

HORSEHAIR WORMS (NEMATOMORPHA)

Integrated Pest Management Around the Home

Horsehair worms, also known as the "Gordian worms", were grouped with the Nematoda, or roundworms, which includes pinworms, ascari, Trichina, soybean cyst nematode, and others. They now have been classed in a group by themselves, called Nematomorpha. The Nematomorpha resemble nematodes in general structure, but are very long and thin; four inches to two feet in length and 1/80 to 1/10 inch wide. Color ranges from yellowish to black. They are occasionally found in cisterns, livestock watering troughs, domestic water supplies (such as swimming pools, sinks, bathtubs toilets, etc) or puddles on the ground or plant foliage or garden soil. They are not parasites of humans, livestock or pets, although this is often the first suspicion when a worm is found.

They often squirm and twist, knotting themselves into a loose, ball-like shape, resembling the so called "Gordian Knot" in freshwater pools. These worms may be found in masses of 100 or more, especially after a rainfall. In water troughs and puddles, they resemble horsehairs actively moving in the water. An old and still common belief is that these long, thin, blackish worms develop from the long, thin hairs of a horse's mane or tail that had fallen into the water trough as a horse drank and later came to life.

LIFE CYCLE

Horsehair worms are free-living as adults, but the immature stages are internal parasites of grasshoppers, crickets, and some beetles. The worms mate in water, and the female lays her eggs in long gelatinous strings. An egg mass contains up to several million eggs. Depending on water temperature, the eggs hatch in two weeks to three months. Within 24 hours after hatching, the larva is thought to form a protective covering or cyst and remain on vegetation near the water's edge. When the water level drops and the exposed vegetation is eaten by a grasshopper or cricket, the protective covering dissolves to release the larva. The larva bores through the gut wall into the body cavity of the host where it digests and absorbs the surrounding tissue as a source of food. When the worm is fully developed, or nearly so, and the host falls in water or is wetted, the worm breaks through the body wall of the host and becomes free-living. In the spring, the worms can be found tangled together in masses of 10 or more individuals.

CONTROL MEASURES

No control measures are recommended as horsehair worms do not injure humans, animals or plants (cause no economic damage). Instead, they are considered beneficial since they kill many harmful pests such as grasshoppers, crickets, cockroaches, beetles, millipedes, centipedes, snails, slugs, etc.

Control of horsehair worms in natural water is impractical. However, one can install a fine mesh filter or screen to keep out tangled masses of worms from water pumped from a surface supply such as a farm pond or canal. Should the homeowner find nuisance worms in the wash water, bathtub and sinks; domestic water supply systems can be

filtered and chemically treated under supervision of the local health department.
Livestock water troughs can be kept free of horsehair worms by routine flushing.

References:

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