

Vanda lamellata Lindley

SYNONYMS: *Vanda amiensis* Masamune & Segawa, *Vanda clitellaria* Rchb. f., *Vanda cumingii* Loddiges, *Vanda boxalli* (Rchb. f.) Rchb. f., *Vanda superba* Linden & Rodigas, *Vanda nasugbuana* Parsons, *Vanda vidalii* Boxall ex Naves.

ORIGIN/HABITAT: The Philippines, Borneo, Taiwan, and the Mariana and Ryukyu Islands. This sun-loving, epiphytic and lithophytic orchid is one of the most common and hardy vandas found in the Philippines. It is found in many provinces on Luzon Island, including Abra, Bataan, Batangas, Benguet Cavite, Ifugao, Laguna, Quezon, and Rizal. Plants have also been found on the islands of Panay, Mindoro, Palawan, and Sulu. Throughout the Philippines, plants grow on both trees and rocks from near sea level up to about 1300 ft. (400 m). In Borneo, plants are found in Sabah on Mantanani Besar Island, Banggi Island, Tigabu Island, and in the Kudat District. Plants grow on branches and trunks of trees in forest on limestone, in coastal forests near the beach, and on sea-cliff scrub from near sea level to about 350 ft. (100 m). Plants often are found in full sunlight and are occasionally found in situations where they are exposed to salt spray during storms. In Taiwan, this orchid is known only from Lanyu Island (Botel Tobago), an island off the southeast coast of Taiwan where plants usually are found on exposed rocks or tree trunks.

CLIMATE: Station #98426, Cubi Point, NAS, Luzon Island, Philippines, Lat. 14.8N, Long. 120.3E, at 55 ft. (17 m). Temperatures are calculated for an elevation of 800 ft. (250 m), resulting in probable extremes of 99F (37C) and 60F (15C).

N/HEMISPHERE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
F AVG MAX	85	86	89	91	90	86	85	84	84	87	86	85
F AVG MIN	70	70	72	74	75	74	73	73	73	73	73	71
DIURNAL RANGE	15	16	17	17	15	12	12	11	11	14	13	14
RAIN/INCHES	0.1	0.1	0.1	0.8	7.1	25.1	30.5	33.7	29.5	7.8	2.4	0.8
HUMIDITY/%	68	67	68	67	72	82	84	86	86	80	74	71
BLOOM SEASON	*	*		*	*	*	*	*	*	*	*	*
DAYS CLR @ 8AM	7	7	8	10	6	2	1	0	0	4	3	4
DAYS CLR @ 2PM	4	3	4	4	3	1	0	0	0	2	1	2
RAIN/MM	3	3	3	20	180	638	775	856	749	198	61	20
C AVG MAX	29.2	30.0	31.7	32.8	32.2	30.0	29.4	28.9	28.9	30.6	30.0	29.4
C AVG MIN	20.9	21.1	22.2	23.3	23.9	23.3	22.8	22.8	22.8	22.8	22.8	21.7
DIURNAL RANGE	8.3	8.9	9.5	9.5	8.3	6.7	6.6	6.1	6.1	7.8	7.2	7.7
S/HEMISPHERE	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN

Cultural Recommendations:

LIGHT: 4000-5000 fc. Plants require bright light but may need some protection from direct midday sun. In the habitat, heavy cloud cover dramatically reduces light. This suggests that some shading is appropriate for cultivated plants at midday, especially in summer. Strong air movement should be provided at all times.

TEMPERATURES: Summer days average 84-86F (29-30C), and nights average 73-74F (23C), with a diurnal range of 11-12F (6-7C). The warmest days and the greatest diurnal range occur during the relatively clear weather in spring at the end of the dry season. Spring days average 89-91F (32-33C), nights average 72-75F (22-24C), and the diurnal range is 15-17F (8-10C).

HUMIDITY: 80-85% in summer and early autumn, dropping to 65-70% in winter and spring.

WATER: Rainfall is very heavy during the growing season from spring into autumn but is very low in winter. Cultivated plants should be watered heavily while actively growing, but their roots should be able to dry rapidly after watering. Water should be gradually reduced in late autumn after new growths mature. In most growing areas, daily watering or morning mistings are beneficial when weather is hot and dry.

FERTILIZER: 1/4-1/2 recommended strength, applied weekly when plants are actively growing. Many growers 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 85-86F (29-30C), and nights average 70-71F (21-22C), with a diurnal range of 14-16F (8-9C). Rainfall in the habitat is low for several months in from late autumn into the following spring. High relative humidity and nightly cooling result in additional moisture being available from dew and mist during the dry season, however. Water should be reduced for cultivated plants in winter, but they should not be allowed to remain without water for extended periods. Fairly regular early-morning mistings between occasional waterings should provide sufficient moisture in most growing areas. Fertilizer should be reduced or eliminated until new growth starts and heavier watering is resumed in the spring. Light during winter and early spring should be as high as possible, short of burning the foliage.

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, wine corks, or large cork chips, to anchor the plant until it becomes established. The roots should grow and hang down as far as they choose and should not be trimmed to make things look neat. Growers indicate that anything more than minimum root trimming 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.

Plant and Flower Information:

PLANT SIZE AND TYPE: A medium-sized to rather large, up to 18 in. (45 cm) monopodial epiphyte with stems that often branch near the base so that clumps of stems often are produced.

STEM: Up to 18 in. (45 cm) long. The rather robust stems are densely leafy and are enclosed by the distichous, overlapping, longitudinally folded bases of the leaves that are up to 0.6 in. (1.5 cm) long.

LEAVES: Up to 10 in. (25 cm) long by 0.8 in. (2 cm) wide. Numerous leathery, recurved, longitudinally folded, linear leaves are distichously arranged on each stem. They are narrower than the leaves of most other Vanda species, are often slightly yellowish, and are unequally bilobed at the apex.

INFLORESCENCE: 8-12 in. (20-30 cm) long. The erect to horizontal or suberect flower spikes usually are longer than the leaves and emerge along the leaf axils on the upper part of the stem.

FLOWERS: Up to 25 very fragrant blossoms are carried on each inflorescence. They are waxy, long-lived, highly variable in color, and up to 1-2 in. (2.5-5.0 cm) across. There are several named varieties, differentiated primarily by flower color. Sepals and petals typically are yellowish or greenish and are more or less marked with prominent brownspots and irregular, longitudinal stripes. The lip is whitish or yellow with some dark brown or reddish purple streaks down the middle of the midlobe, and the column is pale violet. The flowers have spreading sepals and petals that are oblong or spoon-shaped with narrow bases and broadly rounded tips. They are about 0.7 in. (1.8 cm) long, up to 0.4 in. (0.9 cm) wide near their tips, and have margins that are recurved toward the base and are more or less undulate above the middle. The somewhat sickle-shaped lateral sepals are wider than the other segments and are twisted at the base to be held back to back. The 3-lobed lip is about 0.5 in. (1.5 cm) long by 0.3 in. (0.8 cm) wide with rounded, earlike lateral lobes and an erect, oblong midlobe that is traversed longitudinally by a pair of raised plates that are broadest in the middle, a pair of tubercles just below the apex, a rounded apex, and a conical spur at the base that is about 0.2 in. (0.6 cm) long. The small column is about 0.2 in. (0.5 cm) long.

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