



Crown of thorns makes a comeback

By Rick Schoellhorn

An old favorite is making a comeback in the nursery industry. *Euphorbia milii* (Crown of Thorns) has, like many old-fashioned plants, gotten a face-lift — new colors, new forms — and is showing up in nurseries around the country. This cousin of the poinsettia is quick to sale, tolerant of dry conditions and makes an excellent summer crop.

Crown of Thorns originated in Madagascar. Plants were brought into the U.S. industry as novelties, but due to the thorny stems and lack of freeze tolerance, they stalled out in the cacti collector's market. Now, after 30 years of breeding and selection by various professional and private enthusiasts, these plants are an exotic addition to any nursery's crop portfolio.

Much improved over the original forms, growers can now purchase rooted liners or unrooted cuttings, and retailers can add a flowering plant to their shelves that rarely needs water and blooms continuously throughout the year. The thorns and the cold sensitivity are still there, but this plant can easily be marketed as a high-dollar specialty annual. With the emphasis in today's market on container gardens, this plant's durability and long flower season make it a very strong crop. The long-lasting bright red bracts, unique appearance and ease of culture make this plant a good specialty Christmas crop as well.

A NEW LOOK

What makes *Euphorbia milii* such a good niche crop for Southern, Southeastern and Southwestern production is that it is incredibly heat tolerant. It is capable of thriving when greenhouse temperatures are above 90° F. It will tolerate full sun, high temperatures and salt spray. Because it doesn't mind drying out, it makes a good flowering container plant in situations that would kill most annuals and perennials. Flowering is continuous throughout the growing season. The newer cultivars do not seem to be strongly photoperiodic and will continue flowering into winter if protected.

Crown of Thorns is a tropical plant and is only a perennial in Zone 10 or higher. We have had great success, as a season-long annual, in trials at the Milton Gardens in northwest Florida. Plantings of Thai Hybrids (five unnamed shades), from Bill Moore & Co., in late April flowered continuously from spring through the first frosts of fall. Plants reached 12-14 inches in height in the outdoor setting with no disease or insect problems.

The original forms were mostly bright red in color, leaves were sparse and thorns were prominent. The newer cultivars have reduced thorns (actually more like ridges on the stem), large attractive leaves and come in a range of colors — from red, orange, salmon, pink, yellow and white — including bicolor bracts. Remember, these are relatives of the poinsettia, and the true flowers are quite small. The long-lasting color



crop cultivation

comes from small bracts surrounding small, yellowish true flowers. There are still compact, small-leaved varieties available on the market (check out 'Short & Sweet' from Oglesby), and intermediate forms that have flowers 1/2-inch in diameter. Newer releases from Thailand include some extremely large forms, which will reach three feet in height and have leaves up to 12 inches in length.

PRODUCTION GUIDELINES

Crown of Thorns is a slow-growing plant, so cuttings are usually shipped either bare root, or callused. Many firms are shipping rooted cuttings with dry roots; this is not usually a problem as new roots form quickly. Rooting takes from 14-21 days; bottom heat is best but not essential during rooting. Once cuttings are rooted, most cultivars begin flowering immediately, so for quick turnover, try three cuttings of smaller cultivars in a 4- to 5-inch pot, one cutting per pot on the larger cultivars. Deeper plant liners will help keep stems upright until the root system gets established. Crop time varies with the type of cutting or liner you begin with: in 4-inch pots, it takes roughly 12-14 weeks (similar to kalanchoe); larger pots, such as 1-gallon, take from 16-20 weeks; and a 3-gallon crop may take as much as 30-35 weeks. Many Northern growers may want to look into prefinished plants. For retailers, this is an excellent plant for customers who forget to water; mixed with other



While red is the "old standby," Crown of Thorns now comes in a variety of colors, including cream, pink and bi-colors.

succulents, you can market these as plants for dry, windy or coastal locations. Whichever variety you select to try, production guidelines are very similar.

Media. Media must be extremely well-drained; plants prefer to dry down between waterings. A little sand in the potting mix will help stabilize production containers. These plants have thick stems and a top-heavy growth habit that may cause pots to tip over in lightweight mixes.

Water/Fertility. Dry these plants out! If planting unrooted or rooted cuttings, keep media only slightly moist until new growth begins to emerge. Once the plants are growing, they can handle normal moisture levels but will flower better if kept slightly drier. Excessive drying out can cause lower leaf drop on large-leaved cultivars.

Euphorbia milii prefers moderate fertility levels in production. One of the few ways to keep this plant from flowering is to overfertilize. Either a solution containing 150-275 ppm fertilizer or a medium rate of slow-release fertilizer are adequate at planting. Try using a high-phosphorus fertilizer when plants have reached salable size. The leaf color of many cultivars is naturally a pale green; don't let that encourage overfertilizing of plants.

Light. Plants need full sun to form flowers; avoid low-light production areas. For most of the country these plants will tolerate full, direct sun in production and in the landscape. Growers at high elevations may need light shade for best growth. ▶

1/2 Horizontal

BECKER UNDERWOOD

Ad #

1/6 Vertical

MESSERSMITH

Ad #

1/3 Page Square

MCHUTCHISON

Ad #

1/2 Page Island

HARNOIS INDUSTRIES

Ad #

Temperature. In production grow plants warm (65° F or higher); they will slow down or go dormant in cold greenhouses, or when planted in cold, wet media. If plants are well-rooted in containers, cool temperatures will frequently induce leaf drop and reduced flowering. Plants go dormant under cold conditions, but as long as they remain dry will survive for months in a dormant state.

DISEASES AND PESTS

Clean stock is essential, but problems are relatively few. Like all euphorbias, Crown of Thorns is most sensitive to fungal problems during propagation phases of production. A preventative drench with a broad-spectrum fungicide immediately after planting will protect the crop during rooting.

There are no specific insect problems, but *Euphorbia milii* can host mealy bug, scale or whitefly. Viral problems have been seen when poor-quality stock is used. GPN

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Culture at a Glance

Common name: Crown of Thorns, Christ's Thorn

Family: Euphorbiaceae, Milkweed/Spurge

Height x width: 1-3 feet x 2-3 feet (3 feet x 18 inches for species)

Growth rate: slow

Foliage: semi-prostrate to rambling habit; slender, fleshy, thorny, 5-6-sided stems; bright green, tough, obovate, 1-inch-long leaves

Flowers: yellow cyathia enclosed by red bracts is most common; other colors include yellow, gold and orange

Light: full to bright sun

Temperature: warm to cool

Watering: low, allow to dry between waterings

Fertility: moderate

Humidity: low

Soil: well-drained

Pests and problems: root rots, stem rots, aphids and mealybugs

Growth regulators: no growth regulators required

Uses: desert garden, flowering

Propagation: tip cuttings

Cultivars available: small cultivars: Short & Sweet, Palace Athene, Selene, Egina, Marathon and Hera; midsize: Rosemarie, Gabi, Karola, Bianca, Olympus, Saturnus, Vemidas, Rosalie, Vulcanus and Themis; larger types: Rainbow, Apple Blossom, Blushing Bride, Tuti-fruity, Coral, Primrose Yellow and Thai Hybrids

Other interest: from the Latin *euphorbea* for Euphorbus, a Greek physician in 1 AD who used the sap medicinally; native to Madagascar; milky latex sap "bleeds" when stems are cut, and can be stopped by immersing in warm water; sap may cause skin irritation or blindness; from a very large genus of over 2,000 species including the popular poinsettia; supposedly the plant used for Christ's crown of thorns