‘Tuscan Sun’ Heliopsis

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‘Tuscan Sun’ is a new cultivar of *Heliopsis helianthoides* (L.) Sweet (common names include false sunflower, heliopsis, smooth ox-eye, and sunflower heliopsis) possessing a compact growth habit (up to ≈60 cm in height and width). It produces an abundance of flower heads, each with a single row of golden yellow ray florets over ≈10 to 12 weeks (typically June through August). ‘Tuscan Sun’ is a vegetatively propagated cultivar and is adapted to USDA Plant Hardiness Zones 3 to 9. The compact growth habit of ‘Tuscan Sun’ offers new versatility, allowing heliopsis to be used in confined garden beds and containers.

Origin

The authors initiated a heliopsis breeding program in 1997 in Rhinelander, WI (USDA Plant Hardiness Zone 3; U.S. National Arboretum, 2003), which led to the development of ‘Tuscan Sun’. ‘Tuscan Sun’ was discovered as a unique seedling within an open-pollinated population of *H. helianthoides* selection 1998-1. Selection 1998-1 was found as a volunteer seedling growing in a cultivated rose garden at Hanson's Garden Village (Rhinelander, WI). There was a planting of *H. helianthoides* ‘Lorraine Sunshine’ (U.S. Plant Patent 10,690; Canadian Plant Breeders' rights Certificate No. 1596) adjacent to the bed of roses where 1998-1 was found and no other known heliopsis within at least 45 m. There is a high probability that ‘Lorraine Sunshine’ is the female parent of 1998-1. As a young seedling, selection 1998-1 had relatively short internodes and a compact growth habit compared with other volunteer seedlings. For that reason, 1998-1 was retained and grown to maturity. It proved to be slightly more compact than other green-leaved cultivars grown at the nursery (‘Lorraine Sunshine’ has variegated foliage). ‘Tuscan Sun’ germinated the spring of 1999 and that same summer was noticeably shorter than all of its siblings and all of our other heliopsis seedlings. Stem cuttings of ‘Tuscan

Sun’ were rooted the summer of 1999, and in subsequent years and vegetative generations, the unique, dwarf stature of ‘Tuscan Sun’ proved to be stable.

Description

Heliopsis helianthoides is a clump-forming, herbaceous perennial in the Asteraceae family and is native to the prairies of the eastern and central United States and eastern Canada (Fisher, 1957, 1958). This species combines multiple desirable features: drought and pest tolerance, flower heads with showy yellow ray florets, wide climatic adaptation (USDA Hardiness Zones 3 to 9), and a long season of bloom typically lasting several weeks over the summer. Heliopsis is commonly used in perennial gardens, wild flower mixes, and prairie restorations.

A compact growth habit sets ‘Tuscan Sun’ apart from other heliopsis cultivars (Table 1). It has consistently grown to a mature height and width of 45 to 60 cm at the authors' test sites in Rhinelander, WI, and St. Paul, MN. ‘Tuscan Sun’ develops into a sturdy, well-branched plant that blooms prolifically throughout the growing season. ‘Tuscan Sun’ displays an abundance of long-lasting, bright golden yellow flower heads, each with a single row of ray florets (Fig. 1).

The following color designations are made using the Horticultural Color Chart from the Royal Horticultural Society (2001). Ray floret petals are 2 to 3 cm in length and 8 to 10 mm wide. On opening, the upper side of the petal is Yellow–Orange group 17B and matures to Yellow Group 13B and the lower side is between Yellow–Orange Group 15B and Yellow–Orange Group 17C and matures to Yellow Group 7B. Leaves are typically ≈10 cm long and ≈6 cm wide, ovate, and borne oppositely on stems. The upper leaf surface is scabrous and when young is be-

tween Green Group 139A and Green Group 139B and matures to between Green Group 137A and Green Group 137B. The lower leaf surface typically has small hairs and is between Green Group 138A and Green Group 138B when young and matures to Green Group 138B. Round, solid stems when young are Yellow–Green Group 144A and have small white hairs, and as they age, they become glabrous and mature to Yellow–Green Group 144B.

‘Tuscan Sun’ has performed well across the United States at the test sites sponsored by Proven Winners® (Sycamore, IL) and is adapted to USDA Plant Hardiness Zones 3 to 9 (U.S. National Arboretum, 2003), the typical range of adaptability for heliopsis cultivars.

Propagation and Production

Heliopsis has a prescribed growth habit with crown buds developing into primary stems ending in a primary flower head usually between 10 and 14 nodes. Secondary, tertiary and quaternary stems and flower heads can develop as the season continues. The quantity of axillary buds that produce additional flower heads is strongly dependent on cultural conditions. Warm temperatures during especially flower development, high irradiance, and long days are beneficial for forcing high-quality, floriferous heliopsis plants (Hara, 1983; Proven Winners®, 2007). Plant growth regulators have been identified that successfully reduced the plant height of heliopsis ‘Summer Sun’ (Latimer et al., 2003). With the compact plant habit of ‘Tuscan Sun’, plant growth regulators for height control is not necessary (Proven Winners®, 2007).

‘Tuscan Sun’ has been successfully propagated from crown division, stem cuttings, and tissue culture. The time of the growing season when stem cuttings are taken and how proximal or distal the stem cuttings are for heliopsis can influence the quality of the subsequent propagule. Stem cuttings taken later in summer from distal portions of the plant typically root in ≈2 or 3 wks under intermittent mist at 23 °C, but sometimes produce crown buds with variable growth potential. With late season propagation material, there tends to be greater variability among propagules for time to emergence after vernalization (Zlesak and Hanson, pers. obs.).

Table 1. Mean plant height (n = 2 plants per cultivar) and means of flower traits for primary flower heads (n = 8 per cultivar; n = 4 per plant) of *Heliopsis helianthoides* ‘Tuscan Sun’, its maternal parent, 1998-1, and four additional cultivars.

Cultivar	Plant height (cm)	Ray floret number	Head diameter (mm)	Ray petal width (mm)
Ballerina	112.1 d ²	35.5 a	78.9 a	8.9 cd
Lorraine Sunshine	64.3 b	12.9 c	62.8 c	9.7 bc
Prairie Sunset	154.7 e	13.3 c	52.1 d	8.0 e
Summer Sun	112.4 d	31.3 ab	77.6 a	13.9 a
Tuscan Sun	48.3 a	27.6 ab	63.4 c	8.3 de
1998-1	92.0 c	20.0 bc	71.1 b	10.2 b

²Means within column followed by the same letter do not differ significantly using Tukey's honestly significant difference ($\alpha = 0.05$).

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Fig. 1. Plant of *Heliopsis helianthoides* 'Tuscan Sun' propagated from a spring-rooted cutting and flowering the first growing season (A) and the same plant flowering during its second growing season (B).

In addition, there can be a higher rate of propagules that do not emerge after vernalization as a result of lack of viable crown buds, although they may have a healthy root system (Zlesak and Hanson, pers. obs.).

Spring cuttings of the primary stem before flowering has proven to be a reliable method to propagate heliopsis (Nau, 1996; Zlesak and Hanson, pers. obs.). Propagules from early season primary stems typically branch,

flower, and are salable the same growing season (Zlesak and Hanson, pers. obs.). It is important to have one or more nodes below the soil surface when taking stem cuttings and planting rooted cuttings in the landscape to help facilitate crown bud formation and perennality.

Use

The compact growth habit of 'Tuscan Sun' allows heliopsis to have greater versatility and to become a suitable option for confined garden spaces. 'Tuscan Sun' provides the long season of flowering typical of heliopsis cultivars (10 to 12 weeks), which allows heliopsis to provide continuity of bloom in a mass planting or in a mixed planting as companion plants come into and out of flower.

Availability

'Tuscan Sun' (U.S. Plant Patent 18,763, Canadian PBR applied for) is currently available from licensed propagators for Proven Winners® (Sycamore, IL) under the brand Proven Selections® and is licensed through PlantHaven® (Santa Barbara, CA).

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