

Vanda tricolor Lindley

SYNONYMS: *Vanda suavolens* Blume, *Vanda suavis* Lindley. There are several named varieties of this species, with some of the best known ones being var. *planilabris* Lindley and var. *suavis* (Lindley) Veitch, which is the same as the plants originally described as *V. suavis*.

ORIGIN/HABITAT: Java and Bali. This species is still common all over Java growing in bright conditions on fairly open tree branches at 2300-5250 ft. (700-1600 m). One of the locations where plants are most easily found is in trees near the borders of tea plantations. Plants have also been reported in the Philippines and Australia, but Comber (1990) indicated that plants from these locations are unlikely to represent natural distribution and probably resulted from introductions. Comber (1990) reported that var. *tricolor*, both the normal color form and the dark form, are found mostly in West Java while var. *suavis* is found mostly in Central and East Java. Some writers, however, indicate that the two varieties may be found together.

CLIMATE: Station #96755, Bogor, Java, Indonesia, Lat. 6.5S, Long 106.8E, at 558 ft. (170 m). Temperatures are calculated for an elevation of 3950 ft. (1200 m), resulting in probable extremes of 85F (29C) and 55F (13C).

N/HEMISPHERE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
F AVG MAX	75	76	77	77	76	74	73	73	74	75	76	75
F AVG MIN	62	62	62	63	63	63	63	63	63	64	64	63
DIURNAL RANGE	13	14	15	14	13	11	10	10	11	11	12	12
RAIN/INCHES	2.1	1.0	0.5	5.0	8.1	18.8	23.7	20.2	14.4	12.0	11.9	3.4
HUMIDITY/%	72	68	65	66	74	79	84	84	81	79	77	75
BLOOM SEASON	*	*	**	***	***	**	**	*	*	*	*	*
DAYS CLR @ 7AM	14	14	14	11	5	3	1	2	4	6	10	12
DAYS CLR @ 1PM	9	10	8	5	1	1	0	0	1	1	3	7
RAIN/MM	53	25	13	127	206	478	602	513	366	305	302	86
C AVG MAX	23.9	24.4	25.0	25.0	24.4	23.5	22.8	22.8	23.3	23.9	24.4	23.9
C AVG MIN	16.7	16.6	16.6	17.1	17.1	17.1	17.1	17.1	17.1	17.7	17.7	17.1
DIURNAL RANGE	7.2	7.8	8.4	7.9	7.3	6.4	5.7	5.7	6.2	6.2	6.7	6.8
S/HEMISPHERE	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN

Cultural Recommendations:

LIGHT: 3000-4000 fc. These plants reportedly grow well when exposed to almost full sunlight. In the habitat, however, heavy summer cloud cover dramatically reduces light, so some shading is recommended for cultivated plants during the middle of the day 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 remain somewhat creased and do not spread fully open indicate light levels are too high.

TEMPERATURES: Throughout the year, days average 73-77F (23-25C), and nights average 62-64F (17-18C), with a diurnal range of 10-15F (6-8C).

HUMIDITY: 80-85% in summer and early autumn, dropping to near 65% for 2-3 months in late winter and early spring.

WATER: Rainfall is very heavy most of the year, but amounts diminish considerably for 2-3 months in winter and early spring with 2 of the months being particularly dry. Cultivated plants should be watered often while actively growing, but their roots must be able to dry rapidly after watering. Conditions around the roots should never be allowed to become stale or soggy. Water should be reduced gradually from late autumn into early winter.

FERTILIZER: 1/4-1/2 recommended strength, applied weekly when plants are actively growing. Many growers prefer to use a balanced fertilizer throughout the year; but others use a high-nitrogen fertilizer from spring to midsummer, then switch to one high in phosphates in late summer and autumn.

REST PERIOD: Growing temperatures should be maintained all year. Rainfall is low in winter, but additional moisture is usually available from heavy dew and late-night mist. Water should be reduced for cultivated plants in winter, but they should not be allowed to dry excessively or remain dry for long periods. For 1-2 months in late winter, however, water should probably be limited to occasional early morning mistings with perhaps an infrequent light watering or so 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, 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 be allowed to 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 may 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 monopodial epiphytic plant with stems to 18 in. (45 cm) long. The stem often branches rather profusely at or near the base of the plant, and roots are freely formed well up the stem.

LEAVES: 14-18 in. (35-45 cm) long by 1.6 in. (4 cm) wide. Each stem bears 20 or more pale green leaves spaced slightly more than 0.8 in. (2 cm) apart. The heavily leathery leaves are strap-shaped, gracefully arching, and overlap at their bases. The tips of the leaves are unequally 2-lobed and very uneven, often appearing to be irregularly notched.

INFLORESCENCE: Up to 10 in. (25 cm) long. The rather stout peduncle emerges from the stem at the base of the leaves and is held in a horizontal to ascending position. Each flower is carried on a pedicellate ovary that is angled, strongly twisted, 2-3 in. (5.0-7.5 cm) long, and are white but usually flushed with pale magenta-purple near the base.

FLOWERS: The 6-9 strongly and sweetly fragrant blossoms carried on each inflorescence are all open at the same time. The flowers, which are 2-3 in. (5.0-7.5 cm) across, are waxy, long lasting, and variable in shape and color. Sepals and petals are white on the outside and variously colored on the inside, usually with red-brown spots on a white background, but sometimes with pale yellow spots, or more rarely with heavy red markings that merge to cover most of the surface. The lip is usually mauve but is sometimes yellow with small, white sidelobes at the base. In the normal form, the sepals and petals, which are similar, are obovate-oblong to orbicular-obovate, narrowed into a short claw at the base, with basal margins that are frequently reflexed. The petals are frequently twisted almost completely around and have very wavy margins toward the apex. The 3-lobed lip has 2 small, erect sidelobes at the base and a large, widely spread, somewhat fiddle-shaped midlobe that has 3 ribs running down its center. The lip midlobe is made up of 4 rounded lobules, two at its base and two at the apex. The column is short and very dilated at the base. The preceding description applies to plants usually referred to as var. *tricolor* or the normal form. Variety *suavis* usually has inflorescences with 15 or more flowers that have narrower but somewhat longer sepals and petals. In addition, the apical lobules on the lip midlobe of var. *suavis* are turned sharply downward, sometimes at almost a 90 angle.

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

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