

Vanda merrillii Ames and Quisumbing

ORIGIN/HABITAT: The Philippines. Originally found in Quezon Province on Luzon in habitat similar to that of *Vanda luzonica* Loher, plants have since been found in Nueva Ecija Province in central Luzon and on Negros Island. Habitat elevation has not been reported, so the following climate table and cultural suggestions are based on estimated values and should be used somewhat cautiously.

CLIMATE: Station #98427, Manila, Luzon, Philippines, Lat. 14.5N, Long. 121.0E, at 74 ft. (23 m). Temperatures are calculated for an elevation of 2300 ft. (700 m), resulting in probable extremes of 94F (34C) and 51F (10C).

N/HEMISPHERE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
F AVG MAX	79	81	84	86	86	84	81	80	81	81	80	79
F AVG MIN	62	62	64	66	68	68	68	68	68	67	65	63
DIURNAL RANGE	17	19	20	20	18	16	13	12	13	14	15	16
RAIN/INCHES	0.9	0.5	0.7	1.3	5.1	10.0	17.0	16.6	14.0	7.6	5.7	2.6
HUMIDITY/%	77	73	70	68	71	81	84	86	87	84	82	79
BLOOM SEASON		*		*			*	*	*	*	*	
DAYS CLR @ 8AM	6	9	14	14	10	3	2	1	1	6	7	6
DAYS CLR @ 2PM	3	6	10	10	8	2	1	1	0	2	2	3
RAIN/MM	23	13	18	33	130	254	432	422	356	193	145	66
C AVG MAX	26.1	27.2	28.9	30.0	30.0	29.1	27.3	26.7	27.2	27.2	26.7	26.1
C AVG MIN	16.7	16.5	17.6	18.7	19.8	19.8	19.8	19.8	19.8	19.3	18.1	17.0
DIURNAL RANGE	9.4	10.7	11.3	11.3	10.2	9.3	7.5	6.9	7.4	7.9	8.6	9.1
S/HEMISPHERE	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN

Cultural Recommendations:

LIGHT: 2500-3500 fc. Moderately bright light should be filtered or diffused, and plants should never be exposed to full mid-day sun. Strong air movement should be provided at all times.

TEMPERATURES: Summer days average 80-84F (27-29C), and nights average 68F (20C), with a diurnal range of 12-16F (7-9C). The warmest yearly temperatures occur in spring during the clear weather at the end of the dry season. Spring days average 84-86F (29-30C), and nights average 64-68F (18-20C), with a diurnal range of 18-20F (10-11C).

HUMIDITY: 80-85% in summer through most of autumn, dropping slowly to near 70% in late winter and spring.

WATER: Rainfall is moderate to heavy from late spring through autumn, but amounts diminish rapidly resulting in a 3-4 month, winter dry season. Cultivated plants should be watered often while actively growing, but their roots must dry rapidly after watering. Water should never lodge in the growing apex of the stem, or the entire terminal growing-point can rot. Water should be gradually reduced in late autumn.

FERTILIZER: 1/4-1/2 recommended strength, applied weekly when plants are actively growing. Many growers prefer to use a balanced fertilizer throughout the year; but others use a high-nitrogen fertilizer from spring to midsummer, then switch to one high in phosphates in late summer and autumn.

REST PERIOD: Winter days average 79-81F (26-27C), and nights average 62-63F (17C), with a diurnal range of 16-19F (9-11C). Habitat elevation has been estimated, so actual temperatures in the habitat may be either somewhat warmer or cooler than indicated. The suggested cultural conditions should be used rather cautiously. Rainfall in the habitat is low in winter and early spring, but moisture is usually available from heavy dew and night-time mist. Water should be reduced for cultivated plants in winter, particularly those grown in the dark, short-day conditions common in temperate latitudes, but they should never stay completely dry for long periods. Brief early-morning mistings every few days provides sufficient moisture in most growing areas. Fertilizer should be reduced until heavier watering is resumed in spring.

GROWING MEDIA: Plants are usually grown in hanging pots or slatted wooden baskets filled with a very open, fast draining medium. Some are grown with only enough open, chunky medium, such as charcoal or large cork chips, to anchor the plant until it becomes established. Many growers use relatively large chunks of tree-fern fiber or coarse fir bark mixed liberally with broken crock and/or charcoal. Others, however, successfully use straight broken crock, cracked brick, chunks of volcanic pumice, vermiculite, or even coarse sand. In some growing areas with high humidity, plants are often placed in an empty clay pot and allowed to grow with nothing around the roots but air. Plants should be tied or wedged firmly in place until new roots anchors them to the side of the pot. Regardless how the plants are grown, the roots need to grow and hang down as far as they choose. They should not be trimmed to make things look neat. Vanda growers report that anything more than minimal trimming of damaged roots can set the plant back 2-3 years. Good air movement around the roots at all times seems to be very important.

MISCELLANEOUS NOTES: The bloom season shown in the climate table is based on cultivation records. *Vanda merrillii* Ames and *Quisumbing* is very closely related to *Vanda luzonica* Loher and the two are vegetatively so similar that they are difficult to tell apart when not in flower.

Plant and Flower Information:

PLANT SIZE AND TYPE: A large, often rather rank-growing, 60 in. (150 cm) monopodial epiphyte.

STEAM: Stems, tend to be leggy with the older leaves falling off the bottom part of the stem on older plants. Leaves often bend or twist as they become longer with age. Numerous aerial roots are produced freely along the stem, and plants often branch near the base.

LEAVES: 10-13 in. (25-32 cm) long by 1.1-1.4 in. (2.8-3.5 cm) wide. Each stem carries several light green, strap-shaped leaves in 2 rows. They are rigid, leathery, linear-oblong, and unequally bilobed at the apex. Leaves are gracefully arched or recurved. The closely overlapping leaf bases nearly cover the stem.

INFLORESCENCE: To 10 in. (25 cm) long. The horizontal to arching inflorescences are borne in the axil of the leaves on the upper part of the stem. Each stem may produce 1-3 inflorescences at the same time. Each flower is carried on a twisted, yellow pedicellate ovary that is 1.4-2.6 in. (3.5-6.5 cm) long. Blossoms are loosely arranged on each inflorescence.

FLOWERS: 10-15 per inflorescence. The very waxy blossoms have a shiny, polished, lacquered appearance. They are long-lived, very fragrant, and measure 1.5-2.0 in. (3.8-5.0 cm) across. Sepals and petals are broad, somewhat clawed at the base, with wavy margins at the rounded tips. They are cream-yellow with many dark mahogany-red or blood-red blotches. The outside surface is usually much lighter in color than the inside. The fleshy, 3-lobed lip, which is large and flaring, is mostly yellowish with a red spur, white sidelobes marked with purple dots, and a yellow midlobe marked with vague dark red streaks. The white column is very short, stout, and laterally swollen at the base.

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