Soil Health and Compaction Event August 1

Hardin County – Crop production success can be highly related to soil health and compaction. Soil health is a topic of growing concern, which addresses many aspects of modern agricultural systems, from productivity and yield to water quality and build-up of carbon in the soils which improve soil, air, and water quality. Management practices such as tillage, land-forming, clearing, or drainage influence these factors and processes. Soil health is the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans increasing production, profit, and protection of natural resources. Maintaining and building healthy soils is the foundation for developing sustainable farming systems to supply food and fiber to the world.

Soil compaction is becoming a more serious problem for farmers. Field machines tend to be heavier, and there is motivation for farmers to work the soil when it is too moist. Because compacted soil has smaller pores and fewer natural channels, water infiltration is drastically reduced. This causes greater surface wetness, and more runoff, which in turn increases erosion, and longer drying time. Wet fields delay planting and harvesting along with decreased crop yields. Plant roots don’t grow well in dense soil. Inadequate moisture and nutrients reach the plant, and yield is reduced.

Dr. Steven Culman, Soil Fertility specialist at The Ohio State University will be the guest speaker at an event being held Tuesday, August 1 at Mid-Ohio Energy Cooperative Community Room located at 1210 West Lima Street in Kenton. The program will begin at 6:30 pm with a catered meal, followed by a presentation by Culman. Dr. Culman is involved with new research which addresses issues with soil degradation in pipeline installations and approaches you can take to remediate compacted soils. Numerous natural gas pipelines have been approved across Ohio and neighboring states with installation to continue over the next several years. These installations will collectively result in a large amount of soil disturbance in the state, but the effect of this disturbance on crop productivity, if any, is largely unknown.

The Ohio State University is conducting a study to better understand and manage the impacts of pipeline installations across the state with the following objectives: document the effects of pipeline
installation on soil properties and crop productivity; and determine how long these effects persist. The research approach will evaluate crop yields and soil properties over the installed pipeline and in an unaffected adjacent area, using yield maps, aerial imagery, and soil analyses. The study will focus primarily on grain crops, but will also work with a limited number of hay fields. After completion of this research, better recommendations will be available to help farmers manage similar issues dealing with soil disturbance and compaction problems.

This event is co-sponsored by the Hardin County Farm Bureau and OSU Extension. Cost for the meal and program, followed by a Farm Bureau annual meeting will be $10 for Farm Bureau members and $15 for non-members. Anyone interested in learning more about soil health and compaction issues is encouraged to attend. Please RSVP by calling 419-447-3091 by July 25 so that an accurate meal count can be assured. For more information about soil health and compaction issues, contact Mark Badertscher, OSU Extension Agriculture and Natural Resources Educator at the Hardin County Extension office.