Earthworm Castings

Earthworm castings are most frequently found during times of cool, moist weather, correlating with the period that earthworm activity is its highest. At first glance, many people believe these small mounds indicate insect damage. Earthworms are not insects; they are segmented worms in the phylum *Annelida*. During times of peak activity, homeowners tend to find these castings in the lawn. The good news is that earthworms are primarily beneficial organisms that do not harm or feed on the turf. Instead, they burrow through the soil, feeding on microorganisms and partially decomposed organic matter. This activity helps improve soil aeration, as well as water and fertilizer movement through the soil profile. After earthworms feed, they move to the soil surface to deposit the castings. The castings are beneficial for the turf because they add organic matter and nutrients to the soil, and improve soil structure.

However, when earthworm populations explode, they are capable of producing an overwhelming number of castings in the lawn. These castings may be considered unsightly, and over time may create a lumpy surface. Homeowners may reduce the appearance of these castings by following these steps:

1. Rake the castings to smooth out the soil surface.
2. Irrigate lawns with 1 inch of water, one time per week, to encourage deep root development. Deeper roots allow turf to go longer between watering, which permits the soil surface to dry before the next watering. Earthworms are less likely to come to the surface when it is dry.
3. Mow turf at the highest recommended height to help hide castings. For more information on the proper mowing height of each turf species see HGIC 1205, *Mowing Lawns*.
4. Allow natural enemies to aid in the control of earthworm populations. These include ants, centipedes, birds, snakes, toads, carabid beetles, and nematodes.

There are no registered pesticides for earthworm control. So, do NOT apply insecticides to control earthworms. Remember that the castings will go away and that earthworms are beneficial organisms. If you have questions about other holes in the lawn, see HGIC 2364, *Holes in the Lawn* for possible causes.
This information is supplied with the understanding that no discrimination is intended and no endorsement by the Clemson University Cooperative Extension Service is implied. All recommendations are for South Carolina conditions and may not apply to other areas. Use pesticides only according to the directions on the label. All recommendations for pesticide use are for South Carolina only and were legal at the time of publication, but the status of registration and use patterns are subject to change by action of state and federal regulatory agencies. Follow all directions, precautions and restrictions that are listed.