



# MILK THISTLE

*Silybum marianum*



- ✦ Other names: Variegated thistle, spotted thistle, holy thistle, blessed milk thistle, lady's thistle.
- ✦ Milk Thistle is a Class A noxious weed.
- ✦ Milk Thistle is a winter annual, sometimes a biennial from the Asteraceae Family and reproduces by seed.
- ✦ This is a sparsely branched thistle that grows up to 6 feet tall. Milk thistle leaves are alternate and shiny dark green with distinctive white marbling. Basal leaves are about 10 inches wide and 20 inches long, with bases that clasp the stem. The wavy leaf margins are edged in yellow prickles that are roughly half an inch in length.

Milk thistle differs from other thistles, by the leathery thorn tipped bracts at the base of each solitary purple flower head. It blooms from April to August.

- ✦ This weed is a nitrate accumulator. Ingestion of milk thistle by grazing animals causes nitrate poisoning, which can be lethal.
- ✦ It is found in dense stands along roadsides, waste areas. Pastures are invaded from roadside populations, ditches and disturbed areas. It is a prolific seeder and forms dense stands of thistle crowding out other beneficial plants. Individual plants are so large that forage displacement is high.
- ✦ Do not plant Milk Thistle intentionally. While Milk Thistle does have some beneficial medicinal properties, the extract is difficult to process. It takes about 70 pounds of seeds to produce one pound of extract purified to 70-80% silymarin (of which 60% is silybin, the most active and beneficial component). In this form, it is still difficult for the body to utilize, requiring huge quantities which are not feasible for home production.



## CONTROL OPTIONS

- ✦ Eradication is best achieved through prevention of seed production until the seed in the soil is exhausted, which can take up to 9 years. For small infestations dig or pull the rosettes. All buds must be removed to prevent seed production.
- ✦ Mowing may produce more plants the next year. If moisture is adequate, mown plants will regrow and produce seed later in the season.
- ✦ Spot spraying with an herbicide containing the active ingredient *glyphosate* (Roundup Pro, Glyfos, etc.) most effectively kills milk thistle at the rosette stage, repeat as needed. Be aware, Glyphosate is non-selective and will injure any plants that it comes in contact with, including grass.
- ✦ For selective control of knapweed in agricultural settings (pastures, hayfields, etc.): an herbicide containing the active ingredient *aminopyralid* (example: Milestone, Milestone VM, etc.) may be applied in the spring, when the plant is actively growing, up to when the flowering stem bolts. Plants sprayed after buds develop are harder to kill and have a higher likelihood of producing viable seeds, despite damage to the plant. Applications of *aminopyralid* are also effective in the fall before a killing frost. *Aminopyralid* products will not harm grass and can be used around livestock provided all label precautions are followed.
- ✦ When using herbicides, read and follow all label instructions and obey all label precautions. (Note: pesticide product registration is renewed annually and product names and formulations may vary from year to year.)
- ✦ Because Milk Thistle is a Class A noxious weed and must be eradicated completely whenever it is found, biological control is not a viable option.

