

Acmella oleracea (L.) R.K. Jansen

(*Bidens fervida*, *Bidens fusca*, *Cotula pyretharia*, *Isocarpha pyretharia*,

Spilanthes acmella var. *oleracea*, *Spilanthes fusca*, *Spilanthes oleracea*, *Spilanthes radicans*)

Eyeball Plant

Other Common Names: Brazilian Cress, Para Cress, Peek-A-Boo Eyeball Plant, Toothache Plant.

Family: Asteraceae (Compositae).

Cold Hardiness: Summer or transition season annual; *Acmella oleracea* is frost intolerant.

Foliage: Opposite, simple, broadly ovate to nearly deltoid leaves are 2" to 4" long by ¾" to 2" wide, with broadly cuneate to nearly truncate bases, broadly acute tips, and irregularly shallowly toothed to slightly undulate margins; basal main veins on the blade appear almost palmate, while the central vein elongates to develop a pinnate pattern; veins are lightly impressed above resulting in a slightly rugose look, raised beneath, and arching forward; new leaves are often flushed red, retaining the red on the petiole and about the veins as they mature; the stoutish ¾" to 2½" long petioles are flushed red and may be hairy, later maturing to a darker green and are less noticeably pubescent; leaves often take on a reddish purple caste over the dark green at times resulting in an almost purplish look about some plants.

Flower: Bizarre looking ½" to ¾" (1") diameter globe to short conical composite inflorescences lend the species its common name of Eyeball Plant; central disk flowers emerging maroon to red and turning yellow as they mature, resulting in a bright yellow eyeball with a red pupil; inflorescences are on elongated purplish red peduncles that hold the composite inflorescences above the foliage; plants bloom whenever temperatures permit.

Fruit: Tiny achenes in mature inflorescences are not ornamental; deadheading is not necessary to maintain bloom.

Stem / Bark: Stems — stout stems are swollen at the nodes with a sort of flare into the leaves and peduncles or emerging stems; stems are initially flushed red or purple, later more green and less pubescent; Buds — axillary flower buds opening purplish red then when the flower begins to emerge appearing red to rust red; vegetative buds foliose, flushed red, pubescent, small, mostly elongating shortly after formation; Bark — not applicable.

Habit: Plants form a dense canopy of foliage 12" to 18" tall and with a similar spread; the overall effect is of a medium to medium-coarse texture in foliage; growth rates are moderately rapid.

Cultural Requirements: Easily grown in most any good well drained garden soil in a full to partial sun exposure; irrigation is required, but plants are soil pH adaptable and heat tolerant; pinching can tighten the habit but deadheading is not required to maintain bloom; plants respond well to fertilizer applications.

Pathological Problems: Root rots can be a problem in poorly drained soils; notoriously prone to slug damage.

Ornamental Assets: The odd flowers of this species are eye catching, the pun notwithstanding.

Limitations & Liabilities: The unusual inflorescences of this plant can make it difficult to blend well in the landscape; some references consider it to contain poisonous compounds; reseeding can occur on some sites.

Landscape Utilization: Best used as a focal point or contrasting accent as it tends to stand out however it is used; plants grow well in containers for patios or in raised planters where they are noticeable at "eye level"; this species can be used in a pinch as a bedding plant and has traditionally been grown in kitchen herbal gardens or medicinal gardens; Eyeball Plant is a nifty easily grown conversation or novelty plant.

Other Comments: *Acmella oleracea* has long been cultivated for its medicinal properties, the most famous of which is the numbing effect chewing various plant parts has on teeth and mouth tissues and its enhancement of salivation; supposedly the flower buds are most effective for this purpose, however other references consider the plant toxic and so it is best to avoid this practice unless directed to do so by a physician; the pungent active ingredient has been identified as spilanthol, an isobutylamide; the specific epithet alludes to this species medicinal uses; therapeutic categories include anaesthetic, antibiotic, antiphlogistic, and sialogogue properties; the unusual inflorescences of Eyeball Plant tend to grow on you and it certainly is a conversation starter; a form of the species is sometimes used in foods and edible products, but caution is advised given its medicinal properties (see van Wyk and Wink, 2004); the genus name means little point or tip.

Native Habitat: Long cultivated, *A. oleracea* is thought to have originated from Peru.

Related Taxa: *Acmella* L.C.M. Richard is a rather small genus of which only *A. oleracea* is important in cultivated landscapes.

References: Armitage, 2004; van Wyk and Wink, 2004.