Nightshade Family

Solanaceae family, *Solanum* genus

Examples of Common Names: Silverleaf nightshade, buffalo burr, belladonna, jimsonweed, hairy nightshade, common or black nightshade (**see black nightshade toxic plants page**), domesticated crop plants such as tomatoes, potatoes, eggplants

Species Affected: Horses, cattle, pigs, sheep, poultry

Description: Nightshades typically have branching stems and alternate leaves which are often purple-tinged on their undersides. Flowers are white, purple, or yellow with five petals, forming a shape like the end of a trumpet. Most nightshades produce berries containing numerous seeds, which can vary in color and may be green, black, shades of yellow-orange-red, or purple depending on the species/variety.

Growing Location and Timing: Nightshades are usually found in disturbed soils, such as roadsides, fence lines, and the edges of cultivated fields. Depending on the particular species, nightshades may be found in a wide variety of settings, including forest and garden environments. While there are some perennial and biennial nightshades, most problem nightshades are annuals, germinating in the spring, flowering and setting fruit in the summer up until frost.

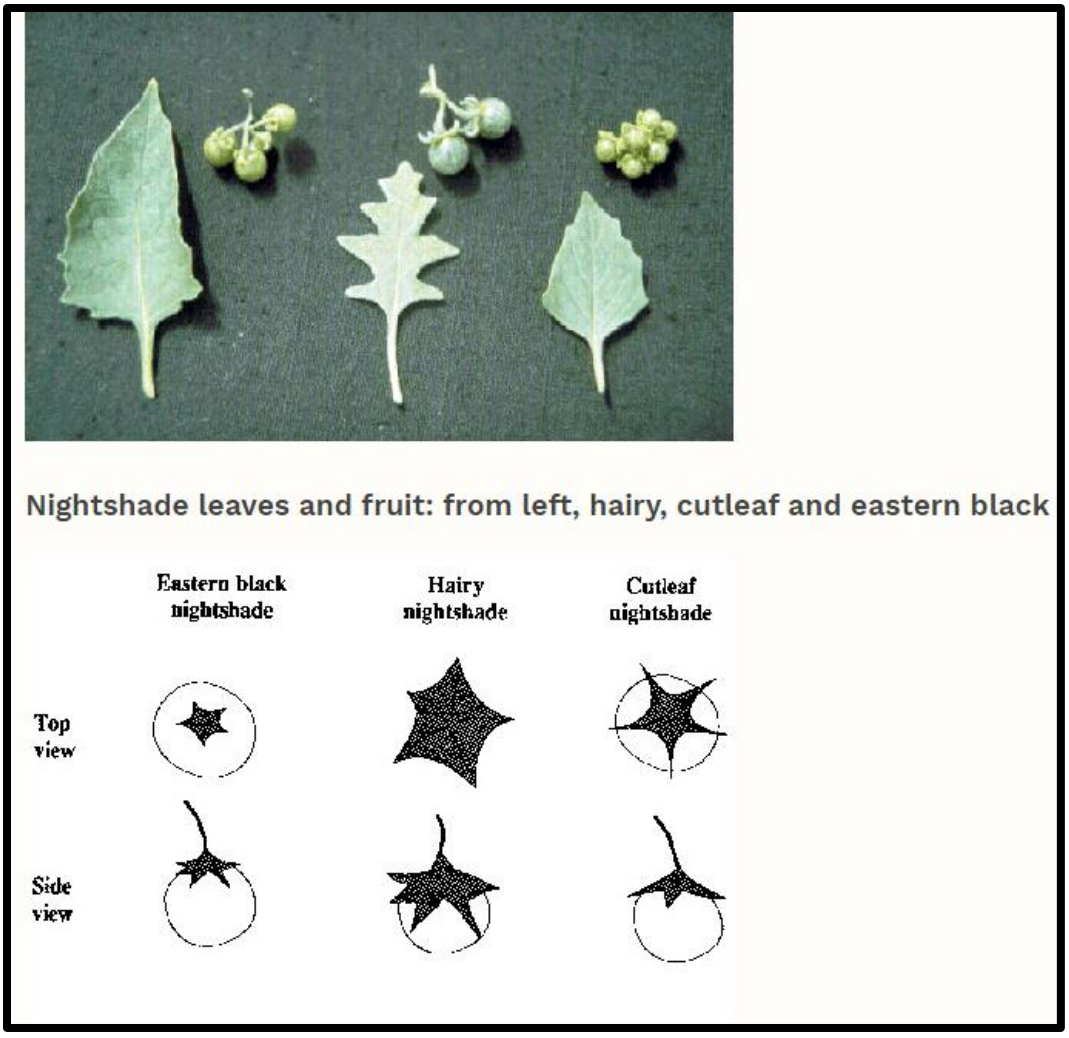
Toxin: The primary toxic principle is nightshades' steroidal alkaloids/glycoalkaloids, such as solanine. Some nightshades also contain other irritants, such as saponins, that cause salivation and diarrhea. Nightshades may also accumulate nitrates **(see nitrate accumulators page)**.

Toxic Plant Parts: All plant parts are toxic, and immature berries are particularly so. Drying does not reduce toxicity, and issues can arise from consumption in either forage or hay.

Possible Effects on Livestock: Symptoms may include lethargy, drooling, difficulty breathing, tremors, colic, vomiting, diarrhea/constipation, weakness, coma, widely-dilated pupils, paralysis, convulsions, emaciation, rough hair coat, anorexia, constipation, ascites, and death. Death or recovery occurs within a few hours to 2 days.

Preventative Measures: Contaminated forage can be mixed with nightshade-free forage using an on/off feeding strategy under close supervision/monitoring. Animals exhibiting signs of poisoning should not be fed further contaminated forage but may recover under veterinary care.

Resources: Nightshades - SARE
Guide to Poisonous Plants – College of Veterinary Medicine and Biomedical Sciences – Colorado State University (colostate.edu)
NIGHTSHADES | CropWatch (unl.edu)
Pasture and Forage Minute: Nightshade Poisoning, Planning Forage During Shortages and Inflation | CropWatch | University of Nebraska–Lincoln (unl.edu)



Picture source: University of Nebraska-Lincoln

Picture source: Invasive.org