

when ripe. The seeds, nearly $\frac{1}{4}$ inch long, are black and glossy. The whole plant is smooth to the touch and waxy so that water stands in drops on the leaves. (Fig. 5.)

Habitat and Distribution.—Showy crotalaria is planted as a cover crop to enrich the soil and to reduce the population of root-knot nematode. It occurs commonly also as a roadside plant, in fencerows, in abandoned fields, around farm buildings, and about refuse disposal areas. It is seldom found on very wet soils. It occurs in nearly all parts of the state but is especially common in farming communities.

Toxicity.—The alkaloid, monocrotaline has been isolated from the leaves, stems, roots and seed; the concentration is highest in the seed. Monocrotaline lowers blood pressure and decreases the rate and amplitude of the heart beat in experimental animals.

Natural cases of poisoning have been observed in cattle, sheep, goats, horses, hogs, mules, chickens and turkeys. Nine pounds of the dried plant will kill a 300-pound steer in approximately four days. Two grams of ground seed fed daily will produce acute poisoning in 50-pound hogs in about seven days. Chickens have been killed in 30 to 60 days by consuming 80 mature seeds.

The frosted green or dry plant is toxic to all classes of livestock if eaten in sufficient quantity.

Wild birds such as quail and turkeys apparently refrain from eating crotalaria.

Symptoms.—Acute poisoning in cattle is marked by depression, loss of appetite, bloody feces, drooling saliva, nasal discharge and a yellowish discoloration of the visible mucous membranes. Death occurs within 5 to 10 days.

The most common type of poisoning observed in cattle under field conditions is the chronic form in which animals often die two to six months after eating the plant. In such cases very little evidence of illness is observed until 7 to 14 days before death. The hair coat may appear rough and there may be a slight unthriftiness. Usually the first marked symptom noted is bloody feces. The eyes have an anxious or staring appearance. The animal appears slightly bloated and full in the middle. Loss of appetite, diarrhea, yellowish discoloration of the visible mucous membranes, partial eversion of the rectum and general weakness are other symptoms. Before death the animal "goes down," due to general weakness, and is unable to stand on its feet.