

Sweet clover *Melilotus* spp.



Coarse biennial herb, 0.4 to 2 m tall. Leaves alternate, pinnately compound; leaflets three, obovate, mostly 1 to 2.5 cm long, 0.5 to 1.5 cm wide, stipules lanceolate. Flowers yellow in *M. lutea*, or white in *M. officinalis*, 5 to 7 mm long, fragrant; borne in racemes, 4 to 12 cm long. Pods small, 0.2 to 0.4 cm long. Found throughout the South; most abundant on calcareous or alkaline soils, fields, roadsides, and waste places. Cultivated as a forage crop and soil builder.

Toxicity

Under certain conditions, such as mold accumulation in the hay, coumarin, a harmless substance, is converted into dicoumarin. This compound interferes with the blood-clotting mechanism, thus leading to hemorrhage.

Cattle are primarily affected, although losses in horses and sheep have occurred. Sheep are much more resistant to the effects of the toxic principle than are cattle.

Symptoms

Symptoms are related to massive blood loss. Swellings appear under the skin due to accumulations of blood. These swellings vary in size and may occur at any site on the body but particularly in areas that are susceptible to bruising. Other symptoms can include pale mucous membranes, rapid and weak pulse, and weakness. Females may hemorrhage following calving. Occasionally animals hemorrhage internally and exhibit signs of shock.

Treatment

Remove sweet clover hay from animals immediately. Give Vitamin K injections and transfusions of whole blood.