

Roman Chamomile Daisy (*Chamaemelum nobile* L.)

Iqra Noor¹, Ahsan Akram^{1*}, Adnan Younis¹, Ahmed Faiz Akbar¹ and Abida Parveen²

1. Institute of Horticultural Sciences, University of Agriculture, Faisalabad
2. Department of Botany, University of Agriculture, Faisalabad

*Corresponding Author: ahsan.akram@uaf.edu.pk

ABSTRACT

The chamomile daisy is a significant fragrant floricultural crop. It has a cure for a bundle of diseases. Wondrous morphological and physiochemical properties it possesses. Very pretty appearance, and narrow leaves, and is used as ground cover. It is effortless to grow it with possible requirements. Seeds, division, and cuttings can propagate it. It has a perennial nature and grows easily from dry stumps next year. It has medicinal importance, is good for the skin, and cosmetics, and is used in aromatherapy.

Keywords: Chamomile daisy, origin, growth habit, growth requirements, propagation, and benefits

Introduction

The delightful perennial herb *Chamaemelum nobile*, technically known as the Roman Chamomile Daisy, is a member of the Asteraceae family. This plant, well known for its fragrant leaves and daisy-like blossoms, has long been prized for its decorative appeal and therapeutic qualities. Let's explore its amazing growth and development story.

Origins

The Mediterranean area is the natural habitat of this plant. Known by most as garden chamomiles, it has been growing for generations throughout Central Europe. Roman chamomile is not a plant with roots in ancient Roman civilization, therefore the name is a little misleading (1). Rather, the name originates from a discovery made by a plant collector in the 19th century when some of these chamomiles were growing on the remains of a Roman stadium. Because of this discovery, the plant became associated with Rome, earning the name "Roman Chamomile". Since the Middle Ages, Roman chamomiles have been used in folk medicine. Initially, the Württemberg Pharmacopeia listed it as a carminative, analgesic, diuretic, and digestive aid. The shrub was initially grown in England in the sixteenth century (2).

CHARACTERISTICS

Roman Chamomile blooms are petite, daisy-like, with white petals and a yellow center. The plant normally grows to 20-30 centimeters (8-12 inches)(3). The plant's light green, fluffy, and scented leaves make it a popular garden plant. It grows densely and can serve as a ground cover.

GROWTH REQUIREMENTS

SOIL REQUIREMENTS FOR ROMAN CHAMOMILE DAISY

Certain soil conditions must be satisfied before Roman chamomile (*Chamaemelum nobile*) may thrive are the main aspects:

- The ideal soil type is well-drained and sandy.
- High humus content and moderate nutritional value.
- pH: Neutral to slightly acidic (5.6-7.5).
- Moisture: Although it tolerates dry surfaces well, prevents waterlogging. Allow the soil to dry between waterings (4).

TEMPERATURE REQUIREMENTS

The Roman chamomile (*Chamaemelum nobile*) thrives in moderate climates (5). The following are the necessary temperature requirements:

Roman Chamomile enjoys temperatures ranging from 60 to 68°F (15 to 20°C). The plant can endure temperatures as low as -20°C (-5°F), making it suited for USDA Plant Hardiness Zones 6.

PROPAGATION

There are several ways to propagate Roman chamomile (*Chamaemelum nobile*), including division, cuttings, and seeds (6). Here's a thorough examination of each approach:

Propagation by Seeds

Best time to sow is Spring or fall are good times to sow seeds. Seeds normally sprout for 7 to 14 days after being planted in well-drained soil with enough sunlight. When seedlings reach maturity, thin them down to 9 inches apart.

Propagation via Division

Splitting Roman chamomile is best done in early spring, before new growth develops.

Technique

- Dig up the cluster from the ground.
- Separate the clump into smaller pieces, ensuring the roots remain intact.
- Replant the parts in well-prepared soil.

Propagation by Cuttings

Take cuttings in early spring or midsummer. Cut 3-inch to 5-inch sections from healthy plants. Root the cuttings indoors in pots filled with a well-draining potting mix. Keep the soil moist and provide bright, indirect light until the cuttings establish roots.

Tips for Successful Propagation

Soil: Ensure the soil is well-drained and moderately nutritious.

Watering: Water young plants about an inch per week, allowing the soil to dry out between waterings.

Light: Get four to six hours of bright sunlight every day (7).

DEVELOPMENT STAGES

1. It ordinarily requires 7 to 14 days for seeds to sprout once they are buried in soil with adequate drainage and made accessible to sunlight.
2. The seedling stage takes place when newborn plants reap fluffy leaves and form an absorbent mat.
3. The process of vegetative growth brings about an abundance of greenery. Periodic cutting aids in maintaining its structure and endorses denser growth.
4. Blowing: Roman chamomile explosions with peculiarly colored white petals and shiny centers from June to September. lovely because the apple smell emanates from these flourishes.
5. Maturation: The plant needs ten weeks to reach full maturity. From that point on, it keeps blooming all throughout the month through June and early September (8).

USES AND BENEFITS

Utilizations in Medicine:

Roman chamomile has been praised for calming the alimentary tract. It can assist in easing symptoms including gas, indigestion, nausea, and vomiting. The flavonoids and terpenoids in the plant have antioxidants and curative properties. Dried flower tea, or chamomile tea, has soothing impacts and solidifies the immune system by minimizing inflammation. It lessens anxiety and drives relaxation during sleep (9).

Skin Care

Roman chamomile is used in creams and lotions to mitigate bleeding from incisions and hemorrhoids and expedite the healing process. Eczema and Skin Rashes: It puts less gingivitis and eczema, two skin conditions marked by swollen gums. Because of its beneficial cooling effect, it foils skin irritation and redness (10).

Aromatherapy

Essential Oil: Harvested from flowers, Mediterranean chamomile proposes a therapeutic, apple-like aromatherapy. It facilitates anxiety or worry while simultaneously encouraging relaxation when used in aromatherapy.

Sleep Aid: Via fewer sensory fretfulness, Roman chamomile oil updates the quality of sleep and softens insomnia.

Cosmetic Uses

Hair and Skin Care: Because of its calming and anti-inflammatory qualities, Roman chamomile is a common ingredient in cosmetic products. It supports the upkeep of healthy hair and skin.

Traditional Uses

Historical Significance: Roman chamomile was coveted by the Egyptians and Romans for its antiseptic properties on top of for its valor amid times of war. Roman chamomile daisies are an outstanding asset to your garden and health regimen owing to their aptitude for adaptation and tons of advantages; their frequent use across diverse civilizations attests to their continuing appeal for powerful application (11).

Conclusion

Robust and resilient, the Roman Chamomile Daisy stipulates insightful plus attractive aesthetic incentives. It is an excellent boost to any garden in view of its not difficult cultivation and lingering allure. Roman chamomile is an attractive plant that is worth cultivating, whether you want to use it as a cure-all or to formulate a peaceful and tranquil garden ecosystem

References

- [1] Sharafzadeh S, Alizadeh O. German and roman chamomile. J Appl Pharm Sci. 2011;1(10):1–5.
- [2] Chauhan ES, Aishwarya J. Nutraceutical Analysis of Marticaria recutita (Chamomile) Dried Leaves and Flower Powder and Comparison between Them. Int J Phytomedicine [Internet]. 2018 Jul 10;10(2):111. Available from: <https://arjournals.org/index.php/ijpm/article/view/2249>
- [3] Vikas Gupta, Payal Mitthal, Parveen Bansal, Sukhbir L Khokra DK. Pharmacological Potential of Matricaria recutita-A Review. Int J Pharm Sci Drug Res. 2010;2(1):12–6.
- [4] Kong Y, Wang T, Wang R, Ma Y, Song S, Liu J, et al. Inhalation of Roman chamomile essential oil attenuates depressive-like behaviors in Wistar Kyoto rats. 2017;60(6):647–55.
- [5] Bhaskaran N, Shukla S, Kanwal R, Srivastava JK, Gupta S. Induction of heme oxygenase-1 by chamomile protects murine macrophages against oxidative stress. Life Sci [Internet]. 2012 Jun;90(25–26):1027–33. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S0024320512002937>

- [6] Kisvarga S, Farkas D, Boronkay G, Neményi A, Orlóci L. Effects of Biostimulants in Horticulture, with Emphasis on Ornamental Plant Production. Agronomy [Internet]. 2022 Apr 27;12(5):1043. Available from: <https://www.mdpi.com/2073-4395/12/5/1043>
- [7] Mao JJ, Xie SX, Keefe JR, Soeller I, Li QS, Amsterdam JD. Long-term chamomile (Matricaria chamomilla L.) treatment for generalized anxiety disorder: A randomized clinical trial. Phytomedicine [Internet]. 2016 Dec;23(14):1735–42. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S094471131630188X>
- [8] Povilaityte V, Venskutonis PR, Juknevičienė G. Aroma and antioxidant properties of Roman chamomile (Anthemis Nobilis L.). In p. 567–77. Available from: <http://ebook.rsc.org/?DOI=10.1039/9781847550859-00567>
- [9] Singh O, Khanam Z, Misra N, Srivastava M. Chamomile (Matricaria chamomilla L.): An overview. Pharmacogn Rev [Internet]. 2011;5(9):82. Available from: <http://www.phcogrev.com/article/2011/5/9/1041030973-784779103>
- [10] Khattab AR, Abou-shoer M, Harz, Fathallah Mohamed, El-Ghazouly MG. Hierarchical Clustering of Commercial Chamomile Oil , A Quality Assessment Approach BY. Egypt J Biomed Sci. 2010;34(March):1–12.
- [11] Jakubcova Z, Zeman L, Horky P, Mrkvicova EVA, Mares P, Mrzkova EVA, et al. The influence of the addition of chamomile extract to the diet of chickens. MendelNet. 2014;147–50.

