

Sansevieria: collections and heritage in Meise Botanic Garden

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Zusammenfassung

Die Autoren stellen den nördlich von Brüssel gelegenen Botanischen Garten von Meise vor. Er gehört heute zu den fünf größten und vielfältigsten botanischen Gärten der Welt. In der Tradition von Emile De Wildeman und Emile Laurent beherbergt der Garten auch heute noch eine große Sansevierien-Sammlung. Darunter befindet sich die Originalaufsammlung der beliebten Sorte *Sansevieria trifasciata* 'Laurentii', die heute bereits über 100 Jahre alt ist. Neben den Lebendsammlungen beherbergt der Garten ein bedeutendes afrikanisches Herbarium und eine umfangreiche ethnobotanische Sammlung.



Fig. 1 – Boechout castle
(Foto: with permission of Meise Botanic Garden)

Discover plant diversity

Situated in a historic domain of 92 ha, Meise Botanic Garden ranks in the top 5 of largest and most diverse botanic gardens in the world in the magnitude of its collections as well as in its expertise as a research institute. Meise Botanic garden is renowned for its vast living collections comprising about 18000 different taxa, half of which are grown in the greenhouses that span about 1.5 ha. All year round, visitors can discover a large part of these collections in many thematic gardens and greenhouses. Currently, the garden is undergoing a metamorphosis with the renewal and renovation of its buildings and greenhouses and the development of numerous new gardens.



Fig. 2 – Plant Palace entrance
(Foto: with permission of Meise Botanic Garden)



Fig. 3 – Balat Greenhouse
(Foto: with permission of Meise Botanic Garden)

Amongst the greenhouse collections, succulents are especially well represented and these collections are still expanding. Our *Euphorbiaceae* and *Xanthorrhoeaceae* (*Aloe* and relatives) reference collections are world level with among others over 1000 *Euphorbia* accessions including more than half of the IUCN threatened taxa. The oldest documented accessions date back from 1907 including several historic *Sansevieria* accessions.



Fig. 4 – *Sansevieria volkensii*

LEFT: Flowering plant (Foto: R. Martens) – RIGHT: fruiting (Foto: G. Mamdy)

The Plant Palace – garden of the world

The largest greenhouse complex of the garden, called the Plant Palace, was built in the 1950s to house the vast and fast expanding collections of exotic plants of the Botanic Garden. Within the 13 large interconnected greenhouses of the palace, visitors can take a tour around the world through various biomes from lush tropical rainforest to dry deserts. Each house contains between 400 and 700 different plants species.

Starting in the recently renovated main entrance of the Plant Palace you enter the tropical rainforest which completely fills the five interconnected houses in the north wing. In addition to the rainforest

diversity there is also a focus on endangered and ethnobotanic species, a canopy walk and a house dedicated to the unique Central Africa collection of the garden. Eight other houses each have their specific theme: savannah & monsoon, Mediterranean, tropical wetlands, deserts, subtropical rainforests, tropical mountains, anthropogenic biomes (with economically important plants) and evolution. The extraordinary diversity of plant species allows the visitors to discover the various adaptations to each of these environments that plants have acquired through their evolution. However, the Plant Palace is also home to several extraordinary and exceptional plants such as the Kwango giant cycad, the Victoria waterlilies and last but not least the titan arums that regularly surprise us with an astonishing bloom and smell!



Fig. 5 – *Sansevieria gracilis*
blooming in the Savanna House (Foto: F. Billiet)

The Sansevieria collection

The living *Sansevieria* collection currently contains about 100 accessions representing 60 different taxa. Among these are several species rarely seen in cultivation such as *Sansevieria bracteata*, *Sansevieria forskoliana* and the red flowering *Sansevieria sambiranensis*. As for most other collections, about one third of the *Sansevierias* is of documented wild origin from East or Central Tropical Africa.

Also the related *Dracaena*, from which *Sansevieria* forms an evolutionary branch, is well represented in the collections of Meise.

A bit more than half of the *Sansevierias* is permanently planted out in the Savanna greenhouse which is accessible for the public. However, the core collection is kept in a collection house with restricted access. Although in the past most collections such as the *Sansevierias* were organised in a taxonomical or geographical way, the future organisation of the collections will be based on the ecological niche of the different species allowing for a more optimal cultivation and health status. As the current non-public collection greenhouses date back from the 1930s they have had their best years. In 2019 Meise Botanic Garden starts with the construction of a new state of the art greenhouse complex named the 'Green Ark' where all scientific and conservation collections will be housed. This name was chosen referring to one of the first mentions of biodiversity conservation in human history. Within the greenhouse complex a multipurpose room will be installed where the public will be able to take a look into the rich collections and learn about our scientific, conservation and heritage projects. The *Sansevieria* collection is one of the highlights visitors will be able to admire from behind the glass.



Fig. 6 – *Sansevieria pearsonii* in the Savannah House.
(Foto: with permission of Meise Botanic Garden)





Abb. 7 – *Sansevieria stuckyi* + *S. ehrenbergii* in the Savannah House. (Foto: with permission of Meise Botanic Garden)

Abb. 8 – *Sansevieria powellii* in the Savannah House (Foto: with permission of Meise Botanic Garden)

Abb. 9 – *Sansevieria pearsonii* (Foto: G. Mamdy)

Abb. 10 – *Sansevieria pearsonii* (inflorescence) (Foto: G. Mamdy)

Abb. 11 – *Sansevieria robusta* Seeds enlarged. (Foto: M. Strack van Schijndel)

Abb. 12 – *Sansevieria parva* (Foto: R. Martens)

Sansevieria-horticultural heritage in Meise

Probably one of the most common and popular horticultural snake plants is *Sansevieria trifasciata* 'Laurentii', characterised by its yellow banded leaves. This variety was first described in 1904 by EMILE DE WILDEMAN, scientist and former director of the Botanic Garden as an institute. It was named after EMILE LAURENT, one of the first botanists to explore the flora of central Africa on a large scale. About 3500 of his specimens (mainly from his third voyage) are conserved in the African herbarium of Meise Botanic



Fig. 13 – *Sansevieria trifasciata* 'Laurentii' here the mother plant.
(Foto: with permission of Meise Botanic Garden)

Garden. DE WILDEMAN predicted this plant would face unlimited success as an ornamental houseplant and history has proven his right. The mother-in-law's tongue has been a window sill pleaser during the complete 20th century in Belgium and abroad. *Sansevieria* species grow in the savannah and they survive the dry season thanks to the water they store in their leaves. This also makes them suitable as a houseplant: they don't need much care and can thrive in difficult conditions. Moreover, they serve as an ideal screen to block the views from the street. The specimen planted out in the Savannah greenhouse of the Plant Palace belongs to the original collections of the former Botanic Garden when it was stationed in the Centre of Brussels and the plant is now more than a 100 years old. This collection represents the type material for this taxon and is the mother plant of all yellow variegated *Sansevierias* cultivated worldwide (Fig. 13).

In addition to the *S. trifasciata* 'Laurentii' the collection houses a dozen other *Sansevieria trifasciata* horticultural varieties in different shapes and colours such as *S. trifasciata* 'Craigii' and 'Negro'. These all date back from between the 50s and 70s of the past century, a period when brightly coloured house plants were most fashionable. During this period all plants for decorating the offices of the ministries in Brussels were supplied by the Botanic Garden. Also from other bright coloured taxa such as *Codiaeum variegatum* (*Croton*), *Begonia* 'Rex' and *Cordyline fruticosa* the Botanic Garden still preserves rich historic collections containing many Flemish horticultural heritage varieties.

There is more...

Besides the living collections Meise also houses herbaria and other preserved collections such as fibres and an ethnobotanic collection, together containing over 4 million pieces. The African herbarium includes specimens and type material of various *Sansevieria* species, especially from the Central African region.

Both the preserved and living collections form a continuous basis for scientific studies worldwide. Recently the collection had been sampled for a study on molecular phylogenetics and barcoding in collaboration with Ghent University (van Kleinwee 2018). Next winter our *Sansevieria* collections will be part of an exhibit on plant fibres and artwork in Meise Botanic Garden, in collaboration with the Royal Academy of Fine Arts of Antwerp.

Links

Visit us online: (www.plantentuinmeise.be/de/)

Consult the living collections database: ([Database](#))

Comment

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