The Codiaeum Connection

VOLUME 11 ISSUE 1 **June 2010**

In this Issue:

Greetings To All Croton Lovers

As summer arrives and plants begin to recover, we can all agree on one thing, this was a winter to remember! It will be one for the record books. There were many days of chilling temperatures and more rain than we usually see during an average summer.

As a result of these out of sync weather conditions, many plants suffered. One example is that many palms perished all the way down the peninsula. Many flowering tropical trees were either killed outright or set back for many seasons. Our beloved crotons suffered also, many were defoliated, some killed back, some reduced to "sticks" in need of cutting back. Now that the warm weather has arrived, it is time to cut plants back.

Many years ago, I moved from Tampa to Melbourne Florida. I had high hopes of a warmer climate due to the close proximity to the Atlantic. As luck should have it, the year was 1976, and that winter into 1977 was my first real experience with a real cold snap. The 1976 – 1977 cold happened quickly – it hit our plants hard. Up to that time, our plants were experiencing an usually warm, mild winter. Before I knew it, my years of collecting were wiped out, for the most part in one night.

Many important lessons were learned from that first real experience with plant losses. One of the best bit of information was passed on to me by Albert Greenberg, one of the pioneers in the Florida Tropical Fish Industry. His advice to me from our conversations over the years was "be a selector, not a collector". Now, not to criticize collecting, but in a nutshell, you are generally more satisfied with a few superior things that you truly enjoy than to never be satisfied, always coveting a plant that you don't have now. Another old bit of advice that holds true is to share what plants you have collected especially the ones that are no longer seen in collections as in years past. Some falling out of favor, others may be slow growing or hard to propagate. One of the best attributes crotons have going for them is their ease of propagation. In freely sharing these plants, not only to you engender good will with other collectors, but you also ensure that the old rare choice varieties will survive. If you have the last of its kind, be remembered as a generous person. Do your part, even if you share "Sticks" devoid of leaves. After this cold winter, with those who are skilled at propagation, get the ball rolling in this respect.

Finally, the winter does provide us with great information if we take advantage – note which plants can take more cold than others, which ones drop their leaves, which keep their foliage well, etc. If we all contribute this information, it will help in the future.

By: Bob Alonzo

Editor's Note: Due to circumstances beyond our control, your newsletter has been delayed until now. The amount of damage to our beloved Crotons is reminiscent of what our friends in South Florida experienced after our most active hurricane seasons. There is a period after a disaster that is a 'pull back and recover' emotional experience that may be long term. We will be making an attempt to play catch up, but we do need some input from you, the members. We welcome all articles/ pictures or anything you would like to see here.

In future newsletters, we would like to expand on our Croton Reference section, as there are very many Crotons still out there that have established names. In this newsletter, we feature a portion of the Reasoner's Royal Palm Nursery Catalog, printed in 1937. We also have a page from Albert and Merkle Bros. Catalog, printed in the 50's. As we share these references with you, take a look at some of your Croton beauties and see if you might have something from the past that has been given a 'new' name.

If you are interested in having a garden tour at your place, let us know, so we can advertise it in the next newsletter. Hopefully, this summer will be much nicer to us, than the winter of death that we have just experienced.

Happy Growing and Keep Sharing!

THE CROTON SOCIETY, INC.

WELCOME NEW MEMBERS

Walter & Gail Aaskov—Ocean Ridge, FL
Mike Harris—Orlando, FL
Martha Heinrich—Clermont, FL
Joanne Kliesh—Clearwater, FL
Madame Roberte Serve—Martinique, France
Jerry Shilling—Summerland Key, FL
Silver Palm Nursery—Miami, FL
Robert W. Topp—Parrish, FL
Cindy Tracy—Vero Beach, FL
Aviad Trabelsi—Netivot, Israel

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Growing Crotons up North

By: Ron Simpson

Introduction

I have been growing crotons in pots for 40 years. My first introduction to crotons was in 1969 when, as an 11 year-old, we visited my aunt in Hollywood. Florida. She saw I was impressed with the colorful crotons in front of her apartment so she sent me home with a handful of cuttings. Of all of these, ultimately only one plant of one variety (Andeanum) survived the years and is still with me today. Building a sunroom on my home in 2006, has since allowed me to increase my collection to over a dozen varieties with more hopefully, on the way.

My Situation

I live in northern Delaware. Our winters are long and cold but our summers are generally hot and humid, not unlike Florida. This is significant since my climate allows my croton collection to live outdoors from mid-May until mid-October. This gives all my plants a change to recover and grow during the summer in conditions they thrive in.

In winter, obviously all my crotons must come inside. Although some of my crotons have survived for years, sitting in a sunny window with normal "inside air", I now have better options for wintering them. I have a large 18 X 20 foot sunroom and an area with grow lights in my basement. Both of these locations have their own pluses and minuses. Getting the temperature, humidity, and light right – for particular plants seem to be the key.

My sunroom is heated but not kept at "room temperature", both to save money and also to keep the humidity up. Generally, I try to keep my daytime temperatures at least in the 60s and night time in the 50s. Keeping this temperature range, I can keep the humidity around 50% or more. Large well-established crotons do fine in these conditions, though they generally stop growing and may lose some foliage. But I have found these conditions can be too cool for newly-rooted smaller crotons. I keep my smaller crotons in my basement under grow lights, with some natural sunlight coming in. The humidity is slightly less but the warmer temperatures (usually around 65'F) are better for recently-rooted and smaller plants. Even so, the conditions are not perfect for all varieties of crotons.

Winter Challenges

One of the obvious winter challenges can be pests, though this can be more easily remedied than other issues. My crotons, when grow outside all summer, tend to pick up some pests – mostly spider mites, mealy bugs, and scale. Before bring my crotons inside, I hose them off very well and then spray each with insecticidal soap. There are obviously stronger insecticides but since my crotons share my sunroom with birds, I play it safe. I have used Neem Oil in the past but it seems less effective. Doing the above steps, I can still end up with some pest re-infestation by spring, requiring me to re-treat some plants – but for the most part, my crotons do OK until they can go outside in May.

Below: The Patio in summer:

Below: The Sunroom in winter:

Growing Crotons up North (continued)

The other big winter challenge for me are the newly-rooted smaller plants. Smaller crotons with new root systems can be tricky indoors in these less-than-perfect conditions. For these plants, it's sort of a balancing act between light, humidity, and temperature. Crotons don't like colder soil so watering these new roots needs to be monitored carefully. Too much water and the roots will root but too little, in these dryer conditions, can also be fatal. Even transplanting them to new pots just before bringing them indoors can affect their survival. Misting seems to help but I think lack of heat and insufficient light can be more critical for these new plants. My guess is that croton roots grow very little below a certain temperature. Also, varieties with more exotic leaf shapes seem to be more delicate, both for wintering indoors and for rooting in the first place.

Not surprisingly, I have noticed that the later I take cuttings in the summer, the more vulnerable these new plants seem to be in winter. My conclusion is that, for the best success, I need to root cuttings as early as possible during my outdoor growing season (late spring to mid-summer) so these new plants have the best chance to develop good root systems before they have to deal with winter indoors. To root well, they need warm Florida-like conditions. So I usually root them in a terrarium in my sunroom under lights with bottom heat (if necessary). As soon as I can feel a decent root system and see some new growth, the new plants go outside so they can put on as much top and root growth as possible during the summer. Well-established plants are the best insurance for surviving the winter indoors.

Below: 28 year old "Gloriosa" and 40 year old "Andreanum"

Newly-rooted crotons wintering in the basement:

Summer Challenges

After dealing with crotons inside for the winter, caring for the in the summer is relatively easy. My potted crotons seem to do best and produce the best colors on my patio where they receive about 50% sun and 50% shade. I remove the saucers under all my plants so the pots have good drainage and I fertilize them lightly. Under these conditions, with the heat and humidity of summer, all my crotons bounce back nicely. Some plants, that have had a more difficult time indoors in winter, will lose all or most of their foliage but it is soon replaced with new more colorful leaves.

The only real challenge is putting them outside gradually in spring. The extra light, sunshine, and cool nights will damage foliage unless it is introduced gradually. Starting them out on a covered porch for a week seems like the easiest solution. In fall, their foliage is hardier and I don't have to worry about bringing them inside until the night time temperatures get really close to freezing.

Conclusion

I hope this article provides some useful information for others who want to attempt growing these beautiful plants, in temperate areas, in pots. I would love to hear from others growing crotons outside the "croton belt" and of course any croton grower is welcome to drop me a line and send me a cutting! Contact me at sparky93@verizon.net.

Below: Croton cuttings rooting in my "greenhouse":

2010 Florida State Fair

This year, the Croton Society won third place for our beautiful display “Have Fall Colors Year Round with Crotons”. Society member Jack Roberts coordinated this event. His handmade contributions of home wood carvings featured the Croton Society sign, a bird house and custom designed display table. Bruce and Nancy Herz, Lee and Connie assisted in the labor to put it all together. Lee’s keen eye for design made the display come to life. Palm trees and display plants were donated by Phil Stager, Lee and Jack.

Thank you to Mary and Simon Zophi who assisted in watering the plants, keeping the table stocked with literature and answering the many questions the public had. The society received $300.00 from the Florida State Fair for setting up and winning 3rd place. Thank you to everyone for donating your time, energy and resources to help the society keep its presence known in the community.

Florida State Fair Continued:

Florida State Fair Continued:

CODIAUEM/CALLA Display

This unusual display was exhibited at the Ikebana Japanese Flower Exhibition at Treasure Island Florida.

Croton Name Match Up

1. *Canned Sunshine*
2. *The Pink Croton*
3. *Little Miss Cobra Head*
4. *White Veitchi*
5. *Funky Jungle Queen*
6. *Piecrust*
7. *Honeycomb*
8. *Sloppy Painter*

a Rheedii

b Albicans

c Eleanor Roosevelt

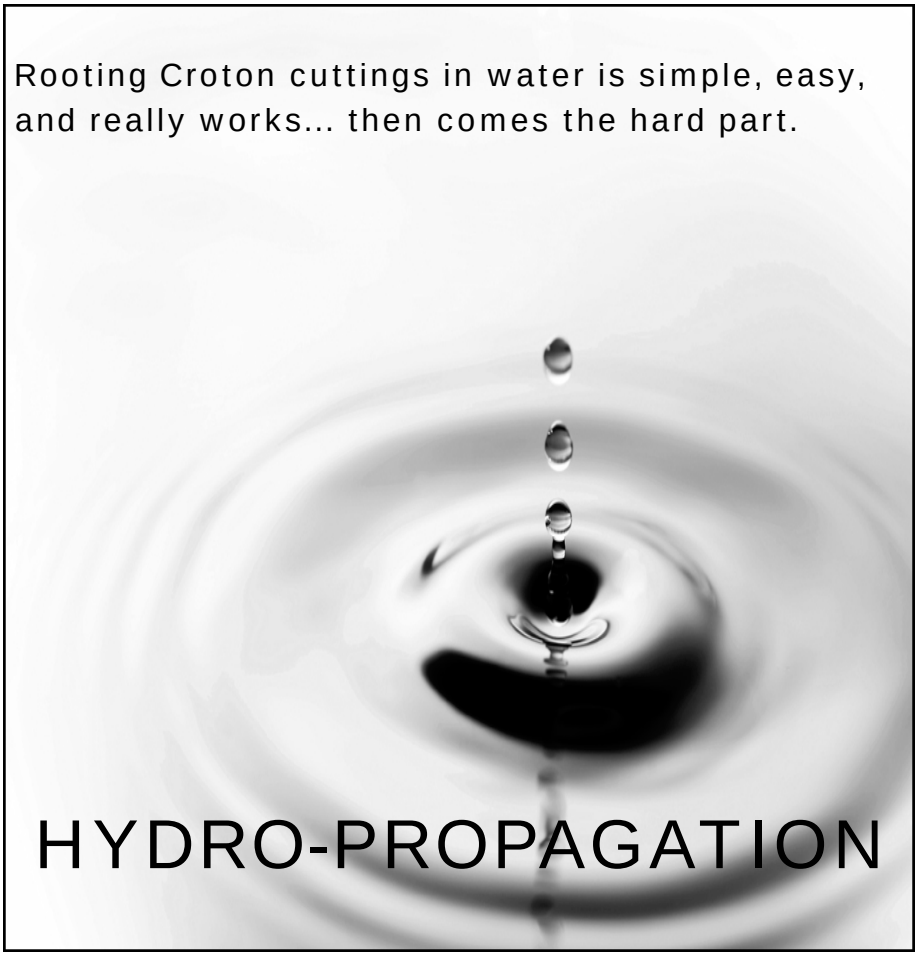
d Mortimer

e Andreanum

f Multicolor

g Rheedii 2

h Davis #3



By Perry Edge

As children, many of us performed the experiment of suspending the seed of an avocado in water with toothpicks, and were delighted to see roots sprout and a new plant emerge. It was a good lesson that for some plants, all you need to start a new one is plain, simple water. But can this method be used to propagate Crotons? It is obvious that the tiny seeds of Crotons don't lend themselves to the above technique (although they can easily be sprouted using nothing more than a damp paper towel), but what about cuttings?

Long ago, the ability of Croton cuttings to grow roots in water was revealed when cuttings were placed in a vase of water as a substitute for cut flowers. Left long enough in water, the cuttings grew roots. (It was also discovered that just a single Croton leaf in water could also sprout roots, but unfortunately, no new plant would form from such an incomplete plant part) . So how does this method compare with the more traditional one, i.e. rooting cuttings in a solid rooting medium, such as sand?

In a recent discussion on this subject, Croton expert Dr. Frank Brown observed that the trauma of the transition from water to soil is too great for the cutting, resulting in a high failure rate. The horticultural community also supports the idea that cuttings rooted in water are inherently weaker and less likely to make the transition to soil. Interestingly, the following statement appears word for word in the horticultural websites of several different states' universities: "Roots grown in water tend to be weak from lack of oxygen and do not adjust well to plantings in the soil." But no evidence of this was provided, nor was the origin of this statement given. One grower of produce plants observed that roots grown in water are supposed to function differently than roots grown in soil, and do not adapt well to a function of taking nutrients from soil. But he added that he has never been able to verify this claim.

The website *Gardenweb* featured an article which stated "Roots that form in water are different and more brittle than those required to grow in soil, so water roots often break or make the transition to soil poorly, which means that you almost start over from scratch when you transition plants to soil. Roots generally appear faster in a well-aerated medium...and there is no transitional shock, which normally puts the plant started in soil weeks ahead of those started in water." Another grower noted the ease with which many plants will root in water, however cautioned that the roots could be extremely fibrous and stringy, thereby having a difficult time adapting to soil. Another gardener cautioned that roots left too long in water will rot.

Thus, there is no shortage of opinion about the perils of rooting cuttings in water, but the actual evidence to back up those concerns appears to be scant and perhaps mostly anecdotal. A controlled scientific experiment which compares the transition of water roots vs. soil roots would certainly help clarify this issue. While we wait for that study (any volunteers?), perhaps we can address the concerns raised above.

If in fact lack of oxygen is a problem, this can be addressed several ways. A drop or two of peroxide in the water not only provides oxygen, but according to one source, is also supposed to prevent bad microbes from fouling the water and rotting the stems. If you wish to propagate a number of cuttings at one time, an aquarium or similar vessel can be equipped with a inexpensive aquarium air pump and an air stone, and the cuttings can be inserted through a sheet of Styrofoam or similar material which floats on the surface. Therefore a constant source of oxygen is provided, and the roots will receive gentle stimulation from the bubbles, perhaps strengthening them in the process.

As for the roots being weaker if grown in water, it has been suggested that this is caused by the fact that the roots do not have to scrape and force their way through a more solid medium. If so, adding a layer of a neutral material such as aquarium gravel or marbles to the water container could perhaps clear up that problem.

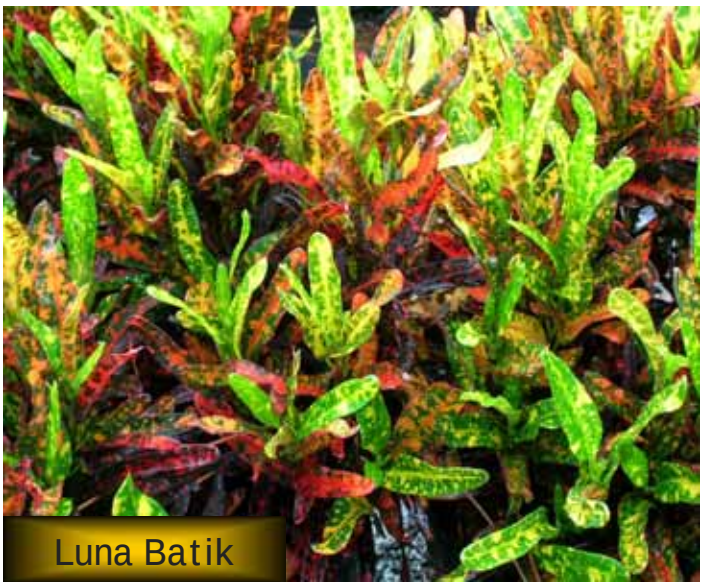
At this point, it should be noted that hydro-propagation is different from hydro-culture (better known as *hydroponics).* With hydroponics, the plant doesn't grow in soil; rather it grows in a water solution which contains the dissolved nutrients necessary for proper plant growth. The roots may or may not be anchored in gravel or some similar material. Hydroponics very likely could be a solution to the soil-transition problem detailed above, but who wants to keep their Crotons forever in a tank of water?

So, if you want to experiment with hydro-propagation, what is the best way to proceed? To begin with, use clean *glass* containers; this eliminates the possibility that chemicals can leach over time into the water from containers made from other materials. Then, select *green* tips rather than woody or semi-woody stems. (Note: the thicker the stem, the better the root formation.) Use a sharp knife or pruners to make a clean cut. A three to six inch piece is recommended. Make a cut or two on the lower stem and remove the bark and the green layer underneath as well. Immediately place the cutting in water. Strip off all but the top two or three leaves, and don't let any leaves get submerged in the water, or they will rot. Pinch off any new growth at the tip. Some sources recommend that nothing be added to the water; others suggest that a few drops of peroxide, or a weak solution of liquid fertilizer, or *willow water* be added. The latter is made by soaking sections of willow branches in water, which creates a chemical hormone favorable to root growth. However, the easiest way to reproduce willow water is to use an effervescent cold tablet at the rate of one tablet per gallon of water.

The containers with the cuttings should be placed in bright light but not in direct sunlight. The temperature of the water and surrounding air should constantly be in the 70-72˚ range or better. The water should be changed about once a week, or whenever the water becomes cloudy. The first sign of roots begin as white bumps along the stem. Then small root hairs appear. After the roots are about three inches long, they are ready for the next step.

Now comes the riskiest part: introducing the rooted cutting to soil. Using liquid root stimulator or willow water at this point may be useful. Make sure your containers have drain holes. Potting soil should be of good quality but with no fertilizer added. One suggestion is to very loosely place potting soil around the roots in a container, then water gently and let the water settle the soil around the roots. Another technique is to tape over the drain holes, add water and the cutting, then drop small amounts of soil into the container of water until the soil displaces the water. Following that, any residual water must be thoroughly drained from the container by removing the tape. After potting, keep the cuttings in the same location for a week, then move them to a sheltered location outdoors, in bright light but not direct sunlight. Again, the minimum temperature must be in the 70-72° range. Perhaps sealing the cutting in a clear plastic bag after lightly misting the leaves will enhance the transition, as it provides the humidity which Crotons love.

All in all, the easiest way to root cuttings in water appears to be in an aquarium. With a pump and air stone, a water heater and thermometer, a thin sheet of Styrofoam, and perhaps a grow light, you can outfit yourself for rooting numerous cuttings at a reasonable cost. If you decide to give hydro-propagation a try, good luck and let us know what happens!


Luna Batik


Twist and Point

New CROTONS IN THE TRADE

Big Red Banana

Rocio

Lucha aka Ben Vagara

Mrs. Robinson

Magnificent

Mini Cascade

Colourful Crotons
(Codiaeum variegatum)
By: Carolyn Clark (Australia)

If you like bright colours then the croton is the plant for you. Strangely the brilliantly hued plant we grow in our tropical gardens is not a member of *Croton*. The authentic Croton genus is a family of around 500 different species of shrubs to small trees (23 of which occur naturally in Australia), none of which are considered to be worth cultivating as garden plants.

Crotons were first classified by Rumphius as Codiaeum in his Herbarium Amboinense (1741). The common name 'Croton' came about when Carl Von Linne (often referred to as the greatest of all botanists), erroneously classified the plant as Croton variegatus in his famous book Species Plantarum (1753).

Crotons are now an integral part of the tropical garden, Most grow well in full sun conditions and the variety of colours and leaf shapes can only be described as amazing.

Crotons grow well in most well-drained soils. Once established they are very drought resistant but younger plants are susceptible to prolonged dry conditions. During the recent severe drought Australia has experienced, a lot of younger plants succumbed but the older specimens, while many may be looking stressed, have survived.

You can help your plants by mulching heavily and adding water crystals to the soil. Many croton cultivars perform well in sunny conditions. However, some crotons were developed in Europe, with the indoor plant trade in mind, thus they perform well in areas of low light. These varieties which include Norma, Petra, Super Petra do need protection from the hot sun.

Some crotons that have proved themselves under Queensland are the old-time favourites:
'Irene Kingsley', 'Stoplight', 'Mrs Iceton', 'Mona Lisa', 'Red Mona Lisa', 'Sanderi', 'Veitchii', 'Norwood Beauty' 'Goldfinger', 'Captain Kidd', 'Mrs Kidd' 'Cragii' and 'Gloriosa'.

References - A Codeiaeum Encyclopedia -
Crotons of the World (by Dr B Frank Brown ED.D)

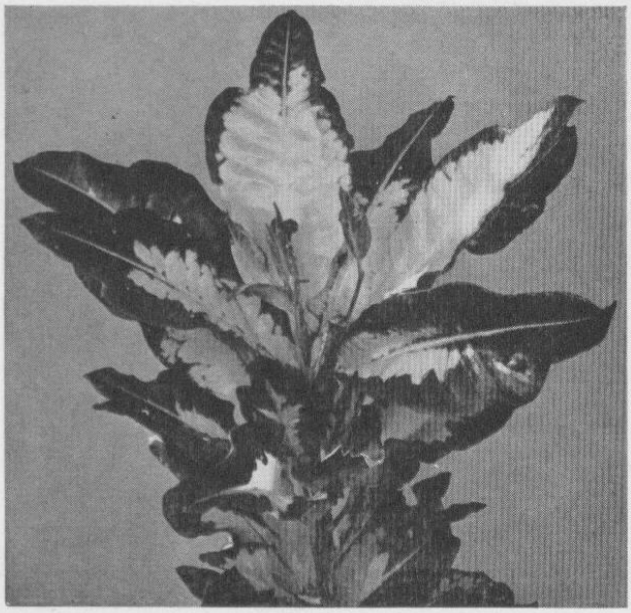
CROTON REFERENCE MATERIALS
Reasoner's Royal Palm Nursery

Group I – Croton Varieties

Prices:	Each	10	100
Small size, 2½" and 3" pots	.25	2.00	15.00
Medium size, 4: pots	.35	3.00	25.00
Large size, 5" and 6" pots	.50	4.00	35.00
Small tubs	2.00		17.50
Large tubs	3.00		27.50
Specimen sizes	5.00 and up		

ANDREANUM: ("Canned Sunshine") Large, yellow leaf, shading orange-red with age.
AUREO MACULATUM: Small myrtle-shaped, green leaves, spotted yellow.
C.I. Cragin: Long, bright green leaf, white zone along mid-rib.
DELICATISSIMUM: "Golden Thread", A miniature form of Picturatum with curly leaves.
DISRAELI: Oak leaf form with green and yellow leaves, becoming orange-red with age.
DORMANIANUM: small, curved leaves, dark red and bronze-green.
ETHEL CRAIG: medium size leaves, blotched with yellow and pink.
EXCURRENS: Thick, strap-shaped leaves; dark red and bronze green, red mid-rib.
FACATUM: Broad leaf, green and yellow, no red; very showy.
ILLUSTRIUS: Odd, three-lobed leaves, green and yellow; mid-rib protruding.
INTERRUPTUM: Like "Picturatum", but some leaves divided into two or more parts.
JOHANNIS: Long, narrow leaves; center and margins light yellow.
KATONI: (Maculatum Katoni) Green leaves, partly tri-lobed; spotted creamy-white.
LONG LEAF YELLOW: (Porter's Unknown) Long, narrow, dark green leaf, brilliantly blotched golden yellow.
LYRATUM: long, narrow, tri-lobed form, green and bright yellow, never red.
MAJESTICUM: Narrow leaves, very long, dark green, spotted red and yellow.
MORTII: A tall growing variety, with leaves veined yellow; sometimes all yellow.
MRS. FRED SANDERS: Large oak leaf, center and lobes splotched brilliant yellow.
NESTOR: Broad leaf, similar to Earl's Court; veined and spotted yellow and red.
NOBILIS: Small, lancolate leaf, green and yellow, turning dark red with age.
PICTURATUM: Long, narrow leaves, yellow mid-rib; bright red with age.
PRINCE OF WALES: Long, odd shaped, irregular leaves; green and pale yellow.
PUNCTATUM: Small, fine, narrow leaves, profusely spotted with yellow.
QUEEN VICTORIA: Large, long, dark green leaves, veined and mottled red.
RAINBOW'S STARLIGHT: (Mrs. C. O. Liller) A very dark green, long leaf, moderately spotted with small rose spots. Very useful for contrast.
REX: Long, narrow leaves, somewhat spiral. Veined and mottled yellow on young growth, turning brilliant red with age.
RUBRUM COMPACTUM: (No. 14) A very dwarf, compact grower, of the narrow leaved type. Red and green coloration. Similar to Picturatum. Named in 1937.
RECURVIFOLIUM: Broad, recurved leaves, mottled red, yellow and green.
SPIRALE: A small, dark green and bronze corkscrew-shaped leaf.
SPLENDENS: Semi-oak leaf form, mottled yellow, turning red in the sun.
STEWARTII: Yellow veins and margin, mid-rib and petioles red. The most cold-resistant
SUNRAY: (No. 8) Long, narrow linear leaves, brilliant yellow, never turning red, somewhat curled and twisted. An old croton named in 1937.
SUPERBA: Long, very narrow leaves, almost hair-like. Green and yellow.
TORTILIS: (Red Corkscrew), Narrow, spiral leaves, a brilliant dark red.
VEITCHII: Large, Long leaves, veined and mottled yellow. Flushing pink.

CROTON REFERENCE MATERIALS
Alberts and Merkle Bros.



CROTON MONA LISA BACHMANII

MONA LISA BACHMANII — One of the finest introductions seen in many a year. A rich creamy yellow thruout the largest portion of the leaf and dark green in the margin of the leaf. See photo. — **5.00**

Rare Crotons

CULTURE OF CROTONS: New growth is green, but colors up as it matures. Needs some sunlight. Keep moist, soak well at least once a week. Set pot in saucer of sand and keep moist. Best temperature, 60° minimum at night, higher in daytime. Sponge foliage with water once a month. For rapid growth feed monthly with Ortho-Gro and other liquid fertilizer alternately.

APPLAUSE. Semi-oak, large leaf, very compact, yellow and green on new growth maturing to blush pink. —**5.00**

BRAVO. Semi-oak leaf — deep pink to rose, very compact. —**5.00**

CAPTAIN GILBERT CUTLER. Large broad elliptical. Maroon background, heavily veined and blotched in red. — **3.50**

CARIBBEAN STAR. Elliptical medium size, heavily veined, orange red center with green to dark black areas. —**3.50**

COMMOTION. Semi-oval large leaf, green and yellow color, aging to pastel pink. — **5.00**

CUTLER'S #7. Compact oak leaf, heavily veined in red, short petiole and nodes. — **5.00**

ELIZABETH CUTLER. A very fine pastel pink. — **5.00**

FASCINATION. Semi-oak leaf, compact — old rose. — **5.00**

MARY BROOKS. Semi-oak large leaf, vigorous grower, vivid red veins and color blotching. — **5.00**

NEMBULA. Elliptical large leaf, heavily veined, light pink. — **5.00**

RAPTURE. Semi-oak large leaf, green and yellow maturing to pink. Very large size leaf. — **5.00**

ROSS CUTLER. Semi-oak, very large leaf. Maroon background with brighter red veins. — **5.00**

SYBIL GRIFFIN. Very fine, very large semi-oak. Deep pink. — **5.00**

SUNDAY. Semi-oak large leaf. Blotches of orange, yellow and red. —**3.50**


Gloriosum Superbum


Joe Friday