Phalaenopsis Subgenus Polychilos Section Amboinenses, Christenson, E.A.; Phalaenopsis: A Monograph, (2001)

Type: Phalaenopsis [Phal.] violacea

[fal-en-OP-sis vye-oh-LAY-see-ah]

Characteristic Summary



Phal. violacea Lip detail

Present Phalaenopsis taxonomy has all of Christensons' subgenus Polychilos in one section, Polychilos, in the subgenus Phalaenopsis (Fighetti, 2015). This report is based on the taxonomy as detailed by Christensons' *Phalaenopsis: A Monograph* (2001).



Phal. violacea
'Orchid Konnection' AM/AOS
Oct 2020, NS 4.9 x 5.0 cm

The primary source of color, spots and bars, fragrance, and substance in the Phalaenopsis genus are the species in the subgenus Polychilos. The plants in this subgenus bear fleshy, long-lasting flowers with two pairs of calli on the lip, the lateral lobes of the lip producing a raised tooth along the leading edge, and two pollinia. The species are native to the region from India thoughout Southeast Asia including Islands/countries of Philippines, Indonesia, and Borneo.

The often-fragrant flowers are probably bee pollinated, but no observations have been made under natural conditions. It appears that pollination is a relatively rare event in nature, perhaps explaining the remarkable longevity of the flowers. Several species, especially those related to

Phal. lueddemanniana, exhibit post-pollination chlorophylly. After successful pollination, the flowers turn green (i.e. they lose their other pigments), and the sepals and petals persist throughout the life of the fruit. It is assumed that

the persistent 'green' flowers augment the photosynthate coming from the parent plant.

Generally, you would point scale using the Phalaenopsis point scale.

Table of species, (www.orchidspecies.com – Dec 2020 update)

Species marked with a * are use	ed the most in hyb	ridizatio	n	Progeny					Α	os	Awa	rds				
Kew Name	Habitat, Country	<u>Temp</u>	<u>Season</u>	F1/Total	FCC	AM	нсс	JC	<u>AD</u>	AQ	CCE	ССМ	СНМ	<u>CBR</u>	Total	Breeding Comments
Phalaenopsis amboinensis*	Maluku, Sulawesi	Hot	Yearround	551/17525		37	37					7	1	1	_ x -	Thick substance, long blooming, star shaped flowers, low flower count, spotting and barring
Phalaenopsis bastianii	Philippines	Warm to Hot	Spring	21/22		3	2					3	2		10	
Phalaenopsis bellina	Borneo	Warm to Hot	Summer	147/567	12	55	29			3	2	1	1	1	104	Thick substance, attractive flower color, compact growing habit, sometimes fragrance, reduced flower count, difficult and slow-growing characteristics, tendence to create solid colors (blends bars and spots)
Phalaenopsis doweryensis	Borneo	Hot	Fall - Winter	10/10		2								1	3	
Phalaenopsis fasciata	Philippines	Hot	Fall	125/11341		1	3					2				Non-fading strong non-yellow color, waxy, fleshy substance, recurving flower parts
Phalaenopsis fimbriata	Borneo, Jawa,	Warm to Hot	Spring -	58/176		1	1					2		1	5	

Phalaenopsis floresensis	Lesser Sunda Island	Hot	Summer	42/100		2						2		4	
Phalaenopsis gigantea	Borneo	Warm to Hot	Fall, Spring	295/6571		22	22	1		4	14		1	64	Round shaped and strongly barred, large flowers, pendant spike, waxy substance, intensifies reds and spotted hybrids, small lips, pendant flowers reluctant breeder, bears flower over 360 degrees on the inflorescence
Phalaenopsis hieroglyphica	Philippines	Hot	Fall - Winter	22/10005	1	22	12	1		5	22	1	1	65	Strong barring and excellent flower substance, flower shape a negative
Phalaenopsis javanica	Jawa, Sumatera	Hot	Winter - Fall	115/250		2	3	1			1	1	1	9	
Phalaenopsis lueddemanniana*	Philippines	Warm to Hot	Spring - Summer	349/22467	1	15	13	3		1	4	3		40	Adds substance, color, barring, and spotting
Phalaenopsis maculata	Borneo, Malaya	Hot	Summer - Fall	37/83			3				1	1	1	6	Reduces plant size, red barring, reduces flower size, reduces plant vigor, narrow sepals and petals, poor grower and breeder
Phalaenopsis mariae	Borneo, Philippines	Hot	Spring - Summer	109/1530		3	2				4		1	10	Floriferousness, poor shape, fading red color
Phalaenopsis micholitzii	Philippines	Hot	Winter	68/2203		2	3							5	Mini Phalaenopsis, free flowering, short but multiple flower spikes, green and no-fade yellow flowers, poor (twisted) flower shape
Phalaenopsis modesta	Borneo	Hot	Summer	44/52			2				1	1		4	
Phalaenopsis pallens	Philippines	Hot	Winter - Spring	27/506		1	3				1		1	6	
Phalaenopsis pulchra	Philippines	Warm to Hot	Summer - Fall	44/78				1			2			3	
Phalaenopsis reichenbachiana	Philippines	Hot	Summer	5/5		1							1	2	
Phalaenopsis robinsonii	Maluku			0/0										0	
Phalaenopsis venosa	Sulawesi	Hot	Fall	344/4112	1	3	18			1	4	1		28	Strongly non-fading, yellow-colored hybrids, also oranges and reds, lowers flower count, increase number of spikes
Phalaenopsis violacea	Malaya, Sumatera	Hot	Summer - Fall	523/6414		65	63	10		1	20		2	161	Compact growth habit, fragrant, long-lasting, excellent substance, bright lip, reduced flower count, short inflorescence

Key: Cold - 50 to 58F at night; Cold to Cool - 50 to 66F at night; Cool - 58 to 66F at night; Cool to Cool + 58 to Cool +

From the above table one notices the variability within this Section. AOS Awards range from none to 161, Phal. violacea, with a median of 6. Number of progeny, both primary and total have similar differences. Phal. amboinensis and Phal. lueddemanniana have the most total progeny. Phal. amboinensis and Phal. violacea have the most primary progeny.

References:

www.orchidspecies.com

http://apps.kew.org/wcsp/qsearch.do

https://secure.aos.org/aqplus/SearchAwards.aspx

OrchidWiz Database x7.2, update: March 2021 Christenson, E.; *Phalaenopsis – A Monograph*, 2001

Frowine, S. A.; Moth Orchids – The Complete Guide to Phalaenopsis, 2008

Building Block Data Sheet

Phalaenopsis [Phal.] bellina, (Rchb.f.) Christenson, Brittonia 47: 58 (1995).

[fal-en-OP-sis bell-EE-na]

Phal. bellina is a small sized, hot growing, pendant growing epiphyte from Borneo in shady, humid, lowland and swampy riverine forests low



Phalaenopsis bellina Lip detail

down on trees often near or on branches overhanging stream banks at elevations of sea level to 200 meters. It has an erect to ascending, short stem completely enveloped by persistent leaf-bearing sheaths and carrying pendulous, broad, rounded [8-10 x 2.8-4.7 inches (20-25 x 7-12 cm)], shiny, light green leaves. It blooms summer to fall on a suberect or arcuate, 2 3/4" [7 cm] long, racemose or paniculate, flattened, 2 to 3 flowered inflorescence. There usually are 2 to 3, highly fragrant citrus scented flowers open at a time. The 2-inch flowers are greenish yellow, the basal



Phalaenopsis bellina 'Stuart Henderson' FCC/AOS Aug 2019, NS 5.8 x 5.5 cm 4 Flwrs, 1 Bud, 1 Inflor.

inner edges of the lateral sepals intensely saturated purple, the base of the sepals and peatls +/- with purple suffusions and fine spotting, the lip purple with yellow lateal lobes.

There are many similarities between non-line breed Phal. bellina and Phal. violacea (sister species), the differences (besides color) are pointed out in the table below.

	Phal. violacea	Phal. bellina
Petals	Elliptic, less than 0.7 cm broad	Ovate, more than 1.3 cm broad
Lateral sepals		
General shape	Not subfalcate ('bow-legged')	Subfalcate ('bow-legged')
Apices allignment	Form an equilateral triangle (equal segments)	Form an isosceles triangle (base shorter than other segments
Leaf shape, width	Generally less than 8 cm	Generally more than 10 cm
Fragrance	Spicy	Lemony (strong, like 'Fruit Loops')

The inflorescence on older plants can rebloom year after year so do not cut off green viable inflorescence.

Although mature plants are easy to grow, being rapid summer grower, but small seedlings – less than 3-inch (7.5-cm) leaf span – are difficult to grow due to a tendency to develop crown rot (their flattened leaves usually grow horizontally across the pot, readily trapping moisture).

Judge using the Phalaenopsis point scale.

Breeding Characteristics:

Phal. bellina contributes thick substance, attractive flower color, compact growing habit, and sometimes fragrance. It can contribute yellow, orange, and red floral colors to its offspring. On the negative side the progeny will generally have reduced flower count and the tendence to develop crown rot. It has a tendency to

spread spots and bars, creating a blended and sometimes solid color effect, which can be a neagtive or postive, depending on the breeder's objectives.

Due to the way registrations are recorded (variety names are excluded), the table below does not have any progeny that registered prior to 1995 since at that time Phal. bellina was considered a variety of Phal. violacea. The table below has the registration of Phal. belina progeny since the acceptance of the name change, 2003, and associated awards with separate lines for total progeny as well as first (F1), second (F2), and third (F3) generations.

<u>bellina</u>	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>2020</u>	<u>Total</u>
Reg	0	56	424	87	567
Assc Awds	0	71	62	1	134
F1	0	46	93	8	147
AA	0	71	11	0	82
F2	0	9	174	19	202
AA	0	0	46	1	47
F3	0	1	127	43	171
AA	0	0	4	0	4

From this table one sees that Phal. bellina has been used extensively since the elevation to species status (and probably before) in breeding. 2003 was the first year that hybrids, 11, were registered with the name Phal. bellina. This is VERY early in breeding with only two fifth generation progeny and no lines have been identified, although there are a few grexes with a significant number of F1 progeny.

Synonyms:

Phalaenopsis violacea var. bellina Phalaenopsis violacea (Borneo type) Phalaenopsis violacea var. borneo

Varieties / forms:

There are no recognized varieties and/or forms, but Christenson does mention four forms that may be

recognized in horticulture (one receiving AOS awards) and the AOS society has recognized a fifth:

Phal. bellina f. alba – A pure white flower.

<u>Phal. bellina f. bowringiana</u> – flower has distinct spots and transverse bars of purple at the bases of the dorsal sepal and petals. No awards or photos available.



Phal. bellina f. alba 'St. Clair' AM/AOS Jan 2019, NS 3.6 x 3.7 cm 1 Flws, 0 Buds, 1 Infl.



Phal. bellina f. bowringiana Reichenbach's original watercolor

<u>Phal. bellina f. murtoniana</u> – The sepals and petals base color is light lemon-yellow. There have been some issues on the validity of this form since the older flowers of typical Phal. bellina turn yellow as they senesce (deteriorate with age). Clone picture is the right color if the picture is accurate. NOTE: Several orange-flowered plants have received AOS awards, but study has shown these to be of complex hybrid origin (for example 'Dorothy Martin', AM/AOS.

<u>Phal. bellina f. punctata</u> – Has distinctive purple bands of pigment along the inner margins of the lateral sepals broken up into a series of small spots. No awards or photos available.

<u>Phal. bellina f. coerulea</u> – flower is have a blue cast. Award descriptions use terms like light violet, flushed

magenta, and amethyst.



Phal. bellina f murtoniana 'Strub' GM/DOG Jan 2019



Phal. bellina f. punctata Reichenbach's original watercolor



Phal. bellina f. coerulea 'Blue Ribbon' AM/AOS Sep 2017, NS 5.0 x 5.2 cm 3 Flws, 6 Buds, 5 Infl.

Awards:

Phal. bellina	FCC	AM	нсс	AQ	JC	CCM	CCE	СНМ	СВМ	TOTAL
AOS	12	72	46	3		6	2	1	2	104
Year(s) Awarded	2007- 2019	1967- 2020	1974- 2019	2007- 2018		1969- 1992	2014- 2015	2004	1961- 1964	1985- 2019

The first quality award to Phal. bellina was in 1967, 6 years after receiving a CBM/AOS in 1961. Since then it has received a several awards and is always a show stopper. The bar has changed over the years as shown by the two pictures of AMs below:



Phal. bellina 'Blue Ribbon' AM/AOS Jul 1965 6 Flws, 2 Buds, 4 Infl.

> Phal. bellina 'Krull's Evelyn' AM/AOS Aug 2020, 5.3 x 5.3 cm 2 Flws, 1 Bud, 1 Infl.



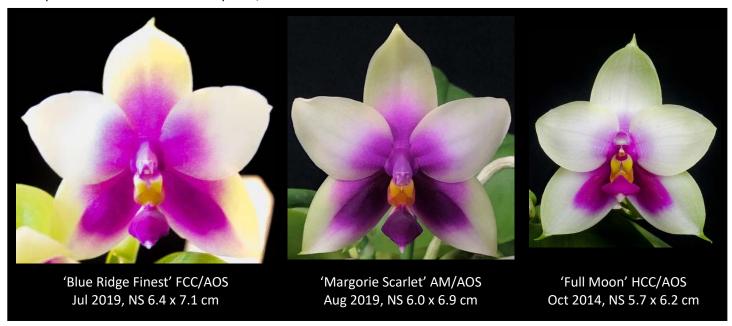
Due to the large number of awards and my uneasiness on judging polychilos section species I thought I would look at the several awarded clones of Phal. bellina to help me judge them below is a summary of my thoughts. My approach is analytical, that looking at the measurements and color pictures in the AOS

database. To be more specific I looked at the latest ten awardees in the three quality award categories. The awards were made from Aug 2013 to Aug 2020 at 14 different judgings. I then generated the averages for five measurements. Natural spread horizontal and vertical, these measurements would be used both for size of flower determination but also form, it appears that a 1:1+ ratio for the natural spread is appealing. The other three measurements dorsal sepal width, petal width, and lateral sepal width were used to quantify the form specifically the fullness of the flower. (NOTE: Some measurements appeared to be in error and were corrected based on comparison measurements from the pictures.) I then calculated the averages within each quality award category, see table below, and then determined which of the culitivers were above, near, or below the average. To determine color I looked at the basal half of the petals. These capatures of the petals could also be used to determine the petal angle. The final data that I looked at was the number of flowers, buds, and inflorescence(s).

	FCC	AM	HCC
Natural Spread, Horizontal	5.96	5.53	5.41
Natural Spread, Vertical	6.77	6.2	5.92
Dorsal Sepal, Width	2.10	1.90	1.87
Petal, Width	2.21	2.05	1.99
Lateral Sepal, Width	2.09	2.02	1.97

From this data may deduce that flower size and 'fullness' improves from HCC awardees to FCC awardess. This to me is very impressive and shows consistence between judges, centers, and time.

In regards to color, it is clear that the more color is a key contributor. To help point this out and the visual differences between these three categories I select a similar representative, most categories above average adjusted the size to correspond to the relative Natural Spread, Vertical of the three flowers below.



The over exposed picture of 'Blue Ridge Finest' does not help the flower color, but it is clear that it does have superior form and a more of the sepals and petals have color. It is also clear that the smaller size and less color is not enough to compensate for the lack of color in 'Full Moon'.

AOS Quality Awardees (Most Progeny):



Phal. LD's Bear Queen
'Topaz' AM/AOS
Sep 2020, NS 6.3 x 6.6 cm
(Phal. bellina x
Phal. Dragon Tree Eagle)
2 Flws, 3 Buds, 2 Infl.
Regr. 2008, Leader Orchids
70 F1 / 223 Total Progeny



Phal. Samera
'Bredren's Blue Heaven' AM/AOS
Nov 2018, NS 5.2 x 5.3 cm
(Phal. bellina x
Phal. violacea)
3 Flws, 0 buds, 1 Infl.
Regr. 2003, M. Liu
43 F1 / 67 Total Progeny



Phal. Mituo Prince
'Marley' AM/AOS
Jun 2015, NS 4.8 cm
(Phal. LD's Bear Queen x
Phal. LD's Bear King)
2 Flws, 2 Buds, 2 Infl.
Regr., 2012, Mituo Orchids
25 F1 / 34 Total Progeny



Phal. Mituo King Bellina 'Marley' FCC/AOS Mar 2018, NS 5.7 x 6.0 cm (Phal. LD's Bear King x Phal. LD Bellina Eagle) 2 Flws, 3 Buds, 1 Infl. Regr. 2013, Mituo Orchids 21 F1 / 23 Total Progeny

AOS Quality Awardees (Most Awards, not already covered):



Phal. Blue Ridge Dragon
'Asheville' FCC/AOS
Apr 2016, NS 5.9 x 7.0 cm
(Phal. Dragon Tree Eagle x
Phal. Joshua Irwin Ginsberg)
2 Flws, 1 Bud, 2 Infl.
Regr. 2012, M. Mims
3 F1 progeny



Phal. Crystal Surprise
'Cad's Solar Flare' AM/AOS
Aug 2019, NS 6.5 x 6.6 cm
(Phal. Lioulin Venus x
Phal. LD's Bear Queen)
12 Flws, 0 buds, 1 Infl.
Regr. 2017, Eric Lee
No Progeny



Phal. Penang Moonbright
'Dajao' AM/AOS
Feg 2016, NS 4.9 x 5.2 cm
(Phal. bellina x
Phal. Yungho Gelb Canary)
3 Flws, 0 Buds, 1 Infl.
Regr. 2009, Ooi Leng Sun
Np Progeny



Phal. Guadalupe Pineda 'Krull-Smith' AM/AOS Oct 2013, NS 5.5 x 5.5 cm (Phal. bellina x Phal. amboinensis) 15 Flws, 9 Buds, 6 Infl. Regr. 2003, C. G. Tobia 17 F1 Progeny

Most recent awardees (Not already discussed):



Phal. Jiaho Blueberry
'Blue Flare' HCC/AOS
Sep 2019, NS 3.9 x 4.0 cm
(Phal. Samera x
Phal. equestris)
8 Flws, 6 Buds, 3 Infl.
Regr. 2018, Jia Ho Orchids
No progeny

Phal. Mituo Purple Dragon 'Pylo' AM/AOS Jul 2019, NS 4.5 x 4.2 cm (Phal. LD Purple 3S x Phal. Mituo Princess) 3 Flws, 1 Bud, 1 Infl. Regr. 2018, Mituo Orchids 1 F1 progeny Phal. Long Trieu
'Phoenix' AM/AOS
May 2019, NS 5.6 x 6.3 cm
(Phal. Dragon Tree Eagle x
Phal. Sweet Trinity)
3 Flws, 2 Buds, 1 Infl.
Regr. 2018, E. Goo
No progeny



No progeny

References:

www.orchidspecies.com

http://apps.kew.org/wcsp/qsearch.do

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OrchidWiz.Database x7.2, update: March 2021 Christenson, E.; *Phalaenopsis – A Monograph*, 2001

Frowine, S. A.; Moth Orchids – The Complete Guide to Phalaenopsis, 2008

Building Block Data Sheet

Phalaenopsis [Phal.] gigantea, Rchb.f., Bonplandia (Hannover) 2: 93 (1854) [fal-en-OP-sis ji-GAN-tee-ah]

Phal. gigantea is the largest plant of genus with five to six leaves that can be 27 x 10 inches (68 x 25 cm). It is endemic to the island of Borneo where it is found in lowland to hill forests from sea level to 1300 ft (400 m) as a warm to hot growing understory epiphyte. The short short stem carrys 5 to 6, pendulous, leathery, shiny on both sides, elliptic to oblong-ovate, bluish green, obtuse leaves. It is a free bloomer with a peak occurring in the late summer and early fall on a 6 to 15 in (15 to 40 cm) long, racemose or paniculate, pendulous, many flowered (up to 30 flowers) inflorescence. The flowers (1.5 to 2.75 in [3.75 to 7 cm]) are sweetly orange peel scented, simultaneously opening, very shallowly cupped, usually with overlapping segments. The base flower color is white or yellow densely covered with transverse brown bars that align to form irregular concentric rings. The lip is white with six purple longitudinal strips on the midlobe and with yellow-orange teeth on the lateral lobes, column white. The inflorescence if still green and undamaged can flower for several seasons so it is best to leave them on.



Phalaenopsis gigantea 'Krull's Ruby' AM/AOS Nov 2013, NS 6.0 x 6.0 cm 58 Flwrs, 3 Buds, 3 Inflor.

Common Name The Gigantic Phalaenopsis - refers to the large leaves

Due to the size of mature plants (easy to spot) and the slower time than most Phalaenopsis to reach maturity, this species will probably require continued, long-term regulation of its international trade.

It has been reported by some growers to be difficult to flower. This is more likely to be related to the higher light levels needed and the need to keep the leaves from burning. A typical solution is to hang the plants in front of the cooling pads. Along the same line, a developed inflorescence can take months to bud up and flower.

Judge using the Phalaenopsis point scale.

Synonyms:

No recently used synonyms

Varieties / forms:

There are no recognized subspecies or forms, but an alba color form was recently awarded and the 'yellow' and red forms from the awarded cultivars are shown/discussed below:

<u>Phal. gigantea var. aurea</u> – A brighter yellow background color throughout the sepals and petals (including the area surrounding the column). No specifically identified picture.

<u>Phal. gigantea f. decolorate (Alba, maybe)</u> – 'Appears' to be anthocyanin-free form with a yellow background (no clear discussion on background color). From the Alba award – Flower is cream-white, sepals and petals overlaid heavily with concentric chartreuse bars and spots; lip striped in faint yellow.



Phal. gigantea 'Gleneyrie' AM/AOS Aug 1972, NS 6.3 cm 8 Flws, 0 Buds, 1 Infl.



Phal. gigantea 'Rocky Spots' HCC/AOS Jan 2000, NS 5.4 cm 25 Flws, 0 Buds, 1 Infl.



Phal. gigantea (Alba) 'Queen' JC/AOS Nov 2019, NS 1.7 x 1.5 cm 17 Flws, 43 Buds, 2 Infl.

... deep mahogany markings over ivory sepals and petals creamy chartreuse yellow with carmine spots ...

Awards:

FCC	AM	HCC	AQ	JC	CCM	CCE	CHM	CBM	TOTAL
	22	22		1	14	4		1	64
	1966- 2013	1966- 2019		2019	1967- 2007	2004-		1963	1963- 2019
	FCC	22	22 22 1966- 1966-	22 22 1966- 1966-	22 22 1 1966- 1966- 2019	22 22 1 14 1966- 1966- 2019 1967-	22 22 1 14 4 1966- 1966- 2019 1967- 2004-	22 22 1 14 4 1966- 1966- 2019 1967- 2004-	22 22 1 14 4 1 1966- 1966- 2019 1967- 2004- 1963

The first quality award to Phal. gigantea was in 1966, 3 years after receiving a CBM/AOS in 1963. Since then, it has received a several awards and is always a show stopper.

Breeding Characteristics:

Breeding with Phal. gigantea turns on the three Phal. gigantea color morphs: brown-red patterns against a white background, brown-red patterns agains a yellow background (yields enhanced red hybrids), and a paler brown patterns without red pigments agains a yellow background (yields enhanced yellow hybrids). The first is the 'Typical' variety while the later two will be discussed below as formally recognized because of their significance to horticulture.

Phal. gigantea would seem an unlikely candidate for hybridization because of the negative qualities of its huge planat size and pendent inflorescences. Fortunately, obth these features are recessive when the species is bred with complex tetraploid hybrids.

Generally, Phal. gigantea contributes its round shaped and strongly barred, large flowers, forne on a pendant spike, that are well shaped and fragrant with a waxy substance. It also produces hybrids with handsome foliage, which is usually of normal size when this species is breed with tetraploid hybrid Phalaenopsis. Intensifies reds and produces spotted progeny. On the negative side, it frequently passes on small lips and pendant flowers (especially on first-generation hybrids), and it can be are luctant breeder. Since it bears flowers 360 degrees on the inflorescence, it can disrupt the 'shingling' effect that most breeders prefer.

The table below has the registration of Phal. gigantea progeny and associated awards with separate lines for total progeny as well as first (F1), second (F2), and third (F3) generations.

gigantea	<u>1920</u>	<u>1930</u>	<u>1940</u>	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	2000	2010	2020	<u>Total</u>
Reg	0	1	0	0	2	51	194	654	2303	3125	241	6571
Assc Awds	0	0	0	0	14	44	145	530	1232	380	1	2346
F1	0	1	0	0	2	38	50	46	22	124	12	295
AA	0	0	0	0	14	42	29	12	9	7	0	113
F2	0	0	0	0	0	13	108	130	45	143	17	456
AA	0	0	0	0	0	2	100	45	6	3	0	156
F3	0	0	0	0	0	0	25	224	267	105	14	635
AA	0	0	0	0	0	0	13	175	146	11	0	345

From this table indicates that Phal. gigantea has first hybridized in 1935 at the Buitenzorg Botanical Gardens in now Bogor, Java, Indonesia. It was a cross with Phal. amabilis and named Phal. Bororiensis. The cross was not well received apparently since there are no progeny and Phal. gigantea was not used as a parent again until the late 60's, a span of 30 plus years by C. Y. Mok (from southeast asia area). This was a very successful, highly fragrant cross that is still being offered today and obvious kicked off the use of Phal. gigantea as a parent as shown by the registration peak in 80-90s. There was a tenative lull in the 2000, but with the increase interest in 'novelity' Phalaenopsis interest picked up again in the 2010s and continues today.



Phal. Golden Peoker 'BL' HCC/AOS Feb 1998, NS 6.5 x 6.5 cm 6 Flws, 1 Buds, 1 Infl.

In regards to breeding lines there are major four; harlequin, red/violet, yellow, and novelties.

Harlequin Line: Phal. Golden Peoker (Phal. Misty Green x Phal. Liu Tuen-Shen), 1983, Brothers, 219 F1 and 4130 total progeny, 9 AOS awards (4 AMs, 1 CCM, 2 HCCs, 2 JC). Major progeny: Phal. Chian Xen Pearl (Phal. Ching Hua Spring x Phal. Nobby's Pink Lady), 2002, Fu-Liang Huang, 175 F1 and 1070 total progeny, 9 AOS awards (5 AMs, 4 HCCs); Phal. Haur Jin Diamond (Phal. Golden Peoker x Phal. Ching Her Buddha), 1999, Haur Jin Orchids, 83 F1 and 519 total progeny, 4 AOS awards (1 AM, 3 HCCs); Phal. Ever Spring Prince (Phal. Golden Peoker x Phal. Taisuco Beauty), 1997, Ever Spring Orchid Nursery, 48 F1 and 112 total progeny, 12 AOS awards (4 AMs, 7 HCCs, 1 JC; Phal. Tying Shin Fantastic World (Phal. Chian Xen Pearl x Phal. Timothy Christopher), 2008, Kuo Liang Hung, 3 F1 progeny, 12 AOS awards (7 AMs, 1 HCC, 1 AQ, 3 CCMs).



Phal. Chian Xen Pearl 'IS1540' AM/AOS Mar 2019, NS 11.0 x 8.8 cm 20 Flws, 0 Buds, 2 Infl.



Phal. Tying Shin Fantastic World 'Diana' AM/AOS Mar 2013, NS 7.1 x 6.7 cm 36 Flws, 9 Buds, 2 Infl.



Phal. Ever Spring Prince 'Pretty Cat' AM/AOS May 2006, NS 9.6 x 8.3 cm 4 Flws, 0 Buds, 1 Infl.



Phal. Haur Jin Diamond 'Jose' AM/AOS Apr 2004, NS 7.3 x 7.9 cm 10 Flws, 0 Buds, 2 Infl.



Phal. Brother Purple

Red/Violet Line: Phal. Brother Purple (Phal. Golden Peoker x Phal. Brother Glamour), 1995, Brother, 97 F1 and 343 total progeny, no AOS awards. Major red/violet progeny: Phal. Brother Supersonic (Phal. Sara Lee x Phal. Brother Purple), 1997, Brother, 23 F1 and 30 total progeny, 19 AOS awards (5 AMs, 12 HCCs, 1 AQ, 1 CCM); Phal. Brother Precious Stones (Phal. Brother Fancy x Phal. Brother Purple), 1998, Brother, 45 F1 and 67 total progeny, 23 AOS awards (15 AMs, 7 HCCs, 1 AQ); Phal. Brother Pirate King (Phal. Fortune Buddha x Phal. Brother Purple), 1998, Brother, 40 F1 and 76 total progeny, 18 AOS awards (6 AMs, 12 HCCs); Phal. H. P. Norton (Phal. Brother Pirate King x Phal. Krull's Red Hot), 2003, Krull-Smith, 18 F1 and 23 total progeny, 17 AOS awards (9 AMs, 7 HCCs, 1 AQ).



Phal. Brother Supersonic 'Gemstone' AM/AOS Mar 2000, NS 6.8 x 6.8 cm 7 Flws, 4 Buds, 2 Infl.



Phal. Brother Precious Stones 'Sedona's Royal Robe' AM/AOS Apr 1999, NS 7.6 x 7.7 cm 11 Flws, 13 Buds, 2 Infl.



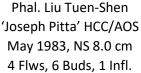
Phal. Brother Pirate King 'Selsal's Red' AM/AOS Mar 2001, NS 7.0 x 7.5 cm 13 Flws, 8 Buds, 2 Infl.



Phal. H. P. Norton 'GrandPa' AM/AOS Mar 2004, NS 6.9 x 6.3 cm 7 Flws, 1 Buds, 1 Infl.

Yellow Line: Phal. Liu Tuen-Shen (Phal. gigantea x Phal. Golden Sands), 1979, I. Dobkin, 80 F1 and 5594 total progeny, 6 AOS awards (4 HCCs, 2 CCMs). Representative yellow progeny: Phal. Salu Spot (Phal. Paifang's Auckland x Phal. Golden Amboin), 1992, Ching Her, 45 F1 and 1884 total progeny, 3 AOS awards (1 AM, 2 HCCs); Phal. OX Golden Star (Phal. Sunrise Star x Phal. Fusheng's Golden Age), 2008, OX Orchids, 40 F1 and 46 total progeny, no awards; Phal. Sin-Yuan Golden Beauty (Phal. James Hall x Phal. Tsuei You Beauty), 2002, Sin Yaun Orchids, 114 F1 and 205 total progeny, 1 HCC/AOS award; Phal. Brother New Canary (Phal. Sara Lee x Phal. Brother New Player), 2004, Brother, 2 F1

progeny, 8 AOS awards (4 AMs, 1 HCC, 1 AQ, 1 CCE, 1 CHM).





Phal. Salu Spot 'KH #14' AM/AOS May 2011, NS 9.1 x 9.0 cm 4 Flws, 0 Buds, 1 Infl.



Phal. Brother New Canary 'DeLeon' AM-CCE-CCM/AOS Mar 2011, NS 6.6 x 6.0 cm 59 Flws, 17 Buds, 7 Infl.



Phal. OX Golden Star 'HT958 #2' TRO/TOGA



Phal. Sin-Yuan Golden Beauty

Novelities: No major Lines, Most recently AOS Awards: Phal. SpringBrook Ruby (Phal. Tying Shin Forever Love x Phal. H. P. Norton), 2018, J. Armstrong, no progeny, 1 HCC/AOS award; Phal. Pylo's Phoenix (Phal. KV Golden Star x Phal. Lawrie Springate), 2018, Big Leaf Orchids, no progeny, 1 AM/AOS award; Phal. Lioulin Freckles (Phal. Lioulin Pretty Lip x Phal. Lioulin R Lip), 2018, Huang Gao Ming, no progeny, 1 AM/AOS award; Phal. Crystal Water (Phal. Tying Shin Valentine's Day x Phal. Fureshing Mark), 2018, Char Ming Agri., no progeny, 2 AOS awards (1 FCC, 1 CCM).



Phal. Springbrook Ruby 'Orange Glow' HCC/AOS Apr 2019, NS 6.0 x 5.9 cm 11 Flws, 1 Bud, 1 Infl.



Phal. Pylo's Phoenix 'Bristol' AM/AOS Mar 2018, NS 6.7 x 6.5 cm 11 Flws, 1 Bud, 1 Infl.



Phal. Lioulin Freckles 'Iowa' AM/AOS Jan 2018, NS 9.0 x 8.8 cm 4 Flws, 5 Buds, 1 Infl.



Phal. Crystal Water 'Lee 1288' FCC-CCM/AOS Mar 2017, NS 9.0 x 8.7 cm 109 Flws, 0 Buds, 3 Infl.

Most recent awardees (Not already discussed):



Phal. Fuller's Paint Brush 'MayField' AM/AOS Apr 2019, NS 10.5 x 9.7 cm (Phal. Fuller's Miss x Phal. Sung Woei Rosaria) 10 Flws, 11 Buds, 2 Infl.



Phal. Krull's Sunrise
'Krull-Smith' AM/AOS
Jan 2019, NS 4.9 x 4.7 cm
(Phal. Krull's Golden Champion x
Phal. Citrus Candy)
18 Flws, 8 Buds, 1 Infl.



Phal. Tying Shin Cao-Tun Beauty 'Pink Leopard' AM/AOS Mar 2015, NS 8.9 x 8.4 cm (Phal. Tying Shin Smile Angel x Phal. Tying Shin New View) 15 Flws, 6 Bud, 2 Infl.



Phal. Taisuco Red Speckle 'BA5145' AM/AOS Mar 2017, NS 11.0 x 10.0 cm (Phal. Nobby's Pink Lady x Phal. Taisuco Parakeet) 23 Flws, 7 Buds, 2 Infl.

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Species Data Sheet

Phalaenopsis micholitzii Sander ex H.J. Veitch, Gard. Chron., ser. 3, 8: 197 (1890)

[fail-en-OP-sis mik-oh-LITZ-ee-eve]

Phal. micholitzii is found on Mindanao Island in the Philippines near the base of tree trunks or lianas near rivers at elevations of 150 to 3000 ft. (50 to 900 m). It is miniature sized, hot to warm growing epiphyte with fleshy, oblong to oblanceolate glossy 6 x 2.3 inches (16 x 6 cm) leaves. Blooming in the summer on usually numerous, lateral to suberect, very short, 0.4 to 2 inches (1 to 5 cm) long, 1 to 3 cupped, slightly fragrant flowered inflorescence. The stark white to yellowish green flowers are 2 to 2.4 inches (5 to 6 cm), fleshy-succulent without any markings on the sepals and petals. The lip is white with yellow to yellow-orange lateral lobes, midlobe broadly elliptic-obovate, rounded, obtuse, with a raised center keel to the middle, with a raised pad from the middle to the apex densely covered with long trichomes.

Judge using the Phalaenopsis scale.

Synonyms - None

Synonyms / Varieties / forms:



Phal. micholitzii 'Alexander' AM/AOS Nov 1998, NS 5.5 x 5.5 cm 5 Flws, 1 Bud, 5 Inflor.

Awards:

Below are AOS awards that Phalaenopsis micholitzii has received:

	FCC	AM	HCC	AQ	AD	JC	AQ	CCE	CCM	СНМ	CBM	TOTAL
AOS		2	3									5
Year(s) Awarded		1983- 1998	1983- 1998									

This species has received 5 awards all in the 1980 to 2000 timeframe.

Breeding Characteristics:

Phal. micholitzii is only modestly involved in the hybridizing. Its 68 registered first-generation offspring have

only garnered a total of 15 awards. While the clean white color of the flowers is pleasing, the segments are not as full as other members of subgenus Polychilos and are moderately reflexed proximal to the column.

Although there are a modest number of progeny, 2203 total progeny, most progeny are associated with one grexe: Phal. Gelblieber (Phal. amboinensis x Phal. micholitzii), 1984, with 48 F1 and 2021 total progeny, several significant grexes.

1970 was the earliest that any hybrids were registered with two that year, only Phal. Margie Lane (Phal. mannii x Phal. micholitzii) with 4 F1 and 5 total progeny.

The table below list the Phal. stratiotes progeny registered per decade and awards associated with the grex (per OrchidWiz 7.2). From this table one sees that interest in using Phal. micholitzii since 1970 has been at a fairly constant increase.



Phal. Gelblieber 'Arienne' HCC/AOS Mar 1984, NS 6.1 cm 11 Flws, 4 Buds, 4 Inflor.

micholitzii	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	2000	<u>2010</u>	2020	<u>Total</u>
Reg	0	11	17	101	373	1459	242	2203
Assc Awds	0	1	12	75	262	163	3	516
<u>F1</u>	0	7	10	10	14	23	4	68
<u>AA</u>	0	0	7	1	5	2	0	15
<u>F2</u>	0	4	6	33	56	87	19	205
<u>AA</u>	0	1	5	19	33	8	0	66
<u>F3</u>	0	0	1	38	131	372	44	586
<u>AA</u>	0	0	0	21	106	44	0	171

'Major' Progeny, Most F1 Progeny:

Phal. Yungho Gelb Canary (Phal. Gelblieber x Phal. Princess Kaiulani), 1995, Yun-Ho, 110 F1 and 697 total progeny, 3 AOS awards (2 AMs, 1 HCC); **Phal. LD's Bear King** (Phal. Hannover Passion x Phal. Dragon Tree Eagle), 2008, Leader Orchids, 85 F1 and 180 total progeny, 6 AOS awards (4 AMs, 2 HCCs); **Phal. Hannover Passion** (Phal. Gelblieber x Phal. mariae), 1994, Cheng Hsien-I, 70 F1 and 384 total progeny, 2 AM/AOS awards); **Phal. Yungho Princess Gelb** (Phal. Yungho Gelbliambo x Phal. Princess Kiaulani), 1995, Yung-Ho, 68 F1

Phal. Yungho Gelb Canary

Phal. LD Bear King

Phal. Hannover Passion

Phal. Yungho Princess Gelb

'Wen Ming' AM/AOS Mar 2007, NS 5.1 x 6.0 cm 7Flws, 2 Buds, 2 Inflor.

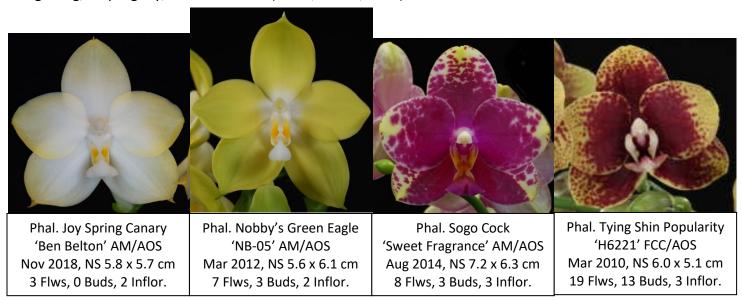
Phal. LD Bear King 'Marley' AM/AOS Mar 2017, NS 5.8 x 7.0 cm 4 Flws, 3 Buds, 2 Inflor.

Phal. Hannover Passion 'Sogo' AM/AOS Apr 1998, NS 6.0 x 6.0 cm 4 Flws, 1 Buds, 3 Inflor.

Phal. Yungho Princess Gelb 'Joy' AM/AOS Mar 2011, NS 6.2 x 6.5 cm 3 Flws, 0 Buds, 2 Inflor.

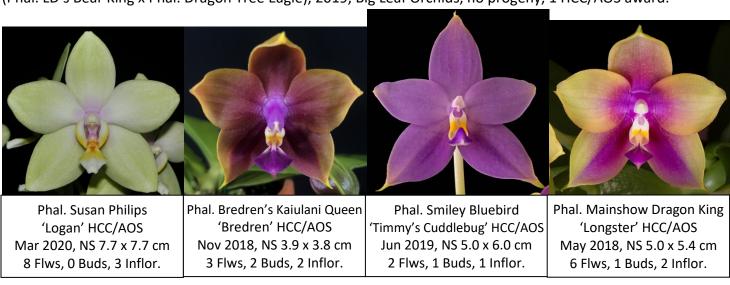
'Major' Progeny, Most Awards:

Phal. Joy Spring Canary (Phal. Buena Jewel x Phal. Yungho Gelb Canary), 2002, J. Wu, 51 F1 and 60 total progeny, 13 AOS awards (3 AMs, 7 HCCs, 1 JC, 1 AQ, 1 CCM); **Phal. Nobby's Green Eagle** (Phal. Gelblieber x Phal. Nobby's Fox), 2005, Nobby Orchids, 33 F1 and 45 total progeny, 3 AOS awards (2 AMs, 1 CCM); **Phal. Sogo Cock** (Phal. Sogo Peak x Phal. Sogo Kaiulani), 1999, Sogo, 4 F1 progeny, 14 AOS awards (3 AMs, 10 HCCs, 1 AQ); **Phal. Tying Shin Popularity** (Phal. Tying Shin Surprise x Phal. Tying Shin Champion), 2009, Kuo Liang Hung, no progeny, 10 AOS awards (1 FCC, 8 AMs, 1 AQ).



Most Recent Progeny with AOS Awards:

<u>Phal. Susan Philips</u> (Phal. Emeraude x Phal. Tsay's Evergreen), 2020, W. Addison, no progeny, 2 AOS awards (1 HCC, 1 AQ); **Phal. Bredren's Kaiulani Queen** (Phal. Mituo Kaiulani Eagle x Phal. LD's Bear Queen), 2020, Bredren Orchids, no progeny, 1 HCC/AOS award; **Phal. Smiley Bluebird** (Phal. Vicky's Sensational Heartbeat x Phal. Yaphon Blue Sea), 2019, Big Leaf Orchids, no progeny, 1 HCC/AOS award; **Phal. Mainshow Dragon King** (Phal. LD's Bear King x Phal. Dragon Tree Eagle), 2019, Big Leaf Orchids, no progeny, 1 HCC/AOS award.



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Species Data Sheet

Phalaenopsis maculata Rchb.f., Gard. Chron., n.s., 16: 134 (1881)

[fail-en-OP-sis mak-yew-LAY-ta]

Phalaenopsis maculata is a miniature native Borneo and Sulawesi in lowland to mixed hill forests at elevations of 200 to 1000 meters on limestone hills at the base of mossy trees (epiehyte) or on moist, bare rocks (lithophyte). The hot to warm growing plant has a very short stem with 2 to 3, fleshy, oblong-ligulate, 8.3 x 1.6 inch (21 x 4 cm), acute to bilobed apically, gradually narrowing to the base leaves whose upper surface is waxy. It typically blooms in the winter with a lateral, arched, racemose, few flowered inflorescence that is several times longer than the leaves. The flowers are small, 1.2 to 1.4" [3 to 3.5 cm], slightly cupped, usually with the dorsal sepal arching over the column. The sepal and petal are white to creamy white with transverse reddish brown bars, the lip scarlet, the column white.

Phal. maculata has a reputation for being difficult to grow. Much of this reputation probably arose from the high mortality rate and general lack of vigor exhibited by earlier wild-collected plants. Current cultivated



Phalaenopsis maculata 'Tejas' HCC/AOS Sep 2002, NS 3.4 x 3.6 cm 16 Flws, 0 Buds, 6 Inflor.



Phalaenopsis maculate f. flava 'Magnifico' CCM/AOS May 1994, NS 2.7 x 2.3 cm 7 Flws, 3 Buds, 2 Inflor.

populations, artifically raised from seed, do not appear to be particularly difficult to grow.

This species grows at higher elevations than many other species in the genus and displays a preference for moist, heavily shaded habitats. Therefor, it should be grown under intermediate temperatures and given lower light levels.

Judge using the Phalaenopsis scale.

Synonyms / Varieties / forms:

No synonyms recently used.

The is a Phal. maculate f. flava described by Christenson but it is not recognized by the RHS. It is anthocyanin-free (no red pigment) resulting in flowers with deep yellow spots and lip.

Awards:

Below are AOS awards that Phal. maculata has received:

	FCC	AM	HCC	AQ	AD	JC	AQ	CCE	CCM	CHM	CBM	TOTAL
AOS			3						1	1	1	6
Year(s) Awarded			1977- 2002						1982	1994	1966	

This plant has received a relatively few awards and no quality awards above an HCC.



Phal. Micro Nova 'Stones River' AM/AOS Mar 1998, NS 2.4 x 2.5 cm 8 Flws, 4 Buds, 2 Inflor.

Breeding Characteristics:

Breeding with Phal. tangerinum has been limited with only one primary hybrid out of the 37 crosses having significant progeny. That cross was Phal. Micro Nova (Phal. maculata x Phal. lobbii) made in 1980 by W. Wallbrunn with 23 F1 and 37 total progeny but with 3 AM/AOS awards. The other grex worth mentioning is Phal. Mini Mark (Phal. Micro Nova x Phal. philippinensis) made in 1992 by Breckinridge with 7 F1 / total progeny but with 14

AOS awards (7 AMs, 4 HCCs, 1 JC, 1 AQ, 1 CCM). There are a total of 83 Phal. maculata progeny with none higher that third generation.

The small flower size and the narrow

floral segments are drawbacks to hybridizing with Phal. maculata, however, the desirable qualities of the intense scarlet lip, red barring/spots and small plant size are dominant.

Below is a table of Phal. maculata limited breeding through the first three generation, total progeny.

		3
4	8	

Phal. Mini Mark 'Sky Island' AM/AOS Dec 1994, NS 3.9 x 3.9 cm 9 Flws, 9 Buds, 2 Inflor.

<u>maculata</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	2000	2010	2020	<u>Total</u>
Reg	0	6	16	34	9	18	0	83
Assc Awds	0	1	5	27	5	2	0	40
F1	0	6	10	8	1	12	0	37
AA	0	1	5	0	0	2	0	8
F2	0	0	5	21	7	0	0	33
AA	0	0	0	26	5	0	0	31
F3	0	0	1	5	1	6	0	13
AA	0	0	0	1	0	0	0	1

'Major' Hybrids:

Phal. Fantasy Musick (Phal. Micro Nova x

Phal. equestris), 2002, F. & M. Kaufmann, 2 F1 progeny, 3 AOS awards (1 AM, 2 HCCs); **Phal. Mini Doll** (Phal. Micro Nova x Phal. Snow Leopard), 1993, Breckinridge, no progeny, 3 AOS awards (2 HCCs, 1 JC); **Phal. Bauble** (Phal. Micro Nova x Phal. gigantea), 1994, H. Wallbrunn, no progeny, 2 AOS awards (1 AM, 1 HCC); **Phal. Kathleen Battle** (Phal. Micro Nova x Phal. Chamonix), 1992, H. Wallbrunn, 1 F1 progeny, 2 HCC/AOS awards.



Phal. Fantasy Musick 'Linda's Diamond' AM/AOS Mar 2008, NS 3.2 x 3.4 cm 39 Flws, 28 Buds, 4 Inflor.



Phal. Mini Doll 'Virginia Pixie' HCC/AOS Mar 1997, NS 3.5 x 4.0 cm 11 Flws, 3 Buds, 2 Inflor.



Phal. Bauble 'Breckinridge' AM/AOS Mar 1996, NS 3.6 x 3.5 cm 19 Flws, 0 Buds, 2 Inflor.



Phal. Kathleen Battle 'Gypsy Lee' HCC/AOS Oct 1996, NS 4.9 x 5.0 cm 19 Flws, 0 Buds, 2 Inflor.

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Frowine, S. A.; Moth Orchids – The Complete Guide to Phalaenopsis, 2008

Species Data Sheet

Phalaenopsis pulchra (Rchb.f.) H.R.Sweet, Amer. Orchid Soc. Bull. 37: 1102 (1968)

[fail-en-OP-sis PULL-kra]

Phalaenopsis pulchra is found in the Philippines on eastern mountain slopes at elevations of 325 to 2000 feet (100 to 600 meters). It is a small sized, hot to warm growing, epiphytic with very short stems enveloped by imbricating leaf bases carrying suberect, arcuate, oblong-elliptic to narrowly obovate, acute or subobtuse 5.9 x 2.4 inch (15 x 6 cm) leaves. It typically blooms in the fall with a lateral, suberect to arcuate, 4 to $10^{\prime\prime}$ [10 to 25 cm] long, racemose or paniculate, few flowered inflorescence, shorter that the leaves, with fragrant, fleshy, star-shaped, magenta-purple flowers. The flowers are small, 1.6 to 2.4"

[4 to 6 cm], fleshy, glossy-lacquered, deep purple, the lateral lobes of the lip bright yellow, the column white.

It does at times produce a much longer to 2' [to 60 cm] inflorescence that does not produce flowers, instead it produces apical keikis.

Judge using the Phalaenopsis scale.



Phalaenopsis pulchra 'Lorrie' HCC/AOS Jul 2003, NS 4.3 x 3.6 cm 2 Flws, 4 Buds, 5 Inflor.

Synonyms / Varieties / forms:

Phal. lueddemanniana var. pulchra

Awards:

Below are AOS awards that Phal. maculata has received:

	FCC	AM	HCC	AQ	AD	JC	AQ	CCE	CCM	CHM	CBM	TOTAL
AOS			1			1			2			4
Year(s) Awarded			2003			1965			2010* 2012			

This plant has received few awards and no quality awards above an HCC.

Breeding Characteristics:

Breeding with Phal. pulchra has been limited, 44 F1 and 78 total progeny, but interest has increased recently, only three cross prior to 2003. There are no sources of breeding characteristics but in reviewing progeny pictures it appears that the stellate shape, enhances tendence for bars, and yellow sidelobes are dominate. There are indications that the color of the other progeny parent is enhanced.

To the right is a table of Phal. pulchra limited breeding through the first three generation, total progeny.

pulchra	<u>1950</u>	<u>1960</u>	<u> 1970</u>	1980	<u>1990</u>	2000	2010	2020	<u>Total</u>
Reg	0	1	1	1	0	19	45	11	78
Assc Awds	0	0	0	0	0	5	0	0	5
<u>F1</u>	0	1	1	0	0	17	23	2	44
<u>AA</u>	0	0	0	0	0	5	0	0	5
F2	0	0	0	1	0	2	18	2	23
AA	0	0	0	0	0	0	0	0	0
F3	0	0	0	0	0	0	4	7	11
<u>AA</u>	0	0	0	0	0	0	0	0	0

'Major' Hybrids:

There are no major progeny with four grexes with more than 2 F1 progeny and three grexes with awards. **Phal. Chienlung Red King** (Phal. LD's Bear King x Phal. pulchra), 2013, Chien Lung Orchids, 8 F1 and 10 total progeny, no awards; **Phal. Fintje Kunriawati** (Phal. pulchra x Phal. violacea), 2004, A. Kolopaking, 6 F1 and 8 total progeny, 3 HCC/AOS awards; **Phal. Cherry Spot** (Phal. bellina x Phal. pulchra), 2003, P. Lippold, no progeny, no AOS awards (1 AM, 1 HCC); **Phal. Herman Sweet** (Phal. cornu-cervi x Phal. pulchra), 2004, Casa Luna, no progeny, 1 HCC/AOS award.



Phal. Chienlung Red King



Phal. Fintje Kunriawati 'Pendragon' HCC/AOS Sep 2020, NS 5.5 x 5.0 cm 12 Flws, 2 Buds, 8 Inflor.



Phal. Cherry Spot 'Lea' BM/DOG Sep 2015, NS 4.0 x 4.0 cm 6 Flws, 2 Buds, 5 Inflor.



Phal. Kathleen Battle 'Gypsy Lee' HCC/AOS Oct 1996, NS 4.9 x 5.0 cm 19 Flws, 0 Buds, 2 Inflor.

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Species Data Sheet

Phalaenopsis doweryensis

Garay & Christenson in E.A.Christenson, Phalaenopsis: a monograph: 115 (2001) [fail-en-OP-sis dow-ree-EN-sis]

Phalaenopsis doweryensis is native to Sabah, Borneo at elevations of sea level to 150 meters as a small sized, hot growing epiphyte. It has a short stem carrying 2, fleshy, ovate-elliptic to broadly elliptic, obtuse leaves that are obliquely bilobulate apically. Typically blooming in the spring on an erect, racemose, to 8" [20 cm] long, slightly compressed inflorescence with fleshy, somewhat fragrant flowers. The flowers are small, 1.8 to 2.0" [4.5 to 5.0 cm]. The sepal and petals are greenish yellow with brown spots and short transverse bars, the column and lip white, the lip high-lighted with bright yellow, the midlobe of the lip with reeish brwon parallel stripes.

"Similar to Phal. gigantea by virtue of their flat, round forms and the shape of the lip, but Phal. doweryensis differs in the much smaller, narrower leaves, a footless column and elliptic-obovate petals which yeild an open shaped flower." W Higgens

Judge using the Phalaenopsis scale.



Phalaenopsis doweryensis 'Highjack' AM/AOS May 2011, NS 5.2 x 5.8 cm 17 Flws, 10 Buds, 3 Inflor.

Synonyms / Varieties / forms:

No synonyms recently used.

Awards:

Below are AOS awards that Phal. doweryensis has received:

	FCC	AM	HCC	AQ	AD	JC	AQ	CCE	CCM	СНМ	CBM	TOTAL
AOS		2									1	3
Year(s) Awarded		2002- 2011									2002	

This plant has received a relatively few awards.

Breeding Characteristics:

Breeding with Phal. deweryensis has been extremely limited with only ten primary hybrids (earliest in 2010) and no awarded progeny. Consequently, there is NO breeding information currently.

'Major' Hybrids: None.

References:

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OrchidWiz.Database x7.2, update: March 2021 Christenson, E.; *Phalaenopsis – A Monograph*, 2001

Many Phalaenopsis have received the Award of Quality. What is the AQ and why do you think so many Phalaenopsis have received it? Select one example of this award and discuss its significance.

From the AOS award site the AQ (Award of Quality) is awarded based on the following criteria:

"Awarded once to a cross exhibited by a single individual as a group of not less than 12 plants or inflorescences of different clones of a hybrid or cultivated species. At least one of the inflorescences must receive a flower quality award and the overall quality of the group must be an improvement over the former type."

Of the 432 AQ/AOS awarded (as of Apr 2021), the top genera / alliances are:

Genera/Alliance	Nmbr AQs Awdd	<u>Perct</u>	Nmbr spcs & hybrs	Perct total pop.
Phalaenopsis	162	37.5%	37,081	18.1%
Paphiopedilum Alliance	82	19.0%	29,311	14.3%
Cattleya Alliance	81	18.8%	48,103	23.4%
Vanda Alliance	31	7.2%	12,206	5.9%
Masdevallia	16	3.7%	7,285	3.5%
Cymbidium	12	2.8%	19,250	9.4%
Dendrobium	12	2.8%	16,177	7.9%

Phalaenopsis has received 162 of the 432 (37.5%) AQs awarded, almost a factor of two more than second place Paphiopedilum with 82 (19.0%). From the above table the reason is not related to the number of hybrids/species. I suspect it is related to the current popularity (easy to grow, attractive long-lasting flowers, floral display, attractive when not in bloom, etc.) of Phalaenopsis among the general population as well as its popularity among orchid growers. This popularity has resulted in many vendors / breeders which increases the number of people that grow Phalaenopsis on all levels (windowsill, hobbyist, amateur, and professional). This large pool of plants and growers increases the number of people interested in attempting to receive an AQ.



Phal. Luedde-violacea 'Pendragon' AM/AOS Sep 2020, NS 5.3 x 5.5 cm 3 Flws, 1 Bud, 3 Inflor.

The picture below is an early awarded Phalaenopsis AQ (first with picture and an awarded cultivar. The award was for a group of fourteen Phal. Luedde-violacea plants with one receiving an HCC/AOS. The picture is very dark and there is no picture of the awarded cultivar (I have enlarged a random selected flower from which to try to get a feel for flower quality). Even with the blurry picture you can see that the form

is comparable to existing awarded cultivars and not that far off from the most recently award cultivar. Also, even though the cross was first registered in 1895, it is still being used as a parent and has 89 F1 and 3002 total progeny.



Phal. Luedde-violacea 'Varina' HCC/AOS Aug 1970, NS 5.4 cm 3 Flws, 0 Buds, 3 Inflor.



Phal. Luedde-violacea 'Palm Beach' HCC/AOS Aug 1967, NS 5.3 x 5.5 cm 1 Flws, 2 Buds, 1 Inflor.

Aug 1967, 14 plants

Award Descriptions (Apr 2021)



Phal. Pylo's Slurpee – Quality Award Description

(Phal. Lawrie Springate x Phal. Mituo King Bellina)

One full flat flower and one bud on a six-inch (15 cm) inflorescence; sepals and petals overlaid rusty red orange distally transiting to magenta basally; lip tri-lobed, mid-lobe magenta, broad white picotee basal half, side lobes erect, magenta distally, white centrally, rusty red-orange basally, callus yellow spotted rusty red-orange; column magenta; anther cap white; substance waxy; texture matte.

Phal. Pylo's Dragon – Quality Award Description

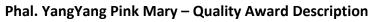
(Phal. gigantea x Phal. Blue Ridge Dragon)

One flower on a five-inch (13 cm) inflorescence; sepals and petals old gold distally transiting to white basally, maroon blotches distally transiting to concentric maroon blotched bars medial to smaller red-magenta blotches basally; dorsal sepal distal blotches medium sized; lateral sepals large blotches distally, inferior half overlaid red-magenta; petals small blotches distally; lip tri-lobe, base color old gold, side lobes erect, small maroon blotches, mid-lobe red-magenta; column cream, light red-magenta overlay; anther cap cream; substance firm; texture waxy.



Phal. (not named) – Cultural Award Description (Phal. wilsonii x Phal. deweryensis)

Twenty-two slightly cupped starette flowers and eight buds on two inflorescences of around 15 in (38 cm) length presented on a clean robust plant mounted on a cork slab; sepals and petals creamy white, spotted and lightly overlaid magenta; lip tri-lobed, sidelobes erect, magenta spotted dark magenta distally, orange basally, midlobe shield shaped, dark magenta; column and anther cap white; substance firm; texture glistening.



(Phal. Nobby's Green Eagle x Phal. Zheng Min Muscadine)

Ten well displayed crowded flowers on three inflorescences, longest 8 inches (20 cm); sepals and petals white with a broad yellow picotee; dorsal sepal veined and lightly overlaid magneta; later sepals superior half lightly lightly overlaid



magenta basal half, inferior two-thirds heavily overlaid magenta; petals very lightly veined magenta basally; lip tri-lobe, sidelobes erect, yellow, white distally, midlobe yellow, broad magenta picotee; column white; anther cap light yellow; substance heavy; texture matte.



Phal. Millie's Lemon Berry - Quality Award Description

(Phal. Fantasy Musick x Phal. equestris)

Forty-five flowers and twelve buds on four branched inflorescences, longest eight inches (20 cm) long; sepals and petals white, lightly overlaid yellow basally; lip trilobed, sidelobe erect, yellow, red spots distal half, midlobe bright yellow; column and anther cap white; substance firm; texture diamond dust.

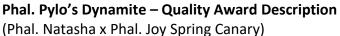
Award Descriptions (May 2021)



Phal. Henry's Gigant – Quality Award Description

(Phal. gigantea x Phal. Henry Wallbrunn)

Four stellate flat flowers on an eight-inch (20 cm) inflorescence; sepals and petals white, veined small red spots; lip trilobed, sidelobes erect, overlaid yellow-red, yellow centrally, midlobe yellow-red, callus yellow; column and anther cap white; substance firm; texture glistening.



Four flat flowers on one five-inch (13 cm) inflorescence; sepals and petals white with a broad chartreuse picotee, blotched brick-red; lateral sepals inferior half heavily bloched; lip tri-lobe, white, side lobes erect, yellow basal half, midlobe lightly blotched cyan; callus yellow; column and anther cap white; substance heavy; texture waxy.



Phal. Miro Sun – Cultural Award Description

(Phal. Mituo Sun x Phal. Miro Buddha)

Thirty-three flat full flowers and eight buds on eleven inflorescences of around 10 inches (25 cm) length presented on a clean robust multi-crown plant in a 15 in (38 cm) wood slat basket; sepals and petals cream, heavily overlaid red leaving a thin cream picotee, heavy faint brick red blotches; lip tri-lobed, red, sidelobes erect, midlobe overlaid dark brick-red, callus red; column and anther cap white; substance thick; texture glistening.



Phal. Jumbo King - Quality Award Description

(Phal. gigantea x Phal. Chienlung Red King)

three nodding flowers and two buds on one 6.5-inch (16.5 cm) inflorescence; sepals and petals white lemon yellow distally; sepals heavily blotched dark maroon; petals blotched dark maroon; lip tri-lobe, sidelobes erect, orange-red distally, yellow basally; midlobe serrated, overlaid light maroon; column and anther cap white; substance rigid; texture waxy.



Phal. Pylo's Tangerine - Quality Award Description

(Phal. Sogo Lawrence x Phal. Pylo's Sweet Orange)

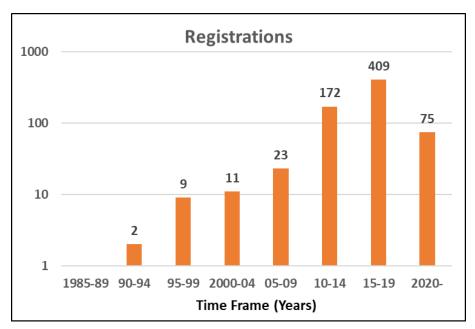


Three full flat flowers and one bud on one 6-inch (15 cm) inflorescence; sepals and petals butter-yellow, overlaid tangerine, concentric barred dark tangerine basally, blotched distally; lip trilobed, sidelobe erect, orange-magenta distally, tangerine basally, spotted dark tangerine, midlobe magenta distally, orange-red medially, tangerine basally, callus tangerine spotted dark tangerine; column white blushed magenta; anther cap white; substance hard; texture matte.

Phalaenopsis World Class 'Big Foot' JC/AOS Progeny Report

Phalaenopsis World Class was registered in 1990 by Carmela Orchids and cultivar 'Big Foot' received a JC/AOS in 1991 when shown at the New England Orchid Show. It was the only cultivar with petal-like lips (petaloid) found in the population of Phal. World Class they raised. In fact, this kind of lip mutation was unknown until the 'discovery' of Phalaenopsis World Class 'Big Foot'. It was mericloned and sold to orchid hobbyists in the USA and Japan, beginning the big lip breeding line. It has been shown that the likelihood of the petaloid feature to be inherited in second generation progeny from first generation progeny is around 30 to 40 percent.

From 1990 to March 2021 there have been 48 F1 and 701 total progeny registered. A graph showing the number of registrations verses time is shown in the graph below.



number of associated awards to each person/firm.

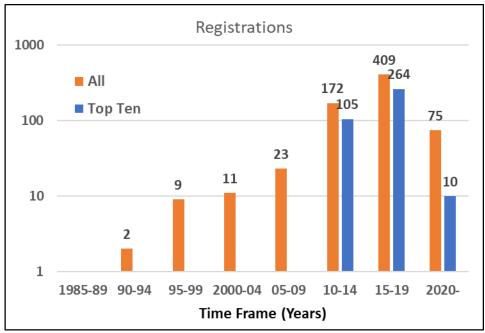


Phalaenopsis World Class 'Big Foot' JC/AOS Apr 1997, 8.5 x 8.4 cm 6 Flwrs, 1 Bud, 1 Inflor.

From this graph, one sees that the breeding of Phal. World Class progeny did not really take off until around 2010. This is coupled with the widespread distribution of two key hybrids (Phal. Yu Pin Easter Island registered in 2009 and Phal. Yu Pin Fireworks in 2010) in Taiwan. Taiwan has since become THE source of big lip Phalaenopsis hybrids with the top ten hybridizers all located in Taiwan. The table below list the current top ten firms / people, number of registered Phal. World Class 'Big Foot' progeny awarded and the

		ASSOC.
Firm / Person	Registrations	Awards
Fuller's Orchids	85	6
Tying Shin Orchids	66	20
Mr. Gao Ming Huang	60	6
I-Hsin Biotechnology Inc.	45	0
Kung Sir Orchids	24	2
Taisuco Orchid Propagation Center	21	4
Wu Fu Shun	21	1
Ching Ann Orchids	20	0
Shih Ching Lin	19	0
Young Home Orchid	18	1

These top ten hybridizers account for 379 of the 701 (54.1%) registered Phal. World Class 'Big Foot' progeny and 40 of the 131 (30.5%) of the associated awards. To demonstrate the impact of these Taiwanese breeders the number of registration is added to the prior registration chart below.



Below are the some of the progeny, arranged by generation.

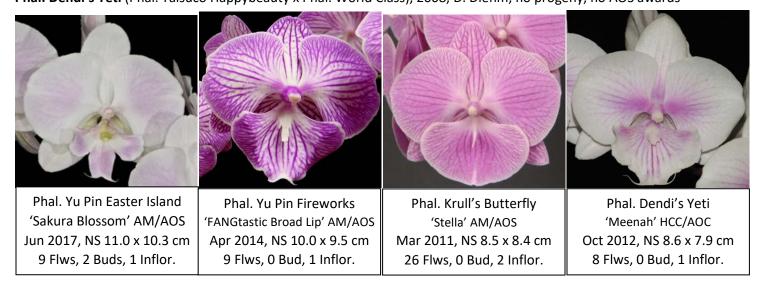
First Generation:

Phal. Yu Pin Easter Island (Phal. Sogo Yukidian x Phal. World Class), 2009, Yu Pin Biotech., 84 F1 and 272 total progeny, 9 AOS awards (5 AMs, 3 HCCs, 1 JC).

Phal. Yu Pin Fireworks (Phal. Sogo Dove x Phal. World Class), 2010, Neng-I Chang, 93 F1 and 330 total progeny, 9 AOS awards (4 AMs, 4 HCCs, 1 CCM).

Phal. Krull's Butterfly (Phal. Music x Phal. World Class), 2007, Krull-Smith, 2 F1 and 3 total progeny, 12 AOS awards (10 AMs, 1 AQ, 1 JC).

Phal. Dendi's Yeti (Phal. Taisuco Happybeauty x Phal. World Class), 2008, D. Diehm, no progeny, no AOS awards



Second Generation:

Phal. Tying Shin World Class (Phal. Sogo Vivien x Phal. Yu Pin Fireworks), 2011, Tying Shin Orchids, 21 F1 and 28 total progeny, 3 AOS Awards (2 AMs, 1 AQ)

Phal. Fuller's D-Plus (Phal. Yu Pin Easter Island x Phal. Fuller's Purple Queen), Fuller's Orchids, 21 F1 and 22 total progeny, 1 FCC/AOS award.

Phal. Tying Shin Eastern Star (Phal. Sogo Genki x Phal. Yu Pin Easter Island), Tying Shin Orchids, 3 F1 progeny, 7 AOS awards (4 AMs, 2 HCCs, 1 AQ)

Phal. Fangmei Dream Wedding (Phal. Mount Lip x Phal. Yu Pin Easter Island), 2013, Pi-I Chou, 5 F1 and 7 total progeny, 3 AOS awards (2 AMs, 1 HCC).



Phal. Tying Shin World Class '2164-1' AM/AOS Mar 2012, NS 5.5 x 6.0 cm 12 Flws, 6 Buds, 2 Inflor.



Phal. Fuller's D-Plus 'FL 89135' FCC/AOS Mar 2017, NS 12.7 x 11.0 cm 11 Flws, 0 Bud, 1 Inflor.



Phal. Tying Shin Eastern Star 'JC226' AM/AOS Mar 2014, NS 9.0 x 9.1 cm 14 Flws, 11 Buds, 1 Inflor.



Phal. Fangmei Dream Wedding 'FA7773-10' AM/AOS Mar 2013, NS 10.9 x 10.4 cm 11 Flws, 2 Buds, 1 Inflor.

Third Generation:

Phal. Tying Shin Galaxy (Phal. Fantasia Prince x Phal. Tying Shin Unicorn), 2014, Tying Shin Orchids, 7 F1 progeny, 1 AM/AOS award

Phal. Younghome Princess (Phal. Leopard Prince x Phal. Fuller's E-Plus), 2012, Young Home Orchids, 7 F1 and 12 total progeny, 1 HCC/AOS award

Phal. Charming Crystal Water (Phal. Tying Shin Valentine's Day x Phal. Fureshing Mark), 2018, Char Ming Agri., no progeny, 2 AOS awards (1 FCC, 1 CCM)

Phal. Lioulin Hot Lip (Phal. Chian Xen Violin x Phal. Lioulin Lovely Lip), Huang Gao Ming, 2015, 6 F1 progeny, 3 AM/AOS awards



Phal. Tying Shin Galaxy '9080' AM/AOS Mar 2015, NS 9.0 x 8.8 cm 15 Flws, 29 Buds, 2 Inflor.



Phal. Younghome Princess 'YH0195-Dusty' HCC/AOS Mar 2017, NS 9.4 x 8.4 cm 10 Flws, 2 Buds, 1 Inflor.



Phal. Charming Crystal Water 'Lee 1288' FCC/CCM/AOS Mar 2017, NS 9.0 x 8.7 cm 109 Flws, 0 Bud, 3 Inflor.



Phal. Lioulin Hot Lip 'Charming Butterfly' AM/AOS Mar 2019, NS 7.3 x 7.1 cm 51 Flws, 12 Buds, 3 Inflor.

Most recently awards (not mention above):

Phal. Lioulin R Lip (Phal. Tying Shin Unicorn x Phal. Lioulin Pretty Lip), 2015, Huang Gao Ming, 3 F1 progeny, 1 JC/AOS award (commendation for unusually large peloric lip).

Phal. Yu Pin Infrared Ray (Phal. Yu Pin Fireworks x Yu Pin Ocicat), 2013, Neng-I Chang, no progeny, 1 HCC/AOS award (light pink flowers).

Phal. Laura's Puzzle (Phal. Phal. Brother Pico Elf x Phal. World Class), 2021, Laura Newton, no progeny, 1 CCM/AOS award. NOTE: This plant was awarded originally as Phal. Sweet Talk 'Dwain's Choice' in Oct. 2019. I flag Laura Newton that this is not possible since Phal. World Class is not part of the parentage. She investigated the situation and found that the plant is a mericlone that was sold under the trade name Phal. 'Sweet Talk'. Laura contact RHS and the above changes were agreed to. The cross registration information is a guess on my part since all communications happened in June 2021 (14 Jun 2021 and 15 Jun 2021) with Laura Newton at AOS, RHS, and myself.

Phal. Lioulin Pretty Lip (Phal. Yu Pin Fireworks x Phal. Chian Xen Mammon), 2012, Huang Gao Ming, 14 F1 and 23 total progeny, 1 AM/AOS award



Phal. Lioulin R Lip 'Snookie' JC/AOS Jan 2020, NS 8.2 x 7.5 cm 6 Flws, 3 Buds, 1 Inflor.



Phal. Yu Pin Infrared Ray 'Cotton Candy' HCC/AOS Nov 2019, NS 8.0 x 8.0 cm 11 Flws, 1 Bud, 1 Inflor.



Phal. Laura's Puzzle 'Sweet Talk' CCM/AOS Oct 2019, NS 10.0 x 9.3 cm 25 Flws, 0 Bud, 3 Inflor.



Phal. Lioulin Pretty Lip 'Gene and Jeanette' HCC/AOS Jun 2019, NS 10.4 x 10.3 cm 24 Flws, 0 Bud, 3 Inflor.

Future breeding trends appears to be

- Towards round flowers, especially a round petaloid lip,
- Continue harlequin and miniature plant breeding trends
- Solid color, pink and yellow
- More flowers per inflorescence

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Award Descriptions (June 2021)

Phal. Big Foot Stripes - Quality Award Description



(Phal. Luchia Davis x Phal. World Class)

Eleven well-formed pink petaloid flowers on a fifteen-inch (38 cm) inflorescence; sepals and petals veined dark pink, narrow white picotee; lip trilobed, equal width elements, pink, veined dark pink, narrow white picotee, callus yellow; column dark pink; anther cap white; substance firm; texture matte.

Phal. Chia-Shing Pink Kiss - Quality Award Description

(Phal. Yu Pin Fireworks x Phal. Nobby's Pink Lady)
Twenty flat, well-formed white flowers on one
twelve-inch (30 cm) inflorescence; petals overlap; lip

tri-lobe, side lobes erect, white, spotted dark red basally, medial edge overlaid orange, distal half lavender, midlobe yellow-lavender, yellow basally, lavender distally; callus yellow, spotted dark red; column and anther cap white; substance heavy; texture glistening.



Phal. Younghome Snow Season – Cultural Award Description

(Phal. Timothy Christopher x Phal. Tying Shin Swallow)
Seventy-three flat full white petaloid flowers and eight buds on four inflorescences, longest 21 inches (53 cm) long presented on a clean robust multi-crown plant in a 15 in (38 cm) plastic pot; petals and lip overlap forming ovate open areas; lip trilobed, broad rounded segments, mid-lobe center rounded notch, callus rectangular, white; column white; anther cap creamy yellow; substance firm; texture matte.

Phal. Younghome New Staff – Quality Award Description

(Phal. Tying Shin Golden Staff x Phal. Tying Shin New View)
Seven well-formed, round, slightly cupped flowers and two buds on one 10.5-inch (27 cm) inflorescence; sepals and petals white, overlaid maroon basally, distinct gap then spotted maroon roughly along lines, spots larger basally, no spots on edges leaving a broad picotee; lip fan shaped, undulating edge, white, overlaid maroon basally, distinct small gap then spotted maroon along lavender veins, veins stop short of edge leaving a narrow picotee; column white spotted maroon; anther cap cream; substance rigid; texture waxy.



Phal. Dendi's Ching Hua – Quality Award Description

(Phal. Ching Hua Wizard x Phal. Sasquatch)



Eight full recurred flowers and one bud on one 10-inch (25 cm) inflorescence; sepals and petals white, distal three-quarters spotted red-violet generally along lines, spots small distally leaving a picotee; lip trilobed, white, sidelobes erect, overlaid red-violet marginally, midlobe overlaid light red-violet, callus dark red-violet; column white, overlaid red-violet; anther cap cream; substance hard; texture matte.