

(12) **United States Plant Patent**
Saul

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(54) **ECHINACEA PLANT NAMED ‘NOAM SAUL’**
(50) Latin Name: *Echinacea purpurea*×*Echinacea paradoxa*
Varietal Denomination: **Noam Saul**
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See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct cultivar of *Echinacea* plant named ‘Noam Saul’, characterized by its upright and columnar plant habit; vigorous growth habit; freely branching habit; numerous long-lasting single inflorescences with white-colored ray florets with large inflorescence discs; strong flowering stems that hold the inflorescences upright; and good garden performance.

2 Drawing Sheets

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Botanical designation: *Echinacea purpurea*×*Echinacea paradoxa*.
Cultivar denomination: ‘Noam Saul’.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Echinacea* plant, botanically known as *Echinacea purpurea*×*Echinacea paradoxa*, and hereinafter referred to by the name ‘Noam Saul’.

The new *Echinacea* plant originated from a cross-pollination during the winter of 2006 of *Echinacea purpurea*×*Echinacea paradoxa* ‘Adam Saul’, disclosed in U.S. Plant Patent application Ser. No. 12/321,352, as the female, or seed, parent with an unnamed selection of *Echinacea purpurea*×*Echinacea paradoxa*, not patented, as the male, or pollen, parent. The new *Echinacea* plant was discovered and selected by the Inventor as a single flowering plant from within the progeny of the stated cross-pollination grown in a controlled outdoor nursery environment in Dahlonega, Ga. in the spring of 2007.

Asexual reproduction of the new *Echinacea* plant by tissue culture in a controlled environment in Alpharetta, Ga. since the spring of 2007, has shown that the unique features of this new *Echinacea* plant are stable and reproduced true to type in successive generations.

SUMMARY OF THE INVENTION

Plants of the new *Echinacea* have not been observed under all possible environmental conditions. The phenotype may vary somewhat with variations in environment such as temperature and light intensity, without, however, any variance in genotype.

The following traits have been repeatedly observed and are determined to be the unique characteristics of ‘Noam Saul’. These characteristics in combination distinguish ‘Noam Saul’ as a new and distinct cultivar of *Echinacea*:

1. Upright and columnar plant habit.
2. Vigorous growth habit.
3. Freely branching habit.

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4. Numerous long-lasting single inflorescences with white-colored ray florets with large inflorescence discs.
5. Strong flowering stems that hold the inflorescences upright.
6. Good garden performance.

Compared to plants of the female parent, ‘Adam Saul’, plants of the new *Echinacea* differ primarily in ray floret color as plants of ‘Adam Saul’ have dark pink-colored ray florets. In addition, plants of the new *Echinacea* are more vigorous than plants of ‘Adam Saul’.

Compared to plants of the male parent selection, plants of the new *Echinacea* are more freely flowering and have larger inflorescences. In addition, leaves of plants of the new *Echinacea* are narrower than leaves of plants of the male parent selection.

Plants of the new *Echinacea* can be compared to plants of *Echinacea purpurea* ‘White Swan’, not patented. In side-by-side comparisons conducted in Dahlonega, Ga., plants of the new *Echinacea* differed from plants of ‘White Swan’ in the following characteristics:

1. Plants of the new *Echinacea* were more compact than plants of ‘White Swan’.
2. Plants of the new *Echinacea* had shorter leaves than plants of ‘White Swan’.
3. Plants of the new *Echinacea* were more freely flowering than of plants of ‘White Swan’.
4. Plants of the new *Echinacea* were fragrant whereas plants of ‘White Swan’ were not fragrant.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photographs illustrate the overall appearance of the new *Echinacea*. The photographs show the colors as true as it is reasonably possible to obtain in colored reproductions of this type. Colors in the photographs may differ slightly from the color values cited in the detailed botanical description which accurately describe the colors of the new *Echinacea* plant.

The photograph on the first sheet comprises a side perspective view of typical flowering plants of ‘Noam Saul’ grown in an outdoor nursery.

The photograph on the second sheet is a close-up view of typical inflorescences and leaves of 'Noam Saul'.

DETAILED BOTANICAL DESCRIPTION

The aforementioned photographs and following observations and measurements describe plants grown in Dahlonaga, Ga. during the spring and summer in an outdoor nursery and under conditions and practices which approximate those generally used in commercial *Echinacea* production. During the production of the plants, day temperatures ranged from about -2°C . to about 33°C . and night temperatures ranged from about -17°C . to about 21°C . Measurements and numerical values represent averages for typical flowering plants. Plants had been growing for one year when the photographs and description were taken. In the following description, color references are made to The Royal Horticultural Society Colour Chart, 2001 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Echinacea purpurea* × *Echinacea paradoxa* 'Noam Saul'.

Parentage:

Female parent.—*Echinacea purpurea* × *Echinacea paradoxa* 'Adam Saul', disclosed in a U.S. Plant Patent application Ser. No. 12/321,352.

Male parent.—Unnamed selection of *Echinacea purpurea* × *Echinacea paradoxa*, not patented.

Propagation:

Type.—By tissue culture.

Time to initiate roots.—About ten days at 22°C . to 24°C .

Time to produce a rooted young plant, summer.—About 40 days at 32°C .

Time to produce a rooted young plant, winter.—About 50 days at 24°C .

Root description.—Fleshy, medium in thickness; white in color.

Rooting habit.—Freely branching; moderately dense.

Plant description:

Plant form/growth habit.—Upright and columnar plant habit; freely basal branching with about 13 basal branches; terminal and axillary inflorescences potentially developing at every node and are held upright on strong peduncles; vigorous growth habit.

Plant height.—About 45 cm.

Plant diameter or spread.—About 33 cm.

Basal branches.—Length: About 41 cm. Diameter: About 5 mm. Internode length: About 4.25 cm. Aspect: Upright. Strength: Strong. Texture: Pubescent; rough. Color: Between 144B and 145A.

Foliage description:

Arrangement.—Alternate, simple.

Length.—About 8.7 cm.

Width.—About 2.9 cm.

Shape.—Narrowly ovate to lanceolate.

Apex.—Acuminate.

Base.—Attenuate.

Margin.—Entire.

Texture, upper and lower surfaces.—Pubescent; rough.

Venation pattern.—Pinnate.

Color.—Developing and fully expanded leaves, upper surface: Close to 147A; venation, close to 147B. Developing and fully expanded leaves, lower surface: Close to 147B; lateral veins, close to 147B; midvein, close to 150D.

Petiole.—Length: About 7.25 cm. Diameter: About 2 mm. Texture, upper and lower surfaces: Smooth, glabrous. Color, upper and lower surfaces: Close to 150D.

Inflorescence description:

Appearance.—Rotate single inflorescence form with ray and disc florets; inflorescences terminal or axillary; inflorescences potentially developing at every node with about 26 open inflorescences per plant at one time; inflorescences held upright on strong peduncles.

Fragrance.—Moderate; sweet.

Time to flower.—Plants flower continuously from the spring through the summer in Georgia.

Inflorescence longevity.—Inflorescences maintain good substance for about four weeks on the plant; inflorescences persistent.

Inflorescence bud.—Height: About 1.1 cm. Diameter: About 7 mm. Shape: Ovoid. Color: Close to 147B to 147C.

Inflorescence size.—Diameter: About 7.6 cm. Depth (height): About 2.5 cm. Disc diameter: About 2.6 cm. Receptacle height: About 1 cm. Receptacle diameter: About 7 mm. Receptacle shape: Conical. Receptacle color: Close to 155D.

Ray florets.—Length: About 3.6 cm. Width: About 1 cm. Shape: Elongated oblong. Apex: Emarginate. Base: Attenuate; fused into a short corolla tube. Texture, upper and lower surfaces: Smooth, glabrous; satiny. Number of ray florets per inflorescence: About 14 arranged in a single whorl. Aspect: Initially upright to eventually reflexing; slightly concave. Color: When opening, upper and lower surfaces: Close to 155D. Fully opened, upper and lower surfaces: Close to 155D.

Disc florets.—Shape: Tubular; apex five-pointed. Length: About 1 cm. Diameter: About 1.5 mm. Number of disc florets per inflorescence: About 252. Texture: Smooth, glabrous. Color: Immature, apex, mid-section and base: Close to 144A. Mature: Apex: Close to 155D. Mid-section and base: Close to 144A.

Receptacle spines.—Quantity: One per disc floret. Length: About 1.5 cm. Width: About 1 mm. Shape: Lanceolate to acicular. Apex: Sharply acute. Base: Tapering. Texture: Smooth, glabrous. Color: Apex: Between 17A and 21A. Mid-section: Close to 144A. Base: Close to 155D.

Phyllaries.—Quantity per inflorescence: About 48 in about three whorls. Length: About 6 mm. Width: About 2 mm. Shape: Lanceolate. Apex: Acute. Base: Truncate. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous. Color, upper and lower surfaces: Close to 147A.

Peduncles.—Length, terminal peduncle: About 15 cm. Length, uppermost axillary peduncle: About 12 cm. Diameter: About 3 mm. Angle, terminal peduncles: Erect. Angle, axillary peduncles: About 30° from vertical. Strength: Strong. Texture: Pubescent; rough. Color: Between 144B and 145A.

Reproductive organs.—Androecium: Stamens per disc floret: One. Filament length: About 9 mm. Filament color: Close to 145D. Anther shape: Oblong. Anther length: Less than 1 mm. Anther color: Close to 146C. Pollen amount: None observed. Gynoecium: Pistil length: About 4 mm. Stigma shape: Cleft; reflexed. Stigma color: Close to 150D. Style length: About 3 mm. Style color: Close to 150D. Ovary color: Close to 157A. Seeds/fruits: Seed and fruit development have not been observed on plants of the new *Echinacea*.

Disease/pest resistance: Plants of the new *Echinacea* have not been shown to be resistant to pathogens and pests common to *Echinacea*.

Garden performance: Plants of the new *Echinacea* have been observed to have good garden performance and to tolerate rain, wind and temperatures ranging from about -17°C . to about 37°C .

It is claimed:
1. A new and distinct *Echinacea* plant named ‘Noam Saul’ as illustrated and described.

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