

## Application of Morphological Traits on Cultivar Identification of Taiwan Native *Phalaenopsis*

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### Summary

To identify the fake from the real Taiwan original *Phalaenopsis* is mainly basis on the appearance of its lip midlobe and on the shape of its callus between the lip midlobe and lateral lobes. T1, T2, T3, and T4 are cultivars collected from commercial cultivation. T5 and T6 were collected from Orchid Island in the 1960s and then have been acclimated for several asexual propagation. T7 and T8 are asexual propagation cultivars which are planting as epiphytes on loutan tree in DaZin Mountain. T9 has been defined as *Phalaenopsis amabilis* (L.) BL. Among these nine cultivars, it has been affirmed that T9 belongs to *Phalaenopsis amabilis* (L.) BL. The lip midlobe of T2 and T7 is similar to that of *Phalaenopsis aphrodite* Rchb.f. but their callus is not similar to that of *aphrodite*, which has a callus of four erect teeth. Other cultivars (T1, T3, T4, T5, T6, and T8) is like *Phalaenopsis amabilis* (L.) BL having a cross-stick midlobe. However, their callus is different from that of *P. amabilis*, in shape of shield edge. it is one pair of blunt teeth. Apparently, Taiwan native *Phalaenopsis* has morphological features distinguished from *Phalaenopsis amabilis* (L.) BL and *Phalaenopsis aphrodite* Rchb.f. and it seems to be a unique local species in Taiwan.

**Key words:** native *Phalaenopsis*, lip, midlobe, callus.

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