

# 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. HOLGANICS 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.

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