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### **ROOT ROT of the OLDEST LEGUMES**

Sweet Clover, *Melilotus alba*, *M. officinalis*

Biennial herbaceous plant

Prime example of a legume species used as a forage or soil improvement crop.

#### **FACT SHEET**

- Oldest legume brought to the United States from Europe in the early 1800's
- Native of Europe and Asia
- Wide range of adaptation – found in United States and Canada
- Soil requirement of pH of 6.0 or higher
- Drought resistant and suited to Northern Plains, USA
- Biennial growth habit 1<sup>st</sup> year bears fruit and 2<sup>nd</sup> year dies
- High in organic matter
- One seed is produced per pod
- Seeding rate is 10-15 lbs/A
- Biennial sweet clover does not flower the seedling year
- Second year plants grow to 3-5 ' high bush-like
- Sweet Clover has a COUMARIN chemical order
- High moisture content, spoilage and if heating occurs COUMARIN changes into a compound called DICOUMAPL
- DICOUMAPL reduces the ability of blood to clot
- DICOUMAPL is used commercially to kill rats and mice
- Rank Growth is prevented by grazing the top growth of 8-10 inch crop to 4-6 inches
- Seed 1-2 small seeds per flower; stay viable in the soil for 30 years
- Bloom in June – August in second year plants
- Control of Sweet Clover is to halt flowering stage
- Concentrate on depleting viable seeds in the soil
- Native plant can be hurt by too frequent measures
- Germination is stimulated by scarifying seeds through prescribed burns

Benefits of Sweet Clover	Disadvantages of Sweet Clover
1. Soil Improvement Crop	1. Possible weed problem(HARD SEED CONTENT)
2. Deep Root System	2. Contain COUMARIN
3. Resistant to DROUGHT Heat	3. Poor hay quality
4. Grows deep soil & wide range of climate	4. Cause "bleeding disease" in cattle

**DISEASE:** Root Rot

**Control of DISEASE:** Soil Type & Testing, Climate Conditions, Plant Winter Injury and Harvest Right Stage of Maturity.