



PLANT INTRODUCTION AND PLANT EXCHANGE  
between China and the western countries.

The Society enjoyed, on the 12th of March, a most delightful lecture by Dr Lai Yung Li, a visitor who, after graduating from Lingnan University, Canton, recently spent some years in the U.S.A.

Though the title given above adequately covered his subject-matter, the spirit of the address is, perhaps better conveyed by a passage he quoted from E.H. Wilson, Keeper of the Arnold Arboretum.

"There is not a season of the year when flowers are open but what some jewel from China calls for admiration, from the first blossoms of the Forsythias in early spring to those of the chrysanthemums in the late fall. Whether it be among trees or shrubs, climbers or herbs, whether they be grown for beauty of their flowers, their fruit or their foliage or for all three, the plants native of China are to be found in the gardens of the temperate regions of both hemispheres. They have been won to us by all sorts of agencies and by all sorts and conditions of men. To no part of the world do gardens owe more than to China - the Kingdom of Flowers."

After briefly reviewing the physical background of China, its huge size and immense population, and its wide range of altitude, climate, soil and topography, Dr Li traced in outline the important early records of plants in China. It is known from Shen-mung that in 2737 B.C. five kinds of grains were cultivated, and plant introduction had begun as early as Chang Ch'ien's time

(140-26 B.C.) when pomegranates and grapes were introduced from Asia Minor. Books dealing with materia medica were written in the 12th to 16th centuries. More surprising was the account of a work, dated 1178, a monograph of citrus fruits, describing 28 varieties and their distribution, culture, storage and packing.

The lecturer passed on to describe some characteristic Chinese plants, among them ornamentals such as crab-apples of many kinds; Rhododendrons, a genus with head-quarters in west China and including the azaleas, among which *R. simsii*, known in China as "all mountain red" is the parent of the modern "Be-gian" or "Indian" azaleas; and magnolias, that have for more than a thousand years been favorite trees in Chinese gardens. Of roses he said "Conspicuous in the valleys and open mountain slopes everywhere in China are roses, and from that land have come the principal parents of the races of roses the garden-lovers enjoy today; *Rosa odorata* var. *gigantea*, S.W. China, prototype of the Tea Rose; *R. sinensis* var. *spontanea* C. China, parent China Monthly Rose; and *R. multiflora* var. *cathayensis* C. China, parent of Polyantha Rose and crimson rambler. These and other roses have been cultivated for we know not how many centuries by the Chinese, and it was these that about 1800 were introduced into Europe where they were crossed with roses long grown in Europe to give the modern rose in all its multifarious forms."

On the Tibetan border, 2000 miles up the Yangtze, in semi-arid valleys, surrounded by mountains whose peaks are clothed with snow eternal, the Regale lily has her home, and grows, not in ones or twos or in tens but in thousands. It was here that in 1910 the American collector, Wilson, determined to secure such a treasure for gardens, was caught between landslips and sustained injuries from which he did not recover for two years - but he got the lily!

Many species of primula and chrysanthemums likewise belong to China.

**Fruits.** In China many fruits have been evolved from native plants; such is the history of the apple, the pear, the cherry, and the plum grown in China for they do not have a common origin with the western species. The apricot, the peach, the orange, and the lemon are natives of China. Kumquats (*Fortunella*), belonging to the citrus family (*Rutaceae*), are favorites in S. China for candied fruits and as ornamentals, the potted plants being displayed in homes

at New Year time.

Chinese olives belong to the family Burseraceae. The fruit of *Canarium album* and *C. pimela* provides oil and can be pickled. These handsome trees might well be introduced into New Zealand.

Sapindaceae, the titoki family, provides the Royal fruits of China, the Lychee and the Lungan. With regard to the Lychee, the famous writer, Su Tung-Po in the 11th century wrote, while in exile in the south after he had spoken disrespectfully of the Emperor:

"Beneath these green mountains where spring rules the year,

Where Myrica and loquat in season appear;

And feasting on Lychee - three hundred a day,

I shouldn't mind staying eternally here."

Persimmons are grown in every province and the loquat, though named *Eriobotrya japonica* is a native of China."

The introduction of Chinese plants to the west. Knowledge of Oriental plants extended westward through the Chinese armies that penetrated to the Caspian Sea in the early years of the Christian era and later by the accounts of Marco Polo (13th century). The Portuguese in the 16th century traded for camphor, cassia bark, and medicinal rhubarb, and according to tradition, the first orange was taken to Lisbon about this time.

To the Jesuits (from 1552 onwards) the world is profoundly indebted for its knowledge of things Chinese, and not the least are garden-lovers under obligation to them for making known the rich floral wealth of that land. The first seeds and dried plant specimens from North China were collected by a priest in the middle of the 18th century and the seed sent to Paris included *Cedrela sinensis*, *Syringia villosa*, and the Chinese aster.

The East India Company, formed in 1600, played an important part in the introduction of many Chinese plants to Europe and by the end of the 18th century we find plants pouring in to England from China. One of the Company's inspectors John Reeves, between 1812 and 1832, collected all that he could find most rare and beautiful growing in the gardens of Canton. He established plants in pots prior to dispatching them home to the London Horticultural Society. He sent among others Azaleas, Camellias, Chrysanthemums, outan paeonies, *Dendrobium nobile*, *Wisteria sinensis*, and *Rosa chinensis*. A famous collector of the London Horticultural Society

As Robert Fortune, who, in 1845, shipped 21,000 tea seedlings from Shanghai to the Himalayas. These arrived safely and started the Indian tea industry of today. Fortune is also credited with long list of plants introduced to Europe from China.

Dr Bretschneider, a Russian physician in Peking in the late 19th century, sent seeds to Botanic Gardens in Europe as well as to the Arnold Arboretum in U.S.A. Species of Syringa, Pyrus, and Hydrangea were mentioned.

Since the beginning of the 20th century hundreds of valuable plants have been introduced from China to Europe and America. Among the most important are: soybean, tung oil, species of Lespedeza, Citrus, disease-resistant pears and chestnuts, the jujubee, persimmons, Lychee, Lungan, and some bamboos.

Introduction of western plants into China. The introduction of strictly foreign plants into China began at about the time of Wu-ti (140-86 B.C.). The great Asiatic movement of plants in the hands of man initiated then continued steadily until the 14th century and thereafter. From western Asia and Europe there came into China a long line of flowers, vegetables and fruits, including the Pistacia, pomegranate, and cultivated walnut, cabbage and cauliflower, garden pea and bean, spinach, sugar beet, carrot, lettuce, cucumber, watermelon, and numerous other vegetables.

In the 16th century another stage of this great economic conquest began, when species of plants from the Americas were first introduced into China and acclimatized. These included the peanut, tomato, Irish potato, sweet potato, and corn. By 1656 the pineapple, the guava, and the custard apple, all American had established Chinese names.

More recently, papaya, some pineapple and many sugar-cane varieties have been introduced from the Hawaiian Is.; slash and longleaf pine, selected varieties of citrus, pecan, and avocado from U.S.A. About 16 years ago half a dozen species of Eucalyptus were introduced to S.China.

In closing Dr Li emphasized that this immensely fascinating field of international plant study and exchange is one of the most logical ways of bringing about world peace and prosperity. "In the gardens of the world mankind is seen at his best. It behoves us in these days when time and space begin to disappear, to renew our interests, one people in another; and to concentrate upon and foster these constructive forces rather than the destructive ones which so stealthily creep upon us. Here then is the field of conquest for all

students of plants for international co-operation, serving the people of all lands, bringing to their rooms new flowers, and to their tables new fruits."

In reply to a question Dr Li told something of the temple gardens that the Buddhists establish wherever they go. The maiden-hair tree (Ginkgo biloba) grown by the priests was mentioned in a rather unexpected connection, as the seeds are served with rice for food.

The different kinds of tung oil trees are known to the Chinese as "three-year tung" that quickly cones to maturity (Aleurites fordii) and "thousand-year tung" (A. montana) that is reputed to be very long-lived. A. molluccana, known also on the Kermadec Is. is used as an ornamental plant.

A question about the system of classification used in the older writings on Chinese plants called forth an interesting demonstration of the way in which the characters of the written language illustrate the very early grouping of plants into herbs and trees.

Our vote of thanks could express only very inadequately our appreciation of Dr Li's choice of subject and his picturesque presentation of his "chop suey" (菜肉).

#### MR DUNCAN'S GARDEN

Even at this late date some mention should be made of the Society's visit on the 6th December to Mr S.Duncan's garden at Tawa Flat.

In a valley enclosed by pines and with a wide range of exotic trees providing all degrees of shade and shelter, Mr Duncan has succeeded in establishing hundreds of our lesser-known trees, shrubs, and herbaceous plants. From the smallest cuttings and seedlings being propagated in pots to a 70-year old kauri of exceptional height, there seems to be little that is too difficult for him to persuade to grow.

An adjacent grassy slope is allotted to flowering manukas and ground orchids, and we saw also a flourishing rockery, a hillside of choice Hebes, mostly in flower, and a shrubbery containing rare natives of especial horticultural value.

Members with gardens found their fingers itching - and not in vain - for cuttings and small plants, and many will have cause to remember gratefully, in seasons to come Mr Duncan's skill as a propagator and generosity as a host.

Mrs W. F. Samson.