

# The Order Beds at Kew

During the summer months, one of the most colourful areas at Kew is the Order Beds (Systematic Garden), lying in the north-eastern corner of the Gardens between Cumberland Gate and the Jodrell Laboratory. Here, an organised collection of more than 2500 different types of herbaceous plants is laid out, reflecting the scientific importance of Kew's living plant collections.

The Order Beds were devised in the late 1860s by Sir Joseph Hooker, then director of the Royal Botanic Gardens, so that botany students could learn to recognise plants and experience at first hand the diversity of the plant kingdom. They contain almost exclusively temperate herbaceous dicotyledonous plants (that is plants with two seed leaves). Monocotyledons (plants with one seed leaf) can be seen in other parts of the Gardens, such as grasses in the Grass Garden and orchids in the Princess of Wales Conservatory.

## The Order Beds

### Plant Classification

In the Order Beds, the collection is organised into family groups. Its name arose because plant families were known as natural orders in the nineteenth century. Botanists group plants into families according to the characteristics of flowers, leaves, stems, fruit and roots. This grouping process is known as classification and it allows botanists to organise their knowledge of the plant kingdom. The classification system traditionally used at Kew, both in the Order Beds and the Herbarium (which contains Kew's collection of over 6 million specimens of preserved plants) is known as the Bentham-Hooker classification. This was devised by Sir Joseph Hooker, and another distinguished Kew botanist, George Bentham. At the time it reflected views of evolutionary relationships of plants. Since then botanists working at Kew and other botanical institutions around the world have replaced the classification so that it reflects current thinking on plant evolution.



## Kew information sheet K21

Above: A view over the Order Beds towards the Temple of Aeolus.

Plant classification, together with plant identification and naming, are components of the science of taxonomy, which constitutes a major area of Kew's botanical research. Taxonomy is fundamental to all other biological sciences since accurate identification and naming of organisms are a prerequisite for any other research.

### Plant families in the Order Beds

In the Order Beds, plants from 50 different families are grown in the 108 beds. The amount of space allocated depends on the size of the family, the number of herbaceous species and the number that are hardy in this country. If the families are small, several are grown in one bed, whilst the larger families are accommodated in several beds. For example, the largest dicotyledonous family, the Compositae or Asteraceae (daisy family) occupies 14 beds. By growing plants from the same family together, similarities and differences in appearance are easily visible and it is possible to see a sample of the diversity within the herbaceous flowering plants. For example, the Ranunculaceae (buttercup family) contains species exhibiting very different flowers and leaves, such as Columbine (*Aquilegia vulgaris*), buttercups (*Ranunculus* spp.) and Love-in-a-mist (*Nigella damascena*). In comparison, many members of the Umbelliferae or Apiaceae (carrot family) have distinctive flowering heads in the form of umbels (rather like the spokes of an up-turned umbrella).



Above: The statue 'Out in the fields' by Arthur G. Atkinson, looks out over the beds.





Above: **The Rose Pergola in full bloom.**

Many of the families displayed in the Order Beds contain well-known ornamental or crop plants. For example, amongst the members of the Compositae (daisy family) are Sunflower (*Helianthus annuus*), Lettuce (*Lactuca sativa*) and Tarragon (*Artemisia dracunculus*). In the Solanaceae (potato family) beds are Potatoes (*Solanum tuberosum*), Tomatoes (*Lycopersicon esculentum*) and Sweet and Chilli Peppers (*Capsicum annuum*).

An increasing number of plants in the Order Beds are grown from seeds of wild origin. This enhances the value of the collection for research and education. Only species and varieties are displayed in the Order Beds – cultivated forms can be seen in other areas of the Gardens, such as the Duke's Garden and the Queen's Garden.

### Other plants around the Order Beds

The area now occupied by the Order Beds was once a kitchen garden when the Royal Botanic Gardens belonged to the Royal Family. It was presented to the State by Queen Victoria in 1846-47. Although the cross walls and the wall at the southern end, facing the mound, were subsequently removed, the remaining walls provide protection for climbers and tender plants. Over the main path is a rose pergola built in 1959 to mark the bicentenary of the Gardens. It supports some beautiful climber and rambler roses selected for the length and profusion of flowering. Circular beds on either side of the path from the Rock Garden are used to display old English roses with beautiful perfume.

Peonies are planted geographically in a garden at the southern end of the Order Beds near Cumberland Gate. This garden shows the diversity of the genus by growing the species and subspecies together with a selection of hybrids and cultivars.

Along the eastern boundary are the Kew student vegetable plots. As part of the Kew Diploma the students are required to grow a range of crops. They are awarded marks for the quality and diversity of the produce.