



## Dusty Miller Cut Foliage Production in Utah

Melanie Stock, Ali Harrison, Lorin Harrison, Amanda Pratt, Claudia Nischwitz, and Nick Volesky

### Overview

Dusty miller is a foliage known for its lace-like, velvety texture and silvery pale, sage-green leaves. While an annual foliage, dusty miller is an easy-to-grow, productive crop that can tolerate a light frost and make use of small spaces and edges on a cut flower farm. Harvests begin as early as June in high tunnels and late July in the field. Dusty miller serves as a traditional filler as well as base foliage for centerpieces. It is often used in small-scale floral design such as corsages, boutonnieres, and flower crowns. Though useful in diverse designs, dusty miller is also relatively inexpensive to import, a notable market consideration for local growers.

### Dusty Miller Cultivars

Dusty miller (*Jacobaea maritima*), also known as silver ragwort, was formerly classified as *Senecio cineraria*. While dusty miller is ubiquitous as a bedding and landscape plant, the three most common cultivars for cut foliage production are (Table 1):

- ‘Candicans’ — a newer cultivar that is taller and more productive than ‘Silverdust.’
- ‘New Look’ — an interesting, flat-leaved option.
- ‘Silverdust’ — the original dusty miller grown as a cut foliage.

### Site Preparation

Dusty miller is an easy-to-grow annual, has lower water and nutrient requirements, and thrives in containers, raised beds, and high tunnels (Figure 1). Optimal conditions include well-drained soil and full sun. Soil too clayey or wet increases the risk of developing root rot. As always, a soil nutrient test is recommended in new planting areas or where soil testing has not occurred in 2 years. [Utah State University’s \(USU’s\) Analytical](#)

[Laboratories](#) (USUAL) perform soil tests, with pricing and sampling instructions available on their website. After finding a suitable planting area, till and rake the soil smooth, forming beds that are 3 to 4 feet wide. If desired, install drip irrigation prior to planting. Landscape fabric is optional, but not recommended, as it may unfavorably increase soil temperature.



Figure 1. Young ‘Silverdust’ plants growing in a raised bed.

### Germination

Dusty miller can be slow to germinate, and direct seeding is not recommended. Seeds are pelleted because of their tiny size. Sow seeds indoors 10 to 12 weeks before the last frost, with 3 seeds per cell in 50-cell flats or preferred seedling containers. Fill trays with a high-quality peat/perlite soilless media or seedling mix. Light aids in germination, so cover the seeds lightly with vermiculite. Bottom water or mist the soil until the plants emerge to avoid seed displacement. Expect germination between 10 to 15 days at 70 to 75 degrees (note that the temperatures are greater than many other crops). Once the seedlings emerge, reduce the

**Table 1.** Selected cultivars of dusty miller for cut foliage production.

|   |   |  |
|---|---|--|
|    |   |   |
| <p><b>‘Candicans’</b><br/>The tallest cultivar of dusty miller, reaching heights of 16 to 24 inches, allows for multiple stem harvests. It is low maintenance and easy to grow. Considered the “industry standard” of dusty miller, ‘Candicans’ produces vigorously all season.</p> | <p><b>‘New Look’</b><br/>This new, flat-leaved cultivar lends itself to more modern floral design. This cultivar is short, reaching 10 to 12 inches in height, which may be too short for harvesting individual stems. Therefore, cutting the entire plant and bunching in groups of five is recommended.</p> | <p><b>‘Silverdust’</b><br/>A more feathery, lacy foliage than other cultivars, its silvery-white color adds a pale-blue hue to floral arrangements. Plants are short, reaching heights of 10 to 12 inches. This cultivar may be too short to harvest individual stems, so cutting the entire plant and bunching in groups of 5 is recommended.</p> |

moisture levels and maintain consistent temperatures of 65 to 70 degrees. Thin to the strongest seedling per cell. After 6 to 8 weeks of growth or when the first set of true leaves appear, seedlings can be transplanted into larger containers (e.g., 2- to 4-inch pots). Allow the soil to dry in between waterings, as dusty miller can be prone to root rot, and avoid watering the leaves.

### Transplanting and Spacing

For early season growth, dusty miller can be transplanted in high tunnels about 4 weeks before the average last frost date (Figure 2). Using protected cultivation methods, such as tunnels, improves growth and increases height compared to unprotected fields.

For field production, harden off seedlings and transplant outdoors after the last frost. Planting in early morning, evening, or on a cloudy day is recommended to reduce transplant shock. In a prepared bed, dig a hole the same size as the seedling, loosening the soil to assure roots can penetrate, and separate compacted roots. Settle the plants into place by gently packing and firming the displaced soil. Water deeply and thoroughly after planting. Space the plants 10 to 12 inches apart as plants will become “bushier” as harvesting continues throughout the season.

### Fertilizer

Dusty miller is a low-maintenance crop and may not need additional fertilizer. In general, add 0.1 pounds of nitrogen per 100 square feet each year; for example, about ¼ lb. (about ½ cup) of conventional urea fertilizer (46-0-0) or 0.8 lb. (about 2 ¾ cups) of organic 12-0-0 fertilizer. Phosphorous and potassium should be added before or at planting but only based on soil test results, as these nutrients can build up in the soil. USU’s



**Figure 2.** ‘Candicans’ transplanted along the edge of a high tunnel. This shorter crop makes use of space where height is limited from the sloped wall of the high tunnel.



[Urban Garden Soils: Testing and Management](#) fact sheet is a useful tool for calculating applications with test results.

## Irrigation, Disease, and Pests

Drip irrigation is recommended. During establishment, irrigate 2 to 3 times per week to keep new transplants hydrated. Once established, irrigation events may be reduced to 1 to 2 times per week, applying about 1 to 1.5 inches of water per week to ensure water reaches throughout the root zone. Dusty miller has lower water requirements and benefits from the soil drying out between watering. Saturated soil, especially from overhead watering, extended wet weather, or over-irrigation, may lead to rot.

Though notably fewer diseases and pests are observed on dusty miller, see Tables 3 and 4 for common production challenges for cut foliage that may also be found on dusty miller, particularly if there are no other hosts. Identifying new diseases and pests is a current research area at USU.



**Figure 3.** Yellow flowers appear as ‘Silverdust’ goes to seed.

## Pinching and Trellising

To promote bushier growth, remove 1 inch of the central growing tip while the plant is still small (approximately 6 to 8 inches tall). Plants will branch, and new stems will grow where the plant was pinched. Dusty miller may produce small yellow flowers later in the season to produce seed (Figure 3). Remove buds to help the plant put energy into producing new foliage.

Trellising (also known as netting) is not necessary for dusty miller, as it does not grow tall enough for wind or other elements to compromise its quality. If the plant is harvested frequently, the size will remain compact.



**Figure 4.** Bunched dusty miller, ready for market.

## Harvest and Storage

Dusty miller can be harvested when the plant is 10 to 12 inches tall for shorter cultivars, like ‘New Look’ and ‘Silverdust,’ and 14 to 16 inches tall for ‘Candicans.’ Marketable stems should be no less than 10 inches tall. Stems are unmarketable (culls) if they are too short, deformed, or have damage.

When grown in a high tunnel, plants will mature for harvest by the end of June to early July. For field-grown crops, harvesting typically begins in late July to early August. Cut 2/3 of the branches off at a time, leaving 1/3 intact so plants can regenerate adequately for subsequent harvests. For short cultivars, such as ‘New Look’ and ‘Silverdust,’ consider cutting the entire plant as a one-time harvest. Dusty miller is prone to wilting in the heat, so harvest early in the morning and remove excess foliage at the base of the stems. Band in bunches of 5 to 10 stems (depending on stem thickness) and place in clean buckets filled with cool water immediately after harvest (Figure 4). Preservative is not necessary. Dusty miller can be stored for up to 5 days at 36 to 45 degrees. Florists can expect a vase life of 7 to 10 days. See Table 2 for a guide on identifying the optimal harvest stage.

## Economics

Dusty miller is a fun foliage and an easy-to-grow addition to the cut flower farm that can help maximize use of space in a high tunnel. It is popular among shop and market florists, where it is used extensively in bouquets and table arrangements (Figure 5). However, dusty miller is also relatively inexpensive and readily sourced from wholesalers. Dusty miller sold for \$0.90 to \$1.00 per stem in markets along the Wasatch Front. Therefore, this crop may be less valuable as a local cut foliage, particularly for farmers selling to florists or

**Table 2.** Harvest stages of dusty miller for cut foliage production.



wholesale. Direct-to-consumer sales, like farmers markets and community supported agriculture (CSA), may be a more viable outlet. Dusty miller is also popular as a dried foliage, and fresh stems that did not sell may be dried and sold later in the season.

## Summary

Dusty miller is an easy-to-grow annual foliage with several suitable cultivars for cutting that range from 10 to 24 inches tall. This crop is an excellent option for filling small areas, such as the edges of high tunnels or beds. While slow to germinate, it is productive once established and readily used in bouquets and small design projects. Determining local markets is a must before growing, as dusty miller is inexpensive and easily imported by wholesalers.



**Figure 5.** 'New Look' used in a bouquet.

## References

- Arizona State University. (2024). [Senecio cineraria](#). Virtual Library of Phoenix Landscape Plants.
- Bowen, L. (2023). [How to plant, grow, and care for dusty miller](#). Epic Gardening.
- Johnny's Selected Seeds. (2022). [Dusty miller--key growing information](#).
- Mahr, S. (2024). [Dusty miller, Senecio cineraria](#) [Fact sheet]. University of Wisconsin-Madison Division of Extension.
- Nau, J., B. Calkins, & A. Westbrook. (2021). *Ball Redbook, 19<sup>th</sup> ed.* Ball Publishing.
- North Carolina State Extension. (2024). [Centaurea cinaria](#). [Fact sheet]. North Carolina Extension Gardener Plant Toolbox.
- Stock, M., T. Maughan, & P. Grossl. (2020). [Urban garden soils: Testing and management](#) [Fact sheet]. USU Extension.
- Stock, M., T. Maughan, & R. Miller. (2019). [Sustainable manure and compost application](#) [Fact sheet]. USU Extension.
- USU Analytical Laboratories. (2023). [Analytical laboratories](#).
- Utah Climate Center. (2022). [Utah freeze dates](#).

## Disclaimers and Acknowledgements

Using figures and tables without written permission from the authors is prohibited. Figures 1, 3, 4, and 5 are courtesy of Canva. This project was funded by Western Sustainable Agriculture Research & Education (SARE) and Association of Specialty Cut Flower Growers (ASCFG). The information reflects the views of the authors and not SARE or ASCFG. Publication edited by Kellie Webb.



**Table 3. Common diseases of dusty miller for cut flower production.**

| Disease  | Identification   | Control   |
|--|--|---|
| <b>ROOT AND CROWN ROTS</b><br>( <i>Pythium sp.</i> ,<br><i>Rhizoctonia sp.</i> ) | These fungi infect roots and crowns, producing dull-colored foliage or wilting followed by yellowing. Roots are dark, soft, or decayed. Plants may be stunted and eventually die. Primarily a challenge for seedlings. | Plugs should be transplanted with well-developed roots that are not root-bound. Plant in well-drained and avoid excessive irrigation/moisture. Dig out and destroy infected plants. |

Note. Rots are not yet identified to a species and research is ongoing for further classification.

**Table 4. Common pests of cut flowers and foliage that may impact dusty miller.**

| Insect   | Identification  | Control  |
|--|---|--|
| <b>APHIDS</b>                                    | Small, sap-sucking insects cause damage by piercing and sucking plants, leading to distorted growth, yellowing, and the secretion of honeydew, along with potentially transmitting viruses. Color depends on species.   | Populations grow rapidly. Encourage or purchase natural predators, such as lady beetles. Spraying a strong stream of water can dislodge colonies. If populations are at threshold, consider organic insecticides, such as insecticidal soaps or horticultural oils.                    |
| <b>GRASSHOPPERS</b><br>( <i>Melanoplus sp.</i> ) | Grasshoppers are highly mobile and characterized by their large hind legs. Size, color, pattern, and life cycle are dependent on the species and instar. Damage severity is correlated to population numbers and host presence. Feeding damage primarily occurs in the foliage. | Manage over a large area due to their high mobility. Bait (wheat bran with carbaryl or <i>Nosema locustae</i> ) used by late May/early June is effective, as are insecticides with acephate, beta-cyfluthrin, or bifenthrin. Physical exclusion using insect netting often works best. |
| <b>SLUGS AND SNAILS</b>                          | They have soft, slimy bodies with a distinct head and sensory tentacles. Snails have a spiral shell, while slugs lack a shell.  | Reduce excess moisture and standing water. Set up copper-based barriers around plants. Place traps or bait containing iron phosphate or metaldehyde.   |

Note. Most pests are general classifications and research is ongoing for further classification.



In its programs and activities, including in admissions and employment, Utah State University does not discriminate or tolerate discrimination, including harassment, based on race, color, religion, sex, national origin, age, genetic information, sexual orientation, gender identity or expression, disability, status as a protected veteran, or any other status protected by University policy, Title IX, or any other federal, state, or local law. Utah State University is an equal opportunity employer and does not discriminate or tolerate discrimination including harassment in employment including in hiring, promotion, transfer, or termination based on race, color, religion, sex, national origin, age, genetic information, sexual orientation, gender identity or expression, disability, status as a protected veteran, or any other status protected by University policy or any other federal, state, or local law. Utah State University does not discriminate in its housing offerings and will treat all persons fairly and equally without regard to race, color, religion, sex, familial status, disability, national origin, source of income, sexual orientation, or gender identity. Additionally, the University endeavors to provide reasonable accommodations when necessary and to ensure equal access to qualified persons with disabilities. The following individuals have been designated to handle inquiries regarding the application of Title IX and its implementing regulations and/or USU's non-discrimination policies: Executive Director of the Office of Equity, Matt Pinner, JD, [matthew.pinner@usu.edu](mailto:matthew.pinner@usu.edu), Title IX Coordinator, Hilary Renshaw, [hilary.renshaw@usu.edu](mailto:hilary.renshaw@usu.edu), Old Main Rm. 161, 435-797-1266. For further information regarding non-discrimination, please visit [equity.usu.edu](http://equity.usu.edu), or contact: U.S. Department of Education, Office of Assistant Secretary for Civil Rights, 800-421-3481, [ocr@ed.gov](mailto:ocr@ed.gov) or U.S. Department of Education, Denver Regional Office, 303-844-5695 [ocr.denver@ed.gov](mailto:ocr.denver@ed.gov). Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Kenneth L. White, Vice President for Extension and Agriculture, Utah State University.