**2\_3-10 Cymbidium**

**RESOURCES**:

# Books & Journals

* *Cymbidium Society of America Journal*. Magazine (no longer published but some excellent articles over a number of decades).
* Menezes. *Genus Cyrtopodium.*
* DuPuy & Cribb. *The Genus Cymbidium.*
* Guest & Guest with Easton: *Cymbidium Orchids Secrets Revealed.* no pictures; info on species and hybrids
* (China) *Manual of Chinese Cymbidium and their Cultivars*.
* Kaenratana. *Heat Tolerant Cymbidiums*
* *Cymbidium: Supplement* to *Orchids magazine* 2018 (numerous articles)
* Cymbidium issue. (Numerous articles). *Orchid Digest* 85(4) 2021

# Articles

* “Analysis of AOS Awards in Standard Cymbidiums”. Hill. *Orchids.* April 2019
* “Miniature cymbidiums”. Gonzalez-Costa. *Orchids.* October 2018.
* “Ansellia Africana: an African jewel”. Tibbs. *Orchids.* October 2018.
* “Three species of Genus Cymbidium in Vietnam: *Cym. kanran, namulum, omeienseI”*. Hoang Yuan et. al. *Orchid Digest* 84(2) 2020
* “Breeding for Color in Cymbidium Hybrids”. Hetherington. *Orchid Digest*. Jan-Mar 2005.
* “The Levels of Interest in Orchid Awards (form for awards in cymbidiums in Australia)”. Harris. *Australian Orchid Review*. Nov. 2010.
* “Albino Inheritance in Cymbidiums”. Coker. *Australian Orchid Review*. March 1981
* “Peloric & Patterned Cymbidiums, Emerging Gems of the Cymbidium World: Pt 1—*Patterned Cymbidiums*—plus a photo gallery of types”. Bachman. *CSA Journal*. 12(3) 2012.
* “Peloric & Patterned Cymbidiums, Emerging Gems of the Cymbidium World: Pt 1—*Peloric Cymbidiums*—plus a photo gallery of types”. Bachman. *CSA Journal*. 12(2) 2012.
* “Paint it Black (black cymbidiums)”. Smith. *Australian Orchid Review* Feb-Mar 2009
* “Dominant Species in Miniature & Novelty Cymbidiums”. Brjlevich. *CSA Journal*. 2(5) 2022.
* “Breeding Cymbidiums for warmer climates”. Carpenter. *Orchids*. January 2005.
* “Cyrtopodium of Brazil II: yellow flowered species”. Menezes. *AOS Bulletin*. March 1995
* “Cyrtopodium of Brazil I: Intro and have species”. Menezes. *AOS Bulletin*. January 1995
* “Cymbidium hybrids from New Zealand”. Tucker. *AOS Bulletin*. November 1994.
* “Trends in Cymbidium hybridization over the last 20 years”. Rogerson. *AOS Bulletin*. June 1991.
* “Cymbidium goeringii—a tale of two orchids”. Jacobsen. *Orchid Digest*. Oct-Dec 2021.
* “Unexpected variation in well-known Cymbidium species in China”. Cribb. *Orchid Digest*. Oct-Dec 2021.
* “Spotted cymbidiums--Hybridizer’s nightmare and ecstasy, Pt I: large flowered”. Batchman. *Orchid Digest*. Apr-June 2007.
* ”Spotted cymbidiums—hybridizer’s nightmare and ecstasy, Pt II: Spotted hybrids with miniature species—devonianum and canaliculatum”. Batchman. *Orchid Digest*. Jan-Feb 2008.
* “Recipe for a winner: Cymbidium Peter Pan (4n)”. Levy. *Orchid Digest*. Jan-Mar 2000
* “Classic Chinese Cymbidiums: harmony in nature”. Fung. *Orchid Digest*. Jul-Sep 2002
* “Born Again! The Story of Cymbidium Claude Pepper”. Levy. *Orchid Digest*. Apr-Jun 2003
* “Pure-colour cymbidiums”. Dunn. Proceedings of the 8th World Orchid Conference. 1975. (pure color defined as lacking anthrocyanins)
* “Tendencies in Cymbidium Breeding”. Gripp. Proceedings of the 8th World Orchid Conference. 1975.
* “Cymbidium breeding at Duckitt nurservies”. Duckitt. *Proceedings of the 14th World Orchid Conference*. 1993
* “Miniature (and intermediate) cymbidiums”. Monkhouse. *Proceedings of the 11th World Orchid Conference*. 1984.
* “Modern Cymbidium breeding”. Bilton (of McBeans in the UK). *Proceedings of the 9th World Orchid Conference*. 1978.
* “Standard cymbidium breeding in Britain since 1945: or the triumph of the triploids”. Moon. *Proceedings of the 12th World Orchid Conference*. 1987.
* “Albino inheritance in diploid cymbidiums”. Coker. *Proceedings of the 13th World Orchid Conference*. 1990
* “Cymbidiums with hindsight and vision (floribundum; ploidy in cymbidiums)”. Bilton. *Orchid Review*. Sept-Oct. 1996.
* “Variation in Cymbidium eburneum & lowianum in China”. Cribb. *Orchid Review.* May-June 1997.

Webinars

* Asian cymbidiums. Jacobsen. 05-2019. https://www.aos.org/all-about-orchids/webinars/member-only/asian-

cymbidiums.aspx

* Judging cymbidiums. Hatfield. 01-2016. https://www.aos.org/orchids/webinars/judging/judging-seminar-judging-cymbidiums.aspx

**RESEARCH QUESTIONS**:

* Define these generic terms: mini-cymbidium, novelty cymbidium, intermediate cymbidium, standard cymbidium, Chinese cymbidium, pendulous cymbidium, pure-color, polychrome, pendent and pendant.
* What species would you use to provide width in petals and sepals; to increase natural spread; to increase floriferousness; to breed for reds; to breed for whites; to breed for yellows; to breed for oranges/bronzes; to breed for greens; to breed for pinks; to breed for spots, or stripes; to breed for pendent cymbidiums; to breed for upright inflorescences; to breed for small plants?
* How do you think Section *Jensoa* will affect the future of hybridizing and awards in the next 15 years?
* How would you judge peloric cymbidiums?
* Discuss briefly the influence of the following hybrids: Alexanderi, Balkis, Doris, Ceres, Solana Beach, Rincon, Ruby Eyes, Rio Rita, Peter Pan, Fifi, Sarah Jean, Yowie Flame, Tethys, Golden Elf.
* What species would you use to breed for heat tolerant cymbidiums? What other genera would you cross to cymbidiums for heat tolerance? What could be some of the advantages and short comings of using those genus/genera?
* In terms of floriferousness, what do you consider to be the minimum number of flowers needed for an award for Chinese cymbidiums; for mini-cymbidiums; for standard cymbidiums?
* When are tetraploids an advantage; when are diploids an advantage in breeding? *Cymbidium* Lillian Stewart has 84 AOS awards but no offspring. Why do you think there were no offspring?
* Muddy color, windowing in standard cymbidiums, crowded inflorescences, poor arrangement on the inflorescence, and overly cupped flowers could all be considered faults. When would windowing or cupping *not* be considered a fault?
* After reading Hill’s (2019) article on cymbidium awards, what is ‘aspect ratio’. How does it relate to quality awards for mini-cymbidiums; for standard cymbidiums.? Do you think it would be useful to have that calculated automatically in *OrchidPro*? Why or why not?
* What are the significant species in *Ansellia* and their influence on hybrids? How would you judge them?