

Leaflet AA

DODDER

IN

Alfalfa and Clover



New York Agricultural Experiment Station
Geneva, N. Y.

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**Nature
of
dodder.**

Dodder is a yellowish, thread-like, twining weed, very troublesome in fields of alfalfa and clover. No other crops in New York are much injured by it.

Dodder usually appears in circular spots 3 to 30 feet in diameter. At the center of the spot the alfalfa or clover is killed out while around the margin the ground is covered with a tangled mat of yellow threads which twine closely about the stems of alfalfa or clover plants and slowly strangle them. The dodder plant bears flowers and seeds, but has neither leaves nor roots. It is a parasite.

**Comes
with the
seed.**

In most cases dodder gets into the field through the use of impure seed. Much of the alfalfa and clover seed on the market is infested with dodder. Thirteen per ct. of alfalfa samples and 4 $\frac{3}{4}$ per ct. of the red clover samples analyzed at the Station in 1911 contained dodder.

**Examination
of seed.**

The best way to avoid trouble with dodder is to sow only dodder-free seed. No alfalfa or red clover seed should be sown until it has been pronounced dodder-free by a seed expert. Samples sent to the Experiment Station will be analyzed free of charge. If possible, the samples should contain two ounces of seed. Address: Experiment Station, Geneva, N. Y.

The dodder found in alfalfa and clover is of four or five different **Large-and small-seeded** kinds. At least two of these, **dodders.** small-seeded dodders, have seeds so small that they may be removed from alfalfa by proper sifting; but seeds of the large-seeded dodders can not be successfully removed by sifting. Hence, it is important to know whether the dodder in an infested sample is of the large- or small-seeded kind.

A dodder sieve. If it seems necessary to use dodder-infested alfalfa seed it should be sifted before sowing. Unfortunately, ready-made sieves of the proper kind are not readily obtainable at hardware stores, but a cheap, serviceable sieve for the purpose may be made by constructing a light wooden frame 12 inches square by 3 inches deep and tacking over the bottom of it 20x20 mesh steel-wire cloth made of No. 34 (W. & M. gauge) wire. Few hardware dealers carry such wire cloth in stock. It may be obtained from Dorchester & Rose, Geneva, N. Y., at 20 cents per square foot, postpaid.

Directions for sifting. The sifting must be thorough. Only one-fourth to one-half pound of seed should be put into the sieve at a time. It should be vigorously shaken during one-half minute. Use a cup holding not more than one-half pound, thereby making it impossible to get too large a quantity at one time. Keep a watch

constantly in sight and **sift no more than two batches of seed in one minute.** If the seed is known to contain but little dodder one sifting will do ; otherwise two siftings are recommended. The above applies only to alfalfa seed. From red clover seed even small-seeded dodder can not be successfully removed by sifting.

Eradication For the eradication of dodder, when once established, various methods have been recommended.

of dodder. When the dodder spots are numerous the field should be plowed up and re-seeded. If there are only a few spots in an alfalfa field the most practical method is to burn them over as follows : Mow the infested area closely. When the hay is dry rake it into a pile at the center. Sprinkle the stubble with kerosene. Re-scatter the hay, add more dry hay or straw from some other source and then burn. The fire should be made hot enough to kill both dodder and alfalfa. Digging over the infested spots is an effective method, but a laborious one and impracticable in stony soil. In red clover fields, no method of fighting dodder is profitable.

In general, dodder-infested fields may be plowed up and re-seeded **infested fields.** at once with little danger of the re-appearance of dodder in the new seeding. Certainly, it will give no trouble in any crops other than alfalfa and clover.