

Vanda stangeana Rehb. f.

ORIGIN/HABITAT: India. This orchid is found in Manicure, a region in eastern India along the border with Burma, and in Assam (Meghalaya on current maps), which is just west of Manipur and includes the orchid-rich region of the Khasi Hills. Plants are found mostly at 3950-4900 ft. (1200-1500 m) but have been reported from as low as 1300 ft. (400 m).

CLIMATE: Station #42516, Shillong, India, Lat. 25.6N, Long. 91.9E, at 4921 ft. (1500 m). Temperatures are calculated for an elevation of 4250 ft. (1300 m), resulting in probable extremes of 89F (32C) and 26F (-3C).

N/HEMISPHERE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
F AVG MAX	62	65	73	77	77	77	77	77	76	73	68	64
F AVG MIN	41	46	53	59	62	65	67	66	64	57	48	42
DIURNAL RANGE	21	19	20	18	15	12	10	11	12	16	20	22
RAIN/INCHES	0.6	1.1	2.3	5.4	12.8	21.5	15.6	13.2	12.6	8.7	1.4	0.2
HUMIDITY/%	74	64	51	56	73	83	82	83	84	80	75	75
BLOOM SEASON		*	*	*	*	*	*			*	*	*
DAYS CLR	N/A											
RAIN/MM	15	28	58	137	325	546	396	335	320	221	36	5
C AVG MAX	16.8	18.3	22.8	25.0	25.0	25.0	25.0	25.0	24.4	22.8	20.0	17.8
C AVG MIN	5.1	7.8	11.7	15.0	16.7	18.3	19.4	18.9	17.8	13.9	8.9	5.6
DIURNAL RANGE	11.7	10.5	11.1	10.0	8.3	6.7	5.6	6.1	6.6	8.9	11.1	12.2
S/HEMISPHERE	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN

Cultural Recommendations:

LIGHT: 3000-4500 fc. Plants require high light but may need some shading from direct midday sun. Strong air movement should be provided at all times.

TEMPERATURES: Summer days average 77F (25C), and nights average 65-67F (18-19C), with a diurnal range of 10-12F (6-7C).

HUMIDITY: 80-85% from summer to early autumn. Averages drop to 70-75% in late autumn and early winter, then drop further to 50-55% at the end of the dry season in late winter and early spring.

WATER: Rainfall is very heavy during the growing season from midspring to early autumn. Monthly averages drop rather rapidly to the 3-4 month winter dry season. During the early part of the dry season, humidity remains high enough and the daily temperature range is large enough so that heavy dew is common. Cultivated plants should be watered often while actively growing, but their roots must be allowed to dry out between waterings. Conditions around the roots should remain well aerated, and the medium never be allowed to become stale or soggy. Water should be gradually reduced after new growth matures in autumn.

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 62-65F (17-18C), nights average 41-46F (5-8C), and the diurnal range is 19-22F (11-12C). Rainfall is low for 3-4 months in winter, but during most of this time, considerable additional moisture is available from frequent heavy deposits of dew. Water should be reduced for cultivated plants, allowing them to dry out between waterings. They should not remain completely dry for long periods of time, however. Fairly regular light mistings between waterings given every 3-4 weeks should provide sufficient moisture in most growing areas during winter. Water should be increased if the leaves start to shrivel and wrinkle or show other signs of stress. Fertilizer should be reduced or eliminated until growth starts and water is increased 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 attaches to the container. Many growers prefer relatively large chunks of tree-fern fiber or coarse fir bark mixed liberally with broken crock and/or charcoal. Others successfully use only broken crock, cracked brick, chunks of volcanic pumice, vermiculite, or even coarse sand. Plants are sometimes placed in an empty clay pot and allowed to grow with nothing around the roots but air. Plants grown in this manner should be tied or wedged firmly in place until new root growth has anchored them to the side of the pot. However the plants are grown, their roots need to grow and hang down as far as they choose. They should never be trimmed to make things look neat. Vanda growers report that anything more than minimum root trimming may set the plant back 2-3 years. Continuous air movement around the roots is critically 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 6-18 in. (15-45 cm) monopodial epiphyte.

STEM: 6-18 in. (15-45 cm) long. The erect stem is enclosed by the distichous, overlapping, longitudinally folded sheaths at the base of the leaves. Older stems are leafy only toward the apex, but the basal part remains enclosed by the persistent leaf sheaths, even after the leaves have fallen.

LEAVES: 6-7 in. (15-18 cm) long by 1.0-1.2 in. (2.5-3.0 cm) wide. Ten or more spreading, strap-shaped leaves are closely spaced and distichously arranged on each stem. They are channeled along their entire length and have unequally bilobed tips.

INFLORESCENCE: 6-7 in. (15-18 cm) long. The flower spikes are erect to suberect.

FLOWERS: 5-8 per inflorescence in nature, but some growers report 1-2 per inflorescence on cultivated plants. The nodding, fragrant blossoms have greenish yellow to yellow sepals and petals that are marked with dark purplish brown netlike tessellations. The lip is white at the base with some yellow and purplish spots, and the midlobe is greenish to brownish white. The column is white. The flowers do not open fully and measure 0.7-1.0 in. (1.9-2.5 cm) vertically. Sepals and petals are oblong with blunt tips and are about 0.5 in. (1.3 cm) long, with the sepals being somewhat wider than the petals. The lip has rounded, somewhat erect, earlike lateral lobes at the base and a rather narrow midlobe that curves downward along its length and divides in to a pair of large, egg-shaped lobes at the apex that are separated by a large notch in the center of the apical margin, are rather strongly divergent, and have rounded tips.

HYBRIDIZING NOTES: Chromosome count is $n = 19$.

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