

Vanda bensonii Bateman

SYNONYMS: This name is sometimes spelled as *Vanda bensoni*.

ORIGIN/HABITAT: Burma and Thailand. This orchid has a rather limited distribution in the Shan States of eastern Burma and in the neighboring mountains of northern Thailand at elevations of about 3300 ft. (1000 m). Veitch (1887-1894) reported that this orchid grows "on trees in a deciduous jungle fully exposed to the sun in the dry season, when the temperature frequently rises to 45C (112F) in the shade and when its leaves are often scorched." According to Seidenfaden (1988), plants reported as *Vanda bensonii* from China are actually a dark-colored form of the *Vanda brunnea*-complex.

CLIMATE: Station #48300, Mae Hong Son, Thailand, Lat. 19.3N, Long. 97.9E, at 711 ft. (217 m). Temperatures are calculated for an elevation of 3300 ft. (1000 m), resulting in probable extremes of 99F (37C) and 34F (1C).

N/HEMISPHERE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
F AVG MAX	77	81	88	89	86	80	78	78	79	81	79	76
F AVG MIN	48	48	53	63	67	66	65	65	65	63	59	50
DIURNAL RANGE	29	33	35	26	19	14	13	13	14	18	20	26
RAIN/INCHES	0.4	0.2	0.3	1.7	6.1	7.1	9.6	9.9	8.1	3.9	1.2	0.4
HUMIDITY/%	67	60	50	50	68	81	82	83	83	82	75	71
BLOOM SEASON		*	*	*	**	*	*	*				*
DAYS CLR @ 7AM	2	8	10	9	3	0	0	0	0	1	1	2
DAYS CLR @ 1PM	20	20	20	13	3	0	0	0	0	3	13	17
RAIN/MM	10	5	8	43	155	180	244	251	206	99	30	10
C AVG MAX	25.3	27.2	31.1	31.7	30.0	26.7	25.6	25.6	26.1	27.2	26.1	24.4
C AVG MIN	9.1	8.9	11.7	17.2	19.4	18.9	18.3	18.3	18.3	17.2	15.0	10.0
DIURNAL RANGE	16.2	18.3	19.4	14.5	10.6	7.8	7.3	7.3	7.8	10.0	11.1	14.4
S/HEMISPHERE	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN

Cultural Recommendations:

LIGHT: 4000-5000 fc. Visitors to the habitat report that plants grow well in almost full sunlight. In the habitat, however, heavy summer cloud cover dramatically reduces light. This suggests that some shading is appropriate for cultivated plants at midday in summer. Strong air movement is recommended at all times. Long, deep green leaves indicate light levels are too low. Short, pale, yellow-green leaves that do not spread fully open indicate light levels are too high.

TEMPERATURES: Summer days average 78-80F (26-27C), and nights average 65-66F (18-19C), with a diurnal range of 13-14F (7-8C). The warmest days occur in spring during the clear weather at the end of the dry season. Spring days average 86-89F (30-32C), and nights warm from 53F (12C) at the start of spring to 67F (19C) at the end of the season, and the diurnal range decreases from 35F (19C) early in the season to 19F (11C) at its end.

HUMIDITY: 80-85% in summer and early autumn, dropping rapidly in early winter to 50-60% which lasts until late winter or early spring.

WATER: Rainfall in the habitat is heavy from late spring to early autumn. Averages then decrease fairly rapidly until they are very low in winter and early spring. During the early part of the dry season humidity is high enough so that additional moisture usually is available from dew and late-night mist. But for a month or so in late winter and early spring, conditions are so dry that even this moisture is seldom available. Cultivated plants should be watered heavily while actively growing, but they need much less water starting in late autumn when the new growth matures.

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 76-81F (24-27C), and nights average 48-50F (9-10C), with a diurnal range of 26-33F (14-18C). Rainfall is low in winter, but additional moisture from heavy dew and mist is usually available for most of the dry season. For 1-2 months in late winter or early spring, however, conditions are so dry that even moisture from dew is uncommon. Cultivated plants need less water in winter, but they should not be dry for long periods. Water should probably be reduced even further for a month or so in early spring, however, with only a light misting given if plants show signs of stress. Fertilizer should be reduced or eliminated until new growth starts in spring and heavier watering is resumed.

GROWING MEDIA: Plants are usually grown in hanging pots or slatted wooden baskets filled with a very open, chunky, fast-draining medium. Some are grown with only enough medium, such as charcoal, wine corks, or large cork chips, to anchor the plant until it becomes established. Roots should be allowed to grow and hang down as far as they choose and should not be trimmed to make a plant look neat. Growers indicate that anything more than minimum root trimming may set the plant back 2-3 years. Continuous brisk air movement around the roots is 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 moderately large, up to 12 in. (30 cm) monopodial epiphyte.

STEM: Up to 12 in. (30 cm) long. The erect stem is enclosed by the distichous, overlapping, longitudinally folded bases of the leaves.

LEAVES: 7-10 in. (18-25 cm) long by 0.5-0.8 in. (1.2-2.0 cm) wide. Several horizontally spreading to somewhat downward-curving, rather sickle-shaped leaves are distichously arranged on the stem. They are obliquely truncate and toothed at the apex.

INFLORESCENCE: 12-14 in. (30-36 cm) long. The ascending to erect flower spikes emerge from the stem at the base of the leaves. Each flower is carried on a long, slender, whitish pedicellate ovary.

FLOWERS: 10-20 per inflorescence. The fragrant blossoms are about 2 in. (5 cm) across and have spreading sepals and petals that, on the front side, have a yellow to green background but are rather densely veined and reticulated with chestnut-brown. On the back side, the sepals and petals are pale rose or whitish. The 3-lobed lip has a yellowish claw at the base, white lateral lobes, a light purple midlobe with darker stripes at the base, and a column that is light rose-purple. The sepals and petals are similar and somewhat equal in size. They have short, narrow claws at the base with broadly egg-shaped blades that are rounded at the apex. The sepals and petals are recurved, and the petals are also somewhat twisted. The lip is broadly clawed at the base, with erect, earlike lateral lobes near the base. The midlobe is fleshy, convex, has 3 raised median lines, is heart-shaped to oblong, and expands at the apex into a pair of oblong to sickle-shaped lobes. The spur at the base of the lip is short, funnel-shaped, and compressed. The column is short and stout.

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