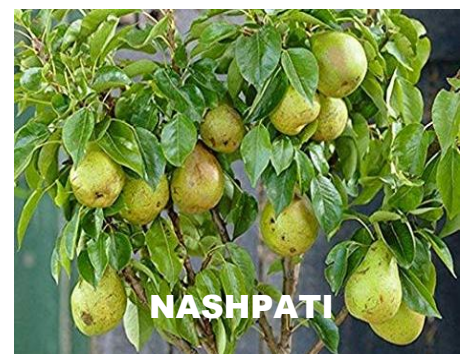
DHQ 05



HFH 31



OTB 09



Colony/Hostel 06



ALSTONIA

OTB 98 MTB 02
Colony/Hostel 02



BOHAR

OTB 01 HFH 01



MARVA

OTB 01 HFH 36 DHQ 27



PIPAL

HFH 03 BBH 03 DHQ 01



CHEER

HFH 09 BBH 09
Colony/Hospital 26



KHAJOOR

HFH 02 BBH 02 DHQ 04



JANGLI AMLOC

HFH 04 BBH 01 DHQ 01



RUBBER PLANT

BBH 04 DHQ 04 Colony/Hospital 01



AEROKERIA

MTB 04 HFH 04 BBH 2
Colony/Hospital 03



BOTTLE BRUSH

MTB 23 HFH 09
BBH 02 Colony/Hospital 82



SAROO

MTB 09 HFH 17 BBH 09
Colony/Hospital 13



JAMAN

MTB 05 HFH 09 BBH 18
Colony/Hospital 09



KHCHNAR

HFH 02 DHQ 02
Colony/Hospital 04



POPULAR

MTB 04 HFH 04 BBH 02
Colony/Hospital 03



SUMBAL

OTB 02 HFH 02 BBH 04
DHQ 06 Colony/Hospital 7



DARAKE

OTB 06 HFH 68 BBH 42
DHQ 49 Colony/Hospital 06



SUKHCHAIN

OTB 22 HFH 132 BBH 20
Colony/Hospital 100 DHQ 15



MANGO

OTB 01 HFH 03 BBH 23
Colony/Hospital 16



SAPEDA

OTB 70 HFH 70 DHQ 26
Colony/Hospital 110



SHAHOOT

OTB 26 HFH 26 BBH 07
Colony/Hospital 42



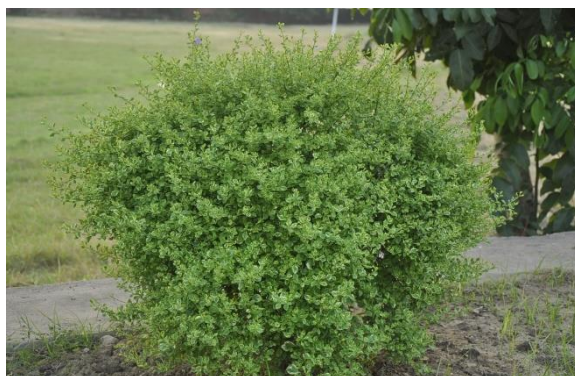
GUAVA

OTB 01 HFH 02 BBH 10
Colony/Hospital 02

PLANTS DETAILS AT HOLY FAMILY HOSPITAL



S. No.	Plant Name	Numbers	S. No.	Plant Name	Numbers
1.	Palkan	30	19.	Shatooat	31
2.	Lastunia	68	20.	Jangli Amlok	04
3.	Lajastunia	57	21.	Hi Bax	09
4.	Sukh Chain	132	22.	Lokatch	02
5.	Barri	07	23.	Papli	02
6.	Taali	34	24.	Jangli Ratha	10
7.	Arjun	12	25.	Jaman	05
8.	Fayqas	181	26.	Pipal	03
9.	Paam	38	27.	Cheer	09
10.	Safyda	24	28.	Khajoor	02
11.	Papular	12	29.	Bour	01
12.	Daryk	68	30.	Khachnar	01
13.	Marva	36	31.	Aam	03
14.	Chqrandra	07	32.	Aro Karia	04
15.	Batel Burash	23	33.	Amrood	02
16.	Saroo	09	34.	Kali Marach	07
17.	Pila Taquma	31	35.	Khati	07
18.	Sumbal	04	Total		823



PLANTS DETAIL AT BENAZIR BHUTTO HOSPITAL



Sr. No.	Plant Name	Quantity	Sr. No.	Plant Name	Quantity
1.	Palkan	40	18.	Bour	01
2.	Lastonia	165	19.	Aam	23
3.	Lajistonia	69	20.	Amrood	10
4.	Sukh Chain	20	21.	Shahtoot	07
5.	Tali	13	22.	Jangli Amlok	01
6.	Faygus	82	23.	Bugam Belia	55
7.	Palm	06	24.	Rubber Plant	10
8.	Sufaيدا	13	25.	Din ka Raja	04
9.	Popular	06	26.	Raat ke Rani	01
10.	Darekh	42	27.	Anaar	03
11.	Batel Burash	09	28.	Injeer	01
12.	Saroo	17	29.	Motia	04
13.	Sumbal	04	30.	Lemon	01
14.	Jaman	09	31.	Malta	03
15.	Pipal	04	32.	Apple	01
16.	Cheerh	26	33.	Lokaat	02
17.	Khajoor	02	Total		

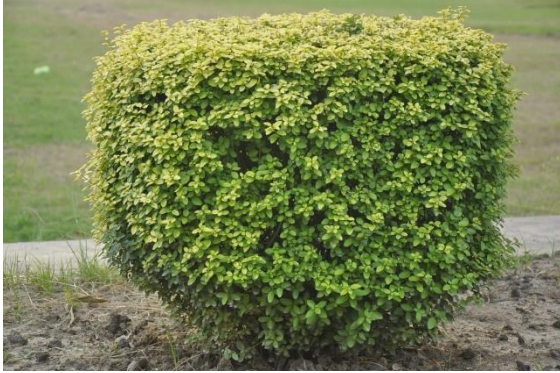
Clean and Green Initiative



PLANTS DETAIL ATDISTRICT HEAT QUARTER HOSPITAL



Sr. No.	Plant Name	Quantity	Sr. No.	Plant Name	Quantity
1.	Dareek	49	16.	Badaam	1
2.	Toot	21	17.	Bottle barsh	2
3.	Silver Plant	6	18.	Amlook	2
4.	Mango	19	19.	Amrade	10
5.	Sukh Chain	15	20.	Neeam	2
6.	Jaman	18	21.	Papolur	8
7.	Lasoodha	1	22.	Anar	3
8.	Rubber Plant	6	23.	Saroo	1
9.	Khajoor	4	24.	Peepal	1
10.	Sombal	6	25.		1
11.	Tali	4	26.		4
12.	Kachnar	1	27.		2
13.	Safeeda	26	28.	Adhoo	1
14.	Shafleera	3		Total	217



DETAIL OF PLANTS RMU NEW TEACHING BLOCK



Sr. No.	Plant Name	Quantity	Sr. No.	Plant Name	Quantity
1.	Bottle Palm	08	2.	Felkum	01
3.	Aerokeria	04	4.	Tehli	01
5.	Aestrokolia	06	6.	Ficus	05
7.	Eistunia	02	8.	Total	27



PLANTS DETAIL AT RMU OLD TEACHING BLOCK



Sr. No.	Plant Name	Quantity	Sr. No.	Plant Name	Quantity
1.	Bottel Palm	17	12.	Alstonia	22
2.	Table Palm	23	13.	Sukhchain	1
3.	Sumbal	3	14.	Bohar	1
4.	Decorative	26	15.	ango	1
5.	Jecoranda	9	16.	Apple	1
6.	Silver Roge	9	17.	Safeda	70
7.	Toun	32	18.	Marva	1
8.	Amaltas	3	19.	Tahli	1
9.	Gule Chaina	6	20.	Shahtoot	26
10.	Darke	98	Total		350

