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Hibiscus for the Yard

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The Crested Yellow

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HIBISCUS FOR THE YARD
R. H. Hanchey and W. D. Kimbrough

INTRODUCTION

The ornamental or Chinese hibiscus as it may be called has greatly increased in popularity in Louisiana during the last few years. The scientific name of the Chinese hibiscus is Hibiscus rosa-sinensis L. but many of the present day varieties of hibiscus are the result of the hybridizing of several species. The hibiscus is one of the most popular flowering plants grown in tropical and subtropical areas and, though not cold hardy, is being grown in areas where it is subject to winter injury. It belongs to the mallow family, which contains several well-known plants such as cotton, hollyhock, turks cap, and the mallows. The genus Hibiscus also includes the shrub althea, confederate rose, and okra. The fringed hibiscus from Africa, the species schizopetalus, also belongs to this genus.

There are several reasons for the increased popularity of the hibiscus. Improved varieties, especially some of the doubles, that attract attention are an important one. The fact that hibiscus bloom at a time of year when other flowers are not too plentiful, or are of poor quality, is of considerable importance. The realization that hibiscus may be grown successfully in many areas where it had not been grown has been helpful. The personal interest of some nurseriesmen in hibiscus and their making plants of good varieties available at reasonable prices has given impetus to the popularity of the plant.

In areas where the hibiscus is not subject to winter injury it is a perennial. In nearly all of the state of Louisiana it is likely to be killed by cold. In the southern part of the state, especially when some protection is present, plants may grow a number of years without serious damage from cold. In most of the state protection of some sort is necessary if the plants are to survive from year to year. Winter protection will be discussed later. It is believed, however, that over most of the state the hibiscus can be grown successfully as an annual so far as most gardeners are concerned. Rooted cuttings may be carried over winter more easily than large plants. Growers may grow their own plants but for the majority it would be better for nurseries to produce and care for the plants over winter. Nurseriesmen have the "know how" and facilities and in most cases can produce plants cheaper than individuals. If the price of plants is reasonable they can be replaced every year if necessary and lots of blooms may be obtained for the money invested. With proper care large plants of vigorous varieties can be grown in one season from rooted cuttings.

ACKNOWLEDGMENT—Appreciation is expressed to Mr. Zahn of Zahn's Nursery, New Orleans, for contributing a number of varieties for planting in a variety test. Thanks is also expressed to Mr. Bagwell, of Bagwell's Nursery, West Monroe, for giving cuttings of several varieties.
An objection often given to growing hibiscus for cut flowers is that they will last only one day. This is true for most varieties, especially in hot weather. This means that fresh flowers would have to be picked every day. If the plants bloom well, flowers will be available most of the time and if no leaves are pulled with the blooms, picking flowers does not damage the plants. If blooms are wanted for decorations at night, they should be pulled as soon as they are well open in the morning and placed in the refrigerator. One advantage of hibiscus blooms is that they do not have to be kept in water. Many varieties produce blooms that are excellent for use as corsages.

VARIETIES

Hibiscus nomenclature is somewhat confused but efforts are being made to straighten out this situation. It still sometimes happens that different varieties may be bought under the same name or the same variety obtained with different names. For this reason there is an advantage to buying a plant that is in bloom or seeing blooms on stock plants in a nursery. There are many beautiful varieties of hibiscus on the market and others are certain to be introduced. They may be obtained in different colors and shapes from singles to very doubles. Some of the types found are illustrated on Pages 4 and 5. The growth of plants of different varieties is quite variable and this may be important from the landscaping viewpoint.

Here at the Experiment Station approximately 100 varieties have been grown. Based on growth and freedom of bloom in the plots several varieties will be suggested as worthy of trial. While most of the better known varieties have been tried, this does not mean that there are not many other excellent varieties that might do well in other areas or that have not been tried here. When grown for cut flowers the double type blooms are likely to be found more desirable, but for show in the yard the singles are often better. If space is available in the yard some of both types should be planted. Variety names used in this publication are those used by the sources from which plants were obtained, except where known errors were corrected.

There are a number of good double yellow varieties now available. They make good growth and produce blooms fairly freely. The following are believed to be among the better ones: Crested Yellow, Crown of Bohemia, Andersons 161, and Hendry's 111 or Butterfly. Certain varieties such as Crown of Bohemia may have some orange color in them at times. From observations here Crested Yellow is considered the best double yellow variety, though any of the others named should be satisfactory. The double yellows are not likely to bloom as profusely as some of the other varieties.

Probably the outstanding hibiscus variety at present is Kona. It produces very large double pink blooms. It is a profuse bloomer and a vigorous grower. The plant will be tall and possibly a little sprangly
Crested Yellow

Crested Yellow

Kona

Columbia

King of Tonga
Eleanor Gartley

Stella Lykes
under good growing conditions. If only one variety is to be grown, this is a good one to try.

Another variety that is a very vigorous, upright grower and produces double coral pink blooms of medium size is Pride of Hankin. This variety is worthy of trial.

Peach Blow is a good double pink. The plants make only fairly good growth but are profuse bloomers. The popularity of this variety is said to be waning, probably due to the fact that the blooms appear to be somewhat faded, but it can usually be counted on to produce many beautiful blooms.

Lambert’s Red is a beautiful double variety that is often sold under other names. The flowers are dark red and the plant makes good growth of the spreading type. This is one of the best reds, if not the best.

Celia is another good double red. The plant makes fair growth and
the blooms are very nice. The color of the flowers is on the orange side of red.

One of the best double orange varieties is Alani. The plant makes good growth of a spreading type and produces large dark orange colored blooms.

Another good variety is Double Orange. The plants of this variety make fair growth, and large orange colored blooms are produced.

Jigora is a very good double variety. The plants make fair growth and produce medium-sized fairly double salmon blooms.

American Beauty (Subviolaceous) is one of the most popular double varieties. It produces large blooms of a rose red color. The plant is only fairly vigorous, but blooms are produced rather profusely. This is thought to be a good variety to plant.

Apex produces an orange yellow single bloom with a slightly darker center. Plants of this variety make good growth and bloom well. It is a good variety of the single type.

Another good single variety is Minerva. Plants of this variety make good growth and usually have a profusion of pink blooms.

Single Scarlet, a variety that is often called Brilliantissima in this area, is probably the most popular hibiscus variety at the present time. It is a dark red variety. The plants make vigorous growth and bloom well. There is another lighter colored variety that is sold under the name of Brilliantissima.

Indian Chief is an old single variety that produces good plants and lots of blooms. The flowers are large, single and the color orange-red with the back of the petals being bronze. Though some may consider this variety too common to plant, it is still a good one.

Delicata is a profuse blooming single variety. The flowers are pinkish lavendar in color. The plants make good growth. This is considered to be an excellent variety.

Another variety that produces an abundance of blooms and makes excellent growth is Venus. The flowers are large and light pink in color and will last longer than blooms of many varieties. The flower may appear to be a little washed out. This variety is said to be very susceptible to nematode injury.

Agnes Gault produces very large satiny pink blooms. The plant is a strong grower and a free bloomer.

Painted Lady is a fairly light pink variety that grows and blooms well. The single flowers are not as attractive as many others.

Buttercup and Pink Beauty are two single varieties that have not been tested here but are said to be good.

There is a group of varieties producing single blooms that are very beautiful, but in tests here have not bloomed too freely and often have not made satisfactory growth. Among these are Luna, Florida Luna, Pride of Balic, Mrs. F. Anderson, Bride, Ruffled Giant, and Florida Gem. Of that group Florida Gem has been the best in bloom production and Ruffled Giant and Bride the worst. Even though fewer
blooms may be obtained, their beauty warrants growing these varieties.

There is a variety often sold as Schizopetalus which is really a species, *Hibiscus schizopetalus*. It is called the fringed hibiscus and is grown as a novelty. The flowers are small and the plant makes an upright rangy type of growth. Some of the hybrids of this variety are grown rather extensively. The plants of these hybrids produce small flowers but they usually bloom profusely. The most popular variety of this type is Psyche. The color of the bloom is red and the plant makes a vigorous growth. Dainty is another variety of this type and may be sold by the names La France and Shirley Temple. The blooms of this variety are a washed out pink, but the plant produces many blooms and makes good growth. A white sport of Dainty is called Dainty White or may be called La France White.

**PROPAGATION**

Hibiscus plants may be increased by sexual or asexual means. With the exception of certain species which may come true from seed, hibiscus plants must be propagated by some asexual method in order to obtain plants like the parent plant.

In general, hibiscus plants may be propagated by cuttings, grafting, and layering. The majority of the plants are propagated by cuttings.

**Cuttings**

Time of making the cuttings, rooting medium, root inducing materials, and proper care of the cuttings while in the propagating bed determine to a large extent whether or not cuttings form roots.

**Time of Making Cuttings**—Cuttings from varieties that root satisfactorily can be made at any time from new growth. In general, cuttings should be taken during August and September and carried over in a greenhouse to insure good plants for spring planting. Cuttings made early in the morning tend to be more turgid and are less likely to wilt in the propagating bed than those made during the middle of the day. Cuttings taken from old growth do not root as readily as those made from new growth. Terminal tips 5 to 7 inches in length are a good size to use. The lower leaves should be removed and the upper ones left intact when the cutting is placed in the cutting bed.

**Propagating Bed**—The propagating bed should have sides 6 to 8 inches high and good bottom drainage. Unbleached sheeting or similar material should extend above the bed 24 to 30 inches on all sides. The sheeting helps in keeping a uniform high humidity. If a greenhouse bench is available the sheeting is unnecessary if the greenhouse is well shaded.

**Rooting Medium**—Vermiculite is a very satisfactory rooting medium for hibiscus cuttings. Many varieties form roots in 20 to 30
days when placed in this material. The roots formed on cuttings in vermiculite are larger than those formed in sand. Cuttings also root faster and form more roots in vermiculite than in sand.

A mixture of 1/2 sand and 1/2 vermiculite by volume is also a good rooting medium. Sand alone has been used satisfactorily, and 2/3 sand and 1/3 peat by volume has also been used with fair results. Good drainage is essential in the cutting bed if good results are expected.

Cuttings should be stuck in vermiculite and it should not be packed around the cuttings. Those unfamiliar with vermiculite may tend to keep it too wet and thus cause cuttings to rot.

**Root Inducing Materials**—The high concentration root inducing materials should not be used on hibiscus cuttings. Hormodin No. I and Hormodin No. II should be used rather than Hormodin III. Rootone should be used rather than Rootone No. 10. The weaker concentration of other commercial preparations should be used instead of the higher concentrations.

The use of one of these materials will aid in faster rooting of the cuttings and more total roots per cutting will be produced. The faster rooting decreases the time cuttings have to stay in the cutting bed and lessens the danger of rot caused by overwatering and disease organisms.

**Making the Cutting**—Cuttings should be taken from semi-mature growth on healthy, vigorous plants. Growth exposed to light is more satisfactory than lower growth that has been shaded. The cuttings should not be taken during the middle of the day if the stock plant is in a wilted condition. They should be kept cool, moist, and shaded until placed in the cutting bed. Cuttings of 5 to 7 inches in length are excellent. Most of the upper leaves should be left on the cutting and flower buds removed if present. The angle at which the cut is made and the angle at which the cutting is placed in the propagating bed does not affect root initiation or root development. The base of the cutting should be dipped in water and 1/4 - 1/2 inch of the base should be dipped in a suitable hormone preparation and the excess dust should be removed by tapping the cutting lightly on the container. Six-inch cuttings should be stuck 2 to 3 inches deep in a rooting medium that has been thoroughly watered down prior to sticking the cutting. Cuttings may be spaced in the cutting bed with their leaves touching. The cuttings should then be syringed frequently and the humidity in the propagating bed kept at a high level.

After rooting, the cuttings should be placed in 6-inch containers, pots or cans. A good potting mixture for hibiscus is 2 parts soil, 1 part well-rotted manure, 1 part peat, and 1 part sand by volume. Cuttings made in August and September, then potted and grown in a greenhouse during the winter months will have flower buds set when taken to the field the following spring but will not reach a peak blooming period until the days get somewhat longer.
Grafting

In selecting a rootstock, only fast, vigorous growing, easy-to-root kinds should be used. Varieties like Single Scarlet, Painted Lady, and Indian Chief should be satisfactory. The rootstock is propagated by cuttings and then grown in containers until of sufficient size to graft. The side wedge graft is a method used by many nurserymen in the propagating of hibiscus. If whip grafting is used, plants slightly larger than a pencil are satisfactory as a rootstock. The same size is good for budding. The “T” or shield type of budding is most often used. Slightly larger rootstocks are needed if the cleft method of grafting is to be used.

Any variety that roots well and makes vigorous growth should be propagated by cuttings rather than by grafting, as this method of propagation is more economical. Only slow growing varieties or those susceptible to root rot and nematode injury should be grafted and they should be grafted on vigorous growing, disease resistant varieties.

Layering

Hard-to-root varieties can be air layered.

Select a stem approximately 1/2 inch in diameter and girdle it 12 to 14 inches from the tip. This is done by removing about 1 inch of bark around the stem. Dust one of the hormone preparations on the wounded area. Cover the whole area with sphagnum moss and make secure by tying. Then wrap newspaper around the sphagnum moss. Keep the sphagnum moss in a moist condition until roots have formed. Some of the plastic and cellophane materials have been used satisfactorily as a covering over the sphagnum moss. When roots have formed, the branch can be cut off below the roots and the branch treated as a rooted cutting.

Seed

Propagation by seed is usually only practiced in an attempt to obtain new varieties. In general, seed set is better during the winter months from plants grown in a greenhouse than it is from plants grown outdoors in the summer in this area.

After the seed are harvested they can be planted in an equal mixture, by volume, of sand and peat. After germination the seedlings should be handled in the same manner as rooted cuttings. Some seedlings will bloom within 6 to 12 months.

PREPARATION OF SOIL AND PLANTING

The soil should be prepared well in advance of the time for setting out plants. If the soil is lacking in organic matter, well-rotted manure or compost should be added. Plants should be set where they will be exposed to as much sunlight as possible, as good bloom production cannot be expected where there is much shade. The best time to plant in the yard is when the danger of frost is well past. This time will vary in
different sections of the state but in the Baton Rouge area should be about the middle of April. During cool weather very little growth can be expected. The spacing of plants should vary somewhat depending on whether the plants are to be treated as annuals or perennials. When they are to be treated as annuals they should not be spaced closer than three to four feet apart. The plants are usually obtained as container plants or they are balled and burlapped. In either case care should be taken not to break the ball of soil when the plants are transplanted.

CARE OF PLANTS

Under good conditions hibiscus plants will make rapid growth during hot weather. If fertilizer is needed, and likely it will be beneficial, it should be applied to the soil when preparations for planting are made or a week or so after transplanting the plant. About 1/8 pound of 8-8-8 or an equivalent amount of any other good fertilizer analysis should be sufficient for small plants. The amount of fertilizer to apply should be based on the analysis of nitrogen in the one used. If needed, other applications of fertilizer may be added during the growing season. Usually some source of easily available nitrogen, such as nitrate of soda, is all that is needed if a complete fertilizer is used for the first application.

To thrive hibiscus plants must not suffer from lack of water. This is especially true from transplanting time until developing new roots insure that the plant is well established. As with other plants, when watering is done it should be done thoroughly and not too frequently. The leaves of the plant should not be allowed to wilt.

Under favorable conditions there seems to be a tendency for vigorous growing hibiscus plants to make proportionately more top than root growth. This causes the plants to fall over easily if exposed to winds. To prevent the plants from falling over, it is suggested that plants be staked before they get very large. If cord is used to tie the plant to the stake it should be watched to see that it does not rot or weaken to the extent that it cannot hold the plant. The hibiscus root system seems to be rather shallow, at least under conditions in the area around Baton Rouge. If a plant happens to be blown over it should be tied up again as soon as possible. If this is done plants will usually not suffer serious injury.

Weeds and grass should be kept from around the base of the plant. In doing this care should be taken not to damage the shallow root system. If a good mulch material, such as oak leaves or pine straw, is available it could be used to help conserve moisture and to help keep down weeds and grass.

DROPPING OF BUDS

One of the problems often encountered when growing hibiscus is the dropping of buds. This seems to be the result of several causes such
as various extremes. If the soil in which the plants are growing becomes too dry, buds will fall. When the plant is making extra vigorous growth, buds may fall. If there is too much shade, very few buds will likely be formed and, if so, some may fall. Cool weather may cause buds to drop prematurely. Some varieties seem to be worse than others about dropping buds. Usually hibiscus plants are grown for their flowers and unless good production is obtained the plants have not served their main purpose. Even though buds may drop from a number of causes, most good varieties can be expected to bloom well during warm weather if properly cared for.

**USE OF BLOOMS**

During warm weather the blooms of most of the varieties of hibiscus last for only a day. They open in the morning and cannot normally be used for decorative purposes that night. The time of opening varies somewhat with different varieties. Hibiscus flowers can be used the night following the morning they open if they are removed from the plants as soon as they are fully open and stored at temperatures of from 35° to 45° F. They may be kept in a home refrigerator. Hibiscus blooms make excellent corsages and are very good decorative flowers. The stems do not have to be kept in water, after they are pulled, to prevent wilting. The plants are not damaged by removing the blooms if no leaves are removed. Even though the blooms last but a day, free blooming varieties will furnish an abundance of flowers during the normal blooming season.

**WINTER PROTECTION**

Hibiscus plants are not hardy as far as cold damage is concerned. This means that if plants are grown in areas where they will be subjected to freeze injury they must be treated as annuals or protected over the winter. It is possible for plants to be killed to the ground in mild winters and then come out the next year even where no protection has been attempted. In this case if grafted plants have been killed below the graft union, only new shoots from the stock will be obtained. If plants are to be protected over winter, the protection should be given before the plant is subjected to a damaging freeze. Plants should be cut back to within 8 to 12 inches of the ground and covered with some loose material such as oak leaves, pine straw, etc. The material should stay around and over the plant until the danger of freeze injury has passed. Some varieties are more easily carried over winter than others. Where greenhouses or other places where plants may be carried over winter are available, plants may be placed in containers and protected there.

**PESTS**

Hibiscus, as with nearly every worthwhile plant that grows, is attacked by a number of pests. So far it does not have as many pests as
many other important ornamental plants. It is, however, subject to injury from the root knot nematode and probably other types of nemas. There appears to be some difference in varietal susceptibility to root knot nematode. This is a serious pest and very difficult to control. The best control is soil treatment.

The plants are subject to infestation by certain scale insects and if these are not controlled serious damage may result. They can be controlled by spraying with malathion at the rate of $1\frac{1}{2}$ teaspoons of 50 per cent material per gallon of water. This material will also control mealy bugs.

Aphids may be frequently found on the growing points of the shoots and on flower buds and blooms. These may be controlled by malathion, nicotine sulphate, or Lindane.

The corn earworm, also called the cotton bollworm, may attack the buds and greatly reduce the number of blooms produced during the period of infestation. They may be controlled by spraying with DDT at the rate of one tablespoon of 50 per cent wettable powder per one gallon of water.

Ants are a pest that, while not damaging the plant, are often a nuisance when found in large number in blooms that have been picked. These may be controlled by spraying the lower part of the plant and the soil around the plant with chlordane. Use three tablespoons of 50 per cent wettable powder per gallon of water. One spraying should last several weeks.