

## FALSE WIREWORM VS TRUE WIREWORM IN WHEAT

D. E. Bragg  
Washington State University Extension  
P O Box 190 Pomeroy WA 99347-0190  
(509) 843-3701  
[braggd@wsu.edu](mailto:braggd@wsu.edu)

This time of year False Wire Worm *Eleodes hisperlabrus*, is a frequent crosser of rural roads between harvested grain fields. Frequently this beetle, called the false wire worm, is confused with the true wire worm species which feed on cereals and other crops.

The false wire worm is a beetle belonging to the Family Tenebrionidae Genus *Eleodes* a genus containing black beetles (Tenebrio means darkness in Latin). This species feeds on chaff, spilled grain, crowns and roots of stubble. Larvae closely resemble true wire worms, and live in the soil for long periods. Tenebrionidae larvae often have spines on the terminal abdominal segment that confuse those seeking an ID. Adults are easily raised on bran with pieces of apple for moisture. They are not a pest species!

There is no reason to spray these beetles as they are non-pests feeding on crop aftermath. Field mice eat the adults and their eggs and become part of a mitochondrial parasite (*Wolhbackia*) ring. The mice also eat the oocysts produced by parasitized adult female beetle.

Most members of the Genus *Limonius* Eschscholtz (5 species) Coleoptera: Elateridae, have root or crown plant feeding larvae. Each species has a structure called a “signature” on the last abdominal segment. These allow simple ID of larvae when compared to a larval key. Adults are black shiny beetles that “click” when turned onto their backs, flip up and land on their feet. Other Elaterid beetles have eye spots, or are colorful.

*Limonius canus* (LeConte) Coleoptera Elateridae, the Pacific Coast Wireworm has been a pest of cereals, and other crops since the SE Washington land was broken out of sage brush and put into cereal grain production ca. 150 years ago. *Limonius californicus* Mannerheim, the Sugar Beet Wireworm, is typically a pest in potatoes and sugar beets in the irrigated Columbia Basin. A personal communication from Dr. Gary Reed, OSU Emeritus, states that *americanus* is resistant to the seed treatments as compared to *canus*. Another species, *Limonius subauratus* LeConte, is called the Columbia Basin Wireworm, and is also present.

Traditionally, wheat/summer fallow rotations kept wireworm damage in cereals at a minimum. The insecticide Lindane™ was developed during the Great Golden Era of pesticide development. Lindane has been a standard seed treatment for many years. Lindane seems to be more of a repellent than a toxicant to wire worm larvae in the field. Due to phytotoxicity, Lindane is being discontinued by BayerCropScience. Most cereal growers seek aphid and Hessian fly management along with wire worm management. Since 1992 much research has been done on seed treatment insecticides for management of cereal pests. Recent research trial data show efficacy for Gaucho (Imidicloprid), Cruiser (Thiomethoxam), and a new product, Chlothianidin, has efficacy at the parts per trillion levels. In 2005 winter wheat crops began to be affected by wire worm as late as February when rains brought the wire worms to the surface after a dry winter.