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New Plants for Hawai'i
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'Princess Aiko' ('Imperial') and 'Regina', Two Novelty Anthuriums

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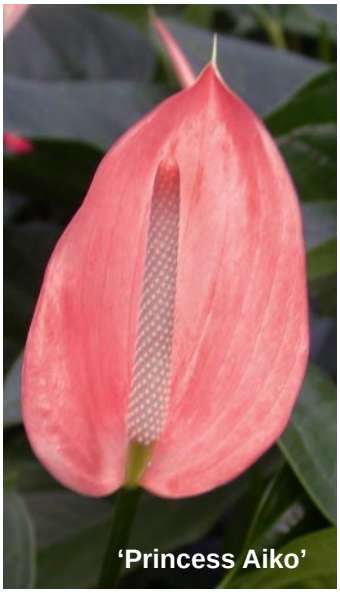
'Princess Aiko' ('Imperial')

Anthurium 'Princess Aiko' (UH1299) is a new, sweet scented, multipurpose cultivar. It is high yielding with bright, long lasting flowers carried above dark green foliage. It may find its niche as a novelty fragrant interior or exterior landscaping plant, although it is also very attractive as a cut flower. It is named in honor of Princess Aiko, daughter of Japan's Crown Prince Naruhito and Crown Princess Masako, born Dec. 1, 2001. In deference to Japan's restrictions on commercial references to the royal family, this anthurium will be marketed as 'Imperial' in Japan.

This pink, fragrant variety originated from a cross between white *Anthurium antioquiense* and 'Tatsuta Pink Obake' made by H. Kamemoto. Plantlets were transferred to CTAHR's Waiākea Research Station from August 1999 through December 2000. Testing commenced at cooperators' farms for cut flower use in February 2001 and January 2002 and for potted plant production in March 2002. Field performance at all test sites thus far indicates good growth and adequate but not high yields. Early release has been prompted by keen interest from industry and is also due to the cultivar's novelty as a fragrant landscape plant and, based on the attributes described here, its anticipated limited production as a cut flower. Stock plants are now available via the Hawaii Anthurium Industry Association and are anticipated to become available to consumers within the next year or two.

'Princess Aiko' anthurium has an attractive pink spathe that is slightly cupped in a lateral tulip shape and is carried at about 135° from the stem axis. The matching pink spadix is erect and shows moderate resistance to anthracnose fungus. Flower stems are exceptionally long above attractive, relatively large foliage. The plant has short internodes with fair sucker production. It appears tolerant of bacterial blight, similar to its white *A. antioquiense* parent. The yield potential of 'Princess Aiko' is 7.6 flowers per stem per year in Mānoa. Marketing in fancy 8-inch pots at two plants per pot may showcase the fragrant flower. Production and detection of the sweet, floral scent is affected by the ambient temperature and humidity; the delicate fragrance lasts for about 2 weeks on the plant but not beyond 2–3 days when cut. The flowers turn green with age and lose their scent in transition from the pistillate (female) to staminate (male) stage of development. Detailed characteristics are given on page 2.

Packing trials with 311 flowers conducted over 2 years showed good keeping quality of 26 days total from harvest (including 3 days packed). Dipping or spraying flowers with 100 ppm benzyladenine (BA or BAP) slightly increased vase life to 33 days (including 3 days packed). With either mode of handling, vase life varied considerably for packed flowers, from as short as 2 weeks up to 5 weeks, with no apparent seasonal effects. Browning of the spadix was the predominant reason for discarding of flowers.


'Princess Aiko'


'Regina'

Floral fragrance

Scented flowers are making a comeback as a valued attribute among consumers. Growers expressed high interest in breeding for fragrance in a survey conducted among Hawaii producers and shippers in 1998 (Halloran and Kuehnle 1998). Floral fragrance is notably absent in cultivars of anthurium; a short list of scented cul-

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Characteristics of 'Princess Aiko', aka 'Imperial'

Spathe	
Size and shape	5" long, 3.4" wide, slightly cupped, with 0.2" green acumen, carried about 135° from stem axis
Color	Pink (RHSCC 54D)
Spadix	
Size and shape	3.4" long, 0.3" wide, green stipe about 0.3" long
Color	Pink (RHSCC 62D)
Flower stem	30½"
Yield	7.5 flowers per plant per year
Leaf blade	12″ x 7½", triangular leathery upright lobes, dark green
Petiole	14½" x 3/16"
Internode length	Short
Sucker production	Fair
Disease tolerance	Moderately resistant to anthracnose; tolerant of bacterial blight
Keeping quality	
Fresh cut	30.5 days
Packed (includes 3 days simulated shipping)	
no BA	26.4 days (165 stems)
BA	32.7 days (146 stems)
Strengths	Attractive pink tulip-type flower; good yield; moderately resistant to anthracnose; tolerant of bacterial blight; long, erect flower stem; good vase life; delicate fragrance; multipurpose plant
Weakness	Relatively large leaves

Characteristics of 'Regina'

Spathe	
Size and shape	Tulip-type spathe 7.6" long, 3.5" wide, carried at 135° from flower stem
Color	Red-purple (RHSCC 61A)
Spadix	
Size and shape	3.7" long, 3/8" wide
Color	Purple (RHSCC 77A)
Flower stem	20" long, 0.6" wide
Yield	6.8 flowers per plant per year
Leaf blade	13" x 8½", heart-shaped, open lobes
Petiole	20" x ¼"
Internode length	Short
Sucker production	Low
Disease tolerance	Susceptible to blight; anthracnose: no data
Keeping quality	
Fresh cut	19 days
Packed (includes 3 days simulated shipping)	
no BA	19.4 days (64 stems)
with BA	23 days (70 stems)
Strengths	The dark red-purple spathes are larger than those of 'ARCS' and do not reflex in the field
Weakness	Less tolerant of bacterial blight than 'ARCS'

tivars is given in Kuanprasert and Kuehnle (1999). Our analysis of 146 *Anthurium* species and hybrids for floral fragrance indicated an abundance of possible scents, categorized as citrus, fishy, floral, foul, fruity, menthol, minty, pine, spicy, and sweet (Kuanprasert and Kuehnle 1999). Chemical analysis of the floral fragrance compounds indicated sabinene, *b*-pinene, limonene, 1,8-cineole, phenethyl alcohol, and α-pinene to be common to the parent *A. antioquiense* and its offspring 'Princess Aiko' (Kuanprasert et al. 1998). Interestingly, the potted-plant cultivar 'Leilani' shares the *A. antioquiense* parent with 'Princess Aiko' but is lavender with a minty scent.

'Regina'

Anthurium 'Regina' has a unique large purple flower similar in shape (lateral tulip) to 'Princess Aiko'. The parents are 'ARCS Hawaii' and UH1552 ('Marian Seefurth' × *A. formosum*). The first set of plantlets was transferred to Waiākea Research Station in April 1999 and delivered to cooperators in summer 2000. Additional field testing was discontinued in 2003 due to its blight susceptibility. In comparison, the smaller, purple 'ARCS' is much more tolerant of bacterial blight. The plants have shown a high potential yield of 6.8 flowers per year. Vase life, including 3 days packed, is about 19 days and can be extended to 23 days with treatment with 100 ppm BAP. Its other characteristics are shown in the table above.

In addition to being one of the largest purple-flowered anthuriums available, other advantages of this novel cultivar include a spathe that does not reflex and, unlike other purple types, has color that does not fade in the summer. The regal color is reflected in its name, meaning "queen." Propagative materials will be made available to the Hawaii Anthurium Industry Association and hobbyist groups.

Literature cited

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