

**Wireworms** (Order: Coleoptera, Family: Elateridae)

**Southern potato** (*Conoderus falli* (Lane))

**Tobacco** (*Conoderus vespertinus* (Fabricius))

**Gulf** (*Conoderus amplicollis* (Gyllenhal))

**Description:**

*Adult:* Adult click beetles are long, dark brown, and measure 6 to 10 mm long. The elytra, or wing covers, are striated with parallel small channels. When flipped on their back, the beetles will snap their head and abdomen in order to flip themselves over, making a click sound, hence the name click beetle.

*Immature stages:* The larvae are called wireworms and are initially light colored but turn creamy to dark yellow with the head and pronotum becoming reddish orange. Mature larvae are about 17 mm long and 2 mm wide.



Wireworm adults, click beetles.

**Biology:**

*Life cycle:* The immature stages of wireworms occur in the soil and typically feed on plant roots. The number of instars is 3-4, and development time in the spring and summer is 40-70 days, but the overwintering larvae can take 200 days to develop. The pupal stage occurs in the upper 10 cm of the soil.

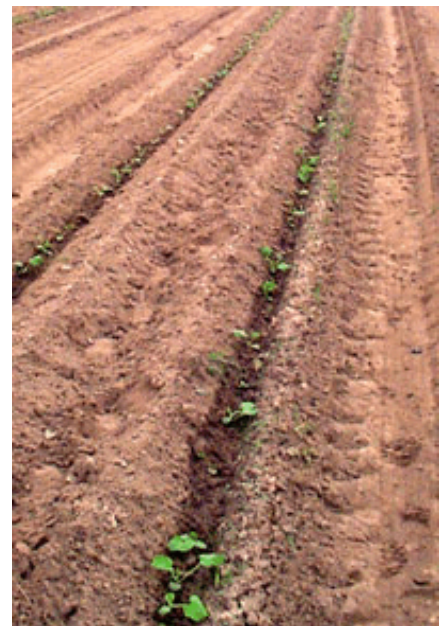
*Seasonal distribution:* There is one generation per year of the above species. Oviposition by adults occurs mainly March through September.



A wireworm (larva of the click beetle) and damage to root and bulb.

**Damage to Crop:** Wireworms feed on seeds, roots, stems, and tubers of many vegetable crops. In tomato and other solanaceous crops, the main damage caused is crop stand loss. This typically occurs in non-fumigated production systems, such as organic production, and is generally not a problem in plastic culture production.

**Management:** Grass cover crops, such as sorghum, are highly attractive to wireworms. Thus, it is not recommended to follow solanaceous crops after grass crops or fallow land without proper treatment to remove wireworms from the soil. Since there is only a single generation per year, soil treatment prior to the growing season can be very effective. The use of transplants and soil fumigation avoids most wireworm problems in commercial fields. In organic situations, flooding of fields for six weeks can remove wireworm infestations. Rotating with legume crops, which are not attractive to wireworms, can also help. Occasionally, baiting with whole corn, potato, carrots, or other attractive food buried in the top 10-15 cm of the soil can be useful in detecting a wireworm infestation.



Plant stand loss due to wireworm damage.