

Kirsty Wilson. **Meconopsis on Display at Longwood Gardens**

John Mitchell said he was delighted to ask Kirsty Wilson to talk. Kirsty is home grown talent who trained here at RBGE.

Kirsty began by thanking the group for inviting her to talk at the meeting on Meconopsis at Longwood Gardens

She first became interested in Meconopsis while training at RBGE where she gained a 1st Class Honours Degree in Horticulture and Plantsmanship. She joined the Group as a student member, and was successful in growing meconopsis from seed. She then spent two years at Prince Charles garden Highgrove in Gloucestershire as a Production Horticulturalist specialising in fruit, vegetables and cut flowers. Last September she joined the International Training Programme at Longwood Gardens in the USA. She is now the Glasshouse Supervisor at St. Andrews Botanic Garden.

Longwood Gardens is America's top public garden on the East coast of America in Pennsylvania. It receives 1.5 million visitors a year and is world renowned. It consists of over 1077 acres of gardens, woodlands, meadows and glasshouses. It is one of the premier horticultural display gardens in the United States. It is open to visitors all year round, 365 days a year.

Visitors can enjoy world class horticulture both inside and out. There are seasonal attractions, events and performances educational courses, lectures and workshops.

It is renowned for its outstanding International Training Programme, started in 1956. Students in Kirsty's year were from Poland, Spain, S. Korea and the UK.

The programme allows each intern and student to focus on key areas of interest and to broaden their learning experience. Kirsty's monthly rotating modules included: Indoor and Outdoor Display, Natural Land, Marketing, Production, Integrated Pest Management, Education, Plant Records and Research.

Photos were shown of the students accommodation built originally by Pierre S. du Pont, the founder of the garden, for the accommodation of gardeners. This now houses 20 to 40 students. It creates opportunities for the residents to network and make connections all round the world. It is sometimes known as Plant Camp.

While at Longwood. Kirsty assisted with or observed various seasonal events. Below is an outline of some of them.

1. The Chrysanthemum Festival: This is the largest display of chrysanthemums in the USA . The star of the show displays 1000 grafted chrysanthemums on one plant.

2. Christmas. A display of 6,000 seasonal plants including 50 trees with black, gold and glass ornaments, plus 30 foot floral trees decorated with hundreds of vibrant plus red poinsettias.
3. Spring blooms.. This includes dogwoods, magnolias, wisterias and azaleas plus 240,000 tulip bulbs planted by the students
4. Meadow garden. These 86 acre gardens show the best practices in ecological garden design. There are three trails passing through open undulating fields,, marsh and wetlands and diverse habitats showing native flora.

Since the 1980s specific areas have been burnt on a rotational basis.

5. Orchid extravaganza This is to celebrate the beauty of orchids
The highlight is a 2 ft tall spectacular archway. An orchid meadow is recreated in the conservatory.

The educational programme aims to broaden knowledge of horticulture and to enable students to gain valuable skills in the operation of a large public garden. Both in the USA and UK horticulture is not considered as a career path Efforts to change this are underway. Longwood is supporting their initiative 'Seed Your Future', a campaign to get young people into horticulture, similar to that organised by the RHS.

It is important that gardens all around the world are cared for and managed by well trained and well travelled horticulturalists

Meconopsis at Longwood.

At Longwood they force Meconopsis 'Lingholm' to flower every year in March. This cultivar has been selected for its large blue flowers which can have an average diameter of 4 inches .The plants are displayed in the Conservatory from the first week of March for 10 to 15 days. This is the only time that the public get to see them. This is late enough to ensure full vernalisation, but early enough to ensure that the temperature in the Conservatory is still cool.. Each flower lasts two to three days. The aim is to achieve pure blue flowers for the display. Purple tints may develop if the plants are under stress.

The plants.

Seedlings in Alaska are grown in pots outdoors for one year, before being flown by plane to Longwood between 15th – 20th October each year. The cold frames in Alaska are covered after this. Excess soil is allowed to drop from the root ball before they are packed for the journey to reduce the weight. They are flown overnight from Alaska to Pennsylvania. Once in the production glasshouses at Longwood they are potted into 2 litre pots and kept in a cooler at 1°C until the first week in January. This gives them enough cold vernalisation to ensure that they produce flowers at the time of the display in

the first week of March. Longwood believe that they do not need more than eight weeks of cold if an earlier flowering is desired.

Culture

The plants are then transferred to larger degradable peat pots and placed on the production greenhouse bench. They are subjected to a forcing temperature between 7°C and 12°C and high light levels in order to replicate conditions required by alpine plants.

Longwood provides supplementary lighting since they are forcing the meconopsis to flower at a time of year when natural light intensity is low.

Longwood keeps the fertility moderate as the plants are grown as a short term annual crop for display. Aluminium sulphate $Al_2(SO_4)_3$ is used to ensure the flowers are a good blue.

They are always kept moist due to their fine root system. The growing medium is high in organic matter, holds water and has good aeration.



Photos Courtesy of Longwood Gardens

Display.

When the first twenty-five to thirty plants have colour showing they are transferred into display. As they are grown from seed their flowering time is variable. Individual plants produce three flowers in succession each lasting a few days. The Meconopsis are placed in shady bays at 13°C to prevent them heating up. This ensures they flower as long as possible. When they finish flowering they are replaced with plants from the production greenhouse, usually in batches of fifty to seventy plants. This continues until the display is over ceases.

Poppy Mania.

Photographers flock to see the poppies and to take the perfect shot. Sometimes it is difficult for those working in the area to get to the plants.

Unfortunately in north America Meconopsis can only be grown successfully in Alaska, the Pacific West and parts of New England. Longwood gardens is one of the few places that is growing Meconopsis.

They are increasing the number of Meconopsis because it is so popular. This highlights how lucky we are in Scotland and the UK where we can grow so

many species and cultivars. People over there are unaware of just how many different Meconopsis and colours there are.



Photo Courtesy of Longwood Garden

Questions

1. What is the pH of the compost?
It is quite acidic. The exact pH is not known.
2. What happens to the plants afterwards?
They are turned into compost. They are treated as an annual crop.
Longwood is a display garden and has lots of money. There is a 50 million dollar budget.

Comments arising from questions.

Kirsty indicated that she thought they should grow other varieties. She explained that they are flown in from Alaska, even though it is a long way from Pennsylvania because they are a prize crop and must be ready in time for the display in March as required by the Marketing Department. A question was asked about the concentration of aluminium sulphate used. Kirsty explained she didn't know but that the compost was mixed in a very large machine, almost as long as the meeting room. A high tech operation. Longwood wanted a really blue flower and were relatively new to growing the plants. It was also used to grow blue hydrangeas.

If visitors wanted to ask questions there were lots of volunteers (700 in total, working in every area of the garden), some of whom were there to talk to visitors and who would have heaps of information.

John commented that it was nice to see how the Americans grow Meconopsis and thanked Kirsty for giving up her Saturday to come to talk to us.