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BLUE TRIUMPH-1927 NOVELTY
(see page five)

Descriptive and Illustrated Catalog of
Water Lilies and Aquatics as grown by JOHNSON WATER GARDENS HYNES, Los Angeles County, CALIEORN1A


The charm of this garden is linked with the lily pool

## C A T A L O G



## WATER LILIES A Q U A T I C S



Largest Collection in America

## JOHNSON WATER GARDENS

SUCCESSORS TO E. D. STURTEVANT • ESTABLISHED IN EIGHTEEN SEVENTY-SIX
 Nurseries Located at Sixty-third Street and Cherry Avenue, Long Beach, California Postoffice Address: Hynes, Los Angeles County, California. Telephone Hynes 207

## The Culture and Care of Water Lilies

Water lilies require very little attention to keep them in a thrifty growing condition, far less so in fact than most of our common border plants. This is easily understood when it is remembered that the medium in which they grow-water-is but slowly affected by temperature changes, and also that being submerged they naturally always have an optimum water supply, two of the most important things governing a plant's growth. The actual care may be summarized in a few lines. Keep the water level fairly constant and the pool clean. These are the cardinal virtues of water gardeners and if they are reasonably attended to success will follow. Enthusiasts will find many other things to do, some of which will benefit the plants but none of which may not be safely dispensed with. Most of us produce good roses or dahlias with ordinary care, yet the fancier growing show flowers may constantly be engaged in attending the wants of his charges and so it is in water gardening.

Establishing the Water Garden. The most important things in establishing a successful pool are to have the depth of water right and an abundance of good garden loam in which the plants are to grow. We build our pools 2 feet deep which allows for 1 foot of soil and 1 foot of water over the plants. These give the best average results, though the depths may be greater or less and still the plants thrive.

Soil. Most any garden loam will give good results, the plants particularly rejoicing in a strong loam such as roses enjoy. Light sandy loams are suitable and in such a soil our nurseries are situated. They, however, need a little fertilizer for they are liable to weaken toward the end of the season. The best fertilizers are the mildly stimulating kinds, among which cow manure, well rotted if possible, and bone-meal rank high. Blood-meal and other quick acting stimulants should be used with discretion for they are quite likely to burn the roots if too freely applied. Any of the well-known brands of commercial fertilizers may be safely used where it is difficult to procure the cow manure. All fertilizers should be well mixed with the soil before planting, cow manure at the rate of 1 part in 5 , bone-meal 1 pound to a 2 -foot box.

Boxes versus Mud Bottoms. There are two commonly used methods of planting, in boxes or by spreading the soil over the bottom to the required depth. Both have their good points, according to conditions. In the large pool where there is ample room for good-sized boxes, perhaps this method is best, but where the pool is small, plants will make better growth on a mud bottom, for more root room is thus available. Where boxes are used they should be at least 2 feet square and 1 foot deep for a single plant. Strong growing kinds will need 3 or 4 -foot boxes for the best results. Any water lily will survive for years in a small container, but only when root room is ample can it be expected to give an abundance of bloom. The number and size of the flowers are in direct ratio to the amount of soil available.

Construction of Boxes. For years we have used ordinary rough pine boards 1 inch thick and 12 inches wide in building boxes. Pine wood will last for many seasons under water and is entirely satisfactory. No bottom need be used, for when the sides are placed on the concrete floor it is not needed; however, a strip should be nailed across on the inside so that when the soil is put in it will keep the sides from floating away. The corners of the boxes should be reinforced by a 2 by 3 -inch cleat, nailed on the inside. Permanent boxes may be built of brick or concrete, but movable boxes are to be preferred. Tubs make good containers for the moderate growing kinds. It should be remembered that the roots of water lilies extend laterally rather than pene, trate deeply and thus kegs and other deep containers are not particularly satisfactory.

Planting. When the lilies are received care should be taken to prevent their be coming dry before planting. They may be covered with wet burlap. After the boxes are prepared a small hole may be scooped out and the plant put in place, horizontally, and not upright, with the growing end just flush with the surface.

Tropical water lilies are shipped as 4 inch pot plants and these should be set upright to the same depth as before. It is well to fill the pool with water a day or so before planting to allow it to become warmed by the sun and then to plant directly in the water.

Distance Apart to Plant. In small pools allow 3 to 5 feet between plants which will be sufficient. In very large pools a more natural effect may be gained by planting a number of roots in a group and separating the groups by a little open water.

When to Plant. Planting of the Hardy lilies may be begun from February to May, depending upon the location. Our shipping season opens in February for the Pacific Coast and Florida, April and May for the southern and northern states. Tropical lilies are planted somewhat later generally in May and June. For details as to shipping dates see under Tropical Lilies.

Winter Care of the Pool. Hardy lilies grow wild in northern regions and need no protection other than from direct freezing of the roots. Where the water is deep enough not to freeze solidly they will come through unharmed. Artificial pools are perhaps best drained in late fall and filled with leaves or straw or they may be covered with boards or litter, which will protect them from frost. Tubs may be removed to a cold cellar, but should not be allowed to become dry.

Insect Enemies and Green Scum. Few insects attack water plants, the only prevalent pest being the common aphis or green-fly. These are easily checked by knocking them off with a strong force of water when the fish will attend to them or by spraying with Black Leaf 40 . We have found the following mixture to be safe and reliable. 1 cubic inch laundry soap dissolved in 1 quart hot water, add $1 / 2$ pint kerosene, beat with egg beater and add to 5 gallons cold water. Use with garden spray. The green scum sometimes found in pools will disappear when the leaves shade the surface, for it grows only in the sun. Allowing the pool to overflow will help keep it in check if it should prove objectionable.

Mosquitoes and Goldfish. There will be no annoyance from mosquitoes where there are a few goldfish in the pool. This is one rule that works every time.

## Pool Building

Just what kind of pool to build one may decide after comparing the two typesformal and informal-and their particular points. For small pools many prefer the rectangular shape with perpendicular sides for it agrees well with any style of architecture and gives the optimum growing conditions for the plants. It is also simple to construct and reasonable in cost. For larger pools or where an irregular outline is more admired the informal type may offer advantages. No form need be built and any shape desired is readily executed. In small pools the sloping walls restrict the number of plants that may be grown and the amounts of soil and water contained.

Anyone handy with tools may build a successful pool at small outlay if a few simple things are considered. The most important thing about a water lily pool is to have the depth 2 feet, which will allow for 1 foot of soil and 1 foot of water. The walls and bottom should be 6 inches thick where freezing temperatures are expected, in mild climates 4 inches will be ample for small pools. Some reinforcing is advisable to prevent cracking and this may be heavy, galvanized wire fencing, for informal pools, used according to the diagram or $3 / 8$-inch steel rods where forms are used, one line near the top and another halfway down. All materials used should be clean. We have found the following mixture to be quite satisfactory for pools: 1 big shovelful Portland cement, 3 shovelfuls coarse sand, 4 shovelfuls stone. The stone should pass through a 1 -inch sieve. Turn over 3 times dry and then add just enough water to make a pasty mixture. Put in place and tamp well. After the concrete has set a mixture of 1 part cement to 2 parts sand should be worked on with a broom to a thickness of $1 / 4$ inch for water-proofing purposes. For the next 10 days the concrete should be kept constantly moist so that it will set hard and water tight. A 2 -inch layer of soil spread over and sprinkled daily will serve the purpose.

The diagrams explain the two types of pool construction and the points of difference. A drain and overflow pipe add to the convenience of cleaning and care, though it is perfectly feasible to siphon the water out with a hose to a lower place, either in the garden or cellar, where it will soon seep away.

Everyone working with cement should write to the Portland Cement Association, 111 West Washington St., Chicago, Ill., for the free booklet, "Concrete Around the Home."


The two main types of pool contrasted and construction details illustrated.

Every detail of concrete construction is fully illustrated and the booklet is gladly sent.


## Tropical Water Lilies

These are the lilies to rely upon for a brilliant display of color during summer and fall for from July till the heavy frosts of autumn they are at their best. The flowers of many reach a very large size, exceeding 12 inches in some cases. They are also free in flowering producing buds with the new leaves, and as they are vigorous growers there are usually a number of blossoms in all stages on each plant. The large flat flowers and the clear brilliant colors produce a striking tropical effect hardly equalled by any other class of plants. They are especially at home in artificial pools, thriving with the same care as the common hardy pond lilies, asking only for sun and plenty of loam in which their spongy white roots may feed. They are very accommodating in regard to space requirements growing and flowering in a small space or where conditions permit rampantly spreading to 10 or 15 feet across. The size of the flowers is in direct ratio to the space allotted them. In our pools last summer the variety Mrs. Edwards Whitaker flowered until November in 5 -inch pots producing flowers 4 inches across, while in the garden of a friend the same variety had a spread of 16 feet and 13 -inch blooms. They should not be planted until the weather is settled and warm to avoid possible checks from late cold snaps. We ship to arrive about the following dates: Nashville, Tenn., June 1st; New York, June 5th; St. Louis, June 1st; Chicago, June 5th; Southern California, May 1st-30th; Portland, Ore., June 2nd. We also ship on request.

Our plants are all out-door grown and are consequently strong and hardy.

## Novelty 1927

Blue Triumph. This splendid new variety raised at our nurseries has been given a thorough trial before being offered both in the East and on the Pacific Coast, where it has proven itself to be one of the finest show lilies yet introduced.

The immense, deep blue flowers reach 13 inches across and are of the most graceful form, with long curving petals and yellow center, well shown in the color photograph. In habit the plant is all that could be desired - vigorous, clean and free-flowering, carrying three or more open flowers throughout the season. Two-year-old crowns have often had as many as 12 open flowers each over a foot across. $\$ 5$ each.

## Standard Varieties

TROPICAL LILIES

PENNSYLVANIA. A magnificent old variety with deep, rich blue flowers of large size 10 to 12 inches in diameter. The buds are prettily speckled with maroon markings and open an intense blue. The stamens are tipped with blue, the cup yellow; a most pleasing contrast. The flowers emit a powerful spicy fragrance. The plant is vigorous, healthy and free in flowering. $\$ 2.50$ each.

Caerulea. The wild blue Lotus of Egypt. The fragrant, sky-blue flowers are borne in endless succession until the frosts of autumn. Well-suited to crowded quarters and excellent for cutting. \$1 each.

Castaliiflora. Bright pink, open flowers of charming form. Vigorous healthy plants carrying a continual crop of buds and flowers throughout the season. $\$ 2.50$ each.

BLUE BEAUTY. An old and beautiful variety. The large and sweetly scented flowers are clear blue in color, set off by the yellow and blue stamens. The leaves become very large, spotted with purple beneath. A thoroughly satisfactory plant. $\$ 2$ each.

August Koch. One of the most satisfactory new lilies of the leaf-propagating type. The flowers are a beautiful shade of blue, the sepals somewhat darker; the fragrance is very pleasing. The leaves are large, deep green in color, and are borne in a compac: circle. The plant is strong and free flowering. $\$ 2$ each.

Stella Gurney. The flowers are bright pink in color with long pointed petals and a yellow center. The spicy fragrance scents the entire pool. The plant is very free flowering, the large light green pads ruffled at the margins. A most satisfactory and pleasing variety. $\$ 2$ each.

MRS. C. W. WARD. The rose pink star-like flowers of this excellent lily are well adapted to cutting for the house. The green leaves are prettily scalloped, the plant free blooming and vigorous. \$2 each.

MRS. GEO. H. PRING. Immense snow-white flowers, freely borne through the entire summer. The young leaves are blotched with brown, the older ones plain green. The only white flowered tropical show lily. A very satisfactory plant and a good contrast to the colored varieties. $\$ 2.50$ each.

Henry Shaw. A blue flowered companion to Castaliiflora. A most pleasing flower, sweet scented and bright. The plant is vigorous and freely produces the basin-shaped blossoms. The leaves are plain green, flushed with pink below. $\$ 5$ each.

MRS. EDWARDS WHITAKER. One of the largest flowered varieties the huge open flowers often exceeding 13 inches in diameter. Sky blue in color, becoming lighter with age. The plant is very accommodating flowering when dwarfed from lack of room or exuberantly filling a $1 \tilde{5}$-foot basin. A splendid and popular specimen plant. Should be in every pool. $\$ 2.50$ each.

William Stone. Starshaped purple flowers, 5 to 7 inches in diameter, borne on tall stems above the water. The flowers are of much substance and last a long time when cut. The under surface of the leaves is flushed with violet, the margins prettily scalloped. One of the freest bloomers. \$2 each.

General Pershing. The broad basinshaped flowers are clear pink in color, with bright yellow stamens. The flower is very distinct and imposing, with wide, curving petals. A good strong plant. \$5 each.

MRS. WOODROW WILSON. A lavender blue flowered lily of pleasing cupped form. The fragrant blossoms are freely produced over a long period. Young plants are produced on the older leaves. The plant is of the easiest culture flowering soon after being set out. \$2 each.

Panama Pacific. The rosy purple flowers of this distinct variety are very bright, particularly as the buds unfold. The plant is a moderate grower, early bloomer, and very satisfactory for medium-sized pools. Young plants are formed on the leaves. $\$ 2.50$ each.


## Star Lilies

The beautiful and free blooming Star Lilies originated at our nurseries many years ago, one of the parents having been introduced by us in 1894 fiom its home in Mexico, the other parent coming from the island of Zanzibar. Since then they have become the most widely planted water lilies in the West.

The starry blossoms, brilliant in hue and scented with the fragrance of Lily of the Valley, are produced in endless profusion all summer long. One may reasonably expect 100 flowers in a season and often they will have double this number. They are from 5 to 7 inches across and are borne on stout stems a foot above the water. The plants are very vigorous and easy to establish and may be lifted in the fall after the first sharp frost and wintered in moist sand in a warm cellar, replanting in May. The large, bright green leaves have scalloped margins and are carried on long petioles. The color of the flower may be fortold by the same color suffusing the under surface of the leaf. The certainty and freedom with which they bloom make them of particular interest to the owners of new pools. For cut flowers they are the best of all, cut them and treat them as you would a rose, placing them in the light to open.

Pink Star, Rose Star, Red Star, Blue Star, Purple Star. Strong out-door grown plants at $\$ 2$ each.

## Night Blooming Water Lilies

The immense and brilliantly colored flowers of this group open in the early evening and remain open until late the following morning when they close to open again on successive evenings. Gorgeous as few other flowers, they are a source of constant pleasure to those who revel in color. They thrive with the same treatment given to the day-blooming tropical lilies, rejoicing in the heat of our long summers. Planted in May or June they soon commence flowering and continue until stopped by the heavy frosts of autumn, the blooming period thus covering three or four months. The colors range from glistening white to deepest crimson, the flowers being cup-shaped or flat in form.

GEORGE HUSTER. A large, brilliant crimson flowered variety, the blossoms 10 to 12 inches across. The leaves are bronzy red and crimped at the margins, being very ornamental. The plant is strong and free blooming. One of the most desirable varieties cultivated. $\$ 1.50$ each.

Lotus dentata. A large, free blooming plant with snow-white flowers. 10 inches in diameter. \$1 each.

Dean. Clear, light pink flowers with deep rose sepals. The flower is cup-shaped with very wide petals and deep orange stamens. $\$ 1.50$ each.

Devon. A very free blooming lily with bright rosy red flowers from 8 to 10 inches across. This was the first hybrid water lily produced. $\$ 1$ each.

Juno. Immense, pure white flowers with bright yellow stamens. The blossoms are very distinct, opening out perfectly flat. The plant is free blooming with large, glossy green, finely toothed leaves. A splendid and stately flower. $\$ 2.50$ each.

## Hardy Water Lilies

The snowy-white pond lilies found wild throughout the East and Middle West are examples of this type. It is difficult to realize that all of the bright red, yellow and pink lilies are just as easily grown as the common white ones. Through the patient work of the hybridist the brilliant colors of some, the vigor and hardiness of others, have been blended until today we have varieties in abundance with the good qualities of both parents.

The range of colors in the Hardy varieties is complete, excepting blue, which is found only in the Tropical group. The flowers are varied, sometimes floating on the water, sometimes held erect and are usually sweetly fragrant. The colors are bright, the plants hardy and easy to grow and all give a wealth of bloom.

## New and Rare Varieties of Hardy Lilies

For many years we have been bringing together a collection of water lilies from all parts of the world, whenever possible from the original introducer. Many of them have been unavailable to garden lovers for a decade or more, while others are species not yet in general cultivation. At present this collection embraces nearly 150 varieties and from among them we have selected a number of charming lilies, some of which are bound to eventually take their place among the choicer standard sorts. To the connoisseur some will present the features of new types and we predict that shortly these distinct forms will be most popular. They have all been well proven by years of trial and are all that could be wished for in hardiness and floristic qualities.



A pleasant feature of this garden is the lily pool.

## Novelties Old and New

## HARDY LILIES

Amabilis. Amabilis means pleasing, and certainly there could be no fitter name for this splendid novelty. In color it is a bright clean pink, and in form it is starry with pointed spreading petals quite distinct from any of the older kinds. It is very free in flowering equalling in this respect the best. The plant is a vigorous grower. and being a hybrid of the European wild lily is not inclined to ramble. $\$ 12.50$ each.

Neptune. The most striking feature of this new lily is the color, a peculiar deep pink flushed with mauve at the base and with an indescribable velvety texture. The color becomes lighter toward the tips of the petals. The flower has a beautiful open centered form and deep garnet stamens. A most free and steady bloomer, keeping on till late in fall. $\$ 10$ each.

Chrysanta. An old, but charming variety. The plant is a very moderate grower forming a compact circle of pretty spotted leaves among which the amber red blossoms show to advantage. These are borne on upright stems 2 to 3 inches above the water and are cup shaped, not opening out flat. The size of the flower is medium in keeping with the dwarf nature of the plant. Well adapted to small pools. $\$ 3.50$ each.

Arethusa. This old American hybrid deserves a place wherever choice plants are appreciated. The flowers are large with fine broad petals and full form, deep rich crimson in color with the velvety sheen of Neptune. The handsome leaves are splotched with red. When given ample treatment the plant responds in a most gratifying way. blooming profusely. $\$ 5$ each.

Venusta. The darkest and deepest pink hybrid of the American wild lilies. The color is a brilliant eosin pink verging on red and among all the varied colors in our pools this is the most universally admired. To appreciate its effulgence one must see it. The flowers are of good size and much substance with a charming cup shape and borne just above the water on stout stems. The fragrance is the rich full odor of the wild parent. A free and vigorous grower. $\$ 10$ each.

Gonnere. For many years the only fully double lily was the extremely shy flowering Tuberosa Richardsoni. Now for the first time in America we are offering
a free flowering, fully double white lily averaging over 80 snowy petals to the flower. Double clear to the center, the massive floating blossom owns no peer. The plant is a seedling of the wild European lily and has all the free flowering, compact habits of its parent. Visitors to our pools pronounce it the greatest novelty of recent years. The pleasing bright green pads are abundant and offer a perfect foil for the snowy flowers. $\$ 25$ each.

Fabiola. For freedom and length of flowering period this lily is hard to surpass. The light red flowers are of good size and form with stout stems. The leaves are green and the plant of exceptionally sturdy growth. One of the first to open in the spring and among the last to cease in the fall. A dependable sort. $\$ 7.50$ each.

Leviathan. A very large flowered variety 8 to 9 inches across, deep reddish pink in color and of charming informal shape. Free in flowering, vigorous in growth it will soon take its place among the better standard kinds. The large, green leaves are flushed with red below. A most distinct and beautiful type. $\$ 10$ each.

Picciola. A very dark. velvety crimson flowered variety the large blooms held erect just above the water. The petals are spreading and the general form distinct from most red flowered kinds. The leaves are heavily spotted with red, and ovate in shape. The plant is vigorous, appreciating ample treatment. \$10 each.

Suavissima. A variety of the wild eastern lily with soft shell pink flowers. A pretty starry bloom sweetly perfumed. The plant is a moderate grower and free bloomer. An old variety, but long absent from gardens. \$3.50 each.

Lucida. While this first-rate variety has long been grown it has seldom been offered. The color is very bright, a light red with a warm yellow flush making the flower very noticeable from a distance. In form it is open centered, with red stamens and long, narrow petals. The leaves are among the most beautiful ornaments of the pool--large and oval with heavy maroon blotches on a light green ground. A strong grower, very free in flower and will thrive in rather deep water. $\$ 3.50$ each.

Solfatarre. A most striking combination of colors, amber flushed with yellow, deepening with age until it is suffused with red on the third day. The flowers are 5 to 6 inches in diamter, broadly cup-shaped and floating among the pads. The leaves are a beautiful bright green, minutely spotted. The plant is of perfect habit, compact and vigorous and one of the freest bloomers yet introduced. One of the best novelties of the French growers. $\$ 5$ each.

Mrs. Richmond. A magnificent flower of great beauty and exquisite coloration, rose deeping toward the glowing center in a most striking way. The massive flowers are many petalled, very large and most freely and continuously produced. The plant will never become common because it is a slow propagator. One of the rarest and handsomest varieties yet produced, attracting the attention of all who see it. $\$ 15$ each.

## Standard Varieties

## hardy lilies

Marliac Yellow. Bright sulphur yellow in color with broad curving petals. The leaves are handsomely splotched with bronze red. The plant is very vigorous, hardy and compact, and thrives under adverse conditions. One of the freest in flowering. $\$ 1$ each.

Marliac Pink. Beautiful shell-pink flowers of a most exquisite color when opening. The blossoms are very large, the plant strong and free blooming, with plain green leaves tinged with red on unfolding. A popular sort. \$1 each.

Marliac White. Snowy white, broad petalled flowers with bright yellow stamens. The flowers are 5 to 6 inches in diameter, fragrant and freely produced throughout the entire season. A most desirable plant. \$1 each.

PAUL HARIOT. Splendid copper pink flowers overlaid with yellow as they open, deepening in color on each successive day till they are suffused with red. The flowers are quite large, floating and cup-shaped and freely borne. The plant is hardy and does well under almost all conditions. being an exceptionally good variety for beginners in water gardening $\$ 1.50$ each.

Gloriosa. Surely this variety is well named, for it would be hard to picture a more glorious sort. Brilliant red and double flowers of exquisite form. We have counted 150 open flowers on a patch 15 feet square. Here all the good qualities are found in one p'ant. One of the most popular varieties grown. \$3 each.

SOMPTUOSA. One of the largest and brightest of the pink sorts. The broad, open flowers are deep pink toward the center, growing lighter outward-a most pleasing combination. The leaves are prettily spotted, the plant a strong grower and free bloomer. A recent introduction. $\$ 3.50$ each.

Rose Arey. Starry, deep pink, intensely fragrant flowers of exceptional size. An improved variety of the Eastern pond lily. A very pleasing and decorative sort. $\$ 2.50$ each.

Aurora. Named because of the changeful flowers. They open yellow, warmed with amber, and daily deepen to dark red. Semi-dwarf in habit, free in flowering, vigorous and healthy. $\$ 1$ each.

Gladstone. A large dazzling white flower with broad waxy petals and pleasing cup shape. A free flowering variety opening early in the morning as well as early in the season. Strong growing and vigorous, it appreciates plenty of room. $\$ 1.50$ each.

Robinsoni. An old and beautiful variety that should be in every collection. The flowers are rich red overlaid with yellow, producing a beautiful warm tone. The leaves are very pretty, speckled with maroon and ruffled on the sinus. The plant blooms freely and continuously and is one of the best for massing. $\$ 2.50$ each.

Marlisc Rose. The deep pink, fragrant flowers are cup-shaped, of good size and substance and freely borne. They are the first to open in the morning. The large leaves are purplish red in the young state, changing to deep green. $\$ 1.50$ each.

COMANCHE. Perhaps the best of all the copper colored sorts. Brilliant, glowing, amber red overlaid with yellow deepening to red with age. A steady free bloomer, one of the first to open in the spring and among the vanguard in the fall. The plant is sturdy and hardy, thriving under the most adverse conditions. An excellent all around sort. $\$ 2.50$ each.

Masaniello. A charming pink flowered variety quite distinct in form and coloration. The light sepals are in contrast to the deeper colored petals. The leaves are plain green, the plant a good grower. $\$ 2$ each.

Splendida. A beautiful recent introduction that well deserves its popularity. The general color is pink, deepening to almost red at the base of the broad petals. The plant is an exceptional bloomer and of a good sturdy character standing crowding well. A most satisfactory sort. $\$ 4$ each.

James Brydon. An old American variety that has never been surpassed in form or coloration. The splendid, full-petalled, massive flower is brilliant rosy crimson in color, very large and broadly cup-shaped. The leaves are richly tinged with bronzy red. faintly splotched and very ornamental. The plant is strong and free flowering. $\$ 2.50$ each.

CONQUEROR. An immense flower 8 to 9 inches across, dark carmine red in color, the petals flecked with white, the sepals lighter. Exceptionally free in flowering. A vigorous, healthy plant and one much admired. As a specimen plant it is without a peer. $\$ 5$ each.

## CAREFUL PACKING

I received my lily and other water plants in fine condition yesterday and I wish to thank you for sending them so promptly.-Mrs. J. E. Chegwidden, Murray, Utah, July 16th, 1926.

## A pleasure to all who view them

The lilies I bought from you last year are all doing beautifully and are a joy to us and a pleas. ure to all who view them.-Mrs. G. E. Langford, McAllen, Texas, June 4th, 1926.

## PLANTS ARRIVED IN FINE SHAPE

The Escarboucle water lily arrived in fine shape. Our customer was very well pleased with it and now wants a Pennsylvania.-Piedmont Nursery, Oakland, Calif., May 29th, 1926.

## SPLENDID SUCCESS

Two or three years ago I purchased some water lilies from you and had splendid success with them.-W. E. Loucks, San Francisco, Calif., Apri? 20th, 1926.

Pygmy. A dainty little lily from China with snowy white tea scented flowers. The plant is a free grower and very dwarf, blooming over a long period. One of the most interesting and charming plants in the water garden. \$1 each.

Yellow Pygmy. Very similar to the Chinese lily but with bright yellow flowers and heavily spotted leaves. A good plant for small pools. $\$ 1$ each.

Laydekeri purpurata. Pleasing carmine rose flowers borne in constant succession. The plant is moderate in growth and suitable for medium-sized pools. The leaves are oval and prettily spotted. An old-time tried variety. \$1.50 each.

ESCARBOUCLE. The most brilliant flowered of all the red water lilies. Bright, intense red, deepening to crimson, with garnet stamens. A free flowering, strong growing variety, well repaying any attention given it. One of the hardiest and best yet introduced. $\$ 10$ each.

Odorata sulphurea grandifora. This is the true variety and seldom has it been obtainable. The flowers are immense, averaging over 10 inches in diameter and borne in steady succession from earliest spring till late in fall; in California throughout the entire year. Beautiful sulphur yellow, in color, with an indescribable natural grace and one of the most admired lilies in our pools. When well-grown the plant is enormous with rhizomes 4 inches in diameter and huge green leaves flushed and mottled with red below. Does well in deep water and stands crowding. $\$ 5$ each.

## SPECIAL OFFERS

MARLIAC TRIO. Shell pink, yellow and white. Three beautiful, free blooming Hardy lilies, equally satisfactory for tubs and pools. A useful, sturdy group that will give satisfaction. Prepaid to any address in the U. S. for $\$ 3$.

STAR TRIO. This splendid assortment of free blooming, bright colored Star lilies will assure you of flowers all summer long. Rose. Red and Purple Star, the three prepaid to your address for $\$ 5$.

LOS ANGELES TRIO. Three bright colored Hardy lilies that will well cover a 6 -foot pool. Paul Hariot copper, Marliac yellow, Masaniello pink. This choice set prepaid to any address for $\$ 4$.

COMPLETE SMALL POOL. A well balanced collection that will attractively furnish a small pool, the plants having been selected for their variety and ease of culture. Blue Star. Marliac Yellow, Marliac White, Water Canna, Porcupine Grass, Water Poppy, Yellow Iris and Fish Plants. Prepaid to any address for $\$ 5$.

COLLECTION FOR A MEDIUM POOL. This collection will comfortably fill a medium-sized pool and give a wealth of bloom all through the season. The plants are all first class varieties. Paul Hariot copper, Pennsylvania blue, Gloriosa red, Marliac white, Marliac yellow, Water Canna, Water Iris, Water Poppy, Porcupine Grass. Lemon Lily, Fish Plants. Prepaid to any address $\$ 10$.

GOLDEN STATE COLLECTION. An assortment of Show varieties selected for their long blooming period. They are all brilliant colored, large flowered lilies that will give a splendid, tropical display throughout the summer. Blue Beauty blue, Conqueror crimson, Comanche copper. Mrs. Geo. H. Pring white, Escarboucle red. \$22 value, prepaid to any address for $\$ 15$.

## WATER LILIES GREW WELL

Was much pleased with water poppy sent gratis with last spring's order. The water hyacinth found us overstocked with same. Water lilies grew well and both produced several flowers.-Irving H. Snyder, Los Gatos, Calif., March 10th, 1926.

## STRONG PLANTS

I like your plants. They are well packed, thrifty and grow off nicely; you have been so generous that the express charges have been more than offset.-Grace Dawson, Nashville, Tenn., June 25th, 1926.


Tropical night blooming lilies at home.

## Water Plants

Under this heading are grouped those plants which grow in the water other than the true water lilies. They are most varied and interesting and give the much desired lush, boggy effect to the pool. Some stand above the water as do the Arrowheads while others float on the surface or are anchored to the bottom. They are easily grown, needing very little care and may be planted here and there among the lilies. Some bear pretty flowers as the Water Poppy, while others are of interest for their striking foliage and for the variety they add. Most of them do best in shallow water and so the receptacles in which they are grown-pots, boxes or butter tubs should be raised to within 2 to 6 inches of the surface unless otherwise noted. In natural pools they may be planted in the shoal water or on the moist banks.

WATER HAWTHORNE (Aponogeton distachyus grandiflorum). Snow-white flowers with the fragrance of English Hawthorne. They are most interesting, the spike being forked and each floret speckled with tiny black anthers. The leaves are oblong, bright green, and float on the surface. In warm regions they flower all winter long. They enjoy deep water and thrive planted along with the water lilies. Certainly one of the prettiest of the group. 50 cents each.

Water Poppy (Hydrocleis nymphoides). An old favorite whose cheerful yellow flowers look for all the world like California poppies. Each flower lasts but a day, to be followed by an endless succession all summer long. Plant as you would a water lily. 15 cents each, 4 for 50 cents.

Umbrella Palm (Cyperus alternifolius). A most useful and familiar plant, suitable for shallow water or may be grown in moist soil. Young plants may be grown by planting the crown of leaves surmounting each stem. 25 cents each.

Dwarf Umbrella Palm. A miniature form of the preceding. Very useful for table decoration and of great value in the small pool. 25 cents each, $\$ 2.50$ per dozen.

Calla Lily. Well-known for its large, white, trumpet-shaped flowers. The foliage gives a most luxuriant tropical effect throughout the summer. The plants may be potted up in the fall and will continue to bloom in the house. Thrives in the pool or in damp soil. Large plants 50 cents each.

Butterfly Lily (Hedychium coronarium). The plant well deserves its name of Butterfly Lily and is worthy of a place in every garden. The powerfully fragrant, sparkling white flowers are borne on the tips of the canna like stems in late summer. Thrives in the pool just at the surface or in the moist soil of the margin. 25 cents each.

WATER CANNA (Thalia dealbata). A tall stately plant thriving in shallow water. The canna-like foliage is covered with a white bloom. The flower spikes are tall and gracefully arching, the purple flowers with irritable stamens. If the flowers are lightly squeezed they will jump under the fingers. 50 cents each.

Giant Arrowhead (Sagittaria montevidensis). A typically boggy-looking plant with arrow-shaped leaves and spikes of white flowers, a maroon blotch at the base of each petal. Well-grown specimens may reach 5 feet in height. Shallow or deep water. 35 cents each.

Japanese Arrowhead (Sagittaria sagittifolia). Arrow-shaped leaves and spikes of white blossoms. A lush, thrifty grower, thriving in shallow water. 25 cents each.

Pickerel Weed (Pontederia cordata). A familiar marsh plant, bearing spikes of pleasing purple flowers throughout the summer. The heart-shaped leaves are 1 to 2 feet tall. Grows luxuriantly in shallow water, blooming profusely. 25 cents each.

Parrot Feather (Myriophyllum proserpinacoides). The feathery green stems trail over the water or foam in soft, airy masses from fountain basins. 15 cents per bunch. $\$ 1.50$ per 12 bunches.

Water Rice (Zizania aquatica). A fine native grass of stately appearance and bearing graceful panicles of bloom. A great favorite with water birds. Plant in shallow water. 3 for 25 cents.

Water Hyacinth (Eichornia crassipes). Universally used in fish bowls and pools. The plant floats on the water by means of the air-filled petioles. The delicate lavender flowers are as beautiful as an orchid. The plants should be anchored within a floating hoop for they bloom best when crowded. 15 cents each.

Azure Hyacinth (Eichornia azurea). One of the most satisfactory of the smaller water plants. The flowers are a rich blue with a yellow eye. The spikes are freely borne all summer long, the plants creeping about among the lily pads. Plant in the mud with the lilies and the shoots will soon appear at the surface. 50 cents each.

PORCUPINE PLANT (Scirpus lacustris zebrina). A pretty variegated Bulrush. well suited to planting in shallow water. The tall quill-like stems are alternately banded white and green and are very showy in the early spring. Should be in every pool. 25 cents each.

Lance Leaf (Sagittaria lancifolia). A hardy and beautiful plant thriving in shallow water. The flowers are an inch in diameter, white with a yellow center. The leaves are 2 to 3 feet tall with a lance-shaped blade. 50 cents each.

## PLANTS FOR AQUARIA

For indoor aquaria or fish bowls it is necessary to supply some green plants to keep the fish in good health. Some of the plants are eaten while others supply the needed oxygen to the water. On sunny days the tiny oxygen bubbles may be seen rising in a continual stream from the green, active leaves of the submerged plants. They may be planted in clean gravel or anchored with leaden weights.

Ludwigia Mulerttii. Bronzy red leaves. Very satisfactory. 15 cents bunch.
Fish Grass (Elodea canadensis). Bright green, graceful stems with leaves arranged in whorls. 15 cents bunch.

Fanwort (Cabomba caroliniana). Beautiful feathery green leaves. 15 cents bunch.

## Useful Plants for the Pool Margin

In selecting plants for the pool margin, preference should be given to those which grow naturally in a moist soil, for these are most likely to harmonize with the water plants. Where the soil is dry, as for instance about a concrete pool, watering and a heavy mulch of leaves will keep the plants bright and thrifty. The hardy perennials listed are easy to establish and require a minimum of care.

Day Lilies (Hemerocallis). These are particularly valuable, growing as well in California as they do in New England. They form graceful, grass-like clumps, improving yearly and bearing large, bell-shaped yellow and orange fragrant flowers. They are of the easiest possible culture, thriving anywhere and luxuriating at the pool side. The following are among the best varieties.
H. Gold Dust. A dwarf growing variety with bright orange yellow flowers. 25 cents each.
H. Damortierii. Grows 18 inches to 2 feet tall. Flowers orange yellow. 25 cents each.
H. Thunbergii. Pale lemon yellow flowers. 25 cents each.
H. flava. The Lemon Lily. Sweetly fragrant, lemon yellow flowers on tall stems. Excellent for cutting. 25 cents each.
H. aurantiaca major. The largest and finest of the Day Lilies. In warm regions it is evergreen flowering throughout the year. The clumps grow 2 to 3 feet in height. The blossoms are large and orange colored. 50 cents each.
H. Kwanso. Very large double flowers, tawny orange red in color. The plant is vigorous and free blooming. 25 cents each.

Jointweed (Polygonum affine). A very pretty hardy plant from the Himalayas where it grows on the moist banks of streams. It thrives under garden conditions, producing its spikes of bright rose red flowers in the autumn. The lax stems are from 1 to 3 feet tall, arising from a tuft. The papery flowers last a long time when cut. 40 cents each.

Water Iris. No garden is complete without the handsome foliage and flowers of the water irises. They are all easy growers and thrive either in the pool or in the border. When planted in the water it is best to just submerge the rhizomes, raising the boxes in which they are planted almost to the surface. They attain a luxuriance in the water never more than approximated in the border.
I. psuedacorus gigantea. A splendid foliage variety reaching a height of 6 feet. The plants are vigorous and quickly establish themselves. Flowers medium in size, bright yellow. 25 cents each.
I. versicolor. Grows to a height of 2 feet, with pretty, bright green, curved leaves and pale blue flowers. 25 cents each.
I. hexagona purpurea. Pleasing purple flowers rising above the foliage. The rhizome increases in length rapidly. 25 cents each.
I. sibirica. During the flowering period this is one of the most striking plants in the garden. The brilliant blue flowers are most freely produced, each stem carrying a number of buds and every crown in the grass-like clumps bearing a stem. Thrives in the ordinary border and equally well in the water where the crowns are raised an inch or so above the surface. 25 cents each.

## WATER GARDENS IN MEXICO

You will remember sending me water lily bulbs some months ago, which lilies have done wonderfully and I must congratulate you.-H. Dock, Guadalajara, Mexico, November 28th, 1926.

## WELL PLEASED

P. S.: The pink Marliac has flowered and three more buds are in sight-well pleased.-H. M. Calvert, Richmond, Calif., April 24th, 1926.

## Ornamental Grasses

The graceful, feathery grasses are seen at their best when planted at the margin of the pool. They blend beautifully and naturally with the water plants and when planted in irregular groups link the pool with the rest of the garden. They thrive with ordinary garden treatment, forming increasing clumps according to the variety.

Palm Grass (Panicum palmifolium). A graceful, palm-like grass, forming splendid clumps in a single summer. The deep green leaves are broad and pleated, arching gracefully. The flower panicles are tall, rising above the foliage. The plant is from 2 to 6 feet in height. One of the most ornamental of the grasses. 50 cents each.

Ribbon Grass (Phalaris arundinacea variegata). Forms pretty, loose clumps, 2 to 3 feet tall. The leaves are striped green and white. A hardy, free growing plant. 25 cents each.

Striped Oatgrass (Arrhenantherum bulbosum variegatum). A very dwarf grass, forming pleasing clumps, useful for edgings to borders and beds. The stems are swollen into small tubers near the base. 20 cents each.

Japanese Sedge (Carex-Morrowi). The plant grows in beautiful grassy tufts 1 to 2 feet high. The bright, clean leaves are narrow and margined with white. Does well in moist soil near the pool or in the border in sun or shade. During the winter the leaves remain bright and green as far north as central New York. It may be potted up in the fall and makes a splendid house plant. 30 cents each.

## Sacred Lotus

The beautiful and stately Lotus is perhaps one of the most interesting plants in the water garden. Many people have venerated it for it has seemed to express to them the relation of the spirit to the world of matter-a chaste flower rising from the mire. Growing wild in the Eastern Tropics, India, China, Papua, etc., it yet is perfectly hardy


Sacred Lotus anywhere in the United States and southern Canada, thriving in the heat of our summers and retreating deep into the mud at the approach of winter. The rhizomes look like two or three bananas strung end to end and are easily broken so that care should be exercised in handling them. Dormant roots may be safely transplanted before active growth commences; this occurs on the Pacific Coast during March and April and in the North and East in May and June.

In planting the rhizomes settle them gently into the mud with the growing end just below the surface. They grow well in water 2 inches to 12 inches deep and require the same general care as water lilies. The plants should be confined within boxes, for otherwise their rampant growth would soon choke out the other plants.
Sacred Lotus. (Nelumbo nelumbo). The Sacred or Egyptian Lotus. Immense, pink flowers exhaling a peculiar and characteristic fragrance. The large umbrella-like leaves are borne on tall stems, the flower buds rising to expand above them. $\$ 2.00$ each.

## Maryland Goldfish Bowl



An air view of Three Spring Fisheries, the second largest goldfish hatchery in the world. Located at Adamstown, Md., in Frederick County, it produces and ships more goldfish than any other county in the United States, breeding more than 1,000,000 of the fancy fish per year.


Republican Senators have introduced an air-mail bill of their own. The Democratic majority is far from being united in support of Mr.' Farley's maneuvers. A protracted tangle may keep regular mail planes out of the air for a long time, unless some practical means of letting temporary contracts is devised.

Impartial observers realize that unless contracts are restored to the former carriers while this controversy is being ironed out the air-mail system will suffer irreparable damage. In a book on "The Economics of dir-Mail Transportation," just published by the Brookings Institution, Paul T. David calls attention to the difficulties that would be encountered in trying to establish a temporary air-mail service with the former carriers barred from bidding. His conclusion is worthy of attention in Congress:

The bald fact is that an air line can not be operated without money, and the only substantial amount of money available for air line operation is in the hands of the former mail carriers, unless the Postoffice Department is prepared to attract new money by offering terms which would be exceedingly favorable. It therefore seems most desirable that new legislation be adopted which will remove the ban on mail carrying by the former carriers.

Proper establishment of the air-mail system on a permanent basis will require a great deal of study and deliberation. It is doubtful whether a satisfactory plan can be ovolved out of the present controversy in
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## Desirable $A$

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## Things to Observe When Ordering

Extra Plants are included with each order in sufficient number to defray express charges, our desire being to bring the services of our nurseries to the remotest gaiden.

Shipping. All our orders are assembled and packed by skilled workmen whom have behind them the experience of 50 years of handling water plants. Shipments to Europe, Australia, Mexico, etc., will arrive in good condition.

Hardiness of Our Stock. Our Hardy Water Lilies will be found perfectly hardy wherever water lilies can be grown. Our Tropical Water Lilies are grown out-of-doors and consequently are strong and vigorous. We have been shipping to all points from our California location for over 35 years.

Parcel Post. Shipments may be made either by Parcel Post or by American Express, though we have found express to be generally more satisfactory and, except in local shipments, the cost is about the same. As we do not prepay postage a sufficient sum should be added to your order to cover same and any excess will be promptly returned to you. Express shipments may be sent carriage collect. We recommend that all California shipments be made by express on account of the plant inspection laws, the express company giving especial attention to such shipments.

Remi tances. Make all checks and money orders payable to Johnson Water Gardens, Hynes, California.

Planting Instructions are enclosed with each shipment.
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Guarantee. All plants are guaranteed to be true to name and in good condition when shipped. Owing to conditions over which we have no control-weather and care-it is impossible for us to assume responsibility for results. Complaints, if any, can be considered only when tendered at time goods are received.

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