

## *Vanda insignis* Blume

**ORIGIN/HABITAT:** Indonesia in the Mulches Islands and Timor. Although this species reportedly grows on Java, Comer (1990) did not indicate its occurrence on that island. Plants are found at low elevations on small trees with little shade.

**CLIMATE:** Station # 97724, Amber Island, Indonesia, Lat. 3.7S, Long. 128.1E, at 33 ft. (10 m). The record high temperature is 96F (36C), and the record low is 66F (19C).

N/HEMISPHERE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
F AVG MAX	81	81	83	85	88	88	88	88	88	86	84	82
F AVG MIN	74	74	74	74	75	76	76	76	76	76	75	74
DIURNAL RANGE	7	7	9	11	13	12	12	12	12	10	9	8
RAIN/INCHES	23.7	15.8	9.5	6.1	4.5	5.2	5.0	4.7	5.3	11.0	20.3	25.1
HUMIDITY/%	83	82	81	80	79	78	78	77	79	82	83	84
BLOOM SEASON		*	*		*		*	*	*	*	*	
DAYS CLR @ 9AM	1	1	1	6	7	4	3	3	5	5	3	3
DAYS CLR @ 3PM	1	1	2	5	6	1	1	1	2	3	1	3
RAIN/MM	602	401	241	155	114	132	127	119	135	279	516	638
C AVG MAX	27.2	27.2	28.3	29.4	31.1	31.1	31.1	31.1	31.1	30.0	28.9	27.8
C AVG MIN	23.3	23.3	23.3	23.3	23.9	24.4	24.4	24.4	24.4	24.4	23.9	23.3
DIURNAL RANGE	3.9	3.9	5.0	6.1	7.2	6.7	6.7	6.7	6.7	5.6	5.0	4.5
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 midday shading is appropriate for cultivated plants, especially in summer. Plants will be healthiest with strong, continuous air movement.

**TEMPERATURES:** Throughout the year, days average 81-88F (27-31C), and nights average 74-76F (23-24C), with a diurnal range of 7-12F (4-7C). The warmest days of the year occur in summer when the maximum temperatures average 7F (4C) warmer than in winter. Holttum (1964) reported that this species flowers well in both the lowlands and mountains of Java but does not flower as well in the uniform climate of Singapore, so the variation in maximum temperature during the year may be important.

**HUMIDITY:** 80-85% year-round

**WATER:** Rainfall is moderate to heavy all year, but conditions are slightly drier in late spring and summer. Cultivated plants should be watered heavily while actively growing, but the roots should be able to dry fairly rapidly after watering.

**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. In the habitat, rainfall is heaviest in winter, but water and fertilizer may be reduced somewhat for cultivated plants, especially if grown in the dark, short-day conditions common in temperate latitudes. They should never dry completely, however. In the habitat, light is highest 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, 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. Hawkes (1965) reported that these plants may bloom as often as three times each year. Motes (1997) reported that *Vanda insignis*, a horticulturally significant species, has virtually disappeared from cultivation.

#### **Plant and Flower Information:**

**PLANT SIZE AND TYPE:** A short, stout monopodial epiphyte that is very similar to *Vanda denisoniana* Benson & Rehb. f.

**STEM:** Short and stout. The rather abbreviated stems are densely leafy throughout.

**LEAVES:** Up to 12 in. (30 cm) long by less than 1 in. (2.5 cm) wide. The rather linear leathery leaves are sharply bilobed at the apex.

**INFLORESCENCE:** 6-12 in. (15-30 cm) long. The horizontal to suberect flower spikes emerge along leaf axils.

**FLOWERS:** 4-7 per inflorescence. Flowers are waxy, long-lasting, strongly fragrant, and measure 2.0-2.6 in. (5.0-6.5 cm) across. The strongly recurved, spoon-shaped sepals and petals have wavy margins and are tawny yellow to greenish yellow with brown blotches that coalesce toward the edges. The 3-lobed lip, which is one of the largest in the genus, is notably longer than the sepals. It has white, somewhat incurved lateral lobes that are roundish to 4-sided and a very large, broadly kidney-shaped midlobe that is mauve or rose-purple to almost red-magenta. The broad, flat midlobe is broadest near the somewhat upcurved and broadly rounded tip and has undulate margins. The spur at the base of the lip is oblong, bluntly tipped, and has flattened sides.

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

Rumphia 4: 49, t. 192. 1849.

Grove, David L. 1995. *Vandas and Ascocendas and their combinations with other genera*. Timber Press, Portland, OR.

Hamilton, R. 1988. *When does it flower?* 2nd ed. Robert M. Hamilton, 9211 Beckwith Road, Richmond, B. C., Canada V6X 1V7.

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

Holttum, R. 1964. *A revised flora of Malaya vol. 1, Orchids*. Government Printing Office, Singapore.

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).

**PHOTOS/DRAWINGS:**

Holttum, R. 1964. A revised flora of Malaya vol. 1, Orchids. Government Printing Office, Singapore.  
(Drawing of flower)

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