

SENTINEL ORCHIDS

sentinelorchids.com

1131 Rossiter Lane, Radnor, Pa. 19087-2812
THE FINEST SELECTED ORCHID PLANTS - OPEN BY APPOINTMENT

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2023 LISTING:

DEAR ORCHID ENTHUSIAST:

My name is Mark Werther and I have been growing orchids since 1960. I am pleased to publish the 2023 catalog that represents 10 years of concentrated work. In 2013 I had a partial burnout in the second floor, BURN ZONE; 100's of plants were discarded. At that time the collection was totally re-evaluated and several hundred plants were also discarded based on lack of performance or latent virus hits. I have been on a mission to purchase and trade superior plants to further improve the collection from top growers and these plants are virus tested. My direction has been to collect the most attractive flowers that grow correctly – not to blindly collect historical plants. My total virus test number is 2100 since 2007. I obtained many plants from the Lois Duffin Collection. Lois and Jim hosted orchid speakers from all over the world for 30 years at GPOS and always collected selected seedlings and special divisions.

Please note that all plants are very limited and may only be one available. Plants of smaller sizes and lessor price are sometimes available. No foreign orders and no US orders requiring CITES, IMPORT/EXPORT and PHYTO PERMITS. Payments by check please. Spring moderation in temperatures allows us to ship depending on your local temperatures.

SHIPPING COSTS: Sentinel is often faced with shipping pricing that is unreasonable. Be prepared to pay the increased cost and delays in transit although deliveries have improved post-covid. We are presently using USPS Priority for most shipments. Expect at least a one day beyond advertised in delays.



Designed by Mark Werther, Architect. To be seen as an integral part of residential structures. South facing greenhouse view. The ridge is 24 feet in height. One of the few greenhouses in the world designed to operate with second story growing. 8mm double wall acrylic roof panels, triple wall construction: 2 exterior wythes of 6" concrete masonry units, 2" Styrofoam in center combination wall system for passive solar performance. The garage beyond has 30 solar panels that generate 6KW.



1200 square foot GROUND FLOOR



UPPER FLOOR

Access by circular stair, The Upper Floor is well-known as the 'BURN ZONE'. Galvanized steel walkways supported by bottom cords of custom designed aluminum spanning trusses. Starting at ground level, plants are suspended at 6 heights including galvanized metal trays from the second floor handrails with another eye level support above. Two 24" oscillating fans with 6 misting nozzles each utilized for humidification, and cooling. 65% shade cloth on interior of 8mm acrylic double wall panels.



UPPER FLOOR south facing hanging wall. The north wall has $\frac{3}{4}$ " expanded metal wire for hanging that has become home for most of the cork mounted species. Both manual and motor operated ridge vents above. Two runs of galvanized metal walkways supported on the four feet on center bottom chords of aluminum trusses. To the left is the handrail with hanging galvanized trays holding full sized cattleya hybrids. Additional shade cloth is installed vertically and above to protect this area. The ridge height of 24 feet allows the full height second story.



HANGING WALL. Collection of flowering dendrobiums.



HANGING WALL. Collection of flowering nodosas.

Full catalog starts on next page

Broughtonia Species

Sentinel has specialized in Broughtonia species and hybrids since 1980. They are all warm growing and are very rewarding in the quality and length of time that the plants can be in flower. Plants grow quickly during the warmer months. *To get an overview on the Broughtonia complex read the article in the December, 1987 AOS Bulletin. Sentinel has selected varieties over the years that are consistent performers. We look for high quality flowers, ease of growth, clean growth and multi-flowering per year. Sentinel has at least 16 awards in the Broughtonia complex. Hybrids are grown under bright light conditions in BURN ZONE with good air movement in combination of plastic and clay pots or on cork slabs..*

Broughtonia negrilensis 'Sentinel' JC/AOS. On Slab. \$200.00



Awarded the Judges Commendation for the fine patterning markings within the lip.

Broughtonia sanguinea 'Sentinel's Aurea Star' \$100. Mounted. Good form, creamish yellow with reddish purple darts on petals and on skirt of broad lip.

Broughtonia Hybrids

Lctna. Roy Fields 'Caesar's Creek AM/AOS \$300.00



(Lc. Mattie Shave x Ctna. Keith Roth). Another very rare unvirused plant. 4" reddish purple flowers. The first large flowered cattleytonia hybrid. One extra plant.

(Blc. Gold Country x Ctna. Keith Roth) 'Sentinel'. 6" pot. \$100.00

Very strong growing bifoliate plant. Flowers start tan and turn to orangish color. Darker isthmus lip.

Ctna. Maui Maid 'December Bride' AM/AOS. \$60.00



(C. Hawaiian Variable x Broughtonia sanguinea alba). Mounted mature growths. A fine white Cattleytonia. Cluster of flowers 2".

Ctna. Starrlyn 'SVO II' \$100.00



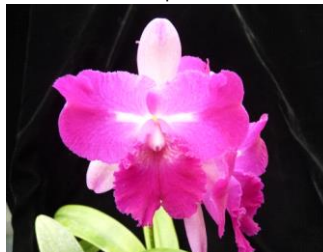
Cluster of 1 3/4" dark red flowers with semi-peloric yellow flares on petals. Lip dark red, yellow centrally. An improved Ctna. Why Not. 4"

Laeliacatonia Happy Face 'H & R'. \$70.00



(Lctna Peggy San x Lc. Mari's Song). Great tri-color cross, up to 6 flowers 3" per inflorescence.

Laeliacatonia Quest's Sexy Eyes 'Fuchsia Sentinel' HCC/AOS. \$250.00.



(Lc. Shellie Compton x Ctna. Capri). Awarded 7-20-11. Compact plant to about 14". Up to 10 well-shaped exceptionally bright, neon like 3 1/2" flowers. Sepals light violet pink with darker splash at tips showing vestigial pelorism. Magenta petals with notable interior median line, Broad magenta lip. Likes to grow. 6" pots., 4 1/2" back.

Otaara Hwa Yuan Bay 'She Shu' HCC/AOS. \$60



(Lctna. Peggy San x Blc. Sunset Bay). Four or more 3 1/4" fragrant tricolor flowers of fine form. Plant compact to about 12" only. Large flower mass in comparison to plant size. 4 1/2".

Ctna. Why Not 'Yellow Kitty' \$60.00

Mounted. Nicely formed yellow with interesting red flushing.

Cattleya Family Species

Many of the following species were cork mounted a few years ago and are large plants and/or multiple growths. And are for sale as is. But as soon as they start making new roots, it is likely they will be divided and remounted.

Rhyncholaelia digbyana \$75.00



'(Mrs. Chase' AM/AOS x self) The best growing digbyana I have seen.

C. guttata h. a. coerulea \$125.00

Flowering size n 6" spider pot. 4 established growths. 1 mature new growth.

C. loddigesii var. harrisoniana 'Harford's Favorite' HCC/AOS \$200.00 1 only.



Often confused with loddigesii. Plants to about 18". This flowering with 7, 4" flowers. Open lip exposing column and pronounced yellow crest. Fine quality diploid.

C. intermedia aquinii (Waldor). \$175.00



Developed from sibling forms of Orlata. Advanced breeding flattens the 3 1/2" flowers producing one of finest forms I have seen. Unlike many of the aquiniis that exhibit crippling. 5".

Epi. species. \$60.00

Cork mounted. Shortened and tight growing 10" growths similar to parkinsonianum. From Orchid Trail collection.

C. intermedia 'Sentinel's Pink Orlata' \$100.00



Again Orlata breeding – varieties were 'Orlata Imperial' by 'Gigantea'. This is plant #4. The Flowers measure over 5". Plant about 14" in height. 4". One near blooming sized well-rooted division.

C. intermedia 'Sentinel's Exceptional' AM/AOS 200.

80 point AM/AOS. Orlata breeding. Crown Fox type. Looks like tetraploid with 14" growth, turgid leaves and bulbs 3/4" in diameter. Up to 5, 5" light pink flowers with wide segments and light raspberry peppering. 1 3/4" broad open lip front and edged in reddish-purple. 5".

C. intermedia 'Rio' AM/AOS \$200.00

88 point AM/AOS Superior orlata form from Waldor. 4 1/2" flowers, petals over 1 3/4" wide. Grows and flowers extremely well.

C. labiata var. Rubra'. \$120.00



Energetic plants selected from the Duffin collection. Up to four 6" pink flowers slight flare on petals. Well-formed

C. perciviliana 'Sentinel' Semi-alba. \$150.00



I placed these plants in spider pots and they are growing beautifully and then transferred them to cork slabs.. Main plant came from Orchid Trail. Very nice form and great color spread on lip.

C. purpurata (treated) \$60.00 - \$70.00
HCC/AOS. \$350.00



Magenta lip. 6" plastic pots. Started as Schusteriana. Treated. Producing bright white sepals and petals with slight pink overlay and central petal line. Large 8" flowers with dark purple lip. 5", 6".

Encyclia cordigera \$50.00



Quality cordigera mounted.

Laelia rubescens alba 'Sentinel' (1) 3" \$60.00



Very unusual alba form from 'Valley Isle' x self. Natural spread is over 2".

Cattleya Hybrids



Display in the **BURN ZONE** of Blc. Brunswick Gem 'Sentinels Watermelon' HCC/AOS and Blc. Goldenzelle 'Lemon Chiffon' AM/AOS.

Rlc. Cashens' Silk D'Or 'Sentinel's Lemon' \$120
- \$160.00



(Rlc. Bouton D'Or 'Orange Glow' x C. Horace). Growing and flowering beautifully 4 1/2" flowers butter yellow with tinges of pink on petals. Typical Horace color influenced lip. Two plant 5" & 6" pots.

Blc. Iona Gold 'Sentinel'. \$140.00



(Blc. Waikiki Gold x Blc. Yellow Imp). Production of 3 glowing 4" yellow flowers. Lip yellow with defined cinnabar throat. Highly fragrant. Positive influence of Waikiki Gold. Plant only 12" tall. Not a fast grower but worth it. 5" (1).

Blc. Memoria Grant Eichler 'Lenette' HCC/AOS. 6"
\$100.00



(Blc. James Hausermann x Lc. Irene Finney).
Large 8" classic dark orchid Catt. Frilled purple lip, gold eyes.

Slc. Long Life Angel 'Paradise' \$100.00 (1 only)



(Slc. Kauai Starbright x Lc. Angel Heart). Compact tight growing plant. Light pink 3" tricolor flowers with yellow flares. Yellow with red lip, pink edging, white side lobes. 3 1/2".

Bc. Daffodil 'Orange' \$75.00



(Rhyn. glauca x C. aurantiaca). Compact primary hybrid plant blooming with up to three 2 1/2" flowers. Starts orange then changes to yellow. Up to 3 flowers per inflorescence. Pot sizes. 6-7".

Blc. Bouton D'Or



'Lewis' AM/AOS. \$100.00 - \$175.00

(Blc. Buttercup x C. Wolteriana). One of the great Cattleyas. Beautifully shaped 4" flowers in peach to apricot. Usually flowers in January thru February/ March. 3 - 6 flowers per inflorescence Growths can reach an amazing 22" in height. Carter and Holmes just sold a division for \$250.00

'Cherokee' Small Div. \$300.00

Very rare variety, virus free. Known for exceptional breeding. Should be awarded.

Blc. Brunswick Gem 'Sentinel's Watermelon' HCC/AOS \$300.



(Blc. Owen Holmes 'Mendenhall' AM/AOS x C. Horace 'Maxima' AM/AOS). 5" watermelon red flowers and most recent with a 6" flower. Limited. It has taken several years to establish these properly. They are really growing strongly and will only get better as the plants show multi- leads. Should easily move to AM. 5, 6" Broad open lip.

Blc. Carolina Golden D'Or 'Lenette #5' AM/AOS. \$200.



(Blc. Bouton D'Or x C. Warpaint). Beautifully shaped 4" orange flowers with broad open orange lip with concentric cinnabar overlay from the Warpaint. 4 - 6 flowers per inflorescence. Awarded 80 points 1/16/11 to Sentinel. 6".

(Blc. Carolina Orange D'or 'Lenette' AM/AOS x Pot. William Farrell 'Apricot Orange'). \$150.00 (1)



Interesting hybrid with 4" orange flowers with peach overly on petals. Small red dash on lip. 6"

Blc. Cherry Suisse.

(C. Chocolate Drop x Blc. Oconee). Vigorous plants that produce red enameled texture, full star shaped flowers. Open well-developed trumpet shaped lips. First one I bloomed was 'Sentinel's Red Enamel'. These normally produce 4 - 6 flowers up to 4 1/2". They can flower several times per year. Fragrant. I purchased second group of seedlings about four years ago and these are now mature and showing high quality flowers – only the best were kept.

'Sentinel's Red Enamel' AM/AOS. \$175.00



81 point AM. One of best as far as fine shape. Very fast growing and vigorous. Often flowers twice a year with heads of up to 7, 4" brilliant dark enamel red well-formed flowers. One of the best of this hybrid. Much flatter than most with broader lip with attractive yellow inside lobes. 6".

'Rhodolite 2" (#18), HCC/AOS. \$150.00



Plants to about 15". 6 – 8 impressive heads of 4" brilliant red flowers with yellow in throat. Sepals and petals look red/cerise and have a violet neon suffusion centrally. The plant with two inflorescences of 6 and 8 flowers received a 79 point HCC on August 21, 2019

'Sentinel's Exception' (#2) \$150.00



Mature plants. This is a winner. Typical dark burgundy red with a violet neon overtone. Broader petals and lip than my awarded ones. Flowered from one of the unnamed group below. 6"

'Emily' FCC/AOS \$120.00



Very fine form. Solid red with a bit of yellow at side lobes. Almost identical to 'Sentinels Red Enamel'. 6"

Garnet Sentinel' #1 \$100.00



A lighter reddish bronze. Lip is notable for the contrast between the red skirt and the yellow side lobes. 6"

'Rubelite 1' (#1a, #1b, #1c). \$80.00

4" enameled flowers showing burgundy with a hint of purple. Broad darker burgundy lip with slight yellow markings in throat.

'Rubelite 2'. One only. \$80.00



This is a new back plant and should take off by July. Very unusual. This time, 8 clustered flowers on one inflorescence. 3 1/2" plus. Fine broad lip with yellow under column. Unbelievably fragrant. 6"

'#12 'Rhodolite 1'. \$120.00

Just repotted these. Should be ready in the Spring of 2015. Extremely dark burgundy red. Petals show slightly lighter veining with solid darkness along mid-rib. Lip even darker with a bit of orange back in throat.

Blc. Dinsmore 'Perfection' FCC/AOS. 6" 150.00



(C. Schroderae x UNK). C. Schroderae's C. Bella x C. Maggie Raphael. Classic light pink Catt. 7 – 8". Frilled pink lip with yellow or yellow-orangish disc. Curious as I suspect that C. Schroderae, the species, is a parent based on the strength of the disc, but it is not listed. A selected mix of five species: labiata, trianae, dowiana, purpurata and (Schroderae).

Blc. Goldenzelle 'Lemon Chiffon' AM/AOS.

STEWART: \$130.00. ORC-LAB. \$200.00 5"-6" Pots.



(C. Horace 'Maxima' AM/AOS x Blc. Fortune 'Golden Throne' HCC/AOS). One of the finest hybrids of the past ten years. **These are mericlones obtained from Stewart Orchids and are vigorous, heavy bulbed and leaved unlike many of the mericlones on the market. Full butter-yellow with red blotch on lip.** Sturdy, extremely vigorous, fast growing plants with tight growth systems that often produce multiple leads. Full, beautiful flowers. Plants selected for this offering are some of the finest from the grex and are mature flowered varieties.

Blc. Memoria Helen Brown 'Sweet Afton' AM/AOS.

One 6" available. \$140.00.



(Blc. Xanthette x Lc. Ann Follis). Stocky bifoliate with two to three very heavy subtended 5" yellow flowers showing the influence of C. granulosa in the pinkish-red lip coloring. This mericlone has a shift and has better form than the awarded flowers.

Blc. Momilani Rainbow 'Sentinel's Pastel' HCC/AOS. \$175.00

(Lc. Mari's Song x Blc. Orange Nugget). Unusual variety as it is pink with yellow suffusion at base of petals along mid-rib continuing to a purple line. Pink lip, yellow interior. 4" flowers. Plant to 16" in height. 5"

Blc. Mount Hood 'Orchidglade' AM/AOS. \$75.00 - \$100.00



(Bc. De'esse x C. Claris). Classic 6" soft pink, broad pink ruffled lip with darker pink central dart, white halo and yellow throat. Awarded in 1966. 5" - 6" pots.

Blc. Hamana Tip 'Saeki'. \$75.00

(Blc. Stephen Oliver Fouraker x B. glauca). Slightly starry large flowers – a surprising outcome as I would have expected the glauca to have been more dominant. 5 1/2" crystalline white flowers with 2 1/2" broad open lip dominantly deep violet at skirt and border, yellow below column. Strongly fragrant with maximum plant size to 15". Likes bright light.

Blc. Iroquois Trail 'Midfarm' FCC/AOS \$200. 5"



(C. Lee Langford x Rlc. Pamela Farrell). Received a 90 point FCC in 1974. Impressed everyone with it's 6" reddish flowers and fine form 50 years ago. Still quite impressive. Two flowers shown.

Blc. Magic Meadow 'Sentinel's

Chartreuse' AM/AOS 4-6" 250.00 - \$350.



(Rhyncolaelia digbyana x Blc. Helen Brown) Spectacular well-formed green. Hard as candle substance. Received an 86 point AM in 2016. Can produce up to five 5" flowers per inflorescence. Several plants available. Good grower with either unifoliate or bifoliate leaves. Far superior to 'Napolean' variety.

Blc. Meditation 'Lahaina Lipstick II'. \$250.00



(Blc. De'esse x Lc. Fedora). Plant grows exceptionally well. 5" white with colored lip. 6" pots. Small darts on sepals and petals. One smaller division.

Blc. Nacouchee 'Mission Valley' AM/AOS 150.00



(Blc. Heaton x C. Estelle). Awarded 81 points in 1965. Two beautiful 6 1/2" large light pink flowers with darker pink dart on lip skirt to chartreuse under column. Fringed lip and petal edges. 6".

Blc. Pamela Hetherington 'Coronation' FCC/AOS 4", 5". \$80.00, \$150.00



(C. Paradiso x Blc. Mt. Anderson). I attempted to purchase this plant several times over 30 years. All had viruses and were discarded. In 2016 I was able to purchase a plant from the Duffin Collection that tested clean, grew and flowered right. I am not sure, but I would bet it may be a division from the original Stewart plant or a lucky early mericlone that was clean. Not easy to flower perfectly. Can have 8" flowers.

Blc. Rosebud 'Queen of Splash HCC/AOS \$120.00



(Rlc. Ronald Hausermann x C. Mini Purple) 76pts
Two beautiful four inch flowers; rose-purple; petals with dark magenta apical flaring; lip ruffled, dark magenta with gold veins interiorly; column medium purple; substance good; texture lightly crystalline.

Blc. Victor Umi Peltier 'Carla's Green'. \$400.00



(Blc. Waikiki Gold x Blc. Helen Brown). 2 – 4, 4 1/2" chartreuse flowers with two lobed lip, bright yellow with central light red veining. Flowers like wax. Bifoliate very heavy leaf structure. Plant height 12". I have these plants growing exceptionally well. There are very few virus free divisions available.

Blc Waikiki Gold

(Blc. Pink Surprise x C. forbesii). Most people expect concolor yellows as they are familiar with the cultivars 'Lea' and 'Uno'. Sentinel forms are very unusual and beautiful. They are all vigorous growers and flower well with up to six flowers. Color range and intensity change with temperature.

'Pink Spot' AM/AOS. \$140.00 - \$250.00. 5" – 7"



Fragrant. Pink Spot flowers 4" – 4 1/2". Pink with raspberry dots sometimes, with incredible striated lip. The flowers are temperature sensitive and will have a yellow background in very hot weather.

'Sentinel's Tricolor' AM/AOS. Waiting for division.



An unusual and well-formed quadricolor. Cream yellow petals with soft pink edge profusion – slightly peloric. Petals light orange with limited maroon salt and pepper dots. Open lip, cream yellow with dark pink at edge of skirt, darker yellow centrally

Rlc. Hawaiian Satisfaction 'Romantic' 70.00 4"



(Rlc. Waikiki Gold x C. Penny Kuroda). These plants are 7 years in the collection. The two largest finally matured and flowered for the first time and now will continue to flower. Green sepals, cream petals with yellow splash, lip white and partial pink on skirt. Very attractive.

Blc. Wounded Warrior 'Shogun Hawaii' \$50.00 4"



(Blc. Volcano Glory 'Enormous' x LC. Mari's Song) Compact Cattleya producing beautifully formed 4 1/2" splashed flowers. Should be awarded.

C. Caribbean 'Orange Bowl' HCC/AOS. \$60.

(C. Margaret Stewart x C. aurantiaca). 12" bifoliate plants – nice growth habit. Inflorescence with 7 or 8, 3" apricot star shaped flowers. Lip yellow and hot pink tip. lip. Flowers December to February. Plant originally from Stewarts. 5 – 6".

C. Viola Sanjume 'Orange Blossum' One division. 6" \$60.00



(C. Baby Jane x C. aurantiaca). Cluster of 2" orange stars. Compact plant to about 15".

Epi. Pacific Sangria 'Sentinel's Vibrant Red' AM/AOS. \$200.00 *



(Epi. Sun Valley 'Heads Up' x Epi. Pacific Pepper 'Mulligans'). Probably the best red to come out of Cal's plants. Plant grows to three feet plus tall. *Smaller plants available at half price.

Guaricyclia Epiorange 'Sentinel' AM/AOS and ('Mt. Airy' – 6" \$150.00). 6" \$150.00



'Sentinel' Awarded 5/16/2017 and Mt. Airy' indistinguishable. Beautifully growing epicat. To about 15". 24" long inflorescences with several branches. Last flowering had 37 orange with brown overlay, yellow centrally, 1 3/4" flowers. Cinnamon ovoid lip ascending into yellow with fine red stripes.

Lc. Ann Cobb 'Bill' AM/AOS \$250.00 (1)



(Ctt. Doctor Max Schneider x C. Twinkle Star). Up to five, five inch flowers. Electric reddish-purple with semi-spade lip. Plant to about 24" in height.

Lc. Burgundy Delight 'Sentinel'. \$120.00

(C. Chocolate Drop x Lc. Mini Purple). I selected this several years ago at the NYC Show. Finally have several divisions. Three or more 6 cm electric magenta stars. Tight tubular lip dark red with purple striations in lip trumpet. Plant 10" size. (1)

Lc. Chit Chat 'Sentinel'. \$90.00

(C. aurantiaca x Lc. Coronet). 10 – 12, 2 1/2" pure orange stars that are similar to Stewart' variety 'Tangerine' HCC/AOS 79 pts. 1/2" wide open lip makes this superior. Typical reddish stripes in throat from the aurantiaca parent. Flowers February. 6"

Lc. Prism Palette (Lc. Colorama 'The Clown' x C. Horace 'Maxima' AM/AOS). 'Eastern Sunrise'. 5" \$150.00



Fine quality tricolor acquired thru Duffin Collection. Not commonly available

Lc. Sheila Lauterbach 'Equilab' FCC/AOS 6" \$125.00
 (Lc. Barbosa Rodrigues x Lc. Semiphore). A most classic and beautiful white with 'red lip'. I purchased this plant in 2001. It has taken 18 years to get them full size and growing right. They are fine now with beautiful growth and up to 3, 6" flowers.

Lowara Spitfire 'Louella' HCC/AOS \$100.00 5"



(Sl. Gratrixiae x Low. Trinket) Lowaras are uncommon and this is one of the best. Up to 4, 4" vibrantly colored flowers per inflorescence.

Pot. (Rlc.) Amangi 'Orchidglade' BM/SFOS 6" \$300.



(C. Antonica Frederick x Rlc. Maggie McKenzie) Very rare to find at all and this is virus free. Bright red 4 1/4" flowers. White column and semi-spade lip. Flowered in December with 5 flowers on one inflorescence.

Pot. (Rth.) Biltmore Tropical Sunset 'Sentinel' \$200.

(Blc. Carolina Orange D'Or 'Lenette' AM/AOS x Pot. William Farrell Apricot Orange). Beautiful orange and peach tones.

Pot. Ester Costa 'Orange Fantasy' HCC/AOS.

\$400.00. Only one. (Blc. Jane Helton x Pot. Gordon Sui). Classic orange breeder. 5"

Pot. Fortune Teller 'Lucky Alicia' AM/AOS. \$150.00



(Blc. Xanthette x Slc. Tropic Flare). Very vigorous grower. Glowing impressive dark orange flowers with red edge flush. Broad red lip, orange and gold centrally. Flowers almost 5". 4 1/2" - 6"

Pot. Life's Charm 'Sentinel's Peach Neon' AM/AOS. \$250.00



(Blc. Izumi Canyon 'SVO' x Slc. Circle of Life 'Trailblazer'). This is a real find. Good compact grower with fat bulbs and leaves to about 10" in height. Floriferous, up to 4, 3 1/4" perfectly formed pastel peach with purple neon accents on sepals and petals, reddish-orange lip with orange center. With a little patience this will make incredible specimen plants. As I predicted it received an AM/AOS, September of 2015. 4". A client bought one and within a year it had 9 flowers. Can flower several times per year.

Pot. Paxton Brooks 'Orange Surprise'. \$300.00



(Blc. Miami Gold 'Mendenhall' x Slc. Final Touch 'Golden Fleece'). Several plants are now flowering with three flowers in 4" pots. One of the finest 4 - 5" oranges I have seen in a long time. Plants to about 16" tall when full sized. I have not shown yet, but should acquire an easy AM. 4 - 5 - 6".

Schombocattleya Newberry Lava Burst 'Sentinel's Yellow Lip'. 1 @ \$120.00

(Schm. undulata 'Lenette' x Lc. Rojo 'Redhead'). 14" tight clustering bulbs. 2 foot inflorescences with cluster of 12 - 18, 3" bright red flowers and rarer yellow marking on lip. Great plant for exhibits. 6". Bifoliate plant 16" in height. 6" plastic pot.

Slc. Hobcaw 'Lenette' AM/AOS. \$120.00



(Lc. Spring Imp x Sc. Beaufort). 82 point AM. Great compact catt. to about 10". Up to 6 bright orange 2 3/4" full flowers per inflorescence with well-formed red lip, yellow centrally. Especially vigorous tight growing plant. Picture on right shows 6 flowers on one inflorescence on plant in three inch pot. Good specimen potential. 5"

Slc. Kerry Caldwell 'Sentinel' HCC/AOS. \$120.00



(Slc. Starry Sky x Slc. Bright Angel 'OC'). Special. Great plant, only 9" high. Tight bulb structure produces 3 – 4, 2 3/4" sparkling white flowers with slight pink tinge with contrasting trumpet shaped magenta lip. Very showy.. 2" – 3" plastic pot in cypress.

Slc. (Ctt.) Wasp Nest 'Sunset Valley Orchids' HCC/AOS 1 in 5" \$120.00

(C. Tangerine Jewel x Ctt. Trick or Treat). 15" tall tightly growing plant. Cluster of up to twelve 3" brilliant red stars. Red isthmus lip with gold centrally. Inflorescence should be staked to get best display of flowers.

C. Memoria Dina Izumi 'Brookside'. \$60.00



(C. Chocolate Drop x Barbara Kirch). Now here is a good one. There are other varieties, but Sentinel chose this one for its form and color. Tight growing plants that can make multiple leads. Up to 8 well positioned 3 1/4" dark pinkish-purple flowers with broad lip, red with yellow eyes. Outstanding for a Chocolate Drop cross. 4 - 6".

WHITE COCKTAIL ORCHIDS

After huge orchids for corsages were popular, florists were looking for mid-sized whites, especially for mid-year weddings. A popular choice was the group of smaller 4" whites developed from Cattleya intermedia known as COCKTAIL ORCHIDS that were advertised by many west coast growers starting in the 1960's. As time and taste changed, more colorful orchids became popular toward the 1990's. The Cocktail Orchids were largely forgotten to the point where it is now actually difficult to find virus free examples.

C. Catherine Digwood 'White Cocktail'. \$80.



(C. Lady Veitch x C. intermedia). Classic cocktail orchid – 5" white with soft yellow in lip. Bifoliate, 12" in height, fragrant well held flowers, a good grower.

C. Heather Bracher 'Green Meadows' HCC/AOS \$80



(C. intermedia x C. Margaret Lambert). Very fine formed 4" white cocktail orchid

C. Louise Georgiana \$80.00 One Only



(C. intermedia x C. Souvenir de Louis Sander) Classic cocktail orchid – 4 1/2" white with minimal soft yellow in lip. Bifoliate, 12" in height, fragrant with up to 4 well held flowers per inflorescence and a VERY prolific grower.

C. Tom Thatcher 5" \$120.00 One Only



(C. Margaret Stewart x C. Claesiana). Fuller cocktail type. Resembles a white Margaret Stewart with white sepals and petals. Contrasting yellow lip with white edge. From Chadwick Collection. Claesiana is intermedia x loddigesii. Plants are only 12" in height.

BLUE AND AMETHYST

Just a reminder. Many of the "blues" have been around for a while. Granier was not t all careful in his virus control. It is not so easy to find clean plants.

C. Granier 'Blue Terrie' HCC/AOS. 180.00 6"



(C. Valentine x C. Joan Landsberg). Strong growing bifoliate to 18" tall. Up to six, 5" flowers of fine form and sparkling texture. Fragrant full flowers lilac; darker lip with wisteria blue disc and butter yellow throat; column pristine white. October /November flowering. The 76 point HCC issued in 2002 does not do justice to this flower and I believe it is one of the best of the Graniers.

C. Grezaffi's Blue 'Shawn' HCC/AOS \$100.00



(Blc. Victoria x C. Holdenii). Fine blue. Fast growing and relatively compact growth habit (15"). Light blue sepals, medium amethyst blue petals and darker blue lip with pale yellow center. Can produce 8 – 9, 4 ¼" flowers per inflorescence. 6".

Lc. C. G. Roebling 'Beechview' AM/AOS 6" \$80.00



(C. gaskelliana 'Blue Dragon' x L. purpurata 'Werkhauseri') 6" white to blushed blue sepals and petals with dark blue tubular lip. Compact for C. G's.

Lc. Busy Bev 'Blue Jewel' AM/AOS \$60.00 4"



(Lc. Dinard c Ctt. Purple Secret). Small compact growing. 4" flowers several times per year.

Lc. Marcello Miranda 'Bobbie Joe' \$80.00 4"

(C. crispalabia coerulea x C. labiate coerulea). Light blue with darker blue lip.

Lc. Gran 'Blue Beauty' HCC/AOS. \$230.00



(Lc. Canhamiana x C. Ariel). Vigorous bifoliate to 18". Notable influence of C. bowringiana in growth and number of flowers. This flowering produced 10, 5" spectacular flowers. Sepals and petals lilac, lip surround deep wisteria blue, yellow center. 6" pots.

Lc. (C.) Canhamiana 'Lavender Suffusion'. \$100.00.



(C. mossiae x C. purpurata). Six 7" white sepals and petals with light lavender suffusion. Well-formed lilac skirt darker blue at column into yellow. Labelling is a form of variety Werkhauseri.

Lc. Purpurato Rex 'Sentinel' (1) 6" \$125.00



(Lc. Canhamiana x L. purpurata). Floriferous. Relatively small growing. A different version of Canhamiana.

Lc. Schilleriana 'Waldor Type'. \$125.00.



(*C. intermedia* v. *coerulea* x *L. purpurata* 'Werkhauseri'). This is very unusual as normally the flowers take after the *intermedia*. In this case the plants and flowers look like the *purpurata* 'Werkhauseri' with white sepals and petals and the blue lip. Flowers with 6" spread. Excellent grower and flowerer. Two available.

BRASSAVOLA SECTION

Established nodosas can flower several times per year and they pass this characteristic to their hybrids. We have gravitated towards this group and acquired a large selection of exceptionally fine species and hybrids. Like the Broughtonias, they like a taste of lime water several times per year. Species 'Lady of the Night' nodosa's do not like to be disturbed and are slow to develop roots after repotting. Sentinel has mounted all plants on cork slabs and noted faster and more extensive development. Do not judge the species on your first flowering as they improve markedly with more extensive roots. Most plants have been mounted for several years and are large. I will be dividing many on new growths, but for now are for sale as is.

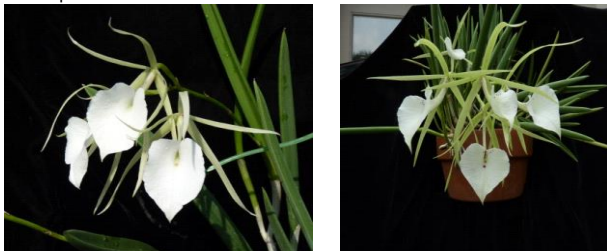
Brassavola cordata (subulifolia) 'Robinson' \$100



Waited a few years for this superior form of cordata. Just mounted on cork – ready to go.

Brassavola nodosa

#2. \$150.00



#2 was selected from hundreds of flowering plants at Fred Fuch's nursery in Homestead. 5" ice green sepals and petals held straight with 1 3/8" wide white heart shaped lip with notable reddish spotting in throat. Three to four flowers per inflorescence. Successfully used for breeding.

'Audrey' \$150.00



5 1/2" hint of green sepals and petals. This has finally shown its true nature. Very large well-shaped flowers. 1 1/2" white heart shaped lip. Dorsal bending forward, sepals and petals on almost flat plane. Probably award quality. 4-5 flowers per inflorescence.

'Eloyce's Moonbeam' AM/AOS. \$200.00.

Awarded with one inflorescence with four flowers. New blooming has 6" flowers. Holds petals out straight.

'Silver Dollar. \$100.00.



Thought to be a variety that was sold by Stewarts in California. Good grower with well-conformed flowers with round lip.

'Orchid Trail' 4n. \$100.00

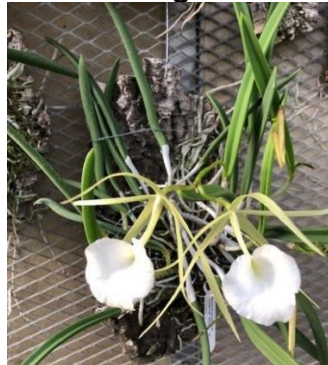
Fine flowers.

'Woodstream' AM/AOS \$150.00



Energetic grower - 4 – 5 well-formed flowers per inflorescence. Broad white lip. Sepals and petals light celery green.

Brassavola grandiflora 'Orchid Trail'. 4n \$120.00 (1)



What a surprise – 6" flowers Select from Orchid Trail.

Brassavola gardneri \$45.00

('Valley Isle' x 'Paulwella'). Many growths. Not very common. Appearance intermediate between cordata and nodosa but close to the cordata with 4 – 6 flowers per inflorescence. Growing in 3 ½" spider pots with lots of growths. Large flowering size.

BRASSAVOLA NODOSA HYBRIDS

This group is totally underrated and often ignored by most Cattleya growers that are looking for big full flowers. What they do not see is the fast, strong multi-growth, multi-flowering capabilities, exceptionally bright and unusual combinations of colors, often with unusual spots. Many consider them as novelties. Any offered are very select and have proven their quality. Sentinel anticipated their potential and has been willing to wait several years for the best to mature and has blooming divisions. The number of awards we have received attests to their quality.

Brassavola Little Stars 'Rene' \$85.00. Mounted

Awarded an 84 point CCM with about 300 flowers. Not just any flowers – how about 4 – 5" of fine form? It was getting to the point that I could not lift it, so I divided it. These cork mounted divisions are well established and are off to their next CCM's of the future. Why waste time with mediocre varieties?

Brassocattleya Karin Lomer 'Ed Mikulka' AM/AOS (3) \$75.00.

(C. Perciviliana x B. nodosa). This combination produced a huge, well formed nodosa with over a 6" span. Flowers pure white with minimal purple dots in throat. Excellent tight grower. 5" pots.

Blc. Golden Tangs (Blc. Waikiki Gold x Bl. Richard Mueller).

Carefully selected what I thought were the best plants and flowers. Most did not appreciate or see the potential. I have been proved right with several awards and spectacular performance. These start to show best as they produce multiple inflorescences with clusters of four to five or more 4" – 5" brightly colored orange, gold and yellow flowers. Sometimes the inflorescences branch.

'Perfect Sentinel'. \$100.00



4" yellow orange with spotting in broad lip. 6" pans.

'Sentinel's Lemon'. \$80.00

3 ¾ - 4" beautifully formed yellow flowers with orange edging. 5"

Bct. Booth Lee 'Venice' AM/AOS 5". \$60.00



(Bsn. Maikai x C. Jalapa) Up to 8 attractive 3" magenta flowers per inflorescence. Easy to flower nodosa hybrid that holds its color well.

Bsn. Empress Worsley 'Roman Holiday' \$80.00



(Bsn Bill Worsley x C. Red Empress). A great Joe Roman hybrid. Up to three 4" flowers. Sepals cream white with pink overlay. Full petals white with magenta surround and darker dotted center line. Full magenta lip. 5" or cork mount.

Blc. Morning Star 'Sentinel' \$60.00

Blc. Morning Glory x Blc. Melody Fair). Fine 4-5" white with magenta lip. Plants tight growing and height to 12". 5" - 6"

PAPHIOPEDILUM

All Paphs are now growing in cypress mulch. Root action has been excellent. Plants will be checked at time of order for exact pot size and size and number of growths. I add a layer of pumice in the mix with ground oyster shell and top dress with microbial mulch.

Paph. Alcides 'Penn Valley' fma Roebelinii HCC/AOS \$100.00



(P. hirsutissimum x P. insigne). Registered by Sanders of St. Albans in England in 1890. Awarded in 1991 with 79 points to Penn V alley Orchids. Flowers 5 1/2". 2 growths plus, 18" leaf span. One plant.

Paph. Charlesworthii 'Sentinel'. Several plants.
\$35.00 - \$50.00



Yes, a vigorous Charlesworthii that could form specimens. Natural size is 3". Well conformed dorsal 2 3/8" wide. Leaf span from 8" to 12" with one to three growths. Growing happily in 2 1/4" rose pots in very bright light.

Paph. Delrosi 'Sentinel' \$50.00 - \$80.00
(P. delenatii x P. rothschildianum 'Borneo'; FCC/AOS). Beautiful plants. One growth about 15" and another plant with 3 growths at about 10". Purchased from OZ in April of 2094. The classic CHALLENGE PLANT. I will flower this at some point. 4" pots.

Paph. Dollgoldi 'Sentinel's Golden Eagle' HCC/AOS
\$100.00 - \$200.00



(Paph. rothschildianum x Paph. armeniacum). Fast grower and easy to flower. Bright golden flowers with light red stripes 6 1/2" flower when awarded. 3" - 4"

Paph. Friedrich Mellon 'Sentinel's Bronze' 4" \$50.00



(P. Alma Gavaert x P. Fairieanum album 'Jac'). Quite unusual. Take a Fairieanum and stripe the white dorsal like Alma Gaveart. Petals have a bronze upper hirsute edge with bright green and darker green stripes to mid-rib. Lower half of petals are cream with green stripes again with bronze hairs. Pouch medium green with darker green venation with upper edge light bronze. Grows well. Minimum 2 gr +.

Paph. Gloria Naugle (Paph. micranthum x Paph. Rothschildianum)

Sentinel has been collecting this cross since 2006 and has received 2 AM's on the first group. They are hard leaved and grow steadily but not quickly. Plants with leaf spans from 6' - 14". Most are divisions from the same breeding groups that received AM's above. I have done the time and gotten them up to larger and faster growing plants. Plants with 4 - 8" leaf spans **from \$40.00 - \$60.**

Blooming sized are \$70.00 - \$90.00

Paph. Gloria Naugle - Krull-Smith breeding.



(Paph. micranthum 'Crystelle' x Paph. rothschildianum).
(Paph. micranthum 'Krull's King' FCC/AOS x Paph. rothschildianum 'Excelsior' FCC/AOS).

The second group were from Krull-Smith and some of this cross exhibited by Krull-Smith at Longwood Gardens, had been awarded FCC's. When I received the plants in 2008, surprisingly they were much narrower leaved. They needed to be divided and grown and pumped up to Sentinel standards. Krull-Smith seedlings. 6" - 8" **\$60.00 - \$80.00.** 8" - 12" leaf spans and flowering sized **\$100.00 - \$135.00**

Paph. Gloria Naugle 'Burgundy' AM/AOS \$200.00.

(P. rothschildianum 'Daya Red' x P. Micranthum 'Red'). 86 pts. 4/16/14. One of top five awarded cultivars. 15cm - 5 7/8" dark flower notable for horizontal petal stance and flat, upright dorsal sepal with intense dark coloration; dorsal sepal, synsepal and petals chartreuse with dark burgundy striations; pouch light raspberry pink with darker pink venation; staminode white, yellow centrally. Division has one mature growth and two new growths. 5" pot. One only.

Paph. Gloria Naugle 'Sentinel's Raspberry' AM/AOS.
\$160.00 - \$200.00

(P. rothschildianum '266A' x P. micranthum 'Red'). 80 points, August 15, 2007, 5 1/2" flower with a yellow background with dark maroon striping. Lip cerise. Judges' comment was awarded for unusually bright coloration and novelty of color contrasts. Prolific grower. Two mature growths. 5" pots.

Paph. Harold Koopowitz 'Sentinel's First'. \$140.00



(P. rothschildianum 'In-Charm' x P. malipoense 'Fragrance'). I purchased many of these as the leaves were beautiful, broad, and turgid. This was the first to flower. One new and one older growth. 5".

Paph. Harold Koopowitz 'Almost April 1st'. \$100.00
 (P. rothschildianum 'In-Charm' x P. malipoense 'Fragrance'). When I purchased these HK's in 2008, they were large, beautiful plants. This one has one mature and one almost mature growth. The larger growth has a 22" spread. Leaves 2 3/8" across. Unflowered but ready. 5"

Paph. Harold Koopowitz FCC GROUP \$200.00



This is the group the **Sentinel FCC – 94 points** is Awarded with three flowers. Some have flowered and have not been evaluated or selected. Two mature growth plants most with new growth.

Paph. Hsinying Moonlight 'Sentinel' AM/AOS \$200



(P. primulinum var. flavum x P. Yosemite Moon). One of best primulinum crosses. Two to three 4 1/2" pure yellow-green flowers. 80 point AM. Several growths, 16" total leaf span. Good grower, beautiful plants.

Paph. insigne 'Good Form'. 4". \$50.00



Nice looking plants that grow and flower extremely well. Quality 3 1/2" flower. 3 growth plants.

(Paph. Muriel Constance x Paph. Hsinying Franz)\$70

Blooming sized plants, several growths. 5"

(Paph. Muriel Constance x Paph. Hsinying Franz)

\$90.00. White with raspberry stripes and spots. One3 plus one new growth.

Paph. Moonstone 'Moonbeam' AM/AOS. \$230.00



(P. Deperle 'Whitequest' x P. Stone Lovely 'Lehua Butter Puff'). Awarded with three 4 1/2" white flowers on one inflorescence. Slightly centered chartreuse with peppering of burgundy spots.

Paph. Via Ojai 'Jim's Delight' HCC/AOS. \$100.00

Beautiful white with slight yellow center flush topped with burgundy salt and pepper speckling.

(2) in 4" pots. Single growths.

Paph Via Ojai 'Jim's Pride' HCC/AOS. \$125.00, \$185.00

77 points,12/78. White flower with light yellow suffusion. Burgundy pepper spotting over central area and petals.

One of the better whites with Hellas suffusion. Plant with 2 plus growths. \$185.00. Smaller 12" fresh growth division. \$125.00

Paph. Lathianum 'Sentinel 'Maisie's 89'. \$80.00 - \$120.00



Purchased this plant in 1989. It is a great grower and flowerer. 4" plus quality flowers. I thought it was villosum albo-marginatum, but it was identified as (villosum x spicerianum). Several plants 3 growths

SMALL AND WARM GROWING

CYMBIDIUMS – SPECIAL

VARIETIES

Cymbidium Chian-Tsy Mascot 'Sentinel' \$80.00



(Cym. Golden Elf x Cym. ensifolium). We think this may be an individual variety as the lip does not curl under as much as other varieties. Warm growing plant with leaves to 2 feet. Can have 15 bulbs in a 6" pot. Erect inflorescence with as many as 12, 3" concolor yellow flowers with strong lemon perfume. Flowers have elegance from the Chinese ensifolium. Flowering in September/October. .

Cymbidium insigne sp. Seidenfadenii x Cym. Cindy Lou 'Geyserland' 4N. \$35.00

Small beautifully shaped white flowers. Single maturing bulb. Growing fast. 4"

Cymbidium iriodes 'Sentinel' \$125.00

Rare species similar to a smaller tracyanum.

Fairly large plant. 6"

Cymbidium Sean Duffin 'Mt. Airy' HCC/AOS. \$120.00



(Cym. insigne x Cym. Dolly). Great white miniature.

Upright inflorescences with 16 plus 2 5/8" white flat stars.

White lip slightly under-curved with yellow centrally and very light pink spots. 4"

Cymbidium Dorothy Stocksill 'Forgotten Fruit' AM/AOS 5" \$80.00. (Phar Lap x Cym. Miss Muffet)

Wonderful pendent. Good grower and prolific flowerer.

Cymbidium Gladys Whitesell 'Concolor' 5" \$130.00

(Cym. Fifi x Cym. Parishii). Now this is a rare form and special. White with greenish tinge. Lip almost all white.

MINIATURES

Macroclinium (Notylia) xiphorou. \$30.00 Single growth. \$50.00 multiple growths.



Plant fans to only 2" across that form clusters. Can only describe flowers as a group of pink mosquitoes – the cluster of flowers is several times larger than the plant. Neat. Rare. Easy to grow and flower. About 10 plants available, and do not have a source for additional plants.

Ornithocephalus. From Columbia, Mexico. 3 – 4" fans like to be mounted on cork. They should be mounted pendently and grow in low to medium light and like to have wet feet. The varieties are not often stocked by specialty growers. When they are offered, the tiny sizes of the plants offered compared to the prices are expensive and many do not survive. Plants will form multiple fans in several years and put on an incredible show as they flower from many of the leaf axils. 3/16" mostly white flowers accented with green.

Ornithocephalus cochleaiformis. Single 2" fans \$40.00 Large plants - \$100.00



Fat fan structure to about 4" across at maturity.

Flowers in early spring with upright inflorescence with 1/4" translucent white and dark green flowers.

Similar to gladius. Single growth fans on cork

SPECIES AND CLOSE

Brassia Rex 'Waiomao Spotless' FCC/AOS. \$40.00 - 80.00



My first bloom had ten, 11" flowers. Chartreuse with white lip and yellow crest. Strong, nice looking plants. Large, beautiful bulbs. A great show plant as it is much more striking than the typical Brassias. Fragrant. 4 - 6".

Brassia Rex 'Waiomao Spotless' FCC/AOS \$40.00 - \$100.00. (Brassia verracosa x B. giroudiana). Flavistic form with darker yellow spots. 10 - 12, up to 12" flowers beautifully displayed on upright inflorescences from beautifully formed bulbs and leaf structure. Small 3" to full sized 6-7" pots. Great show plant.

Stenosarcus Vanguard.. \$45.00



(Stenorhynchus speciosa x Sarcoglottis species). Easy growing terrestrial that will form specimens. Beautiful silver/white spotted leaves. Inflorescence gets to about 18" tall with tubular red-orangish flowers, open in front.

Vanda Chao Praya Emerald 'Sentinel'. \$100.00(one stem)



(V. tessellata alba x V. vietnamica). Plant can get to 2' in height. But will flower on one foot high growths. Very attractive and charming group of 10, 1 1/2" green flowers and a contrasting white lip. Intermediate between the tessellata and the vietnamica. Easy to flower.

DENDROCHILUM

Sentinel has been interested in this group for about 20 years. I have selected several of the best growing and large flowering bulb group. **They love to be repotted each year or two and respond to new mix.** We find a good time to repot is just as new growths start to swell, but well rooted plants can be repotted almost any time. Remove all dead bulbs, divide if necessary to encourage plant to form growths in a full circle. **It may take two to three pottings and some crimping to shape correctly,** but it will be worth the effort. Use open mix. Plastic pots work well. **It is better to keep moving the plants up one pot size then try to make them fill out a pot too large. Moderate light, lots of water and fertilizer.** The following are tested varieties:

Dendrochilum cobbianum. These are highly selected/superior varieties and flowering sized plants. The identification of these plants and flowers is not especially clear. We have grouped similar flowering types together; in this case under cobbianum (type). They usually have the fragrance of mown hay.

NOTE: Sentinel has many other varieties of cobbianum and other Dendrochilums. Please inquire for more info.

'Sentinel's Poco'. \$30.00 - \$60.00

Bulb and leaf up to 12". 2" high bulbs, 3/4" at base tapering to 3/8". Unusually clean, prolific tight growth habit and ease of flowering. Ideal for specimen culture. 1/2" flowers with cream sepals and petals with orange shaded lip and chartreuse center. Up to 50 flowers per inflorescence with 1/2" flowers in February-March.

'Cobbianum type'. \$25.00 - \$50.00

Plant to 15" in height. 3" bulbs tapering from 1/2" to 1/4". November to December flowering. 5/8" chartreuse sepals and petals with bright yellow-green lip.

'Sentinel Especial'. \$30.00

Plant to only 6" in height.

'Chartreuse Sentinel'. \$40.00

Unusually diminutive plant - maximum height to 8". Rounder leaf structure. Flowers translucent pale green to chartreuse.

'Sentinel's Aurea II'. \$40.00



Plant to 10" with fairly large 2" bulbs. October flowering exceptional yellow. 5"

Dendrochilum magnum. 4 - 8 bulb \$45.00.

This is a group of the highest quality magnums that I have seen. A true monarch of Dendrochilums. Attractive plants with bulbs and leaves to 25". Pendulous inflorescences have 15" of blooms – 90 flowers. 3/4" flowers start out chartreuse, change to lemon yellow and then golden orange. Contrasting greenish-white hoods. Commonly makes two new growth per bulb. These plants have been carefully worked for many years and are in perfect condition. Fragrance of honey and spice. Flowers August - September. 'Sentinel's Yellow Pearls',

DENDROBIUMS

Many growers shy away from Dendrobies and it is understandable because of their reputation as difficult and inconsistent growers. Many are inferior as they are difficult to flower, have consistent bud drop or form too many keikis. Varieties can be selected that are easy growing and flowering with minimal understanding of their cultural requirements. If you have bright and airy conditions, these plants are a delight. Here are suggestions:

1. All bigibbum types do very well slabbed on cork. Allow sufficient room for plants to increase in size. They will grow in small sized clay pots in open mix.
2. When potting Phalaenopsis type Dendrobiums and many other dendrobiums they must be **very under-potted.**
3. They must have a **minimal amount of an open type mix.** They will be top heavy, so it helps to stake securely and to weight the bottom of the pots. Use extra drainage material to reduce mix in the pot.
4. They prefer clay pots which lets them dry out quickly, but plastic pots with hole patterns also works.
5. Water often when temperatures are warm. Reduce watering if night time temperatures drop below 62 degrees.
6. Use absolutely minimal nitrogen fertilizers. When in active growth, fertilize often with low dilution.
7. Selected plants that might form keikis (off shoots) - wait until root development is 3" - 4" and remove and slab or pot.

Bigibbum Compactum Types

Sentinel has been collecting bigibbum types since 1980. Bigibbum is the small form of Dendrobium phalaenopsis. We have selected a few that grow well with good growth habit. They can flower more than once a year with 2" flowers that are long lasting. We transferred all the bigibbum types to cork slabs. They form specimens quickly and are very rewarding with myriads of flowers. If they make keikis, wait until they establish roots and remove them and re-slab. All of these plants are blooming size, propagated from stock and are in limited quantities.

Dendrobium bigibbum (phal., bigibbum compactum)

'Harford' HCC/AOS - 78 pts. \$40.-75.00



Sentinel received the award on this plant in 1990 as Dendrobium phalaenopsis var. compactum. It is an exceptional grower – compact bulbs to 6" with dark pink flowers of fine form. Main flowering season is August - September. Slabbed.

'Oka' HCC/AOS (79points – 9/21/16). \$50.-\$100.00



Sentinel received this plant from Mr. Oka in Hawaii at least 15 years ago. It grows taller to about 16" and is less likely to keiki. Larger flowers than Harford. Flowered with 14 on one inflorescence – great cascade. Slabbed.

Dendrobium Burana Stripe 'Impression' AM/AOS \$100.00



(D. Thanaid Stripes x D. Chorthip Chashi) Sentinel award 80 points 10/2017. This is a rare find. Plants to only 12". Heavy beautifully structured bulbs and leaves. When awarded the plant had four inflorescences with 44, 2 1/4" heavily textured spectacular neon magenta striped flowers.

Dendrobium Enobi Purple 'Splash' AM/AOS Sentinel 1, Sentinel 2 \$50.00



2" white flowers with unusual maroon staccato markings around the petals. Will have branched inflorescences with possible 15 to 20 flowers. Purchased as mericlone, selected for patterning. Mounted on cork.

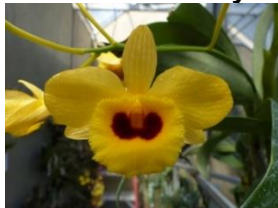
Dendrobium Vivian Snider 'Pink Stars'. \$50.00. (D. Little Profusion x D. bigibbum compactum)



Highly selected. Charming tight growing plants with maximum 8" high bulbs. Cascading multiple inflorescences about a foot long with 2" dark pink lightly striped horizontal stars. Wonderful contrasting darker pink lips with raspberry in the throat. Do not disturb for several seasons and you will have an impressive specimen. On cork slabs with approximately 10 growths. As predicted one slabbed plant received an 84 point CCM on 9/21/16 with a mass of 72 flowers and 9 buds on 12 inflorescences. A total of 19 growths.

Other Dendrobiums

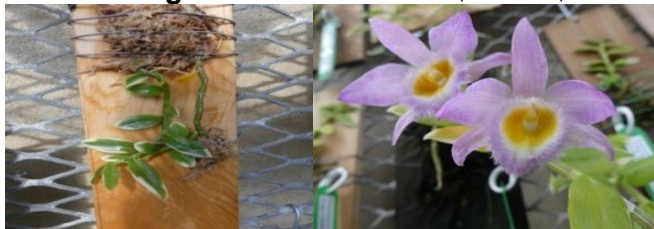
Dendrobium chrysotoxum suavissimum 'Elaine'



AM/AOS - \$100.00

Awarded in 2014. Fine variety of the species. Large flower with notable dark lip center. Easy to grow and flower. 4 – 6 bulb divisions. 5".

Dend. Ioddigesii 'Silver Charm'. \$40.00-\$60.00



Mounted on cedar. Edge variegated form very desirable. Grows extremely well and has fine pink flowers in March.

Succulents and Cacti

I started with succulents and cacti as a new grower over 60 years ago. In 2004 I had the urge and opportunity to restart my collections. I concentrated on **Haworthias** – the windowed rosette succulents from South Africa as I was fascinated by the window and growth patterns, markings and colors. What has happened is a specialty also in the **variegated and patterned forms in limifolia, attenuata, fasciata, and reinwardtii groups.** For the past 18 years I have been purchasing only the best color forms and continued to select and propagate.

Colors are from straight green to yellow, white, pink, peach in 1 to 4 colors. They are unusual as all of the stock, even the unicolor greens can throw offsets in any of those colors at any point on the structure of a plant. I have selected the best and continued to propagate. A mature plant with offsets can have as many as 8 plant offsets – all differing in colors. I am not sure, but with the several hundreds of plants, I suspect I have one of the best collections of these types of variegata. I also have some exceptional varieties of the windowed forms. Many do not exhibit clear windows but have unusual surface textures and beautiful rosettes.

I could not help myself and also collected small growing Aloes and Gasterias. Part of the collection are **Schick Hybrids cacti Echinopsis** – these produce huge, gorgeous flowers. Over the years I have discarded ones I did not like in all of the varieties and propagated the best – so there are lots of great selected plants. They have adapted well growing near the orchids and benefit from extra water and fertilizer. See pictures below. Inquire if you have an interest.

Pseudorhipsalis ramulosa. \$20.00. Large plants \$40.00

Attractive flat leaves with white tufts. Upright and then pendant. Small multi-leaved plants in 2" rose pots. Can turn red in bright light. Flowers turn into white balls along leaf edges. Plants love their orchid friends.





CONTINUE DOWN FOR MORE INFORMATION INCLUDING OUR PHILOSOPHY OF GROWING, SENTINEL TIPS, CONDITIONS OF SALE, SMALL GROWERS, CORK IT & HOW TO ORDER!

PHILOSOPHY OF GROWING

2023

As a 16-year-old, I was fortunate to become a member of the Southeastern Pennsylvania Orchid Society. The society had an incredible number of unbelievably knowledgeable fine growers that commonly filled the show tables with over two hundred flowering plants. The impression created a standard of quality that has inspired me for over 60 years.

I became an American Orchid Society accredited judge in 1988 in the Mid-Atlantic Region (Philadelphia). Since becoming a Judge, for many years I had been responsible for Judges' Education and Training. I believe that my knowledge base and standards of excellence benefit judges, potential orchid judges, and just as important, educating orchid growers. I am now Chairman. I lead the judging presenting as much orchid educational material as possible to the Judges and Exhibitors.

I maintain and express very high standards of quality. Most Sentinel plants are limited and some are one of a kind. Please review carefully, as many limited plants may not be available again for several years. The selections listed are almost always based on beauty and a plant's performance. I observe and learn from judging, attending shows, seeing fine examples on show tables, speaking with growers around the country and researching. I am looking for quality in flower with great attention to strong growth in both leaf structure and root expansion. These qualities are partially represented by 60 awards since 2007 and over a hundred prior. Multiple times per year flowering is a bonus. I trade and purchase from top growers to acquire exceptional non-virused plants. I do not usually collect a plant just because it has historical value.

Each plant requested from the catalog will be carefully inspected for its rooting and growth maturity in pot. Only plants that I feel are properly growing will be released. The most common response from purchasers is Sentinel plants are exceptional performers. It gives me great pleasure to provide top notch plants for my customers as I want them to gain the same excitement I have in flowering these plants..

Some have been wondering if Sentinel is still in business. Seven things have taken place. It has taken me over thirteen years to adjust the collection to have only the best growing and flowering plants

1. I have completed 2660 virus tests; 1300 since 2013.
2. In September of 2013 I had an upper level heat burnout and lost several hundred plants and damage to several hundred more. The process of re-establishing damaged plants and general repotting has taken seven years. Damaged plants re-established and other plants in the collection showed their strengths and weaknesses and provided another test for being maintained. This repair and repotting process has been the catalyst for the updated philosophy of brutalism. So based on performance and especially root generation, many more plants, even amongst previously selected plants, were not growing optimally and out they went!
3. I now have a new ridge vent system and two 24" oscillating fans with 6 misting heads each that provide humidification and cooling that boosts the growth and lowers the 'BURN ZONE' temperatures..

4. I am using Jack's Orchid Fertilizer: Orchid Well Water Blossom Booster with added Magnesium and Calcium at 1 teaspoon per gallon dilution. This is combined in the Summer with liquid Seaweed and Fish Emulsion, with some very impressive results. HORGANICS BIO 800 BLOOM is my choice for microbial fertilizer at 1 teaspoon per gallon dilution several times per month. The liquid has performed miracles in the acceleration of plant growth, increased new growths and the ability to have plants reach optimum size. When repotting I add a top dressing of one teaspoon each of ROSE FOOD and CRAB SHELL.
5. I have been using cypress mulch with small and large perlite(about 10%) for the Paphs and many of the Cattleyas in 6" and under pots with exceptional results. I have also reduced the amount of fines in the bark mixes so they are much more open with better rooting results.
6. I was able to purchase approximately 100 plants from the Duffin Collection and another 100 superior plants – all were virus tested and placed in the collection to determine performance.
7. All were repotted to reform their growth mass to Sentinel's standards. Divisions of many are available. Several hundred special cross seedlings from top growers are starting to flower with some very impressive results. The best plants perform with larger and more growths and better root systems and I favor and concentrate on those plants. Since most plants were repotted, this season is producing expanded root systems and closer to 'full power blooming'.

The most significant occurrence in the orchid world has been the availability of Agdia Company's individual virus testing kits. A new non-refrigerated kit produced by Agitest from Taiwan has proved to be efficient also. The kits can identify cymbidium mosaic (CymMV) and odontoglossum ringspot (ORSV) virus, the most common of the orchid viruses. I started testing for orchid viruses in the 1960's with the electron microscope or indicator plants followed by serological testing available through a few labs and agencies. Some growers claimed they could identify virus by chlorotic and necrotic markings and patterns on leaves and color break on flowers – the infamous "nurseryman's test".

However, this was not always accurate as physical virus symptoms are sometimes identical to characteristics from environmental anomalies and chemicals and many plants do not show distinct symptoms as often with cymbidium mosaic. I have cross referenced and retested to ensure the accuracy of the tests. Virus 'hits' were in old collection plants, new collection plants and some incoming seedlings and mericlones. Many were a complete surprise as the plants showed no typical virus markings or patterns. Repotting seems to be the most critical transmission time. Absolute vigilance must be maintained in sterilizing cutting tools and tool handles, using new or sterilized pots, washing hands and maintaining a sterile work surface. As careful as I am, there are a few instances of transmission. Sentinel is always on a mission to recognize plants not growing properly. New growths are looked at very carefully for chlorosis, and imperfect growth surfaces. I often recheck for virus as sometimes newly divided plants may be infected and not show virus concentrations sufficient to produce positives on initial tests. Why nurse weak plants? Sentinel has discarded many valuable and expensive plants based on virus and especially poor growth and flowering performance.

Sentinel Orchids has finally reached its goal of having 'just about' a virus free collection. The question arises, and rightly so, is it possible to maintain a virus free collection? With careful sanitation, preventative and active insect

control (including maintaining all plants inside the greenhouse), continued sterile methods for divisions and repotting, along with a regimen of testing incoming plants, the answer is almost yes for the test viruses. However, vigilance and care is required. There are other less common viruses not identified. Usually plants with these look and grow questionably and are also discarded.

I watch as too many growers ignore possible virused plants and poorly growing plants. The answers are that they are not interested in the problems or the viruses are not expressing themselves and they believe are doing no harm and therefore do not exist or are benign – they have established their own 'VIRUS IGNORANCE STANDARDS'. These growers are poorly informed and do not seem to realize that one virused plant can act as a 'Typhoid Mary' and infect a whole collection, thus contaminating previously virus free and valuable specimens.

I have warned numerous growers about purchasing plants at local auctions. They are stocked with virused plants from the ignorant and uncaring and you can easily create a disaster. If you want to buy at auction or trade, have the Agdia or Agitest Tube Tests available with you and test the plants right there. It only takes about two minutes and it might even make a point with the block-headed growers.

I am now proud to say that I have been placed on **No-Buy Listings** with two large growers that advertise on eBay. They were upset that I complained about receiving virused plants and refused any more contact. Some of the plants were mericlones. These sellers are publicly selling defective products. Unfortunately, too many hybridizers, cloners and suppliers are interested in selling plants and not determining if they are virus free, and grow and flower properly. Buyer beware when dealing with untested plants and misbelieving growers. I note, many growers do not test but are amenable when their virused plants are detected to replace, substitute or provide credits and refunds.

I expect a portion of my plants to be non-cooperative as some are genetically pre-disposed to problems. There are numbers of orchids that will not acclimate to my conditions. Too many orchid growers commonly select plants based on first seen flowers without any consideration of potential robustness, including root growth, and quality. Plants arriving from other areas of the country are examined carefully and I remove all dead and questionable roots. They will often require 2 or more years to generate full root systems and acclimate. I call this process the **FLORIDA HAWAIIAN SYNDROME**. I usually do not evaluate a new plant until, at least, its second flowering cycle as it needs a developed root system and mature growths to perform properly. Any plants exhibiting fractious behavior including non-rooting, non-flowering, inconsistent growing and flowering, flower color break, and are disease prone are discarded. This process determines if a plant is suitable for Sentinel's collection and Sentinel's customers. Evaluation is on-going; so there is little fear of wasting time potting questionable and possibly virused plants as inferior plants achieve their priority path to the trash can. An incredible result has been the fabulous overall health and robustness of the plants in the collection. Sentinel's growing methodology, observation and testing, including growing in the second floor 'BURN ZONE', has made a tremendous difference in the quality and output of the collection.

Sentinel's potting materials, techniques and growing systemics have created conditions that often require plants to be repotted in one and a half years as the plants start to grow out of the pots. I do not hesitate to spend a minute or two to hot wire series of holes in the bottoms and sides of plastic pots. I find the better the inner air movement, the better the root action.

Do not assume that a mericlone in the Sentinel Collection is similar to what is on the market. Mericlones often 'sport', which means they can be accurate or can shift for the worse or better than the original. Sentinel carefully selects 'better sports' and evaluates their growing and flowering characteristics. In addition, a mericlone or selected plant is not assumed to be superior until it has performed in the normal growing and flowering process. It is common for the plants to require several years and as much as 10 years to properly mature their growth and performance.

The marketplace is overloaded with average quality plants and mericlones and plants in tiny pots that are highly overpriced and often reach orchid heaven quickly or take many years to achieve flowering size, if at all. I find it very annoying that recent typical pricing for plants is in the \$30 to \$50 dollar price range. Often with 2" pot seedlings starting at \$20.00. Are they virus free?; Are they going to grow for you? And what quality are they or to be determined when they flower in how long? Add the shipping costs and you could be in the \$30.00 - \$50.00 range for a 2" pot seedling. There is additional adjustment if you have FLORIDA HAWAIIAN SYNDROME plants as they are generally tricky to acclimate.

The past two years of COVID have energized the buying public into the web. Why? Plenty of computer orchid time, extra money, lack of understanding of what plants should cost, auction hype frenzy, and the "I have to have it belief" feed the frenzy. They are unwilling to research to find same quality reasonably priced similar plants and do not look for other sources.

Please note that many will consider our offerings expensive. The Sentinel Collection is composed of awarded plants and exhibition quality plants. I often discard average plants. This makes more room for new superior or divisions of quality plants. They often have a high acquisition price. Numbers available, rarity, virus free determine the basis for the pricing.

I tell buyers that it is better to have ten fine plants than fifty average or poor ones. Many of the collection plants are closely held and many offerings are ONE only or TWO plants. I also evaluate and purchase what I think are superior seedlings and unusual orchids in limited multiples to offer to customers. It is then my job to properly grow these plants and get established divisions for customers and extra plants for myself as I enjoy having multiples of fine plants. When I purchase or trade for a \$100 - \$400 dollar division, Sentinel takes the chance and makes the time commitment to observe and maintain only successful plants and flowers. Do not think that most of these plants arrive in perfect condition. They require significant acclimatization time and work, grooming, and divisions and many times require two repottings and reformings to achieve root action and plant growth and flower quality that complies with my standards. The majority of Sentinel plants grown are not in competition with the ubiquitous hybrids and mericlones normally available. Most of my customers quickly understand that they get what they pay for. I often reduce the price of plants if I have more than three extras and **offer smaller divisions at significant discounts when available.**

Some suppliers' plants seem to be treated with various chemicals or the suppliers conditions are such that they succumb to your changing conditions. For instance, I have lost lots of Taiwanese phalaenopsis and Cattleyas in 2" pots. Choose your supplier wisely based on high percentage of strong and speedy growth, and ultimate performance and beauty. You can tell by looking at the individual plant's condition as their development progresses. The plant will tell you it wants to grow.

You will soon find that the plants you purchase can become a profitable investment. The quality of Sentinel plants is known in the Orchid World. Collection plants grow and can be divided. Once the divisions are established, they can be sold for their original price or current value, thus recouping the original plant investment. The next division represents future profit. More importantly, they are desirable trading material. Most of Sentinel's plants are limited divisions so they are not usually competing with other plants in the market and hold their value.

The recent changes in taxonomic orchid 'names' have created a nightmare of nomenclature. I use some of these new classifications, if I like them. The rest will have to stabilize over the next five to ten years before I relabel.

Sentinel Orchids takes all information requests seriously. I try to provide reasonable information to all requests and enjoy speaking with orchid people. Complex E-mail responses are extremely time consuming and tend to generate continuing future e-mails and I will no longer attempt them. If you have a serious inquiry, please call (610-688-8528), or, at the least, place your name, address and phone number on your e-mail, so I may call you and answer all of your inquiries in a few minutes.

I do not mind providing orchid information, even to non-buyers as long as they are true orchid people. In the past few years there have been too many inquiries from what I call the "PRETEND ORCHID GROWERS", AKA: surfers, the ridiculous, the curious and tourists. They are usually novices that think it is my duty to endlessly provide information and very often they have no intention of ordering. They often agonize over the purchase of one orchid plant asking for plant pictures, number of growths, blooming history, fragrance, etc. I do not sell sub-standard plants – they are of quality and the buyer will be pleased. The Sentinel catalog is unmatched in its information, pictures and descriptions. It is rare for these people to call and speak to me personally; they most often like to hide behind their e-mails and then 'disappear'.

I apologize and unfortunately must enforce the \$200.00 minimum. However, with some exceptions – mainly, if I can place plants into smaller boxes that can be shipped USPS Priority or the customer can pick plants up at the greenhouse. You can direct your displeasure at present inflation, rules, stipulations, policies, rising energy costs and tax structures. Because of COVID many materials are no longer available or have doubled or tripled in price and that comes with the problem of many people have lost their ability to function properly. A large number of businesses make 'doing business' a more cumbersome and expensive exercise and their lack of efficiency wastes time and this translates into time and money lost. All visitation to the greenhouse is by appointment only.

SENTINEL TIPS

2023

With over 60 years experience in buying, growing, maintaining and everything else in between, our Sentinel Tips, Tricks and Facts provide detailed information on all these things and more. This list will be useful for any orchid enthusiast.

1. It is difficult to explain to new growers to be cautious in their purchases. A moderate to large number of orchid plants are genetically predisposed to grow in narrow environmental slots or not grow well.
2. A beautiful flower(s) does not always equate to a well rooted and growing plant. A bargain is often not a bargain. Try not to accept or purchase plants that have minimal roots. When selecting plants, always ask how well the plant grows. Do not be afraid to ask if a plant will grow under your conditions. Always ask the orchid merchant if the plants offered are virus tested. If the answer is no and there is no replacement or refund policy – WALK AWAY!!!
3. A high percentage of plants offered are not superior varieties and are still expensive.
4. It can be a big mistake to purchase seedlings in 2 – 2 ½” pots. Unless they are well developed, and unless you are lucky and/or have perfect conditions, expect to lose seedlings.
5. Know your dealer and the level of what they are selling.
6. Try to purchase plants in flower with good root systems.
7. Orchids should be repotted in the correct media(s) and preferably every two years or sooner. Paphiopedilums respond to repotting every year – be very careful not to damage healthy roots. Sentinel has been repotting all the Paph's and Phrags in Cypress Mulch. My supplier in 24 Quart Bags is CHEWY and it used to sell for \$14.00 to \$17.00. If you ordered three, they were generally postpaid. With COVID restrictions, the price has doubled. I add about 10% large and small perlite. I top dress with my dry fertilizers and add a small amount of powdered limestone through the mix. The results so far have been excellent. Some of the dryer growing Oncidiae send out good root systems in the cypress.
8. Every orchid has its own growing speed. Observe them, talk to them, pull them out of their pots every once in a while to say hello. Make friends. If it grows out of, or about to grow out of its pot, especially if there are exposed roots, repot it; don't be time locked.
9. I avoided for years placing plants in baskets. If anything needed to be done to the plants, they were difficult to extract especially on deteriorating wood slats. Instead of the baskets, I am now using plastic spider pots. They provide great drainage and do not rot. I use larger mix and exploded clay and charcoal to get best drainage. Remember some orchids only grow well with lots of exposed roots: C. walkeriana, nobilor, aclandiae, Brassavolas, Broughtonias, Epidendrum and Encyclia, many bifoliate and other cattleya species. If the roots outgrow the web pot, take the whole thing and shift to a larger web pot.
10. You can also cork slab them – I have seen great results with the cork, but it usually takes two years to get root and growth distribution. Unfortunately, the cost of cork has almost doubled in price. Since the roots dig in, it is tricky to divide them unless they grow entirely off the slab. I soak the plants totally in water until everything is saturated. See if the roots will release, if not I take a sharp knife and work it under as many as I can. After that, a good 'rip them off the slab' is in order. Make sure the plants on or removed from the slab are virus free as you do not need to infect new mounts. I have been soaking good cork slabs with Clorox for 15 to 20 minutes to remove algae and to sterilize them after removing plants. It works quite well and gets several years more out of the slabs. I was surprised to see the expanded root activity. You should use slabs of cork large enough to accept the expanding roots for several years. I wet some sphagnum and place it stringently where the plant's and roots will be mounted. I use thin green plastic coated copper bell wire. The best was a 2000 foot roll of 24 gauge from eBay. I try to apply the wire wrapping around at about 1” centers from rhizome to bottom of roots. **I treat these plants with horticultural lime water**

several times per year The smaller dendrobiums also like the slabs. If the roots stray off the slab, spend a few minutes and try to work them back under the wires.

11. Be prepared to experiment with various medias (bark mixes, tree fern, sphagnum, stones, combinations of whatever), until your plants respond nicely.
12. I was able to obtain clear plastic pots in several sizes and I have been experimenting. These pots seem to accelerate root growth especially in Paphs and Phals. The pots will all get algae deposits that will affect the plants if they get too thick. I am restricting the use to mainly Phalaenopsis. I am usually repotting in under two years. This means that the mixes are usually not totally broken down and I trim the back bulbs and repot in same pot or go to a larger pot.
13. Whether you are using green or clear plastic pots, I find it necessary to place 1/8" holes on the bottom and on the sides. The number of holes depends on how much moisture you want to hold in the pot. I try to keep the holes in patterns so it does not look like the pots were hit with a shotgun. I heat up an 11 gauge wire and hold with a pliers. Please note that the distribution of the holes is very important as adding holes on the sides vastly increases the total air movement within the pot.
14. **IT IS PROBABLY NOT YOUR FAULT.** I have had two of the same plant and divisions of the same plant, potted at the same time and placed next to each other. One grows vigorously and one refuses to develop properly. It just means that there may have been minor differences in size, root structure, exposure, drainage – all of which affect success or failure. Another concept is that some orchids seem to have life spans or refuse to root properly – all could be related to genetics and/or the growth regulators of the individual division.
15. The object of growing is to select and produce the best orchids possible based on your taste, budget and space requirements.

SENTINEL BASIC PRINCIPLES

1. Worry about growing roots first, growth and flowers will follow. Nice new and proliferating green root tips means the plant is happy. No visible green root tips – there is a problem. It is best to have sturdy plants with extensive root systems – their strength makes them naturally less susceptible to infection and insects and will produce better flowers.
2. I treat repotting plants as an ARTISTIC EFFORT. I take in consideration the look of the repotted plant: how the growths relate to each other, best position for the new growths, staking/support method and locations to produce good stability and the best type of pot for both the root mass and to still contain two sets of new growths. I usually remove unneeded back bulbs. Sometimes a back bulb will have significant live roots. One of my practices is if the bulb and growth are yellowing or leafless, I cut the growth at the rhizome or above any live eyes. When I am finished, I usually can say – “That really looks good and makes me happy!”
3. I will often use two staking systems to get the best stability. I make my own structural posts with 11 gauge galvanized wire with a triangle clip for the pot edge. These may be combined with double 18 – 24” pot hangers.
4. 1/8” TO 3/16” green twist ties are good for support. I found a 5000 foot roll on eBay at the best price A lot of twist ties but I use about 200 feet a month. Tying the growths also requires some thought as the ties are structural, but they should not be so visible to look ridiculous.
5. Always carefully observe the root mass. I always cut off any dead roots. Sometimes I make coils with twist ties attached to the rhizome to imitate roots that act as anchors. It is best to pot before new roots get more than an inch. But this is not always possible. With longer roots, soak them till soft and carefully place or coil them in the pot.
6. Do not overpot your plants. Size your living root mass to allow two growth cycles expansion in the pot, not sized for the growth above. Sentinel’s recommendation is the root mass should be generally **60% of the new pot size volume**. This sometimes means that you may have a massive plant in a tiny pot or a small plant in what looks like a too large pot.

7. Sentinel has had success with what I call **SMALL POTTING**. These are back bulbs with eyes and sometimes single small divisions or side growth small plants with only one to three growths. Set in tiniest pots possible with a support. Be prepared to move them to larger pots when progressing new growths and roots appear and start to fill out the pot. Place them in an easy to water location in medium bright light. Water them often. Throw out any not developing. You will be surprised how many will survive and thrive. You may benefit from gaining some very desirable plants with an extra two years of patience.
8. In almost all cases, repot acquired plants to your mix and pots. The exceptions are when new plants are potted the way you would do it, or, if a plant should not be touched when it is in its rest period. Check all newly acquired plants for virus, insects, disease, loss of roots and clean and repot as required.
9. If you can get good quality bark, use it - look for hard nuggets with minimal dust and minimal soft wood chips (chaff). I have tried the bark from New Zealand. There are two types. A really good clean type and another that seems to have some salt infiltration. With shipping both are expensive. I have returned to the standard bark based on cost and normal performance. Since plants are growing out of the pots in usually 1 ½ - 2 years, the standard barks are fine.
10. Percentages of bark sizes are adjusted based on the root system. Sentinel has changed its percentages on bark. Mainly the amount of FINES has been drastically reduced on 3" pots and above. 70% medium bark, 10% fine bark, 15% medium to large perlite, and 5% medium charcoal. I have several large bags of the pelletized clay and have added this to the mix also. This creates a more open mix and seems to generate better root action. Water more often if necessary. As I pot, I discard soft and thin sliced bark. Your hand can do a great job of feel sorting through the bark mix and selecting slightly denser combinations for the smaller pots. You can always adjust for more fines in the smaller pots and use the large pieces of bark in 6" and above pots. For some plants like vandaceous, I might use chunks of charcoal available at Home Depot and Lowes in large bags. Break the chunks into workable sizes with a hammer.
11. I pot using a dry mix. This is very important as the dry mix takes a month or two to hydrate and the plant senses that it needs to generate roots. This also means that you may have to water and light spray the plants more often until the roots start to regenerate to keep the bulbs from desiccating.
12. I use a lot of shallower and pan type plastic pots when I observe shallower root systems. I have been using Styrofoam peanuts for years in the bottom of the pots and the number is based on the anticipated volume of the root system. Use only the harder white or pink peanuts and not the softer or melting type.
13. I recommend utilizing fertilizer that has no urea as a nitrogen source. The urea can cause soft growth that places the plant under stress and makes the plant more susceptible to disease. Sentinel has been utilizing Jacks by Peters. They have two formulas: Orchid Well Water 16-4-20 with trace elements and Calcium and Magnesium and Blossom Booster 10-30-20 with trace elements. I have been using the Blossom Booster all year at one teaspoon per gallon. A friend recommended HORGANIX BIO 800 BLOOM which is a microbial based liquid. The results have been excellent producing energetic and great looking plants. I use the Holganix at one Teaspoon per gallon several times per month with the Jacks. You can purchase the Holganix direct from the company in 32 oz or one gallon containers. It must be refrigerated after two weeks. I recommend mixing it yourself by removing the 32 oz. from the spray bottle or extracting from the gallon container and watering at the one teaspoon per gallon rate. If you use their rate, you will be using far more than the plants need. Be patient as the Holganix seems to work best on the second growth cycle when you will see the expansion and secondary growth results. I top dress with crab shell and Rose Food and sometimes powdered limestone. I also use organics during active growth such as seaweed and fish emulsion
14. After observation, it is apparent that a mass of new growth starts for Cattleya intermedias in October. and into Winter. The intermedias grow very quickly so one should be vigilant and provide almost excessive watering and fertilizer. January and February for nodosa and broughtonia. This is followed in late Spring in the Cattleya Group with the older growths slightly shriveling providing energy going into the new growths. You should increase your watering and fertilizer. Always carefully watch Cattleya species as they have relatively short new growth cycles.
15. Sentinel utilizes both preventative spraying and reactive spraying. There are few to no beasts in our plants. Once in a while we get some surface insects, but they are easily disposed of with some light insecticide, dish

washing soap in one hand sprayer and another with dormant oil sprays and some Orthene additive. I preventative spray both on repotting and prior to entering the collection. Only apply these substances on cloudy days or with cooler temperatures or during rainy periods to avoid burning. Always test a few plants to make sure you get proper concentrations and coverage with no damage. Never let the beasties get entrenched and always very carefully examine any incoming plants for problems. I generally maintain a hand sprayer with dormant oil, dishwasher soap and an insecticide to give plants localized spraying.

16. Some growers have scale and often it may not proliferate for weeks to months. It is particularly annoying. Go to the hardware store (not Home Depot) and buy some decent hand sprayers to keep the solution of 4/5's water and 1/5 dish washing soap. Add more water if too viscous in sprayer. Wash your hands several times if previously worked on other plants. Assuming the plant is physically worth treating, I strip the plant of mix, dead roots and remove as many dry sheaths as possible, especially at bulb bases. Copiously spray the leaves, bulbs and especially the bulb-rhizome junctions and the leaf axils. Let sit for a few minutes. Lightly rub your hands on the surfaces as you wash off the plant. Do not break tissue surfaces. The most difficult areas are along the rhizome and the bases of the bulbs where the eyes reside under some leaves and folded areas. Two or three sprayings in those areas usually gets all of the scale groups. For tighter areas use a soft sterilized sponge to get into ridges and notches. The sponges are cheap and you can soak them in Clorox to sterilize between use. Sometime with heavier concentrations and in ridged areas you will need something to get into the spaces – Q-Tips, a sharpened soft eraser, pencil tip or equal will do the job. Wash the plant off. The first treatment often loosens the sheaths. Remove as much sheathing as you can. Spray again and let sit for few minutes and wash that off also. Check the plant in the next month to make sure the scale is gone. If you suspect you did not get it all, spray again and wash off. Most of the time this works. Plants infected badly with scale get a yellowing and you have to hope the poisonous effects did not debilitate the victim. The soaping process will kill almost any zoo of unfriendlies present and does not take very long beyond your normal repotting. Surprisingly if the yellowing is not too bad, the plants recolor to their normal green rather quickly.
17. Observe the reaction of the leaves with the soapy spray. Sometimes the surface of the leaves start to absorb the soap and it will be shown with blotchy darker color. Immediately wash any soap from the surfaces. Note: this process does not eliminate the need for prophylactic spraying with systemics of your choice.
18. Frequent watering and active fertilization can break down mix quicker. My feeling is: I am repotting every 1 ½ to 2 years so I am ahead of the problem. This does not resolve the growing out of the pot syndrome.
19. When new growths edge or grow outside or send roots outside the pots, act quickly and repot as these new roots are difficult to protect when more than one to two inches. The exception to this is some Cattleya species with very short growth periods. One must be very careful to disturb the roots as little as possible. Early and very careful repotting or adding a half pot to pick up the new roots may be necessary. This may also be a case to utilize larger pots.
20. There are several species that enjoy having exposed roots beyond the pots and actually perform better. You should research these plants. Ask other growers of their experiences. Much will be a case of your own observation. The exposed roots require extra care to not break them if you are moving plants.

SMALL GROWERS

Sentinel initiated two growing methodologies starting in 2021. The first was **SMALL GROWERS**. Normally I would discard back bulbs and divisions of only one or two small growths. I noticed I was getting some very good growth speed on some of the lower benches next to the sliding glass doors by placing these tiny divisions in smallest pots possible and staking them as required. They need more watering because of the smaller pots and I make sure that they get their treatments of microbial HOLGANIX BIO 800 BLOOM and JACKS MORE BLOOM. This fertilizer regimen has a tendency to double growth size and generate new and back bulb growths especially on the second period of new growth. This makes sense since the extra year of growth produces more roots that can better absorb the fertilizers and support the plants. I find the HOLGANIX BLOOM produces better plants in combination with the JACKS rather than higher nitrogen fertilizer.

I lost a few, but the results have justified the effort. As long as there are some good eyes, or even an individual growth, it allows me to gain a near flowering sized established plant in usually two to three years. Many of these divisions are from very limited plants.



Shown is a front section of bench with a combination of **SMALLS**: cattleyas, epidendrums, paphs, developing phrags and small vandaceous. Beyond these are collection seedlings from 2 ½" to 3 ½" pots. Warm growing cymbidiums are to the left.

Here is a picture of **Rlc. Duh's Wisdom 'Green Star' AM/AOS, TRO/TOGA** (*B. digbyana* x Rlc. Golden Regal). I received the plant in July of 2018. It is not a fast grower. I was able to get a small back bulb group in September of 2021. The main plant is flowering in December, 2022. It is a beauty. The SMALL GROWER is in a 3" pot and should be flowering sized in two growths. In this case taking 2 ½ years.

NOTE: FOR REFERENCE TO SCALE, THE LABELS ARE 3 ¾" IN LENGTH.

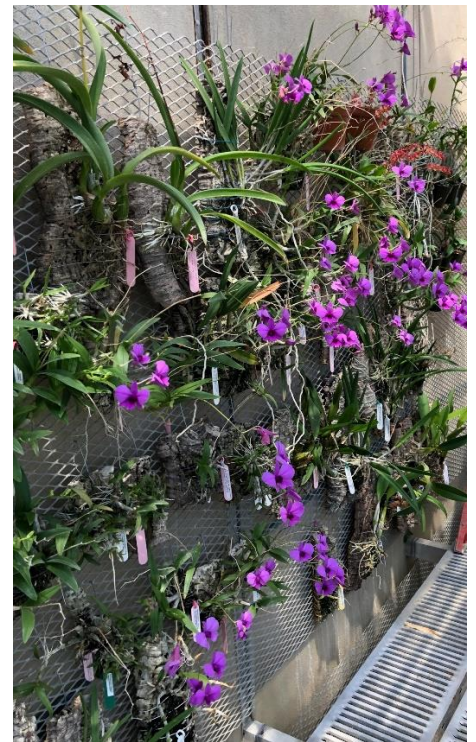


CORK IT

This now leads me to the second subject of **CORK IT**. In the past I have taken some large cattleyas that were not growing well, stripped them down and cork mounted them. I have previously hesitated to do this as if they grew, it took some careful extraction to get the roots off the cork. But getting the plants back in shape was worth the effort.

I have been very successful doing this, but there is a small downside relating to two conditions. The first is when the plant does not get the message that it is supposed start new roots and growths and basically stalwarts. The second is that it does not generate proper roots and growths. In both cases accept the loss to ORCHID HEAVEN and work with plants that appreciate your efforts.

I was not happy with many of my species and especially nodosa types as they were not the happiest campers in pots. It took me about a year, but I got every brassavola and most species mounted on cork. Most of the mounted plants were placed in the '**BURN ZONE**' south facing wire wall on the second floor. Upstairs there is 50% intermediate shade cloth above and in front of the South wall in addition to 65% shade cloth against the interior of the 8mm double acrylic glazing.



The concept of a second floor was initiated 40 years ago when we often visited south Florida and I made field trips to as many growers as I could. Walking into Ruben Sauleda's hoop houses, the temperatures were over a hundred, but the plants looked O. K. That generated my architectural interests and Sentinel Orchids' two story greenhouse with ridge height of 24 feet was developed that created the famous '**BURN ZONE**'. The height and ridge vents create convection (chimney) currents and combined with two speed exhaust fan and sliding glass doors is the normal ventilation. Watering during the Summer is usually daily and with the two oscillating fans on the second floor with the attached six star spray nozzles that operate during hot weather, keep almost everything happy and at the right color. It becomes a fine tuning question of setting the systems to the right temperatures and timing and reacting to higher temperatures with

additional light sprayings and waterings. This system has accelerated the growth on the plants so I am often repotting in 1 ½ years.

There are several hundred mounted plants on the south facing wall that provides ideal growing conditions. The picture in the middle shows a collection of *Brassavola nodosa*s. Large cattleyas are potted and placed in galvanized baskets hanging from the elevated handrails on the other side of the double galvanized walkways. The walkways are supported on the bottom chords of aluminum trusses at four feet on center.

I am lucky enough to have Maryland Cork in Elkton, Maryland about 45 minutes from me. I have always been able to go there and purchase cork flats in a bale or select the shapes. When I am there I can usually visualize the sizes, thicknesses, undulations and textures that will best accommodate the plants. One has to be a bit generous with the overall sizes as once the roots start to spread out they take up more room than generally anticipated. One of the first things learned is that some of these species can take two years to really get established on the cork. And they are not that pleased to have their roots disturbed. It is also obvious that it takes two to three flowerings for the full size, number and shape of flowers to develop to maturity and proper show. One of my customers from Texas just had Maryland Cork ship her some slabs and it worked out well.

By December of 2022 the price I paid for cork slabs was \$4.49 per pound. Luckily the cork is relatively light. But you should avoid pieces that are more than an inch in thickness. At that price you are making an investment in CORK IT, especially if you are using larger slabs for several years growth on plants over 12". You can usually break and trim the slabs to get the best shapes.

When mounting you need to visualize what may take place. New growths should have plenty of cork room to move upwards with roots and there should be sufficient room below to accept new root growth moving downwards. Try to avoid roots springing beyond the slab. If they do, spend the time to wet them and remount them on the cork under existing wires or add additional wires.

Listen carefully orchid friends. When you do your mounting and growing correctly the plants will start to grow off the cork. At that time when you have free rooted potential divisions, you can cut and remount. This is common when plants are placed on small pieces of cork. If the cork is good, you can also mount the whole plant on a large piece of cork. Here is where some artistic vision can be useful to get an attractive display. When the cork degrades, it will be necessary to remove the plant. Soak for 15 minutes. Remove as many roots as possible with a sharp knife and strip any free cork. Then quickly rip off what is left. You will be surprised how many roots will release.

As far as watering, in cooler weather, I usually water the hanging wall every three days with sun. In Summer I have misters going several times per day and I can water almost every day if the sun is out. The key is observation as every growing area is different. The plants will tell you when you have it right. New green root tips, plump leaves at the right color, and new growths give you the green flag that you may have it right.

Now this is important. For each season I wet down the wall. I take horticultural limestone powder and throw it on the plants. It's from the 25 pound bags you throw on your lawn. I then lightly water the whole wall. In five minutes wash off the remainder of the limestone. You should see the tips of the roots expanding and greening. This process seems to work for everything, but it is critical for plants that in situ are rooted in, or adjacent to coral and limestone deposits. In fact, some plants like *Polyrhiza* rely on the treatments to exist. This is why *Brassavola*, *Broughtonia*, *Epidendrum*s, *Encyclia*s, *Barkeria* and many others seem to do well with this regimen.



Lc. Gran 'Blue Beauty' HCC/AOS. (Lc. Canhamiana x C. Ariel). Vigorous bifoliate to 18".

There are four new growths emerging from the base of this plant. The upper left and lower left new growths show doubling in size in only one month and the roots are spreading out over the base. There is one previously poorly developed growth center top shown in yellow that started when the plant was potted.



C. Meaurseana 'Waldor' AM/AOS (C. aclandiae x C. walkeriana). A very special plant that received 86 points. I was given the unrooted back bulb and decided to cork mount it in August of 2022. The plant did not look particularly hopeful when mounted. The pictures were taken in December of 2022. The species type new roots are spreading out from the bases of two half-grown new growths. The plant rehydrated. Unbelievable amount of growth in 3 months and total resurrection of the plant.



C. intermedia 'Sentinel's Imperial'. I repotted the main plant and there was a 4" new growth springing from the back bulbs. It was a logical choice to cork mount it as it would develop two to three times faster than if it was potted. To mount it correctly I anticipated it would need 15" on cork to give it two years of rooting room. VT on the label is the VIRUS TEST NUMBER.



Brassavola nodosa 'Eloyce's Moonbeam' AM/AOS. This was a small front division that I mounted on cork in August of 2019. It developed into a full sized well-rooted plant but the roots were going beyond the cork. After soaking the roots for 15 minutes, I took a knife and carefully pried up surface roots and removed most of the cork maintaining the base grouping and free roots. I then remounted the smaller piece of cork and free roots to a 16" piece of cork in December of 2022. I tried to make the addition blend into the larger piece so it looked attractive. With the enlarged cork slab it will be easy to have the plant triple in size. This exercise requires patience not to damage many roots, but it is worth the effort.



C. Perciviliana semi-alba 'Sentinel's Bicolor'. The plant was purchased from Orchid Trail in 2018.

I divided it and placed the two divisions in 6" plastic spider pots. They grew well and produced quality flowers. Both plants were producing two new growths right next to each other that would be a problem in the future as they would be difficult to impossible to divide properly with a potential of more new growths crossing over each other. I decided to divide them while possible and mount them on cork slabs that would encourage the plants to spread out their new growths.

Here is the process for the second plant. I was able to divide the plant into two divisions. The roots were at a length that I had to work fast to not damage them on the slabs. The cork rafts were approximately 16 to 20 inches in length.

I had removed a plant from the cork slab to the right and wet it down with Clorox front and back for a few minutes and then washed it off. The Clorox brought the surface back to brand new and sterilized it at the same time. Be very vigilant as if there are any root structures left on the cork, they should be tested for virus to insure non-spread or the removed plant needed to be virus free. I placed a thin bed of sphagnum under the plant and wired the plants securely with the 24 gauge plastic coated copper wire. It is important not to place too much moss under the plants to allow the roots to go through wet and dry periods.

CONDITIONS OF SALE

Sentinel's orchid business is based on personal customer service and supplying only the highest quality plants. Please note that all offerings are very limited with some plants with only one division available.

1. Minimum mail order is normally \$200.00. Smaller orders under \$200.00 can sometimes be processed with a \$20.00 packing and handling charge plus shipping in Priority Boxes. All orders must be prepaid by check or money order.
2. Although Sentinel is an approved Pennsylvania State Nursery, CITES approvals are not reasonable to obtain, therefore, sorry, but only orders to USA unless **you have a CITES purveyor in the USA that will obtain the inspections and ship the plants. Please NOTE, restricting states requiring CITES are also non-ship.**
3. All of our plants are quality, tested (unless otherwise noted) and are offered virus free. If you utilize an Agdia Test packet and discover virus within four weeks. We will credit or refund. Not many nurseries are even concerned. Caveat emptor on E-bay and the like.
4. All plants are offered in limited numbers, sometimes only 1. Please remember that it can take several years to get an established division of only one plant. Often smaller divisions may be available at lessor cost. Many of the offerings are 'closely held'. This means highly selected divisions are very limited and rarely seen in collections. Sentinel does not compete with other dealers in providing low priced plants in the thousands. Do not hesitate to request recommendations.
5. Make a list of plants that you would like to order and contact Sentinel (610-688-8528). A five minute phone call will save much time. Let me know your address. Plants that you would like to order will be evaluated and marked or pulled. Any plants found that are not in perfect condition will not be forwarded. Often different sizes are available. We do not substitute unless discussed and approved.
6. When I confirm you order, you may provide your full shipping address, preferred shipping time, special instructions and your E-mail, and phone number(s) by phone or E-mail. markitectw@comcast.net If you anticipate requiring more information about plants, different sizes available, then contact by phone.
7. When Sentinel confirms your order and determines best way of forwarding, a final invoice will be generated with charges for packing and shipping.
8. Please forward check or money order. Your order will be held for ten days maximum until payment is received. After ten days, orders without payment will be considered void and plants made available to other customers.
9. Sentinel plants are guaranteed for a limited time, generally 60 days with proper care. Our customers rarely have problems, but we provide the guaranty anyway, as even sturdy plants sometimes decide to make the journey to orchid heaven. We want you to be satisfied with your plants. If you are not for any reason, first notify us, then return the plants within ten days and we will refund your purchase price. Our liability is limited to the purchase price of the plants. Purchaser is responsible for packing and postage of return plants.
10. This list cancels previous listings. We reserve the right to limit quantities.
11. Almost all of our shipments are sent priority US Postal Service. Minimum packing cost starts at about \$10.00 for small plant orders. We will quote you our estimated price for shipping.
12. We usually do not ship plants between Nov. 30 - April 1. Some orders are processed during that time and sent out during weather breaks. We will be happy to tag your plants, grow them larger and ship when weather permits. We may consider heat packs, but this is risky with recent COVID delays in shipping. Customers are welcome to pick up plants at the greenhouse by appointment.
13. **6% Pennsylvania sales tax will be added to all orders.**
14. Discounts: May be deducted, additional plants included and/or offset shipping costs. Except for plants SPECIAL marked - no further discount.

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