

## *Vanda sumatrana* Schlechter

**ORIGIN/HABITAT:** Sumatra. Found at lower elevations in many parts of the island. Plants frequently are found on trees near rivers, but they seem to grow best around Lake Toba, often on sheer cliffs, at about 2800 ft. (850 m). Comber (1982) reported that plants growing in full sun are free flowering, but those in shady forests flower less frequently.

**CLIMATE:** Station #96035, Medan, Sumatra, Indonesia, Lat. 3.6N, Long. 98.7E, at 87 ft. (27 m). Temperatures are calculated for an elevation of 2800 ft. (850 m), resulting in probable extremes of 90F (32C) and 51F (11C).

N/HEMISPHERE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
F AVG MAX	76	78	79	80	80	80	80	80	79	77	77	76
F AVG MIN	62	62	63	64	64	63	63	63	63	63	63	63
DIURNAL RANGE	14	16	16	16	16	17	17	17	16	14	14	13
RAIN/INCHES	5.4	3.6	4.1	5.2	6.9	5.2	5.3	7.0	8.3	10.2	9.7	9.0
HUMIDITY/%	80	79	78	78	79	78	79	79	81	83	83	82
BLOOM SEASON	N/A											
DAYS CLR @ 7AM	4	2	2	2	2	2	2	0	0	0	1	1
DAYS CLR @ 1PM	0	1	0	0	1	0	2	1	0	0	0	0
RAIN/MM	137	91	104	132	175	132	135	178	211	259	246	229
C AVG MAX	24.5	25.6	26.1	26.7	26.7	26.7	26.7	26.7	26.1	25.0	25.0	24.4
C AVG MIN	16.7	16.7	17.2	17.8	17.8	17.2	17.2	17.2	17.2	17.2	17.2	17.2
DIURNAL RANGE	7.8	8.9	8.9	8.9	8.9	9.5	9.5	9.5	8.9	7.8	7.8	7.2
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.

**TEMPERATURES:** Throughout the year, days average 76-80F (25-27C), and nights average 62-64F (17-18C), with a diurnal range of 13-17F (7-10C). These plants are said to grow well in the hot, uniform climate around Singapore.

**HUMIDITY:** 75-80% most of the year, increasing to near 85% in autumn.

**WATER:** Rainfall in the habitat is moderate to heavy all year, with a short, slightly drier period in late winter. Cultivated plants should be watered heavily while actively growing, but the roots must be able to dry rapidly after watering. Water may be reduced somewhat when plants are not actively growing.

**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:** Growing conditions should be maintained all year. Water may be reduced somewhat in winter for plants grown in the dark, short-day conditions common in temperate latitudes, but they should never be allowed to dry out completely. In the habitat, light is slightly higher for about 3 months in winter.

**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 very robust monopodial epiphyte described by Hawkes (1965) as being similar in habit to *Vanda dearei* Rchb. f. in which older plants may reach heights up to 96 in. (250 cm).

**STEM:** Usually less the 39 in. (100 cm) long. Older stems may have one or more new growths emerge from the leafless part at the base. These eventually form a cluster of new plants which are completely enclosed in distichous, overlapping, longitudinal sheaths at the base of the leaves.

**LEAVES:** 14-18 in. (35-45 cm) long by 1.2-1.5 in. (3.0-3.8 cm) wide. The distichous, arching, strap-shaped leaves are closely spaced along the stem. The older leaves toward the base of the stem may become very drooping to pendulous toward their tips. Each stem normally carries 10-15 leaves at a time, with new leaves growing at the apex of the stem and older leaves falling away at the base. The leaves are thick, leathery, bilobed, irregularly toothed at the tip, and longitudinally folded toward the base but rather flat toward the apex.

**INFLORESCENCE:** Usually shorter than the leaves. The arching to pendent, few-flowered inflorescences emerge along leaf axils well below the apex of the stem. Flowers are carried in a well-spaced raceme that extends almost the entire length of the spike.

**FLOWERS:** Up to 5-6 per inflorescence. The waxy, glossy blossoms are said to be creosote-scented. Comber (1982) reported that plants from around Lake Toba produce flowers with a strong fragrance, but blossoms from other areas may be only faintly scented. The sepals and petals are usually olive-brown at the tips but shade to reddish brown at their bases. The base of the lip is white with a few small red marks, while the apical portion is suffused with light brown. The spreading flowers may be almost 2 in. (5 cm) across. The spoon-shaped sepals and petals have narrow bases with margins that curl toward the rear and large, egg-shaped blades with rounded tips and undulate margins. The 3-lobed lip has spreading, bluntly pointed lateral lobes at the base and a midlobe with a bluntly rounded apex and lateral margins that turn downward.

**REFERENCES:** These cultural notes are written by Charles and Margaret Baker  
ORCHID SPECIES CULTURE <http://www.orchidculture.com/>

Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 47(104): 57-1911.

Comber, J. 1982. Sumatan vandas - a new addition. Orchid Digest 46(6): 204-206.

Grove, David L. 1995. Vandas and Ascocendas and Their Combinations with Other Genra. Timber Press, Portland, OR.

Hawkes, A. (1965) 1987. Encyclopaedia of cultivated orchids. Faber and Faber, London.

Kew Data Base. 2007. <http://apps.kew.org/wcsp/home.do>

Motes, M. R. 1997. Vandas their botany, history, and culture. Timber Press, Portland, OR.

Tropicos W3, Missouri Botanical Garden, Nomenclatural Data Base, March 8, 1998 at  
[http://mobot.mobot.org/cgi-bin/search\\_pick](http://mobot.mobot.org/cgi-bin/search_pick).