

# Doddering old plant not so doddering

Dodder is a twining yellow or orange plant sometimes tinged with purple or red. New growth is green. Occasionally it is almost white. The stems can be very thin and thread-like or relatively stout. It is common in the pine area along the exit trail.

Dodder is currently classified in the Dodder family (*Cuscutaceae*), but in older references it may be listed as part of the Morning-Glory family.

## Parasitic habits

Dodder parasitizes various kinds of wild and cultivated plants, and is especially destructive to alfalfa, flax, clover and potatoes. Some of the ornamentals attacked include dahlia, helenium, grasses, chrysanthemum, English ivy, Virginia-creeper, trumpet-vine, and petunias.

Dodder produces seeds that drop to the ground and germinate the next growing season if a suitable host is present. If no suitable host is present, the seed may remain dormant for five years.

Dodder seedlings must attach to a suitable host within a few days of germinating or they die. The young seedling is sensitive to touch and yellowish stem gropes in the air until it makes contact with a plant. The contact is made firm by one or more coils about the stem. If this plant happens to contain foods suitable to the dodder then a secondary stimulus is aroused which causes root-like branches called *haustoria* to form and penetrate the stem. It functions like a little sucker to draw nutrients from the host plant. The basal part of the dodder soon shrivels away so that no soil connection exists.

Other names of this parasite include love vine, strangleweed, devil's-guts, goldthread, pull-down, devil's-ringlet, hellbine, hairweed, devil's-hair, and hailweed.

Its water, minerals and carbohydrates are absorbed from the host through *haustoria* that penetrate the host's tissue. In dodder, the *haustoria* are modified adventitious roots.

Dodder is said to contain some chlorophyll in the buds, fruits and stems, but the amount of food manufactured in this tissue is of little significance to the survival of the plant.

The flowers are numerous, white, pink or yellowish, small (2 to 4 mm long depending on species), and can be borne in tight balls or in a loose

cluster (again depending on species). Flowers normally appear from early June to the end of the growing season.

The fruit is about 1/8 inch in diameter, with thin papery walls and contain 1 to 4 seeds. The seeds are yellow to brown or black, nearly round and have a fine rough surface with one round and two flat sides.



## Dodder as a disease spreader

Phytoplasma, the cause of more than 200 "yellows" diseases which were previously thought to be caused by virus are spread several different ways including leafhoppers and dodder. Dodder has been shown to spread the yellows diseases pear decline, aster yellows, tomato big bud, vinca virescence and elm phloem necrosis. In addition, phloem-inhabiting 'rickettsialike' bacteria have been found to be present in dodder.

Allowing dodder to spread in a field or garden area is asking for an increase in the plant diseases this parasite is capable of spreading.

## Control

Its wide host range and the long life of its dormant seeds make dodder hard to control and nearly impossible to eradicate. Dodder seed can be spread by irrigation water, in the manures of livestock that have eaten infested alfalfa, or along with the seed of crops that were infested with dodder.

Pulling and destroying dodder infected plants is the recommended control. It must be destroyed before it produces seeds or infestations will spread. Once established, dodder appears in patches in the field. Cutting the host plant prior to the dodder producing seed helps reduce the quantity of seed for the following year.

The use of a 2,4-D type herbicide or contact herbicide directed at infected hosts and dodder plants is effective in killing established parasitic plants, but it also kills the host.

