

Summary

These sixty-six species of fungi in twenty-three genera found in the soils of the vicinity of Peiping are similar to those found in the soils of the occidental world. The results indicate that species of *Aspergillus* and of *Pencillium* constitute the prevailing fungous flora in all soils. *Trichoderma*, *Fusarium*, *Rhizopus*, *Gliocladium*, *Hormodendrum*, *Acrostallagmus* and *Mucor* have occurred in certain soils repeatedly. These facts confirm the statement given by Waksman (1927) that *Pencillium*, *Fusarium*, *Mucor*, *Aspergillus* and *Rhizopus* are the most common genera of fungi found in soil, both in number of species and in frequency of occurrence. The present results also agree with Russell's statement (1923) that ultivated garden soils contain all forms of fungi and most soil forms belong to the *Fungi imperfecti* except *Cunninghamella*, *Mucor*, and *Rhizopus*. Since fungi in soils are not limited to any particular depth and since this study is by no means inclusive, the variety of forms found at a depth of two to four inches may be taken as representatives of the soils.

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METHODS AND MATERIALS OF CHINESE TABLE PLANT CULTURE *

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We are hearing and reading a good deal lately in the United States about so-called Dish Gardens. These consist chiefly of miniature landscapes developed in bowls or flat dishes by the use of small or dwarfed plants, seedlings, and often with the admixture of artificial plants and toy structures, persons and animals. They constitute really a rather belated imitation of an art which has long since reached a very high state of development in the Orient, particularly in China where it no doubt originated, and in Japan where it has been in some instances rather highly modernized. In the latter country various schools of this art have appeared since it was introduced from China by Buddhist missionaries in the sixth century. These have developed different techniques and use somewhat different materials, each achieving results or types of productions which have received various distinctive names. Anyone interested in the subject can get a fairly adequate idea of this art and its productions in Japan by referring to the Encyclopedia Britannica under the headings Bon-sai, Bon-seki, Bon-kei, Bon-tei, Hako-nina and Ike-bana.

In China, ornamental gardening has developed largely along the line of miniature or greatly reduced idealizations of natural scenery. The extreme limitations of space imposed upon the average Chinese garden, and the home-staying habit incident to the great difficulties of travel in this land are doubtless responsible in part for the trend indicated. The wellnigh universal appreciation of the aesthetic value of living plants has made it natural that every home should have some sort of garden. These forces have been operative in the development of that branch of gardening known in Chinese as P'oon Tsui (盆栽) which has its equivalent in the Japanese Bon-sai, and which we in America call by the rather homely term, Dish Gardening.

As with the Chinese garden in general, so with the miniature garden, the central idea is the reproduction in miniature of idealized landscapes, and the Shek Shaan (石山)¹ is the most common type.

* Contribution from the Department of Biology.

¹ Literally, Stone Mountain or Rock Mountain.

With table plants, the plant is the central feature of interest, and each sort is so treated as to bring it to its fullest development as a thing of beauty and a work of art. Here the landscape feature is either omitted entirely or reduced to the inclusion of a single stone or even to the judicious culture of a few "weeds" for a background or a screen for the soil.

The culture of table plants constitutes one of the most charming and artistic aspects of Chinese horticulture. It is appropriate to note here that most commercial gardening in China devotes major emphasis to the cultivation of potted plants which are rented or sold for temporary exhibit and to which only a modicum of individual attention is given. And although most commercial gardens of any size offer for sale a varying array of specially treated specimens which are to be classified as table plants, it is only in the hands of the individual plant lover in whom the artist and the plant husbandman are combined that these creations reach their highest perfection.

In the selection of the table plant materials, there is a wide range of latitude, though certain considerations must be kept in mind. The limitation of space probably takes precedence. Thus plants which are either by nature miniature in size or can be dwarfed or severely trimmed without losing their ability to respond and thrive, are required. It follows that the foliage must be relatively small to be in keeping with the miniature size of the plant. Plants are needed whose foliage retains its freshness and peculiar attractiveness under the rather unfavorable conditions of culture which they must endure.

The stem of the plant is often the central or dominant feature of interest, particularly in those specimens where the imitation of a rugged tree of great age is to be attempted. And in this connection the texture of the bark is important.

Many plants are selected for table culture chiefly for their striking blossoms, though they may also have value for other features. And again, the possession of flowers with an attractive and pervading fragrance often leads to the use of plants which have little else to recommend them. The final test of a plant's usefulness in this field is its ability to live and thrive and respond under rather exacting conditions. Indeed, here is where the gardener's instinct must be peculiarly alert. There are many plants with those physical attributes which make them ideal table plants, but which cannot long endure shade or to which other interior conditions are ungenial. The gardener must then sense the moment at which the plant must be taken out for the rejuvenating influence of sunshine breezes, and dew. True, there are some plants, and they are the

most "popular", which seem to be able to stand almost any amount of neglect. Such a one is the Maan Nin Ts'ing (萬年青)¹ which is found as an ornament in practically every Chinese home. But the real fancier of table plants would find little of interest in Maan Nin Ts'ing, for it would neither tax his ingenuity nor repay any special treatment. Its virtue lies in its perennial verdure and its ease of culture. All it requires is a foothold and a constant supply of water.

Although the table plants grown at Canton are usually not deciduous, some of the most highly esteemed ones are leafless at the time of flowering, and here may be mentioned the peach, apricot, and apple. Some are grown solely for their foliage effects, namely, Maple, Maiden-hair fern, and *Polyscias*, to mention only a few. Some plants are especially esteemed for pot culture because of a symbolism which has grown up about them. What Chinese plant lover does not know that the Pine, the Apricot and the Bamboo are the "Three friends of Winter"? The Pine, likewise, symbolizes longevity; the Bamboo, uprightness. One particular combination is often assembled as a birthday gift, and besides making a striking composition affords in the names of the individual plants a traditional symbol of the classic Chinese birthday greeting; "Ling Sin Chuk Shau" (令仙祝壽). Four species are used, and each represents a word, either directly, or by sound, thus: Ling (令) comes from Ling Chi (菱枝) a Fungus;² Sin (仙) comes from Shui Sin (水仙) *Narcissus*; Chuk (祝) comes from T'in Chuk (天竹) *Nandina*; Shau (壽) is the classical name for the plant now known as Loh Hon Ts'ung (羅漢松) *Podocarpus*.

The art of dwarfing is central in a great deal of the work of table plant and miniature garden production, and it is appropriate to outline here the chief principles involved.

As in other types of gardening one should begin with, or acquire, a knowledge of the cultural requirements of the particular plant being dwarfed. Its natural habitat should be reproduced and maintained as far as possible, with certain purposeful modifications. The plant must be kept in good physical condition. Generally speaking, frequent exposure to dew at night is necessary for the best results. It is not sufficient to make the plant unhappy by withholding at random this or that requirement, such as sunlight or shade, moisture or drought, or mineral nutrients, hoping that

¹ *Aglaonema modestum* Schott (see p. 131).

² The Ling Chi, here referred, with some doubt, to *Polyporus lucidus*, since probably a number of forms are used, is not cultivated in any sense, only dried plants being employed, and these solely for their symbolical significance.

the plant will be dwarfed thereby. Nor is severe trimming alone sufficient in most cases. In general, confinement of the roots is a central feature of dwarfed treatment. Sometimes the roots are partially exposed to the air. The soil is changed only once in two or three years, at which time judicious pruning of the roots is practiced. In this way, although necessary mineral elements are not entirely withheld from the plant, the supply of them given is rather definitely limited, at least during the dwarfing period. In addition to confinements of the roots, careful pruning of the leaves and branches is practiced, both for dwarfing and for bringing the plant into the desired shape, but the results are not likely to be satisfactory if this is done at random. By severe trimming during the time of dormancy the stems of some plants may be induced to produce a relative abundance of adventitious branches when they start to grow again. All of these should be removed while quite small excepting those which are in exactly the desired positions. These are then caused to grow in the appropriate direction by bending and tying each young branch in place until its tissues have hardened sufficiently so that it will remain so. Sometimes branches are grafted onto the stem in the desired position, and at the appropriate angle. This expedient is, however, more commonly employed with the larger productions of commercial gardens. It is apparent, then, that it is necessary to have in mind from the beginning, or through careful study, the shape or form toward which one is striving to bring the plant. One effect of severe pruning is to reduce the amount of foliage and hence the amount of food elaborated by photosynthesis. This naturally reduces the rate of growth in the plant and its total growth in a given season. The dwarfing of P'o Ts'o (蒲草)¹ apparently is accomplished solely by severely trimming back the foliage. In pruning woody plants the roots, branches, twigs, or foliage may be removed in part, according to the requirements of the individual case. With bamboos and palms, dwarfing is effected chiefly by the premature removal of the sheaths which envelop the stems and protect the tender growing tissue above the nodes. Apparently, exposure to light hastens the maturing of this tissue, thus shortening its period of growth and lessening the total increase in length during the current season.

A device commonly used with bamboos to achieve a dwarfed appearance is to place the underground rhizome in an upright position. This described in full on pages 127, 128.

Other treatments are sometimes necessary in connection with the perfection of some table plants, particularly with those whose chief feature of attraction is the flowers or fruits. Here again,

¹ *Acorus gramineus* Ait. (See p. 130).

pruning is often important, the chief end being to reduce the amount of vegetative or leaf-bearing tissue so that the reproductive structures will be relatively more abundant or larger. Sometimes a part of the flower buds are also removed in order to achieve greater size in those remaining by diverting the full supply of stored food to fewer flowers. The same applies to fruits. In this connection, the application of fertilizer is also practiced. Here the preferences of the individual plants must be studied and the fertilizer must be applied at exactly the right moment in the development of the flowers or fruits.

As has been indicated, the dwarfing of plants is achieved largely by means of the confining of roots, the trimming and training of branches and the regulation of water and mineral nutrients, but the fine points of the practical application of these methods can be acquired only by long apprenticeship and first hand contact with the individual species and varieties in order to learn their requirements and their responses, since these things may not be learned entirely from books.

After a consideration of the plant and the manner of bringing it to perfection as a table specimen, comes the choice of the vessel in which to grow it or to exhibit it. Here again, individual attention and selection are necessary. Ornate pots are rarely used except for those plants whose appeal is simple. Regulation commercial pots are little used, those of individual design being preferred. Simple shallow oblong earthenware trays are usually preferred, and those who can afford them use trays carved out of white marble, especially for plants to be grown in water or in wet culture.

The central idea seems to be to have the pot or tray rather a setting for the plant or garden and not a highly ornate object which will attract attention to itself. Pots of rustic design are often used to splendid advantage, though the patterns selected by experts are always severely simple.

The commonest culture medium is soil, though for some plants only stones and water are employed. When soil is used, it is usually in the form of dried pond or canal mud which is the standard potting soil used in China. Occasionally, plants are grown on sponges with their bases submerged in water. Forms, such as *Acorus* (discussed later), which frequent moist habitats, or grow on spray-drenched rocks, are grown on selected stones of particular kinds. Bulbous plants, like *Narcissus*, are often supported in water culture by masses of smooth clean pebbles or by solitary rocks of appropriate form. In tray cultures rugged stones are used as miniature mountains, or to suggest a rocky habitat, and the combinations worked out are often very effective. The selection

of appropriate stones to set off or enhance the artistic appeal of each type of plant is in itself an art. Rocks of particularly pleasing texture or of classic shape often bring high prices in the market.

There follows here a list of the plants most commonly used for table culture in Canton. The families are arranged in phylogenetic order, but the genera and species under each family follow the alphabetical sequence.

After each scientific name, and on the same line, the commonly accepted English name¹, if any, is given, followed on the next line by the Chinese name, its romanization² and, in some instances, its English translation. Where the English name in common use is the same as the translation of the Chinese name, it is not repeated. Some plants have many common names. In the present paper only those are given which are used by the growers of table plants.

Brief notes follow which indicate, in most instances, the nativity of each plant, its characteristic features and its particular adaptability to culture as a table plant.

POLYPODIACEAE

Adiantum sp.

鐵線芒 TIT SIN MONG

MAIDENHAIR FERN

WIRE FERN

Only one example of the use of the Maidenhair fern as a table plant has come to my attention in Canton. The piece represents a solitary, rocky island set in the midst of a placid lake and clothed in a luxuriant growth of black-stemmed elm-like trees with a lilliputian fisherman perched on a shaded rock and dangling his line in the limpid waters. It is a creation of great beauty and is the work of T'it Shim (鐵禪) the scholarly Abbot of the Temple of the Six Banyan Trees (六榕寺).

SELAGINELLACEAE

Selaginella uncinata (Desv.) Spreng.

仙人掌 SIN YAN TS'O

綠絨草 LUK YUNG TS'O

SELAGINELLA

FAIRY WEED

GREEN YARN WEED

Only occasionally grown alone as a table plant this species is sometimes used, and with fine effect, as a soil cover or a "garnish" about the bases of rough woody plants or rocks to give a touch of naturalness. This treatment is well illustrated in the central tray in Plate 8. *Selaginella mollendorfi* Hieron. (or *S.*

¹ In most instances Bailey (1924) is the authority for the English names cited.

² In the Cantonese dialect, after the system of Cowles.

biformis A. Br.), a form with more upright branches, is sometimes grown alone, with rocks, under the name Tei P'aak (地柏).

TAXACEAE

Podocarpus macrophyllus (Thunb.) Don

var. *Maki* Sieb.

羅漢松 LOH HON TS'UNG

壽 SHAU

PODOCARPUS

SAINTS' PINE¹

LONGEVITY

Known currently as Loh Hon Ts'ung, this native tree is referred to in Chinese classical writings as Shau (壽) and is considered as symbolical of longevity. It is one of the plants used in the "Ling Sin Chuk Shau" combination described elsewhere (p. 121). Commonly dwarfed for table culture, it also lends itself well to topiary work in which the stem is bent and twined into various conventional shapes. Most commercial gardens exhibit examples of it in this form, as well as the familiar Koo Shue² form.

PINACEAE

Cryptomeria japonica (L.f.) D. Don

孔雀松 HUNG CHEUK TS'UNG

日本杉 YAT POON CH'AAM

柳杉 LAU CH'AAM

CRYPTOMERIA

PEACOCK PINE

JAPANESE FIR

WILLOW FIR

Known in Canton as the Willow Fir and the Japanese Fir, and in central China as Peacock Pine, this becomes a magnificent tree in temperate regions. The memorial avenue of *Cryptomeria* trees in Nikko is justly famous. In the latitude of Canton, however, this planted in the ground, and as a table plant it can be dwarfed very nicely. It makes a charming miniature tree, with appropriately minute foliage, small, pendant cones and rugged trunk.

A dwarfed form, var. *elegans*, Mast. is grown in the West which, according to Bailey "is characterized by pendulous branches and somewhat longer leaflets which turn bronzy-red in autumn."

Glyptostrobus pensilis Koch

水松 SHUI TS'UNG

WATER PINE

But little known in the wild, this Chinese tree, which is a close relative of the North American Swamp Cypress, is a familiar object in the Canton Delta, where, commonly planted along dykes, it constitutes one of the most attractive features of the landscape. Grown in all the commercial gardens at Canton as a Koo Shue, it is

¹ Groff, p. 276, gives the translation "*Ahern's Pine*".

² 古樹—literally "*ancient tree*", this is the Chinese term locally used for all dwarfed woody plants of tree-like habit.

sometimes dwarfed as a table plant. Its appearance is similar to that of the *Cryptomeria*, though more delicate.

4 *Juniperus chinensis* L.

針松 CHAM TS'UNG¹

CHINESE JUNIPER
NEEDLE PINE

This plant is distinguishable from the following *Juniper* by its dimorphic foliage, part of which is of the sharp, needle type, whence comes its local name. The needle-leaves each bear a pair of white lines on their upper surface which give the foliage a gray appearance. This species dwarfs more satisfactorily than *Chue P'aak*, but by reason of its less attractive foliage it is not so commonly used as a table plant as the latter. The Chinese *Juniper* is, however, much used as a pot plant in Canton, and is also commonly planted in the ground in formal Chinese gardens where it is usually kept trimmed to a neat conical shape.

Juniperus sp.

朱柏 CHUE P'AAK

PEARL JUNIPER

This plant is commonly grown in Canton as a potted ornamental. It lends itself only moderately well to dwarfing and its charm lies chiefly in its soft green, minute foliage which adheres closely to the branchlets. This is the only one of the *Junipers* that produces flowers and fruits here. The fruits are small, globular, dark blue berries which are rendered pearly-gray by the white "bloom" with which they are covered, and their fancied resemblance to pearls gives rise to the colloquial name.

Juniperus sp. (cf. *formosana* Hayata)

雲松 WAN TS'UNG

FORMOSAN JUNIPER
CLOUD PINE

A naturally small plant with striking gray-green foliage and a billowy form, this pretty *Juniper* is much grown as a pot plant in Chinese gardens at Canton. It is very attractive as a table plant, but is difficult of culture and is not much used for this specific purpose.

Pinus massoniana Lamb.

崗松 KONG TS'UNG

MASSON'S PINE
HILL PINE

This is the pine which is so commonly planted on the hills of southeastern China. It is used to a certain extent as a table plant here, though its needles are too long to make an ideal plant for this purpose. Specimens of this species for table culture are usually dug up from the wild, small plants being selected which are already somewhat stunted and dwarfed by natural adversity. The plants are lifted during the winter, while the terminal buds are in a dormant condition, preferably in November. These pines are very

¹ Walker, p. 35-7, assigns to this species the local name *Chue P'aak*, which properly belongs to the following form.

difficult to transplant from the ground if the terminal buds have begun to push. It is urged also, that it is important to take up a considerable ball of earth with the tree so as to leave the roots undisturbed as far as possible. The branches may be trimmed if necessary and the plants are then set in trays either singly or, more rarely, in clumps of three, care being exercised to arrange them at an angle which will effectively set off their habit and contour. Stones of appropriate size and shape are added to the tray to complete the picture.

The pines are much grown elsewhere as table plants, particularly in Japan, but in general they are considered rather difficult to handle. The short-leaved species are best for this purpose and one sees in Canton, now and then, specimens of a dwarfed, short-leaved pine under the name *Ng Ip Tsung* (五葉松) Five-leaved Pine, introduced from abroad.

GRAMINEAE

Although many of the grasses have promise as table plants, it appears that only the bamboos have thus far been exploited to any extent by the Chinese people in this connection. Many bamboos are used for dwarfing purposes but it is perhaps not appropriate here to attempt a complete enumeration of the forms which have been observed. It will suffice to mention a few of the more common and typical ones.

The Chinese bamboos, insofar as they are known, fall naturally into two groups as regards the nature of their true stems or underground rhizomes. One group, herein referred to as belonging to the spreading type, is characterized by rhizomes which are more slender than the upright culms and which are indeterminate in their growth, spreading freely in all directions and sending up culms at more or less distant intervals. The other group, herein referred to as belonging to the clump type, has rhizomes which are very short, thicker than the upright culms, and strictly determinate in their growth, each one curving abruptly upward at its end to produce a new culm, and forming in aggregate a dense clump. The clump type is the more common in the tropics while the spreading type is the more familiar in the temperate zone, though both occur abundantly in the Canton area.

These two types of bamboo require different treatment at the hands of the grower of table plants, the spreading type being, in general, the more plastic and susceptible of a greater variety of treatment. For instance, one favorite method of utilizing this type of bamboo as a table plant is to set a section of the underground rhizome in an upright or inclined position so that a portion of it is exposed to the light and air. The part above ground then develops

chlorophyll and produces short branches and leaves. The internodes of the rhizome are quite short, lending a very natural dwarfed appearance to the plant. For this method of treatment a number of forms, mostly of the genus *Phyllostachys*, and collectively indicated by the Chinese colloquial name Kan Chuk (根竹), are used.

As has been indicated elsewhere, a common practice in the dwarfing of the culms of bamboos for table culture is the premature removal of the sheaths which clothe and protect the tender, growing shoots. The bamboos selected for table culture are usually ones of naturally small or medium stature, though there are occasional exceptions, an example of which will be given (see *Bambusa vulgaris* Schrad. var. *striata* Gamble).

18 *Bambusa multiplex* Raeusch (B. *nana* Hort.) DWARF BAMBOO
觀音竹 KOON YAM CHUK GODDESS OF MERCY BAMBOO

Among the bamboos grown as table plants this is one of the most popular. Naturally small in stature it yields gracefully to further dwarfing, and its tiny leaves keep pace in reduction with the rest of the plant so that the resulting specimen is always properly proportioned. A four-year old specimen in my collection is but a foot in height and has leaves the longest of which are only a little over an inch in length. This bamboo is much used locally in miniature landscapes. It belongs to the clump type.

Bambusa vulgaris Schrad. var. *striata* Gamble GOLDEN BAMBOO
割竹 WAAK CHUK PAINTED BAMBOO
青絲金竹 TS'ING SZ KAM CHUK GREEN STRIPED GOLDEN BAMBOO

The bright green-and-gold culms of this bamboo have an attraction for the Chinese plant lover which makes it a favorite ornamental in this part of the country, and few temple grounds or parks or gardens of any size in southeastern China are without a clump or so of Waak Chuk. This is a large bamboo of the clump type, whose nativity is uncertain. It is presumably of horticultural origin. Upon first thought, it would seem strange that a bamboo whose culms achieve a diameter of three inches or more and a height of forty or fifty feet should be used as a table plant. However, the plant is made into a table specimen by severing, during the winter, the top of a moderate-sized culm, leaving a portion of the base a foot or less in height. This stump is then planted in a pot or tray at an angle of about forty-five degrees with the surface of the soil and in the spring it sends out leafy branches, and short, vertical shoots grow out from its base. The artistic appeal of this mutilated plant is unique and pleasing, much finer, in my opinion than that of the plant in its natural state, but it cannot be kept as a permanent pot culture.

Bambusa sp.
佛肚竹 FAT T'O CHUK

After the Goddess of Mercy Bamboo, this is perhaps the most popular and commonly used as a table plant. Its attraction lies chiefly in the bizarre nature of its stems. The internodes are greatly reduced in length and expanded laterally to form bulbous structures whence comes its colloquial name, which alludes to the similarity of the bulging internodes to the rotund belly of the Laughing Buddha. Naturally small, its stature is considerably reduced by the usual expedients. It is nearly always planted in trays, and rugged rocks of columnar form are used to enhance its artistic appeal. This bamboo is, like the foregoing, of the clump type.

Another bamboo of the genus *Phyllostachys*¹, is also grown locally under this same Chinese name, Fat T'o Chuk. It is readily distinguished from the foregoing, however, by having its branches in pairs, (one pair at each node) and by having the spreading type of rhizomes. It is only occasionally used as a table plant.

Phyllostachys nigra Munro BLACK BAMBOO
烏竹 OO CHUK
黑竹 HAK CHUK
酸枝竹 SUEN CHI CHUK BLACKWOOD BAMBOO
紫竹 TSZ CHUK PURPLE BAMBOO

A bamboo of the spreading type which, in its native home in the more temperate parts of China, normally achieves a height of twenty feet or more. In this climate, however, it is easily dwarfed and its shining black stems lend to it a novelty of peculiar attraction for the fancier of table plants.

Phyllostachys quadrangularis Rendle SQUARE BAMBOO
方竹 FONG CHUK
四方竹 SZ FONG CHUK

Partly on account of its rarity in this region (it is very difficult to grow here) and partly on account of the appeal to the curiosity which its squarish stems afford, this is locally one of the most highly esteemed of the bamboos used as table plants. The leaves are characterized by a peculiarly graceful slenderness and the lower nodes of the culms are each set with a row of short downward-curving spines; the rhizomes are of the spreading type. The plant is a native of the more temperate parts of China, and is apparently rather common in Szechwan and Yunnan.

¹ *Phyllostachys aurea* Carriere.

PALMAE

Rhapis flabelliformis Ait.

櫻竹 TSUNG CHUK

This is a small, native palm which grows in clumps ordinarily several feet in height, but which responds so well to dwarfing that a specimen ten years old may be no more than a foot in height. It is commonly grown alone in a flat tray containing some miniature shaggy rocks, several stems being allowed to develop from the underground rhizomes. Dwarfing is achieved by cramping the roots and by removing prematurely the sheathing leaf bases.

ARACEAE

Acorus gramineus Ait.

蒲草 P'o Ts'o

石菖蒲 SHEK CH'UNG P'o²GRASS-LEAVED SWEETFLAG¹

There are at least four varieties of this native plant commonly cultivated here:

1. So Chau P'o Ts'o (蘇州蒲草) the smallest form, with tiny, slender leaves about an inch or so in length.
2. Kam Ts'in Ts'o (金錢草) slightly larger than the foregoing, with somewhat broader, wedge-shaped leaves.
3. Foo So (虎鬚) larger still, with longer, slender leaves.
4. Taai Ip Foo So (大葉虎鬚) the natural species, with linear leaves, one-half inch wide at the base and 8 to 12 inches in length.

According to Mr. Chiu Ho Kung, the dwarfing of this species is achieved by removing all the leaves once or twice a year, the commonest practice being to trim it severely in May. These plants are usually grown on rocks, as they occur in nature forming dense clusters on stones, particularly in places which are kept constantly wet by spray from some mountain stream. They are fond of water and are usually grown in wet culture. Sand culture has recently been used by Mr. Chiu with success for the variety known as Foo So, particularly in respect to avoiding the tip blight which, in Canton, mars the beauty of the plants during the winter months.

It is rarely possible to bring in the plants from the wild attached to the original substratum—sometimes the rocks are too big,

¹ Since the plant is native here, this name seems more appropriate for local use than "Japanese Sweetflag", which is the one adopted in Standardized Plant Names, p. 483.

² This is the name used by the rural people and by herbalists.

sometimes not of the shape or composition best suited to their most artistic treatment, so there arises the problem of getting them established to the stones on which they are to grow in their new environment. This is accomplished by trimming back the roots severely and binding the plant firmly in the desired position and then partially submerging the roots in water. As the new roots are produced they adhere naturally and the bindings are then removed.

This plant is closely allied to the familiar Sweet Flag, *Acorus calamus* L., but is more slender and lacks the peculiar, warm fragrance which characterizes the crushed leaves of the latter.

Aglaonema modestum Schott

萬年青 MAAN NIN TS'ING

TEN THOUSAND YEARS VERDANT

By its ease of culture and its perennial verdure this native plant wins its way into practically every Chinese home whether here or abroad. Usually grown in a hanging wall-vase, its only requirement being a constant supply of water, it is very appropriately used as a household ornament by a people who have such a deep-rooted love of plants and appreciation of their fundamental aesthetic appeal. Its very ubiquity, however, seems to blind the connoisseur of table plants to its beauty, for it is little used here for table culture.

LILIACEAE

Asparagus officinalis L.

露筍 LO SUN

露筍芒 LO SUN MONG

ASPARAGUS

ASPARAGUS FERN

The ordinary asparagus plant, a native of central Asia, is sometimes dwarfed by growing it in a habitat devoid of food supply except that stored in its fleshy roots, thus producing a miniature plant of slender and sparse habit. Grown in water culture with the fleshy roots hidden in a heap of varicolored pebbles, this makes a very pretty table plant.

Asparagus plumosus Baker

雞絨芒 KAI YUNG MONG

ASPARAGUS FERN

CHICKEN DOWN FERN

This dwarf variety of the original rampant climbing vine resembles a tiny tree. Its minute, feathery foliage (really branchlets, known botanically as cladodes) is in keeping with its small stature, and the dwarfed plant makes a very attractive miniature representation of a tree. The plant is native to southern Africa.

Cordyline (Taetsia) suffruticosa (L.) Merr. DRACENA PALM
鐵樹 T'IT SHUE IRON TREE

This slender, unbranched, coarse-leaved, woody member of the Lily Family is almost as commonly cultivated in southern China as the ubiquitous Maan Nin Ts'ing. Perhaps its supposed virtue as a drug plant may be partly responsible for its popularity, but it has little beyond its ease of culture to recommend it as a table plant, though it is sometimes so used. The red-leaved form is the one more popularly grown.

AMARYLLIDACEAE

Narcissus tazetta L. NARCISSUS; CHINESE SACRED LILY
水仙花 SHUI SIN FA WATER FAIRY FLOWER

This classic favorite is one of the most widely cultivated and generally loved of the Chinese table plants. It is propagated by means of bulbs and has the distinction of being grown for three years in the ground in preparation for its short flowering period during which time only is it used as a table plant¹. The Narcissus is variously treated, but the form which probably attracts widest attention is a specially dwarfed one known as Haai Chaaui Shui Sin (蟹爪水仙) Crab's Claw Narcissus. The classical combination "Ling Sin Chuk Shau", (see p. 121 and pl. 5.) would not be complete without this plant.

In addition to the natural, single-flowered species (which is probably a native of eastern China) there is a double-flowered form, Sheung T'ok Shui Sin (雙托水仙) which seems to be the more commonly used of the two for dwarfing treatment.

IRIDACEAE

Iris japonica Thunb. JAPANESE IRIS
蝴蝶花 OO TIP FA BUTTERFLY FLOWER
較剪蘭 KAAU TSIN LAAN SCISSORS ORCHID

This rather coarse species from northern China is charming enough as a border plant or as a cut flower for exhibit in flat bowls, but has little to recommend it as a table plant. However, it seems to make a strong appeal to the Chinese plant lover, and one occasionally sees trays of it which have been dug up from the ground for temporary exhibit.

¹ The culture and forcing of Narcissus in China are fully described by the writer in a separate paper: The Chinese Sacred Lily, *Hong Kong Naturalist* 3 (3-4): 186-193. Dec. 1932.

ORCHIDACEAE

Cymbidium sp.
墨蘭 MAK LAAN

There are cultivated here a great number of slightly differentiated varieties of one or more species of *Cymbidium* which are native to this area. These acaulescent, terrestrial plants are characterized in general by long, narrow, gracefully curving leaves and tall, slender spikes of flowers of various hues, usually with maroon or pale green predominating. Their peculiar appeal lies in the rich fragrance of the flowers, though individual varieties, which sometimes sell at fabulous prices, seem to be distinguishable only by certain rather obscure foliage characters. Though the layman finds the distinctions of these forms difficult to master, the Chinese connoisseur apparently knows them well and affectionately calls them by most poetical and ornate names.

These are, properly speaking, not table plants *par excellence* though they are sometimes exhibited as such. Summer flowering forms are called collectively Ha Laan (夏蘭) and the autumn flowering ones Ts'au Laan (秋蘭).

Bletilla striata Rchb. f. (B. hyacinthina (R. Br.))

紫蘭 TSZ LAAN HYACINTH BLETILLA¹
PURPLE ORCHID

Although hardly recognizable, to the casual observer, as an orchid, and of little appeal, as it is usually grown in the commercial gardens, this pretty plant with its slender spikes of delicate purplish flowers and its broad grass-like foliage is very effectively used here in combination with other ornamentals, particularly woody forms, in table culture.

CASUARINACEAE

Casuarina equisetifolia L. BEEFWOOD²
木麻黃 MUK MA WONG TREE EPHEDRA

Because of its somewhat tufted, slender green branches, and its general resemblance to the pines, this plant is sometimes erroneously called Ma Mei Ts'ung or Horse-tail Pine. The specific name, *equisetifolia* alludes to the resemblance of the branches to the stems of *Equisetum*. To the Chinese people this character suggests a likeness to *Ephedra*, hence the name Muk Ma Wong, Woody Ephedra or Tree Ephedra.

¹ Standardized Plant Names, p. 302.

² This name alludes to the color of the wood. Other common names given by Bailey are Australian Pine, South-Sea Ironwood, She-Oak, Horse-tail-Tree, Mile-Tree.

This is an Australian tree, usually attaining a height of some fifty to seventy feet. Its delicate green branches, which act as foliage because the true leaves are reduced to mere scales, fit this tree very well to a dwarf habit, but its stems and woody branches do not respond as well to warping and bending as those of the conifers. Muk Ma Wong is not commonly used as a table plant, but I have seen one very striking specimen in the collection of Mr. Chiu Ho Kung.

ULMACEAE

7 *Ulmus parvifolia* Jacquin
榆樹 UE SHUE

SMALL-LEAVED ELM¹
ELM TREE

A native of northern China, this species of elm is distinguished from all others by the peculiarity of shedding its bark in irregular patches which gives to the trunk a very bizarre appearance, somewhat akin to that of the American Sycamore (*Platanus*). In the flower gardens at Canton it is always grown in pots as a dwarf, and it may well be taken as a representative type of Koo Shue as far as southern China is concerned. Its minute, attractive foliage and its physiological response suit it admirably to dwarfing, and its unique bark pattern adds to its interest as a table plant.

MORACEAE

Ficus retusa L.
細葉榕 SAI IP YUNG

BASTARD BANYAN
SMALL-LEAVED BANYAN

Familiar here as a great tree with spreading branches whose dense, dark green foliage gives grateful shade in summer, this plant yields itself most gracefully to dwarfing and constitutes one of the most delightful miniature plants. Its charm lies chiefly in its irregular trunk, which can be trained at will, and which adds naturally to its own appearance of age and ruggedness by sending out numerous adventitious roots from the trunk and branches which in time fuse again with the trunk. What the foliage lacks in delicacy it makes up in luxuriance and rich verdure.

URTICACEAE

Pilea microphylla Leibm.
珍珠草 CHAN CHUE TS'o

PEARL WEED

Although a common weed to most persons, this little plant, which occurs as a wild native in this region, is highly esteemed by the grower of table plants. Commonly used as background or a cover for the soil around other, larger table plants, it is sometimes grown alone for the delicate charm of its microscopic foliage, among which nestles a myriad of tiny, inconspicuous brownish red flowers.

¹ Standardized Plant Names, p. 518, gives "Chinese Elm".

AMARANTHACEAE

Celosia argentea L., var. *crinata* Kuntze FEATHER COCKSCOMB¹
雞冠花 SUI KOON FA TASSEL CREST FLOWER

Normally a large, coarse plant, with a rather weedy appearance, this form is reduced to a most charming dwarf when the seeds are planted during the winter at this latitude. Brought into flower in the late winter months it is a tiny thing only a few inches high, topped with miniature plumes of bright red or golden yellow flowers. It is suited either to exhibit alone in a small pot, or to being included in a miniature landscape as a tiny herbaceous flower under dwarfed trees.

The well-known form called Cockscomb, Kai Koon Fa (雞冠花) though much grown locally as a pot plant and for cutting, is used little, if at all, as a table plant.

RANUNCULACEAE

Peonia suffruticosa Andr. (*P. moutan* Sims) SHRUBBY PEONY²
牡丹 MAAU TAAN
芙蓉花 FOO YUNG FA FLOWER OF RICHES AND HONOR

A native of northern China, this beautiful ornamental does not long survive the conditions prevailing at Canton. Nevertheless it is brought here in quantity every year by men from Shantung province. The plants, which are about a foot to 16 inches in height, are coated with thin mud and packed in large wicker baskets. Upon their arrival, about the first of December, they are potted in

pond mud, always in the green glazed ornamental pots and never in the common unglazed ones used for ordinary plants. They are cared for entirely by the men who bring them here for sale, and the attention bestowed upon them is considerable, involving the removal of dead stem tips, the thinning of the buds so as to produce large blossoms, judicious watering, and protection from drying north winds. The aim is to bring them into flowering for the Chinese New Year market. The magnificent pink, red, and white double flowers are very short-lived, and when the petals have fallen the plants are discarded, since they soon die in any case, for efforts to keep them over until another year only end in failure.

¹ Standard Plant Names, p. 73.

² Bailey (1924) p. 286, gives the name Tree Peony, but the specific name, *suffruticosa*, and the small stature of the plant suggest Shrubby Peony as a preferable cognomen.

This is a very high-priced flower, selling usually at about one dollar per blossom. The Peony is much prized as a table plant, not only for its gorgeous flowers, but for its deeply cut, delicately tinted young foliage which is usually more or less in evidence at the flowering time.

Peonia albiflora Pallas
芍藥 CHEUK YEUK

CHINESE PEONY¹

Also a native of northern China, this herbaceous sister of the Maau Taan is occasionally seen here under the name Cheuk Yuek by which the commoner plant, Dahlia, is also known in the Cantonese dialect. Much grown by our grandmothers in America as a garden flower, this plant is less highly esteemed here as a table plant than the foregoing.

BERBERIDACEAE

18

Nandina domestica Thunb.
天竹 T'IN CHUK
天南竹 T'IN NAAM CHUK

NANDINA
HEAVENLY BAMBOO

This native shrub is a favorite with Chinese gardeners as with plant lovers in the West. It is naturally a small shrub (up to 6 feet), with upright, unbranched stems bearing crowns of compound leaves whose tiny leaflets turn bronzy-red in autumn. The rather stiff panicles of red berries are its crowning glory. *Nandina* as a table plant is commonly used in the "Ling Sin Chuk Shau" combination described elsewhere (see p. 121)

CRASSULACEAE

Sedum sp.
禾雀脷 WOH CHEUK LEI

STONECROP
SPARROW'S TONGUE²

Like most plants which are much grown because they require no care this little fleshy, prostrate immigrant is considered as a table plant only by virtue of its occasional use as a soil cover or otherwise as an adjunct in the completing of a table piece. It does not flower here.

SAXIFRAGACEAE

Saxifrage sarmentosa L. SAXIFRAGE; STRAWBERRY GERANIUM
金線吊芙蓉 KAM SIN TIU FOO YUNG

This little herbaceous plant, which is native to this region, is sufficiently tiny without dwarfing to be suited to table culture, though it is so common and so rapid growing, even under adverse

¹ Standardized Plant Names, p. 342.

² In allusion to the shape of the leaves.

conditions, that it does not make any special appeal to the table plant fancier. It is characterized by small, round, frilled, hairy, white-veined leaves which occur in dense rosettes, and by the thread-like runners which root at their tips to produce new plants. The tall, slender flower stalks bear aloft an airy cluster of delicate blossoms, like tiny white-winged butterflies.

ROSACEAE

Prunus mume S. & Z.
梅花 MUI FA

JAPANESE APRICOT¹

18

Of this we have at Canton about a dozen varieties cultivated for their fruits and two or three double-flowered forms, ranging in color from white to red.

Prunus persica (L.) Stokes
桃花 T'ò FA

PEACH

In addition to two or three rather inferior fruiting varieties of peach cultivated in this area we have three exquisite double-flowered forms: the white Paak Pik T'ò (白壁桃), the pink Shau Tai T'ò (壽大桃), and the red Fei T'ò (緋桃).

Plants of these two native species of *Prunus* are familiar in many parts of China as fruit trees, but they are also favorites as flowering plants, particularly in their double-flowering varieties. They lose their leaves in winter and so have a peculiar charm as their beautiful, double blossoms spring out from their naked brown branches. For table culture they are always dwarfed, to which treatment they lend themselves well, taking naturally the solitary, angular habit of branch and trunk so familiar in Chinese paintings.

Pyrus spectabilis Ait.
海棠 HOI T'ONG

CHINESE FLOWERING APPLE

A deciduous Chinese shrub, probably of horticultural origin, this plant is apparently less at home here than in more temperate regions. It yields itself gracefully to topiary work, however, and is highly esteemed here as a table plant. Its exquisite coral-red buds and flame-pink flowers are of startling beauty.

Rosa sp.
洋玫瑰 YEUNG MUI KWAI

FOREIGN ROSE

The roses, as a group, are little used as table plants, but this one species, which is rather commonly cultivated, particularly at

¹ Although this tree is native to China, it is called in Western countries the Japanese Apricot because it first became known to science through specimens collected in Japan. The specific name *mume* is based on the Japanese colloquial name of the plant.

Loh Kong Tung, for its petals which are used to flavor confections, is admirably suited to a certain method of treatment. Both its pale green foliage and its pink blossoms give off an attractive fragrance, and the lax habit of the plant lends to it a charm unusual among the roses found here.

LEGUMINOSAE

Cassia glauca Lam.
黄槐 WONG WAAI

Normally a tree twenty feet or more in height, this introduced plant is sometimes dwarfed for table culture. Although it has no special merits, its pinnate foliage and clusters of golden yellow flowers are pleasing enough.

RUTACEAE

Citrus spp.
金橘類 KAM KWAT LUI

While not properly classified as table plants, specimens of the common species and varieties of *Citrus* are often exhibited for the beauty and fragrance of their flowers and the colorful charm of their fruits. Those most commonly used as table plants are:

橙 Ch'aang—Orange—*Citrus sinensis* Osbeck
朱沙桔 Chue Sha Kat—Red Kat—*Citrus erythroa* (Hort.) Tanaka
佛手 Fat Shau—Buddha's Hand—*Citrus medica* L., var. *sarcodactylus* Swingle
椽柚 Luk Yau—Pumelo—*Citrus grandis* Osbeck
四季桔 Sz Kwai Kat—Four-Season Kat—*Citrus microcarpa* Bunge (*C. mitis* Blco.)

Fortunella margarita Swingle OVAL KUMQUAT
金橘 KAM KWAT

The abundant bright yellow fruits of this pretty Chinese plant persist throughout a long season and chiefly for its ornamental value, though partly for the fragrant flowers, the Kumquat is much grown here as a pot plant for display purposes. An occasional specimen is seen in collections of table plants.

MALPIGHIACEAE

Malpighia coccigera L. HOLLY MALPIGHIA¹
山茶 SHAAN CH'A MOUNTAIN TEA

China is indebted to tropical America for this very attractive little shrub. It has an open habit and its long, slender branches are covered with small, spiny-edged, shiny, crinkled, holly-like leaves.

¹ Standardized Plant Names, p. 277.

Its delicate, faintly tinted, fragrant flowers are sparingly produced twice a year in this area.

This plant is commonly used here for topiary work, being trained into various conventional shapes for the formal garden, and is also sometimes dwarfed for table plant culture.

EUPHORBIACEAE

Phyllanthus cinerascens H. & A.
格木 KAAK MUK

This little four-foot shrub grows wild all about Canton, but familiarity seems to detract not one whit from the esteem in which it is held as a table plant. Although little grown as a border plant, it should be so used. When given fertile soil it becomes a perfect fountain of verdure, made up of a multitude of slender drooping branches bearing small leaves set at jaunty angles. In the hands of the grower of table plants, however, it shrinks into a tiny-leaved dwarf less than a foot in height and takes on the angular habit characteristic of ancient trees. On dark days and at night the leaves lie flat along the stems.

BUXACEAE

Buxus sempervirens L. var. *nana*? BOX
千年矮 TS'IN NIN AI THOUSAND YEAR DWARF
黄楊 WONG YEUNG

Of uncertain origin, this diminutive form with very tiny leaves is admirably suited to culture as a dwarfed table plant, for which purpose it is much used here. Most miniature landscapes, known locally as Shek Shaan (石山), bear one to several specimens of this little plant.

ACERACEAE

Acer sp. (cf. *A. palmatum* Thunb.) JAPANESE MAPLE
楓樹 FUNG SHUE

Occasional specimens of this introduced species are seen here in flower gardens and in collections of table plants. Its charm lies in the colorful, dissected leaves.

THEACEAE

Camellia japonica L. CAMELLIA
茶花 CH'A FA TEA Flower

Although its leaves are too large for an ideal dwarf plant, the dark green and very shiny foliage affords a splendid back-

ground for the beautiful solitary, red or white, double, wax-like flowers for which the plant is chiefly esteemed.

A smaller leaved variety with single, red flowers is occasionally seen here.

PUNICACEAE

18 *Punica granatum* L. POMEGRANATE
火石榴 FOH SHEK LAU

The dwarfed form of this common plant, a native of southern Asia, is highly esteemed as a table plant, and is sometimes called locally Tsin Faan Shek Lau (? 番石榴). It is favored for its orange-red flowers and its large, attractive fruits which become red upon ripening.

ARALIACEAE

Polyscias fruticosa Harms¹
洋参 YEUNG SHAM

This little semi-woody plant makes a pretty miniature tree nicely suited to table culture. Its trunk is unbranched, at least when young, and the rather fleshy leaf stems, each drooping under its load of delicate, lacinate leaflets, simulate perfectly the branches of a majestic tree.

ERICACEAE

Rhododendron spp. AZALEAS
杜鹃 TO KUEN

The Azaleas are greatly favored as table plants on account of the brilliant color and abundance of their flowers, and their long blooming season. Usually being of a twiggy habit, the forms common here do not lend themselves well to the treatment, so dear to the heart of the Chinese artist, in which solitary, angular or gnarled branches and trunks are conspicuous features.

OLEACEAE

Jasminum sambac Soland. ARABIAN JASMINE
茉莉 MOOT LEI
木茉莉 MUK LEI

A double-flowered variety of this native of India is commonly cultivated in certain areas of southeastern China for its fragrant

¹ Although I have never observed this plant in flower, its vegetative characters would seem to place it here.

blossoms which are much used to perfume tea leaves. It has a rather awkward habit but experts are able to make a passable specimen of it for table culture, and what it lacks in grace it makes up in the lovely aroma suffused by its pearl-like white flowers.

Other species of this genus are also occasionally used as table plants, for example, Paak Fa So Hing (白花素馨).

RUBIACEAE

Damnacanthus indica L. TIGER THORN
虎刺 FOO TS'Z

This is a charming natural dwarf characterized by small, shining leaves and gnarled, thorny branches which exhibit the foliage in spreading layers at various levels. It makes an ideal tree for miniature landscapes, and its tiny white flowers add to its interest as a table plant. It is a native of Fukien, growing wild along moist river banks.¹

Gardenia jasminoides Ellis SINGLE-FLOWERED GARDENIA OR
枝子 CHI TSZ CAPE-JASMINE

水横枝 SHUI WAANG CHI

A common wild shrub found abundantly in southern China along open water courses and mountain ravines where its favorite habitat is among the stones and in rock crevices. Irregular water supply and lack of rich soil dwarf it naturally, and the collecting of these gnarled crooked plants from the wild for sale on the streets constitutes a considerable industry around Canton.

This plant is a great favorite for water culture and is almost as commonly found as a house plant, in southern China at least, as Maan Nin Ts'ing. It is an interesting and attractive plant, with deep green, glossy foliage. When grown in the soil it produces pretty waxy-white flowers of rich fragrance and these are followed by fruits which are five-ridged like little carambolas. Plants grown in water-culture, however, produce no flowers. The fruits yield a yellow or orange-colored dye commonly used here for coloring bean curd.¹

¹ *Fide* Dr. F. P. Metcalf, Curator of Herbarium, Lingnan Natural History Survey and Museum.

² Wild plants are usually the source of the fruits used in the trade, though a few plants are grown at Sha Naam village 沙南, near Canton, for this purpose.

Gardenia jasminoides Ellis var. DWARF CAPE-JASMINE
 芍 蟬 CHEUK SHIM

While possessing all of the charm of the familiar Cape-jasmine, whose gleaming foliage and wax-like fragrant flowers make it a favorite the world over, this little plant is naturally of the correct stature and habit for table culture. It is usually not more than ten inches in height.

There is another dwarf form with variegated leaves, called Kam Pin Cheuk Shim (金邊雀蟬), which does not flower in Canton. Though presumably native here, no record of their occurrence in the wild is available, and quite possibly both these forms are of horticultural origin. For some reason the latter is not commonly seen as a table plant, though it is familiar enough in commercial gardens.

Serissa foetida Lam. FULL-OF-STARS
 18 滿天星 MOON T'IN SING

A wild plant, common in this area, of naturally small stature (2 ft.), delicate branching habit, and tiny leaves, this species is ideally suited to certain types of topiary work, particularly where weaving of the branches is involved. Although its deciduous habit is against it, leaving it bare in winter, it is redeemed during its flourishing season by the attractive minute foliage which sets off a starry host of equally minute, white flowers. Its colloquial name might appropriately be rendered "Galaxy-of-stars".

Randia chinensis (Thunb.) Bl.
 山石榴 SHAAN SHEK LAU

A native, spiny shrub of straggly habit, this plant would seem at first glance to have little to recommend it as an ornamental. It dwarfs well, however, and is good for topiary work. Moreover, its pure white flowers, which, upon aging, turn a rich cream tint, and its fruits which by their shape are suggestive of diminutive pomegranates, are features which help gain a place for this species in most collections of table plants.

COMPOSITAE

Chrysanthemum indicum L. MOTHER CHRYSANTHEMUM¹
 路邊菊 LO PIN KUK ROADSIDE CHRYSANTHEMUM

This is the native wild chrysanthemum, with small, golden yellow, single flowers and a graceful lax habit. As a table plant its size is reduced somewhat as compared with its natural luxuriant growth, but its innate charm is not lost.

¹ Standardized Plant Names, p. 80.

Chrysanthemum morifolium Ram¹. FLORISTS' CHRYSANTHEMUM
 菊 花 KUK FA

The Chrysanthemum is grown here in pot culture in great variety as to habit, flower form and color, and shape of leaf. As found in commercial gardens the individual branches are staked up to support the heavy flowers, but this treatment detracts greatly from the natural grace of the plant. It is not commonly dwarfed, but for use as a table plant proper it is usually not staked up so stiffly, the stems being allowed greater freedom to express their natural habit. Their artistic appeal is often heightened by exposing the plants to lateral illumination during their growth, which results in giving them a graceful downward sweep to one side.

Taraxacum officinale L. DANDELION
 蒲公英 P'O KUNG YING
 金盞草 KAM CHAAN TS'O GOLDEN SAUCER WEED

It would amuse the average Westerner to see this despoiler of American lawns tenderly nursed in pots and cherished as an ornamental! But there is no denying the beauty of its slender, lacinate leaves and its rich orange or yellow disks of flowers. (And have we forgotten the fascination which the fluffy, floating parachutes of the globular fruiting heads held for us as children!) I suspect that, to some, this plant, when in the height of its flowering and fruiting, has more aesthetic appeal than the coarser *Calendula* which is a favorite in the West. However that may be, one often sees this common "weed" among table plants at Canton.

Accessory Table Plants

In the collections of table plant fanciers of more modernistic aesthetic sense one sometimes sees examples of common vegetables very effectively used. They are reminders of the beauty that often lurks in common things. Particularly arresting are the gleaming white petioles of *Paak Ts'oi*² and the purple or pale green globes of Kohl Rabi³. Common Parsley⁴ makes a very attractive table plant, as Mr. Chiu Ho Kung has demonstrated.

A number of wild plants, some of which occur naturally as weeds in flower pots, are either planted, or encouraged, or suffered to remain in the pots or trays of table plants. These are not to be thought of as weeds, but must be considered as definite adjuncts

¹ Bailey (1924) p. 758, says of this: "Supposedly of Chinese origin, but the original species from which it may have come undetermined: perhaps it has admixture of *C. indicum* L."

² (白菜) *Brassica chinensis* L. (Cruciferae).

³ Kaai Laan T'au (芥蘭頭) *Brassica caulorapa* Pasq.

⁴ Uen Sai (莞茜) *Petroselinum hortense* Hoffm. (Umbelliferae).

to the treatment of table plants as practiced by Chinese connoisseurs. Properly used, these often enhance greatly the natural appearance or the aesthetic appeal of the pieces in question, and it is surprising to see how commonly they appear. There follows a list of some of the wild plants most frequently observed in this connection.

- Chan Chue Ts'o (珍珠草) *Pilea microphylla* Leibm. (Urticaceae)
 Chuk Tsit Ts'o (竹節草) *Commelina* sp. (Commelinaceae)
 Suen Mei Ts'o (酸味草) *Oxalis repens* Thunb. (Oxalidaceae)
 T'ong Kot Ts'oi (塘葛菜) *Nasturtium montanum* Wall. (Cruciferae)
- Ts'in Koon Ts'o (錢貫草) *Plantago major* L.¹ (Plantaginaceae)
Peperomia pellucida HBK (Piperaceae)

For the convenience of those who may not be familiar with the botanical names of the plants discussed, an alphabetical finding list of the romanized names is here provided.

CH'A FA	(茶花)	<i>Camellia japonica</i> L.	p. 139
CH'AANG	(橙)	<i>Citrus sinensis</i> Osbeck	p. 138
CHAM TS'UNG	(針松)	<i>Juniperus chinensis</i> L.	p. 126
CHAN CHUE TS'O	(珍珠草)	<i>Pilea microphylla</i> Leibm.	p. 134
CHEUK SHIM	(芍蟬)	<i>Gardenia jasminoides</i> Ellis var.	p. 142
CHEUK YEUK	(芍藥)	<i>Paeonia albiflora</i> Pallas	p. 136
CHI TSZ	(枝子)	<i>Gardenia jasminoides</i> Ellis	p. 141
CHUE P'AAK	(朱柏)	<i>Juniperus</i> sp.	p. 126
CHUE SHA KAT	(朱沙桔)	<i>Citrus erythrosa</i> (Hort.) Tanaka	p. 138
FAT SHAU	(佛手)	<i>Citrus medica</i> L., var. <i>sarcodactylus</i> Swingle	p. 138
FAT T'O CHUK	(佛肚竹)	<i>Bambusa</i> sp.	p. 129
FOH SHEK LAU	(火石榴)	<i>Punica granatum</i> L.	p. 140
FONG CHUK	(方竹)	<i>Phyllostachys quadrangularis</i> Rendle	p. 129
FOO SO	(虎鬚)	<i>Acorus gramineus</i> Ait.	p. 130
FOO TS'Z	(虎刺)	<i>Damnacanthus indica</i> L.	p. 141
FOO YUNG FA	(芙蓉花)	<i>Paeonia suffruticosa</i> Andr.	p. 135

¹ Common Plantain.

FUNG SHUE	(楓樹)	<i>Acer</i> sp. cf. <i>A. palmatum</i> Thunb.)	p. 139
HA LAAN	(夏蘭)	<i>Cymbidium</i> sp.	p. 133
HAK CHUK	(黑竹)	<i>Phyllostachys nigra</i> Munro	p. 129
HOI T'ONG	(海棠)	<i>Pyrus spectabilis</i> Ait.	p. 137
HUNG CHEUK TS'UNG	(孔雀松)	<i>Cryptomeria japonica</i> (L. f.) D. Don.	p. 125
KAAI LAAN T'AU	(芥蘭頭)	<i>Brassica caulorapa</i> Pasq.	p. 143
KAOK MUK	(格木)	<i>Phyllanthus cinerascens</i> H. & A.	p. 139
KAAU TSIN LAAN	(較剪蘭)	<i>Iris japonica</i> Thunb.	p. 132
KAI KOON FA	(鷄冠花)	<i>Celosia argentea</i> L.	p. 135
KAI YUNG MONG	(鷄絨芒)	<i>Asparagus plumosus</i> Baker	p. 131
KAM CHAAN TS'O	(金盞草)	<i>Taraxacum officinale</i> L.	p. 143
KAM KWAT	(金橘)	<i>Fortunella margarita</i> Swingle	p. 138
KAM PIN CHEUK SHIM	(金邊雀蟬)	<i>Gardenia jasminoides</i> Ellis var.	p. 142
KAM SIN TIU FOO YUNG	(金線吊芙蓉)	<i>Saxifraga sarmentosa</i> L.	p. 136
KAM TS'IN TS'O	(金錢草)	<i>Acorus gramineus</i> Ait.	p. 130
KAN CHUK	(根竹)	<i>Phyllostachys</i> spp.	p. 128
KONG TS'UNG	(崗松)	<i>Pinus massoniana</i> Lamb.	p. 126
KOON YAM CHUK	(觀音竹)	<i>Bambusa multiplex</i> Raeusch (<i>B. nana</i> Hort.)	p. 128
KUK FA	(菊花)	<i>Chrysanthemum morifolium</i> Ram.	p. 143
LAU CH'AAM	(柳杉)	<i>Cryptomeria japonica</i> (L. f.) D. Don.	p. 125
LING CHI	(菱枝)	<i>Polyporus lucidus</i> ?	p. 121
LO PIN KUK	(路邊菊)	<i>Chrysanthemum indicum</i> L.	p. 142
LO SUN	(露筍)	<i>Asparagus officinalis</i> L.	p. 131
LO SUN MONG	(露筍芒)	<i>Asparagus officinalis</i> L.	p. 131
LOH HON TS'UNG	(羅漢松)	<i>Podocarpus macrophyllus</i> (Thunb.) Don var. <i>Maki</i> Sieb.	p. 125
LUK YAU	(椽柚)	<i>Citrus grandis</i> Osbeck	p. 138
LUK YUNG TS'O	(綠絨草)	<i>Selaginella uncinata</i> (Desv.) Spreng.	p. 124

MAK LAAN	(墨蘭) <i>Cymbidium</i> sp.	p. 133
MAAN NIN TS'ING	(萬年青) <i>Aglaonema modestum</i> Schott	p. 131
MAAU TAAN	(牡丹) <i>Paeonia suffruticosa</i> Andr.	p. 135
MOON T'IN SING	(滿天星) <i>Serissa foetida</i> Lam.	p. 142
MOOT LEI	(茉莉) <i>Jasminum sambac</i> Soland.	p. 140
MUI FA	(梅花) <i>Prunus mume</i> S. & Z.	p. 137
MUK LEI	(木莉) <i>Jasminum sambac</i> Soland.	p. 140
MUK MA WONG	(木麻黃) <i>Casuarina equisetifolia</i> L.	p. 133
NG IP TS'UNG	(五葉松) <i>Pinus</i> sp.	p. 127
Oo CHUK	(烏竹) <i>Phyllostachys nigra</i> Munro	p. 129
Oo TIP FA	(蝴蝶花) <i>Iris japonica</i> Thunb.	p. 132
PAAK FA SO HING	(白花素馨) <i>Jasminum</i> sp.	p. 141
PAAK TS'OI	(白菜) <i>Brassica chinensis</i> L.	p. 143
P'o KUNG YING	(蒲公英) <i>Taraxacum officinale</i> L.	p. 143
P'o Ts'o	(蒲草) <i>Acorus gramineus</i> Ait.	p. 130
SAI IP YUNG	(細葉榕) <i>Ficus retusa</i> L.	p. 134
SHAAN CH'A	(山茶) <i>Malpighia coccigera</i> L.	p. 138
SHAAN SHEK LAU	(山石榴) <i>Randia chinensis</i> (Thunb.) Bl.	p. 142
SHAU	(壽) <i>Podocarpus macrophyllus</i> (Thunb.) Don var. <i>Maki</i> Sieb.	p. 125
SHEK CH'EUING P'o	(石菖蒲) <i>Acorus gramineus</i> Ait.	p. 130
SHUI SIN FA	(水仙花) <i>Narcissus tazetta</i> L.	p. 132
SHUI TS'UNG	(水松) <i>Glyptostrobus pensilis</i> Koch	p. 125
SHUI WAANG CHI	(水橫枝) <i>Gardenia jasminoides</i> Ellis	p. 141
SIN YAN TS'o	(仙人草) <i>Selaginella uncinata</i> (Desv.) Spreng.	p. 124
So CHAU P'o Ts'o	(蘇州蒲草) <i>Acorus gramineus</i> Ait.	p. 130
SUEN CHI CHUK	(酸枝竹) <i>Phyllostachys nigra</i> Munro	p. 129
SUI KOON FA	(錦冠花) <i>Celosia argentea</i> L. var. <i>crinata</i> Kuntze	p. 135
SZ FONG CHUK	(四方竹) <i>Phyllostachys quadrangularis</i> Rendle	p. 129
SZ KWAI KAT	(四季桔) <i>Citrus microcarpa</i> Bunge	p. 138
TAAI IP FOO SO	(大葉虎鬚) <i>Acorus gramineus</i> Ait.	p. 130
TEI P'AAK	(地柏) <i>Selaginella moellendorffii</i> Hieron.	p. 125

T'IN CHUK	(天竹) <i>Nandina domestica</i> Thunb.	p. 136
T'IN NAAM CHUK	(天南竹) <i>Nandina domestica</i> Thunb.	p. 136
T'IT SHUE	(鐵樹) <i>Taetsia (Cordylina) fruti-</i> <i>cosa</i> (L.) Merr.	p. 132
T'IT SIN MONG	(鐵線芒) <i>Adiantum</i> sp.	p. 124
T'o FA	(桃花) <i>Prunus persica</i> (L.) Stokes	p. 137
TO KUEN	(杜鵑) <i>Rhododendron</i> spp.	p. 140
TS'AU LAAN	(秋蘭) <i>Cymbidium</i> sp.	p. 133
TSIN FAAN SHEK LAU	(番石榴) <i>Punica granatum</i> L.	p. 140
TS'IN NIN AI	(千年矮) <i>Bambusa vulgaris</i> Schrad. var. <i>nana</i>	p. 139
TS'ING SZ KAM CHUK	(青絲金竹) <i>Bambusa vulgaris</i> Schrad. var. <i>striata</i> Gamble	p. 128
TSUNG CHUK	(樓竹) <i>Rhapis flabelliformis</i> Ait.	p. 130
TSZ CHUK	(紫竹) <i>Phyllostachys nigra</i> Munro.	p. 129
TSZ LAAN	(紫蘭) <i>Bletilla striata</i> Rchb. f.	p. 133
UE SHUE	(榆樹) <i>Ulmus parvifolia</i> Jacquin	p. 134
UEN SAI	(芫茜) <i>Petroselinum hortense</i> Hoffm.	p. 143
WAAK CHUK	(劃竹) <i>Bambusa vulgaris</i> Schrad. var. <i>striata</i> Gamble	p. 128
WAN TS'UNG	(雲松) <i>Juniperus</i> sp. (cf. <i>J. formo-</i> <i>sana</i> Hayata)	p. 126
WOH CHEUK LEI	(禾雀脩) <i>Sedum</i> sp.	p. 136
WONG WAAI	(黃槐) <i>Cassia glauca</i> Lam.	p. 138
WONG YEUNG	(黃楊) <i>Buxus sempervirens</i> L. var. <i>nana</i>	p. 139
YAT POON CH'AAM	(日本杉) <i>Cryptomeria japonica</i> (L. f.) D. Don.	p. 125
YEUNG MUI KWAI	(洋玫瑰) <i>Rosa</i> sp.	p. 137
YEUNG SHAM	(洋參) <i>Polyscias fruticosa</i> Harms	p. 140

The information herein recorded has been derived chiefly at first hand from Chinese gardeners and table plant fanciers at Canton. The writer is aware of a deep indebtedness, in this connection, to that scholarly and artistic gentleman, Mr. Ch'iu Ho Kung (趙浩公) who is a recognized master of the art of painting in the classical style and whose table plant creations have given pleasure to many thousands of plant lovers here.

The botanical names used have been taken for the most part from specimens in the Lingnan University Herbarium, most of

which were determined by Dr. E. D. Merrill. Occasional ones are based on the literature cited. Prof. G. W. Groff lent assistance on certain of the forms of Citrus.

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Explanation of Plates

Plate 4. Partial view of an exhibit of table plants at the Temple of the Six Banyan Trees, Canton. The plants shown are: Waak Chuk (*Bambusa vulgaris* Schrad. var. *striata* Gamble), Kuk Fa (*Chrysanthemum morifolium* Ram.), Foo So (*Acorus gramineus* Ait.), Fat T'o Chuk (*Bambusa* sp.), Kong Ts'ung (*Pinus massoniana* Lamb.), and Lo Pin Kuk (*Chrysanthemum indicum* L.).

Plate 5. Left: dwarfed specimen of double-flowered Shui Sin (*Narcissus tazetta* L.); right: the classic birthday greeting combination described on page 5. The plants are: Loh Hon Tsung (*Podocarpus macrophyllus* (Thunb.) Don var. *Maki* Sieb.); Shui Sin (*Narcissus tazetta* L.), T'in Chuk (*Nandina domestica* Thunb.) and Ling Chi (*Polyporus lucidus* (?)).

Plate 6. Chue P'aak (*Juniperus* sp.), Kaak Muk (*Phyllanthus cinerascens* H. & A.), and So Chau P'o Ts'o (*Acorus gramineus* Ait.)

Plate 7. Muk Ma Wong (*Casuarina equisetifolia* L.) and single-flowered Shui Sin (*Narcissus tazetta* L.).

Plate 8. Above: Foo So and P'o Tso; below: Kam Ts'in Ts'o and Foo So (all varieties of *Acorus gramineus* Ait.).

¹ Here, and in the following captions, the plants are named from left to right.

Plate 9. T'ok Chuk (an unidentified species) illustrating the method of simulating dwarfing in bamboos described on page 19, and Oo Chuk (*Phyllostachys nigra* Munro).

Plate 10. Waak Chuk (*Bambusa vulgaris* Schrad. var. *striata* Gamble) and Koon Yam Chuk (*Bambusa multiplex* Raeusch).

Plate 11. Dwarfed double-flowered Shui Sin (*Narcissus tazetta* L.); Ts'z Laan (*Bletilla striata* Rchb. f.) and Maau Taan (*Paeonia suffruticosa* Andr.), with Sin Yan Ts'o (*Selaginella uncinata* (Desv.) Spreng.) at its base; Kam Sin Tin Fo Yung (*Saxifrage sarmentosa* L.).

Plate 12. Lower left: P'o Ts'o (*Acorus gramineus* Ait.), upper left: Cheuk Yeuk (*Paeonia albiflora* Pallas), then Tsung Chuk (*Rhapis flabelliformis* Ait.), and Shui Sin (*Narcissus tazetta* L.).

Plate 13. Cham Ts'ung (*Juniperus chinensis* L.), Shui Sin (*Narcissus tazetta* L.), and Ue Shue (*Ulmus parvifolia* Jacquin).



















