

Emirates Soil Museum Newsletter



Here's what has happened in the last few months at the Emirates Soil Museum

Welcome to the June edition of our Emirates Soil Museum newsletter!

We are excited to share the most recent advancements in our mission to spread knowledge about soil. First and foremost, we extend our heartfelt thanks to our generous donors. Your unwavering support has been instrumental in ensuring the smooth and effective operation of our programs.

In our recent initiatives, we are proud to announce the launch of a new exhibit featuring a collection of 130 soil samples from across the UAE. This exhibit showcases the remarkable diversity of soils found in the country.

Additionally, our Virtual Soil Monolith Tool will soon be available at the museum and online. This tool will allow you to explore and learn about various UAE soil types from anywhere!

We are also thrilled to report the success of our new workshop, The Living Soils Workshop by Ludi Soli, which launched on World Soil Day at COP28. With 9 sessions engaging 365 participants, this workshop has been a fantastic platform for promoting a shared understanding of soil functions and preservation challenges.

Moreover, the Desert Farm, previously featured at Expo 2020, has now found a permanent home in our museum park. This innovative model of integrated agri-aquaculture, which grows salt-tolerant crops using saline water from fish tanks, continues to draw many interested visitors.

We hope you enjoy reading our newsletter!

Soilfully yours

Ryma Affani
Emirates Soil Museum Curator

In this newsletter
you can expect:

We have been
busy!

Sneak peek: the
Desert Farm

World
Environment Day

Soil Spotlight

Why visit a Soil
Museum?

WE HAVE BEEN BUSY!



CSR Collaborations

At the Emirates Soil Museum, we are dedicated to promoting environmental stewardship and community engagement through various CSR activities, significantly contributing to soil conservation and sustainability. We proudly reflect on our successful CSR initiatives with various organizations, including Ghaf tree planting drives to combat desertification, engaging field visits to learn about ICBA's latest research, and educational guided tours of the museum. We thank all participating organizations for their invaluable support and look forward to continuing these impactful partnerships.

Special Guests

We were thrilled to welcome delegations from the Ajman Business Women Council, UNLYDP (China), the Scientific and Technical Research Center on Arid Regions (CRSTRA, Algeria), IRRI, the National Science Foundation, Alserkal Foundation, Somerset House London and Wellcome Collection, UK, who enjoyed touring the museum and learning about the diversity of soils found in the UAE.

Youth Engagement

The museum has been buzzing with activity as we have welcomed over 500 students since January to engage in various educational programs.

Students participated in hands-on activities such as composting, soil painting, and planting, enriching their understanding of soil conservation.

Additionally, they attended our popular Living Soils Workshop and enjoyed guided tours of the museum, exploring the fascinating world of soil science. These interactive experiences have not only educated but also inspired the next generation of environmental stewards.

Special Events

The museum team participated in a number of sustainability events, including exhibitions and panel discussions showcasing various types of UAE soil, as well as some of the scientific research conducted by ICBA to improve soil quality in desert environments, all while emphasizing the importance of knowledge transfer and community outreach.



Our Halophytic Kitchen Lab is back!

The Halophytic Kitchen Lab program is one of our popular programs developed to raise public awareness about the benefits of halophytic (salt-loving) plants cultivated in desert environments as well as healthy cooking and nutrition through the preparation of halophyte-based recipes.

Visit our website or call us to book your slot!

Meet our new Chef

Chef Deena Khayyat is a culinary experientialist specializing in healthy, experimental eating. She revitalizes ancient culinary techniques with modern ingredients and knowledge, influenced by her training under renowned chefs in London, France, and Japan.



Deena's work emphasizes food as a means of connection and mindful living, advocating for the slow food movement and integrating agriculture with culinary arts. She aims to make each meal a nourishing and celebratory experience of heritage and ecological stewardship. Outside the kitchen, she practices holistic living by tending beehives and cultivating mushrooms.

SNEAK PEEK: THE DESERT FARM



Since its relocation from Expo City Dubai, the Desert Farm has greatly enriched the museum park visitor experience, offering new educational opportunities.

Embracing the principles of circular agriculture, the Desert Farm demonstrates an integrated agri-aquaculture system. This innovative model utilizes saline water to cultivate fish, and sandy soil to grow salt-tolerant crops.

Since January, the system has successfully grown *Salicornia* hydroponically, along with quinoa and blue panicum grasses, all nourished by water from the fish tank.

The tank houses *Tilapia*, a fast-growing resilient fish capable of thriving in extreme temperatures and high salinity. Thanks to these fish, the saltwater is enriched with nutrients from their waste, creating a sustainable and efficient cycle that exemplifies the potential of integrated farming techniques in arid environments.



World Environment Day

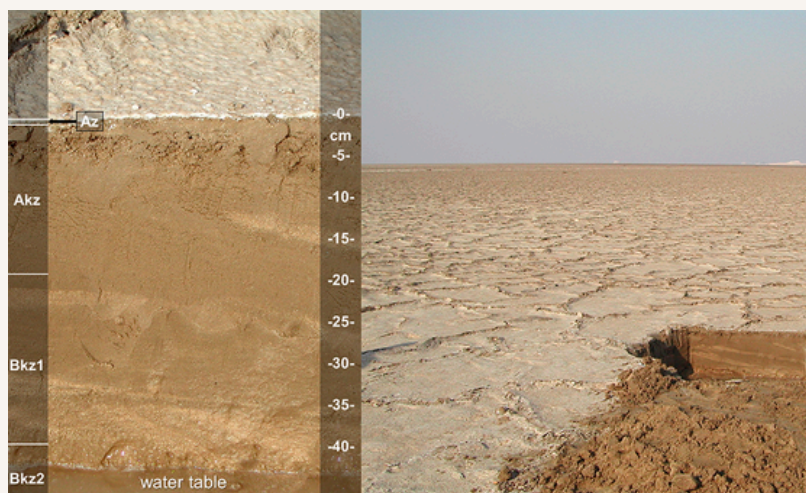
Planting Tomorrow: Ghaf Seed Extraction

Our ghaf trees are in full bloom, looking spectacular!

On June 7, we celebrated World Environment Day in a special event with collaboration with Companies for Good and Standard Chartered to extract ghaf seeds from pods collected around the field. The seeds were planted and nurtured in our nursery, contributing to our efforts to combat desertification.

The activity was followed by a session of the Living Soils Workshop where participants enjoyed learning about the fascinating soil ecosystem!

SOIL SPOTLIGHT : AQUISALIDS GREAT GROUP



Aquisalid soils (USDA) are strongly saline or very strongly saline (salic horizon) soils in coastal and inland salt flats (sabkhas). Despite the presence of groundwater within 1 meter from the soil surface, the high salinity makes these soils physiologically dry. Textures are mostly loamy or sandy. Aquisalids are considered permanently unsuitable for irrigated agriculture due to the near-surface saline groundwater with a high salt content (AD128).

Aquisalids cover about 218,186 hectares, or about 3% of the UAE.

WHY VISIT A SOIL MUSEUM?

In the face of rising global food security threats, understanding soil's role in agriculture and its response to environmental changes is vital. This is especially true in desert environments like the United Arab Emirates (UAE).

What processes occur underground? How are these processes evolving? What impacts do they have? These are critical questions worth exploring.

The sandy soils, covering nearly 75% of the UAE, require specialized management for productive cultivation. These soils, found in a desert and hot eco-environment, are prone to severe land degradation, which diminishes their productive capacity.

Despite this, UAE deserts are dynamic, necessitating documentation and study. While natural history museums typically preserve soils, soil museums are rare worldwide and nonexistent in the Arab region.

Located on the premises of The International Center for Biosaline Agriculture (ICBA), the Emirates Soil Museum is a unique facility in the Gulf region, providing valuable insights into the dynamic and vital world of soil.

Inaugurated in December 2016 with financial support from the Abu Dhabi Fund for Development, the Emirates Soil Museum is a unique facility that promotes environmental protection and soil conservation. The museum is dedicated to the role of soils in the environment, agriculture, food security, and the types of soil found in the UAE. Since its opening, it has grown into a knowledge hub for everyone interested in soil conservation in the UAE and the Gulf region.

Since its opening, over 13,500 people, including ministers, decisionmakers, researchers, farmers, students and members of the public from around the world have either visited the museum or participated in its programs and activities.

Visit our website to learn more about our offerings and book your visit!



Thank you for reading!

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