

Newton County Ag Scene

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Soil Compaction Dangers

Soil conditions should determine our actions all year long. The pressure is on with a short time window to do field work and spray. However, soil moisture conditions may be suboptimal for field work and the danger of causing soil compaction. The effects of soil compaction caused now may haunt us the rest of the season, and even in years to come. Research has shown that surface soil compaction effects can linger for up to five years, and subsoil compaction effects can last for 10 years or more. The 'ball test' is an easy way to figure out if soil is too wet to get into the field: grab a handful of soil, mold it in your hand – if it sticks together as a ball, the soil is too wet for field operations. Don't only take soil from the surface – also take some soil from a foot deep or so. It may be impractical to wait until all of the field is fit, but at least check that 80-90% of the field is ready before starting field work. Some other practices that can help mitigate the effects of field traffic include:



- Cover crops – a vigorous cover crop with a massive, fibrous root system acts like a living 'geotextile', providing protection against compaction.
- Organic matter – a soil with high organic matter ('humus') content has a better ability to withstand compaction.
- Permanent no-tillage – soil that has been no-tilled for several years develops a unique structure with a firm soil matrix to hold up weight while being laced with macro- and micro-pores that provide essential aeration and percolation.
- Drainage – artificial drainage helps remove free water from the subsoil allowing faster field access in the spring. It is only effective where you have a shallow water table either year-round or during parts of the year.
- Low tire pressure – low tire pressure helps reduce surface compaction. Tire pressure should be below 35 psi, but it would be much better if run at lower pressures (new tires are available that can be run at 10-12 psi). Check loading charts to make sure the tire can handle the load it is carrying.
- Tracks – tracks have the same effect as low pressure in tires. It is important to have many rollers as stress is concentrated under the rollers and axles supporting the tracks.
- Low axle load - keep axle load as low as possible, but at least below 10 tons per axle. Don't assume weight is distributed evenly over all axles but check each axle on a loaded vehicle or implement. Axle load determines depth of stress penetration in the soil, so it controls subsoil compaction.
- Avoid random traffic – if there is repeated traffic it is better to concentrate it in certain paths which can be 'sacrificed' or signaled for compaction alleviation later on.
- Reduce number of passes – Use no-tillage, and use wide equipment which reduces the proportion of the field trafficked (for example a wide-swath manure spreader causes less compaction than a narrow-swath spreader).

Farms Have High Risk Jobs

Agriculture ranks the most hazardous industry. Farmers are at high risk for fatal and non-fatal injuries, like lung diseases, skin diseases and certain cancers. The workers and family are also at risk for injuries, illness and death. Noise-induced hearing loss can and does take place on the farm.

Hearing loss can occur without long-term exposure. Implosive noises like a shotgun or nail gun can have permanent effects. Agricultural equipment can have repeated exposures that can lead to permanent losses.

In order to prevent these hazardous levels:

- Do you wear hearing protectors?
 - Do you have hearing protectors available to you and all employees that are 85dBA or above?
 - Do you give the opportunity to select from a variety of protectors?
 - Is each hearing protector user required to demonstrate that he/she understands how to use and care for the protector?
 - Are those results documented?
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Indiana's USDA Farm Service Agency Officially Announces Sign-Up Date for Disaster Assistance Programs

Enrollment Began April 15 for Livestock, Honeybee, Farm-Raised Fish Programs

Indianapolis, April 9, 2014 - U.S. Department of Agriculture (USDA) Farm Service Agency (FSA) State Executive Director Julia A. Wickard announced today that farmers can sign-up for disaster assistance programs, reestablished and strengthened by the 2014 Farm Bill, beginning Tuesday, April 15, 2014.

The Livestock Indemnity Program (LIP) and the Livestock Forage Disaster Program (LFP) will provide payments to eligible producers for livestock deaths and grazing losses that have occurred since the expiration of the livestock disaster assistance programs in 2011, and respectively, including calendar years 2012, 2013, and 2014.

Enrollment began on April 15 for producers with losses covered by the Emergency Assistance for Livestock, Honeybees, and Farm-Raised Fish Program (ELAP) and the Tree Assistance Program (TAP) in 2011, when the programs expired, through 2014.

Producers also are encouraged to contact their county FSA office ahead of time to schedule an appointment. For more information, producers are encouraged to review the [2014 Farm Bill Fact Sheet](#), check out the LIP, LFP, ELAP and TAP [fact sheets](#) online or visit any USDA Service Center.

Source: Indiana Farm Service Agency News Release, PR-14-10

Upcoming Dates

- Tuesday, May 20 – *Field Scout Intern Training Workshop* at the Crop Diagnostic Training and Research Center, West Lafayette, IN – Call Cory at 765-796-3755 for more information.
- Thursday, May 22 – *No-Till Diagnostic Workshop* at the Crop Diagnostic Training and Research Center, West Lafayette, IN – Earn CEU's and Indiana CCH's for Category 1, Category 14, and RT
- Friday, June 27 – **SAVE THE DATE** – *Palmer Amaranth Field Day* at Crop Diagnostic Training and Research Center

Should you have any questions about any of the above programs, please call Andrew at 219-285-8620 or marti867@purdue.edu.