

Building Block

***Vanda coerulea* Griff. ex Lindl., *Edwards's Bot. Reg.* 33: t. 30 (1847).**

The Blue Vanda

**Synonyms**

- *Vanda coerulea* var. *rogersii* Rolfe, *Orchid Rev.* 22: 31 (1914).
- *Vanda coerulea* *delicata* Rolfe, *Orchid Rev.* 33: 318 (1925).
- *Vanda coerulea* f. *luwangalba* Kishor, *Orchid Rev.* 116: 224 (2008).
- *Vanda coerulea* f. *delicata* (Rolfe) Christenson, *Orchid Rev.* 117: 222 (2009).
- *Vanda coerulea* f. *rogersii* (Rolfe) Christenson, *Orchid Rev.* 117: 222 (2009).

*Vanda coerulea* ranges through the Himalayas from India and Nepal to Burma and northern Thailand. It grows at elevations above 2,500 feet up to 4,000 feet, where the plants are subjected to night temperatures considerably lower than those experienced by most other *Vanda* species. This cold tolerance is one of the factors which endeared the species to early European breeders. It should continue to have importance to growers of *Vandas* in the temperate zone.

Another important characteristic that should be noted those whose climate forces them to grow *Vandas* in greenhouses is the size of the species. Although the plants can become rather tall, the leaf span of *Vanda coerulea* is quite narrow, occupying much less bench space than *V. sanderiana*. Jungle plants of *V. coerulea* are scarcely more than 6" across. Cultivated forms originating in Thailand frequently are two to two and half times as broad. Whether this is the result of polyploidy or perhaps belies a hybrid nature must be left to conjecture. Although polyploidy has been confirmed in some Thai seedling populations.

*Vanda* Rothschildiana 'Bird Sellers' FCC/AOS (92 points)  
*Vanda coerulea* x *Vanda sanderiana*



Blue colors come in mind when we think about *Vanda coerulea*, but this orchid also occurs in shades ranging from pure white through pinks to almost reds, to blues, intense lavenders and to purple. The influence of *V. coerulea* as a pink parent is less well known. Apart from its ranges of colors, *V. coerulea* also contributes its overall tessellated color pattern to its progeny. This pattern is subdued in most jungle-collected plants, appearing as a faint pattern that can be read through the blue base color. In hybrids, the pattern emerges with authority and clarity, producing flowers boldly marked with regular network of darker lines bordered by a nearly white coloration. In secondary and tertiary hybrids, the pattern is frequently muted but can reappear in a subtle way at several generations removed from the *V. coerulea* ancestor.

The inflorescence of *V. coerulea* also has contributed immeasurably to modern hybrids. It is both long and erect, sometimes as long as two feet, with two or more branches which can carry up to 25 flowers.

This inflorescence is held well above the foliage, with the first flowers opening quite clear of the leaves, also spaces its flowers in a less crowded way. The long, cylindrical flowers presentation of modern *Vanda* gains their height and spacing from *V. coerulea* and their symmetrical arrangement nearly as much from *V. coerulea* as from *V. sanderiana*.

In addition to its other virtues, it the most free-flowering *Vanda* species. Well-grown plants in Florida will flower three, four or even five times a year. This desirable trait is passed on to their hybrids progeny. First generation hybrids made with *V. coerulea* nearly always are blue, or at least have a bluish cast with pronounced tessellation. When one of these is crossed with a red strap-leaf *Vanda*, some of the offspring will be pink, and the pronounced tessellation tends to diminish. If a deep-blue first-generation hybrid is crossed with a really dark red *Vanda*, even a rather dull, muddy one, then there will very likely be some "hot pinks" among the offspring; whereas a dark pink bred with another dark pink will produce lighter colored pinks. The deeper and darker the clone of *V. coerulea* one starts with, the greater the potential for obtaining dazzling "hot pinks" two generations later.

The improvement in intensity of color and in the shape of the best current *V. coerulea* cultivars has made possible a great improvement in first-generation *V. coerulea* hybrids, and of subsequent generations as well. As a consequence, Thai breeders made excellent blue hybrids with *V. coerulea* as one of the parents. One example is *V. Bangyikhan Blue* (*V. Star Sapphire* x *V. coerulea*), made by Amnuey Sathirasut. This cross was registered in 1982 and in January 1983, received an Award of Quality from the RHS of Thailand, on a dozen plants.

Vigor also characterizes *V. coerulea* and its primary hybrids. The size and profusion of flowers in *V. Rothschildiana* and other primary hybrids constantly amaze orchids lovers. These primary hybrids manage to produce more and larger flowers than another parent because of true hybrid vigor.

Its flawed shape is quickly overcome in second and third generations and its other positive characteristics can be seen in nearly all modern *Vanda* hybrids, including some of the best yellows.

About the negative aspect we can mention tendency of *V. coerulea* tendency to twist its petals a full 180 degrees (see picture below). However, this characteristic is not carried over to

its progeny when the species is combined with *V. sanderiana* or with hybrids with substantial *V. sanderiana* lineage.



Photo by: Lourens Grobler

The second weakness of the species is that the flower stalk tends to be thin and weak and this negative aspect is not transmitted to its hybrid's progeny to any pronounced degree, and it rarely appears in the triploid and tetraploid cultivars that have become widely available in recent years as hybridizers strove to overcome the flower stem problem. (Grove, 2003).

This characteristic has been improved by Thailand breeder over generations using good cultivated forms.

The flowers of the first-generation offspring of *V. coerulea* almost always inherit the normal tessellated blue color of that parent. In the second generation, the flowers are just as likely to be pink.

Moreover, some of the best pink *Vanda* and *Ascocenda* hybrids have been produced by mutations resulting from mericlone normal first-generation blue hybrid offspring.

Examples are the gorgeous pink color forms of *V. Wirat* (*V. Madame Rattana* x *V. coerulea*), *V. Bangyikhan Blue* (*V. Star Sapphire* x *V. coerulea*) and *Ascocenda Princess Mikasa* (*Ascda. Royal Sapphire* x *V. coerulea*), both of which normally have indigo flowers.



Photo by: Lourens Grobler

*Vanda Wirat* 'Crownfox' AM/AOS (80 points)  
*Vanda Madame Rattana* x *Vanda coerulea*

According to OrchidWiz X.6.3. *V.coerulea* showed the impressive numbers of 6,126 total progeny and 341 first generation offspring. Also, awards are abundant spanned 9 generations of hybrids.

9 Generations of Progeny				
G	Grexes	Awdd.	% Awdd.	Awds
1	341	83	24.3%	379
2	1,017	176	17.3%	583
3	1,202	300	25.0%	1,015
4	1,369	329	24.0%	977
5	1,080	309	28.6%	814
6	630	218	34.6%	589
7	399	129	32.3%	294
8	85	17	20.0%	33
9	3	0	0%	0

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