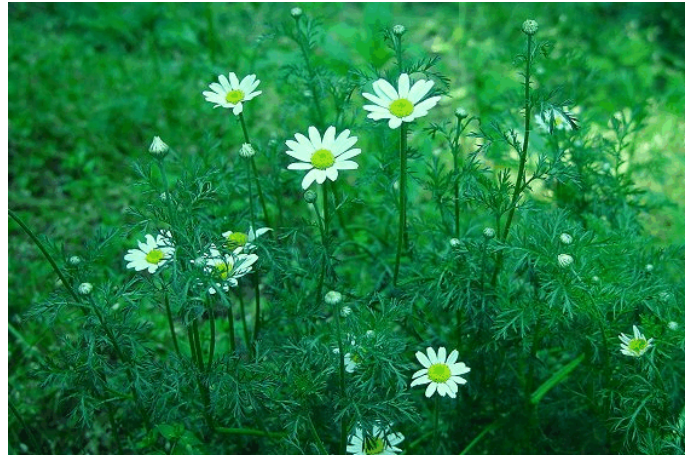


SCENTLESS CHAMOMILE

(*Anthemis arvensis*)

Description: Scentless chamomile, also referred to as scentless mayweed, fair dale daisy, corn chamomile, and false chamomile, is a member of the Asteraceae or sunflower family. Scentless chamomile is primarily a summer or winter annual forb that can persist as a biennial or short-lived perennial. Stems of the plant are green, erect, often branched, glabrous, or slightly pubescent, and can range in height from 6 to 20 inches tall. Leaves are alternate, 1 to 2 inches long, slightly pubescent or glabrous, and are finely divided into several short thread-like segments. Terminal flowers are 3/4 to 1 1/4 of an inch in diameter, with a daisy-like appearance consisting of white petals surrounding a central yellow core. Scentless chamomile seeds are approximately 1/16 of an inch long, dark brown, with three ribs on one side and a broad brown central area on the other.



Scentless chamomile

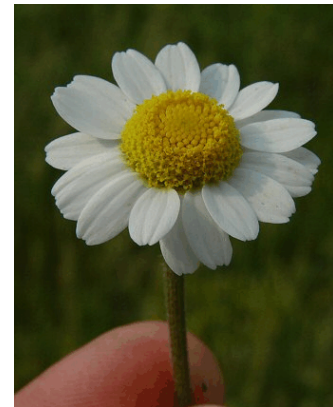
Plant Images:



Stem



Leaves



Flower

Distribution and Habitat: Scentless chamomile is native to Europe and is now considered to be naturalized in North America. The plant is tolerant to cold weather and poorly drained soils. Scentless chamomile thrives under high soil moisture and prefers areas with bright light. The plant typically flourishes in fence lines, roadsides, farmyards, pastures, wastelands, ditches, disturbed areas, and in croplands with minimal tillage.

Life History/Ecology: Scentless chamomile is a herbaceous plant that can persist as a winter, summer annual, biennial, or short-lived perennial. The plant reproduces solely by seed production. Seedlings germinate throughout the growing season and develop an extensive, branched fibrous root system. Early-emerging plants generally flower in the same growing season that the plant was established and can flower from May to October. Later-emerging plants overwinter in the rosette stage and develop into

extensively branched plants that lack a single prominent central stem. These overwintering plants begin to flower in mid-May. Individual plants can produce 71,000 to 256,000 seeds that can remain viable in the soil for up to ten years. However, viability begins to decline after four years.

History of Introduction: Scentless chamomile is native to Europe and was introduced into North America in the late 19th century. The plant may have been introduced in crop seed as a contaminant in ships' ballast, or as an escaped garden ornamental from northern and eastern Europe. Scentless chamomile is now naturalized in North America and is widely distributed throughout the United States. In North Dakota, scentless chamomile has been reported in Ward, Pembina, Renville, Bottineau, Cavalier, and Walsh counties.

Effects of Invasion: Scentless chamomile can have a negative impact on grain fields, pastures, hayfields, cultivated crops, and disturbed areas by forming dense, semi-permanent stands. The plant can especially become a nuisance in crop fields. Spring and fall-emerging plants can reduce wheat yields by 20 to 60 percent, if left unattended. In addition, scentless chamomile has poor nutritional value and is not palatable to livestock.

Control:

Management objectives for scentless chamomile control should involve prevention and early detection. Seeds of scentless chamomile can remain viable in the soil for up to ten years; therefore, seed production should be prevented and infestations should be monitored for several years to prevent re-establishment. Preventing or reducing seed production and dispersal can eventually decrease the spread of the plant. Maintaining healthy stands of desirable vegetation can also be an effective control measure because scentless chamomile seedlings can not tolerate intense competition. Control methods should be combined into an integrated management system for the best long-term control of the plant.

Mechanical - Hand pulling can be an effective control method for small infestations of scentless chamomile. Hand pulling may not be practical in larger patches. Mowing conducted early in the growing season before plants flower and prior to seed production will reduce populations. Scentless chamomile may produce new flowers below the cutting height of the mower, but mowing will be more effective if stands are mowed often and each successive mowing is lower than the previous. Shallow tillage should be conducted prior to flowering and plants may be less likely to re-establish if soils are tilled during hot, dry weather.

Chemical - A number of herbicides are available for scentless chamomile control. Bromoxynil, clopyralid, chlorsulfuron, metsulfuron methyl, and hexazinone can be applied in field crops. Picloram, dicamba, and clopyralid have been effective in non-crop sites. Herbicides should be applied early in the growing season before flowering and prior to seed production.

Contact your local county extension agent for recommended use rates, locations, and timing.

Biological - Several biological control agents have been researched for scentless chamomile control. The seed-head weevil, *Omphalaplton hookeri*, feeds on developing seeds of the plant, thereby reducing seed production. The stem-boring weevil, *Microplontus edentulous*, feeds on the interior of the stem and produces hollow areas that reduce the vigor of the plant. *Rhopalomyia tripleurospermi*, the scentless chamomile gall midge, forms a gall on the plant which acts as a nutrient sink that can interrupt and stunt the growth of the plant. Research is still being conducted on these biocontrol agents to predict effectiveness in reducing plant populations.

Livestock generally will not graze scentless chamomile because the plant has a low nutritive value. However, proper grazing management can prevent the spread or introduction of the plant since the plant does not compete well with a healthy, well established plant community.

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Scentless chamomile, stem, leaves and flower photograph courtesy of Dan Tenaglia (missouriplants.com).