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Cho

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(54) ***COLOCASIA* PLANT NAMED 'HAWAIIAN PUNCH'**

(50) Latin Name: ***Colocasia esculenta***
Varietal Denomination: **HAWAIIAN PUNCH**

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USPC **Plt./373**

(58) **Field of Classification Search**
USPC Plt./373
See application file for complete search history.

(56) **References Cited**

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(57) **ABSTRACT**

A new cultivar of *Colocasia* plant named 'HAWAIIAN PUNCH' that is characterized by large sagittate leaves which are semi-glossy mid green in color, with prominent burgundy-red veins on both surfaces. The leaves of 'HAWAIIAN PUNCH' are borne on glossy burgundy-red petioles. 'HAWAIIAN PUNCH' grows with a compact and clumping plant habit. In combination these characteristics distinguish 'HAWAIIAN PUNCH' from all other varieties of *Colocasia* known to the inventor.

4 Drawing Sheets

Genus: *Colocasia.*
Species: *esculenta.*
Denomination: 'HAWAIIAN PUNCH'.

This invention was made with Government support under Grant No. 2005-31100-06015/HAW00948H awarded by the U.S. Department of Agriculture. The Government has certain rights in this invention.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct variety of *Colocasia* commonly known as the taro plant or elephant ears. *Colocasia* is grown as a food crop or for use as an ornamental for container or the landscape. The new cultivar is known botanically as *Colocasia esculenta* and will be referred to hereinafter by the cultivar name 'HAWAIIAN PUNCH'.

Colocasia is a tuberous rooted perennial which is native to tropical Asia and Polynesia. It grows to 1.5-2 m in height from starchy tubers. The leaves of *Colocasia* are heart-shaped and very large in size. The tuberous roots are cooked and eaten as a starchy staple in many tropical areas. It is also grown as ornamental plants for the landscape in warmer climates or as a container plant in colder areas.

The new *Colocasia* variety named 'HAWAIIAN PUNCH' is the product of a formal breeding program carried out in a cultivated area in Kula, Hi. The purpose of the breeding

program is to develop new commercial varieties by combining attributes not found in currently commercially available varieties.

'HAWAIIAN PUNCH' is a seedling selection from the controlled pollination between the female parent variety '2000-37' (unpatented) and male parent breeding line '2006-614' (unpatented). Initially designated as '2007A-340', 'HAWAIIAN PUNCH' was derived as a single plant selected in 2007.

'HAWAIIAN PUNCH' exhibits large semi-glossy medium green colored leaves with red margins and red venation on the underside of the leaves. 'HAWAIIAN PUNCH' produces glossy red colored petioles.

'HAWAIIAN PUNCH' may be compared to its parents as follows: The leaves are ⅓ to ½ times larger than its male parent and 2 to 3 times larger than its female parent. The male parent, '2006-614', exhibits greenish-purple colored leaves with a glossy finish, a smooth margin, and light purple venation. The petioles are green in color with a matte finish. The female parent, '2000-37' exhibits smaller violet leaves with a purple spot on the upper leaf surface at the point of leaf and petiole attachment and an undulating margin. The petioles are slightly red in color. In these aspects, this new variety differs from its parents.

The closest comparison variety in commerce known to the inventor is 'Blue Hawaii' (U.S. Plant Pat. No. 20,003). 'HAWAIIAN PUNCH' may be compared with 'Blue Hawaii' as follows: Whereas 'HAWAIIAN PUNCH' produces prominent red venation on the underside of the leaves with a red undulating leaf margin. 'Blue Hawaii' produces bluish-purple colored venation and a bluish-purple undulating leaf margin. 'HAWAIIAN PUNCH' produces uniform glossy, red

colored petioles compared with the semi-glossy, dark burgundy colored petioles of 'Blue Hawaii'.

The most commonly employed means of asexual propagation of the genus *Colocasia* is the excision and replanting of a shoot which consists of the apical 1 cm-2 cm portion of the plant corm with the attached basal 15 cm-20 cm portion of the petiole. In regions of the world where *Colocasia* is grown, this plant shoot is known as a "huli", and the means of propagation is known as "huli propagation". Asexual propagation by huli propagation of 'HAWAIIAN PUNCH' began in 2007 in Kula, Hi. by the inventor using huli propagation whereby the apical shoots are separated from the plant by cutting the shoot at the top of the corm immediately above the newest leaf scar and planted. Evaluation in field and pot studies have shown the unique features of 'HAWAIIAN PUNCH' to be stable, uniform, and reproduces true to type in successive generations of asexual propagation.

SUMMARY OF THE INVENTION

The following traits have been repeatedly observed and represent the distinguishing characteristics of the new *Colocasia* variety named 'HAWAIIAN PUNCH'. In combination these traits set 'HAWAIIAN PUNCH' apart from all other varieties of *Colocasia* known to the inventor. 'HAWAIIAN PUNCH' has not been tested under all possible conditions and phenotypic differences may be observed with variations in environmental, climatic and cultural conditions, however, without any variance in genotype:

1. 'HAWAIIAN PUNCH' bears large sagittate leaves.
2. The leaves of 'HAWAIIAN PUNCH' are mid green in color, with prominent burgundy-red colored veins.
3. The leaves of 'HAWAIIAN PUNCH' are presented slightly folded or cupped, such that the burgundy-red veins of the leaf underside are clearly visible.
4. The upper surface of the leaves of 'HAWAIIAN PUNCH' is semi-glossy.
5. The leaves of 'HAWAIIAN PUNCH' are borne on glossy burgundy-red colored petioles.
6. 'HAWAIIAN PUNCH' grows with a compact and clumping plant habit.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying color drawings FIGS. **1** to **4** illustrate the overall appearance of 'HAWAIIAN PUNCH' showing the colors as true as it is reasonably possible to obtain in colored reproductions of this type. Colors in the drawing may differ from the color values cited in the detailed botanical description, which accurately describe the actual colors of the new variety 'HAWAIIAN PUNCH'.

The drawing labeled as FIG. **1** shows a mature plant of 'HAWAIIAN PUNCH' grown out of doors in Santa Barbara, Calif.

The drawing labeled as FIG. **2** shows a close-up of the petioles of 'HAWAIIAN PUNCH'.

The drawing labeled FIG. **3** illustrates the upper surface of a fully expanded mature leaf of 'HAWAIIAN PUNCH'.

The drawing labeled as FIG. **4** shows the underside of a mature leaf of 'HAWAIIAN PUNCH'.

All drawings have been made from a plant which is approximately 12 months old from a tissue culture division and which has been grown out-of-doors in Santa Barbara, Calif. No growth regulators have been applied.

BOTANICAL DESCRIPTION OF THE PLANT

The following is a detailed description of the new *Colocasia* plant named 'HAWAIIAN PUNCH'. Data was collected from a plant which was 12 months old from a tissue culture division and grown outside in Santa Barbara, Calif. The color determinations are in accordance with The 2007 edition of The Royal Horticultural Society Colour Chart, London, England, except where general color terms of ordinary dictionary significance are used. The growing requirements are similar to other *Colocasia*.

Botanical classification:

Genus: *Colocasia*.

Species: *esculenta*.

Denomination: 'HAWAIIAN PUNCH'.

Common name: Taro or elephant ears.

Plant use: Container or landscape plant.

Cultural requirements: Cultural requirements are well draining soil or growing media, full sun to partial shade.

Root system: Tuberous.

Tuberous roots:

Dimensions.—18-20 cm in length, 8-10 cm in diameter.

Color.—155B.

Plant vigor: Vigorous.

Plant growth habit: Upright, non-spreading.

Plant growth rate: A one gallon container plant may be produced in 12-16 weeks from a 4 cm cell transplant.

Parentage:

Female parent.—'2000-37' (unpatented).

Male parent.—'2006-614' (unpatented).

Plant description: The plant has 4-6 suckers closely attached to the mother plant. A "mother plant" is the plant material which is first introduced into the soil to begin production. Typically, this plant material contains part of the huli and 2-3 leaf blades. This produces a "mother corm" which produces lateral shoots called 'cormels' which give rise to daughter plants. Daughter plants begin to appear above soil level about 2-3 months after planting of the mother plant.

Plant dimensions: 120 cm to 130 cm in height and 90 cm to 100 cm in width.

Plant hardiness: USDA Zone 7b.

Propagation: Propagation is accomplished by huli propagation and by tissue culture.

Time to develop daughter plants: Appear above soil around 2-3 months after planting.

Crop time: 1.5 to 2.5 months.

Pest or disease susceptibility and resistance: No more or less susceptible to disease or pests than other cultivars.

Foliage:

Number.—On average, a 5 to 6 month old mother plant maintains 5 functional leaves at a time; each new leaf is produced approximately every 10 days until the corm matures.

Petioles.—Length: 100-110 cm in length. Width: 8 mm (just below attachment to lamina), 18 mm (at the upper sinus), 25 mm (at the middle of the sinus). Color: 59C except darker where uppermost surface is exposed to full sun, ranging between 59A and N79A. Sap color: Colorless.

Leaf.—Dimensions at maturity: 40-45 cm in length and 25-30 cm in width. Average leaf sinus depth: 10 cm. Attitude: Oblique Aspect: Erect with apex down. Leaf

generally slightly folded or cupped. Shape: Sagittate Margins: Entire, slightly undulating. Margin color: 1-2 mm marginal band 59A (both surfaces). Apex: Acuminate, extends 5 mm. Base: Peltate. Attachment: Petiolate with characteristic tissue formed at junction of leaf blade with the upper termination of the petiole. This area of the leaf tissue is also known as the "piko" and is evident by virtue of its upper surface color being similar to the color of the petiole and contrasting with the leaf color. The principal veins radiate from the piko. Piko color: 187B with dense streaks 187B extending along principal veins and lightly along secondary veins. Leaf sheath: Open. Texture: Semi-glossy (adaxial surface), matte (abaxial surface). Leaf color (adaxial surface): 146A. Leaf color (abaxial surface): 144A. Venation: Palmate. Veins: Three principal veins radiating from the piko: one midrib extending 24 cm from the piko to the tip of the lamina, and one pair of veins extending towards each of the basal lobe margins. Up to eight pairs of secondary veins radiating from the region of the piko and from the midrib. Vein color (both surfaces): Ranges between 59A and 59B.

Inflorescence, flowers and reproductive organs: The inflorescence arises from the leaf axils. The inflorescence is made up of a short peduncle, a spadix, and spathe. The spadix is botanically a spike, with a fleshy central axis to which the small sessile flowers are attached. The spadix is 105 mm to 120 mm long, with female flowers at the base, male flowers towards the tip, and sterile flowers in between, in the region compressed by the neck of the spathe. The extreme tip or appendage of the spadix has no flowers at all. The spathe is a large yellowish bract, 240 mm to 330 mm long, which sheathes the spadix. The lower part of the spathe is green (144C) in color and wraps tightly around the spadix and completely occludes the female flowers from view. The top portion of the spathe is yellow (13B) in color and is rolled inward at the apex, but is open on one side to reveal the male flowers on the spadix. The top and bottom portions of the spadix are separated by a narrow neck region, corresponding to the region of the sterile flowers on the spadix.

Seed: Seed is not produced naturally since male and female flowers within each inflorescence do not mature at the same time. Pollination can be achieved manually or in nature, only with the presence of small insect pollinators which are found in regions of genetic origin of the species, and not Hawaii.

The invention claimed is:

1. A new and distinct cultivar of *Colocasia* plant named 'HAWAIIAN PUNCH' as described and illustrated herein.

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FIG. 1

FIG. 2

FIG. 3

FIG. 4