

Milk Thistle: *Silybum marianum*

Milk thistle has been used to treat liver ailments for more than 2000 years. Herbalists refer to its ability to cleanse and detoxify a liver overburdened by medications, toxins, heavy metals, pesticides, pollution, other chemicals and stress. While most documentation of the efficacy of milk thistle has been with humans, veterinarians and others have found it useful in treating similar concerns with a variety of species.

Some veterinarians and wildlife rehabilitators have used milk thistle to treat wild animals after their exposure to toxins, including pesticides, parasite treatments, and powerful medications that may have affected the liver, or if they have sustained other liver damage.

Description

Milk thistle grows in dry areas with extensive sun exposure. It has wide, pale shiny green leaves with white marbling along the veins. The flowers are feathery tufts red to purple. Milk thistle can grow to between 4 and 10 feet tall. The seeds are small, black and shiny. While the whole plant may be used medicinally, the thistle seeds are collected in the fall and especially prepared for medicinal use.



History and Distribution

Milk thistle, which grows naturally in Southern and Western Europe, has been used medicinally for over 2000 years to treat liver and gallbladder disorders. Dioscorides, a first century Greek physician, gave the name *Silybum* to several edible thistles in the Mediterranean region. A first century Roman physician, Pliny the Elder, wrote of using milk thistle to treat liver related conditions as well as its use as a vegetable.

Early settlers brought it to America, probably as a food plant and medicinal herb. Milk thistle has naturalized to North and South America, and Australia. It has become a common weed in California and many other regions. Unfortunately, milk thistle can quickly establish dense stands and displace other vegetation used by livestock and wildlife.

Uses

- Reduces damage from toxins. Trials in dogs poisoned with *Amanita* (Deathcap) mushrooms showed that milk thistle greatly improved survival, liver function tests, and histopathology compared with dogs that received only supportive care. Floersheim, 1978; Vogel, 1984.
- Helps protect the liver from damage by blocking absorption of toxins and heals liver cells.
- Has antioxidant properties.
- A number of studies suggest milk thistle is an anti-inflammatory. Rainone, 2005.

Scientific classification

- Kingdom: Plantae
- Division: Magnoliophyta
- Class: Magnoliopsida
- Order: Asterales
- Family: Asteraceae
- Genus: *Silybum*
- Species: *S. marianum*
- Binomial name: *Silybum marianum*

Research results

- Silymarin, an extract of milk thistle seeds, is the active medicinal ingredient in milk thistle.
- Silymarin contains four compounds: silybin (the most active), isosilybin, silchristin, and sildianin.
- Although numerous research trials have been conducted with humans, most of these published studies have not been well designed or reported. More research is underway.
- Reduced liver damage and improved survival of dogs given variety of conventional medications. Vogel, 1984.

Safety

- No significant drug interactions with the appropriately prepared seeds or extract.
- Milk thistle is described as a nitrate accumulator. If cattle and sheep ingest the milk thistle plant, especially during the early wilting stage, it can be lethal to livestock.
http://www.nwcb.wa.gov/weed_info/Silybum_marianum.html

Synonyms: Blessed thistle, holy thistle, lady's thistle, bull thistle, royal thistle, heal thistle, Mary thistle, Marian thistle, St. Mary thistle, wild artichoke, silybum, and Silybum marianum.

Dosages. Published examples of milk thistle doses for animals show that the doses vary widely. Doses are given by mouth.

Wellvet.com; David McCluggage, DVM, founder.

- For birds – 1 drop per 30-100 grams body weight twice daily
- For ferrets – ¼ dropper full (.25 ml) twice daily
- For cats: ¼ dropper full, twice daily
- For dogs up to 25 lbs – ½ to 1 dropper full twice daily
- For dogs 25 – 50 lbs – 1 - 2 droppers full twice daily
- For dogs 50 - 100 lbs – 2 - 3 droppers full twice daily

Susan Wynn, DVM. *Veterinary Herbal Medicine*.

- Fluid extract (1:1) (usually 60-80% ethanol): 1.0-2.0 ml per 10 kg (20 lbs), divided daily and diluted or combined with other herbs
- 50-100 mg/kg, divided daily (optimally, TID) if extracted and dried; triple or quadruple dose for unprocessed herb
- Dry standardized extract (70% silymarin): 10-15 mg/kg divided daily

Susan Wynn, DVM. *Manual of Natural Veterinary Medicine: Science and Tradition*.

- Suggested starting dose: 0.2 ml per 5 lb of body weight twice daily. Generally considered safe and may be used at twice this dose if necessary.

McCluggage, David, DVM. *Holistic Care for Birds*.

- Birds will readily eat the tasty millet-size seeds, making it an excellent addition to the diet for a bird with liver problems.

Note: Primary treatment for exposure to toxins depends on the chemical and symptoms. Prompt consultation with a veterinarian is essential for diagnosis and treatments for specific toxins, such as anticoagulants, organophosphates, and lead. Delay may result in serious complications for the patient. Milk thistle might be used to support the liver during and after the primary treatment.

Bibliography

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