



Cooperative Extension Service  
Institute of Food and Agricultural Sciences

## *Cosmos sulphureus*<sup>1</sup>

Edward F. Gilman, Teresa Howe<sup>2</sup>

### Introduction

Orange Cosmos is an annual from Tropical America that is grown primarily for its beautiful flowers. These plants can attain a height of 1 to 3 feet and have an open and sprawling habit. Finely cut and thread-like simple leaves are pinnately cut into deep lobes appearing compound. They are held upright by thin, weak stems. *C. bipinnatus* has even finer, string-like foliage. The flowers of this series of *Cosmos* occur in the summer for early blooming varieties and in the fall for late blooming varieties. These large, showy flowers occur in a number of hot colors including orange, red, yellow and gold. They are 2 to 3 inches in width and are daisy-like in appearance. The lovely flowers are borne in capitula with small discs, and the rays are 3-toothed at their apices.

### General Information

**Scientific name:** *Cosmos sulphureus*  
**Pronunciation:** KOZ-mus sul-FYUR-ee-us  
**Common name(s):** Yellow Cosmos, Klondike Cosmos  
**Family:** *Compositae*  
**Plant type:** annual  
**USDA hardiness zones:** all zones (Fig. 1)  
**Planting month for zone 7:** Jun  
**Planting month for zone 8:** May  
**Planting month for zone 9:** Mar; Sep; Oct  
**Planting month for zone 10 and 11:** Feb; Nov; Dec  
**Origin:** not native to North America  
**Uses:** border; attracts butterflies

**Availability:** somewhat available, may have to go out of the region to find the plant

### Description

**Height:** 1 to 3 feet  
**Spread:** 2 to 3 feet  
**Plant habit:** upright  
**Plant density:** open  
**Growth rate:** moderate  
**Texture:** fine

#### Foliage

**Leaf arrangement:** opposite/subopposite  
**Leaf type:** simple  
**Leaf margin:** ciliate  
**Leaf shape:** variable  
**Leaf venation:** not applicable  
**Leaf type and persistence:** not applicable  
**Leaf blade length:** 4 to 8 inches  
**Leaf color:** green  
**Fall color:** not applicable  
**Fall characteristic:** not applicable

#### Flower

**Flower color:** yellow; orange; red; gold  
**Flower characteristic:** showy

#### Fruit

**Fruit shape:** no fruit

1. This document is Fact Sheet FPS-150, one of a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: October 1999. Please visit the EDIS web site at <http://edis.ifas.ufl.edu>.
2. Edward F. Gilman, professor, Environmental Horticulture Department, Teresa Howe, coordinator - Research Programs/Services, Gulf Coast REC, Bradenton, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, 32611.

The Institute of Food and Agricultural Sciences is an equal opportunity/affirmative action employer authorized to provide research, educational information and other services only to individuals and institutions that function without regard to race, color, sex, age, handicap, or national origin. For information on obtaining other extension publications, contact your county Cooperative Extension Service office. Florida Cooperative Extension Service / Institute of Food and Agricultural Sciences / University of Florida / Christine Taylor Waddill, Dean



Figure 1. Shaded area represents potential planting range.

**Fruit length:** no fruit  
**Fruit cover:** no fruit  
**Fruit color:** not applicable  
**Fruit characteristic:** inconspicuous and not showy

**Trunk and Branches**

**Trunk/bark/branches:** not applicable  
**Current year stem/twig color:** green  
**Current year stem/twig thickness:** thin

**Culture**

**Light requirement:** plant grows in full sun  
**Soil tolerances:** sand; acidic; slightly alkaline; loam; clay;  
**Drought tolerance:** moderate  
**Soil salt tolerances:** unknown  
**Plant spacing:** 12 to 18 inches

**Other**

**Roots:** not applicable  
**Winter interest:** not applicable  
**Outstanding plant:** not particularly outstanding  
**Invasive potential:** not known to be invasive  
**Pest resistance:** long-term health usually not affected by pests

**Use and Management**

Cosmos species are largely used for cutting flowers but may be employed in the landscape in a perennial border or in front of a shrub border.

Cosmos needs to be planted in an area of the landscape that receives full sun. It tolerates dry, porous soils and will produce foliage instead of flowers if heavily fertilized. Taller plants need to be supported or staked. Place these plants 12 to 18 inches apart in the garden. Early pinching causes branching and can increase the density of the plants.

The propagation of Cosmos is primarily accomplished by seed which can be directly sown in the garden. The seeds of

these plants will germinate in approximately one week and bloom in 2 to 3 months.

Cultivars are included in the Ladybird and the Sunny series.

#### **Pests and Diseases**

Cosmos species may be occasionally bothered by bacterial wilt, canker, powdery mildew, leaf spots, aphids, and Japanese beetles.