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Genetic transformation of oriental *Cymbidium* by a modified *Agrobacterium* infection method

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Genetic transformation of oriental *cymbidiums*(*C. lancifolium* and *C. kanran*) was performed to create high value of variants from the species. An expression vector(pAT6K) containing transposable element, known to bring about mutation in the plant genome, was introduced into *Agrobacterium tumefaciens* LBA4404 and used for genetic transformation of oriental cymbidium with a modified transformation method. In the method rhizomes were precultured for 3days or 7days in MS liquid media (0.5㎎/l activated charcoal, 0.1㎎/l NAA, and 0.5㎎/l BA). For efficient wounding into meristem tissue seasands were added into the precultured rhizomes in flask and wounding has been proceeded for 2 or 4 days, respectively. After wounding, the rhizomes were co-cultivated with actively-grown *Agrobacteria* harboring pAT6K for 3 days and washed out. The Agro-infected rhizomes were placed on solid MS media supplemented with two different hormone combinations, 0.5 mg/L BA + 0.1mg/L NAA for *C. lancifolium* and 1mg/L BA + 1mg/L NAA for *C. kanran,* respectively. GUS expression was analyzed to confirm whether appropriate genetic transformation was carried out. Gus assay revealed that 7-day preculture and 4-day wounding was more efficient for transformation.