Native and drought-tolerant trees on campus

The Roots of UPES · 73 documented trees, 55 species, two campuses

TREES DOCUMENTED	SPECIES	DROUGHT-TOLERANT SPECIES	IRRIGATION
73 across Bidholi and Kandoli	55	Shami, Neem, Date Palm, Triangle Palm, Spineless Yucca	Treated wastewater, 250+ KL a day

Overview

The Roots of UPES is a tree-by-tree field record of 73 trees of 55 species on the Bidholi and Kandoli campuses, prepared by the Department of Social Outreach from records of the Admin (Horticulture) Department. Each tree is photographed and recorded with its scientific name, family, native range, typical height and location. The record shows that the campus landscape includes long-lived native trees and species adapted to dry conditions that need little water once established, and the campus gardens and horticulture are watered with treated wastewater rather than fresh groundwater.

IMPACT

Drought-tolerant and native trees, watered with recycled water, keep the campus green while using less fresh water.

73	55	5
trees documented tree by tree	species	species described as drought-tolerant or low-water

- Shami, Neem and Date Palm are adapted to dry conditions.
- Triangle Palm and Spineless Yucca need little water once established.

Drought-tolerant trees on campus

- Shami (Prosopis cineraria), behind the library, Bidholi: adapted to arid and semi-arid conditions and exceptionally hardy, it survives in poor, dry soils where few other trees establish, and its deep roots stabilise dry land. Native to the Indian subcontinent.
- Neem (Azadirachta indica), behind AB-1, Bidholi: tolerates poor soils and drought well, making it a resilient presence in campus plantings across the region. Native to India, Myanmar and Bangladesh.
- Date Palm (Phoenix dactylifera), at the food court, Bidholi: an iconic desert and oasis tree and a staple crop across arid regions of the world.
- Triangle Palm (Dypsis decaryi), at the food court, Bidholi: drought-tolerant once established. It is listed as vulnerable in its native Madagascar.
- Spineless Yucca (Yucca gigantea), at Tatra, Bidholi: a tree-like succulent grown for its low water requirements once established.

Native trees

The record also documents long-lived native trees of the Doon Valley and the Indian subcontinent, including Sal, Peepal, Neem, Amla and Jamun, which are suited to the local climate.

Watering the landscape

Gardens, lawns and horticulture on both campuses are watered with treated wastewater from the campus sewage treatment system, more than 250 kilolitres a day, rather than with fresh groundwater (see Section 5: Water reuse).

Photographs



Shami, behind the library, Bidholi campus.



Neem, behind AB-1, Bidholi campus.





Date Palm, food court, Bidholi campus.

Triangle Palm, food court, Bidholi campus.



Spineless Yucca, Tatra, Bidholi campus.

Source: The Roots of UPES: A Field Record of the Trees of the Bidholi and Kandoli Campuses, Department of Social Outreach, UPES, with tree records shared by the Admin (Horticulture) Department.

Full record: The Roots of UPES (PDF).

Section 4: Drinking water and water-wise campus design

SDG 6 report

UPES, Dehradun, Uttarakhand. UPES activity toward UN Sustainable Development Goal 6: Clean Water and Sanitation.