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FOR IMMEDIATE RELEASE

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Wet Harvest Conditions and Risk of Soil Compaction

Do you recall the month of September? Yes, September of 2017. Does it seem like a long time ago to you? To me it seems like much longer than 5 or 6 weeks since the Farm Science Review, but that is when conditions were getting pretty dry. We were discussing the soybean crop needed just one more rain, late in the season and it would have been a bumper crop. Pastures were suffering from a lack of moisture that they had not dealt with the entire summer. The early housed tobacco was needing some moisture to cure properly and nearly everyone had gone 10 days or longer without mowing the grass and everyone was hoping for rain. Well you may have prayed or hoped just a little too much because it has been pretty wet since those hurricanes that hit, Harvey in Texas and Irma hit Florida. Of course I think there was one called Nate that brought us rain, too. With the hurricanes in mind, maybe we should chill just a bit. We want to get harvest done, but we are not dealing with what those in Texas and Florida dealt with.

With that said, and the fact that it could be worse, it is still not easy to deal with, but when you are involved in agriculture you must deal with the weather. Back in September, when it was dry, some harvest was moving along very well. For those who were able to get crops planted early back in the spring, harvest may be completed, or really close to done. For those who had to deal with wet conditions in the spring, that delayed planting, harvest is now delayed, too. For some producers, there are still hundreds of acres that have not yet been harvested. Now things are getting a little touchy, and some weather conditions could start to impact the yield, so it becomes decision time.

With the decision comes risk and potential damage to the soil. This could be long term damage, so this information may be beneficial to read if you are facing this decision. This was in this week's CORN newsletter and was written by Elizabeth Hawkins, Kaylee Port, and John Fulton of OSU Extension.

Waiting for optimal field conditions may no longer be an option with harvest lagging behind the trending pace due to delayed planting and recent wet weather. Observation data from the CoCoRaHS network indicated weekend storms brought nearly 3 inches of rain to some areas bringing harvest to a halt in Ohio. Before rushing to resume harvest in marginal soil conditions, it is important to consider the consequences, namely; soil compaction.

Soil compaction occurs when soil particles are compressed together, reducing pore space. As pore space tightens, the ability for water to percolate through the soil profile leading to the potential of increased runoff. In addition, the lack of pore space leaves little room for plant roots to properly develop during future growing seasons. Because of this soil compaction, growers can experience reduced yields with the problem difficult to manage and alleviate.

If you are leaving ruts, you are causing compaction. As machinery carries heavy loads across these fields, deep rutting with heavy subsurface compaction can develop. Axle load is a determining factor



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in the overall depth of soil compaction. The risk and severity of compaction increases when field activities occur on wet soils. The best way to avoid causing severe soil compaction is to avoid field activities when field conditions are marginal. However; recent, heavy rain events across Ohio may create a situation where it may not be possible to wait for fields to dry completely out.

If you are planning to head back out, here are some tips to minimize damage during this wet harvest season:

- Use a controlled traffic strategy to minimize the amount of field traversed by combines and grain carts. Most damage occurs with the first pass of the machine.
- Make sure tire pressure is properly adjusted for the axle load. Larger tires with lower air pressure allow for better flotation and reduce pressure on the soil surface. Larger tires that are properly inflated increases the "footprint" on the soil. (Note: pressures for road travel should not be the same as field travel).
- Minimize filling grain carts to max capacity, thereby reducing overall axle load.
- High inflation pressures lead to more serious compaction events.
- Hold off on soil tillage operations until soil conditions are drier than field capacity. Tilling too wet can cause issues as well and not accomplish the intended results of tillage.
- Collect machine data to evaluate trafficked areas after harvest. These data can identify where multiple pass of equipment occurred and where areas need to be deep ripped.
- Where funds allow, consider making the switch to tracks from wheeled tractors and carts. Tracked machinery and equipment more evenly distribute weight and cause less damage than their wheeled counterparts.

Cattle Markets Jump

Here I go referring back to the month of September again. During the Brown Co. Fair and a couple weeks after the fair, I recall talking to people that had sold fed steers and talking in the 90s. Yes, less than a dollar a pound for a finished steer. I was checking beef prices in the meat case at few grocery stores at about the same time, and I think my face was about as red as the beef in the case. Those prices were close to where they were when those steers were over \$1.50 per pound a few years ago when they may have reached \$1.70 per pound.

I read this week that fed cattle had jumped across the country the past couple of weeks. Drovers reported increases in fed cattle of as much as 14 cents a pound and feeders were up, too. They were reporting prices in the high 120s. Sounds like we are talking change, but 30 cents a pound on a 1400 pound calf is over \$400 per head. Hopefully this is not short lived.

Dates to Remember

Nov. 13 Pesticide Testing at the Old Y Restaurant at noon. Pre-register by calling ODA at 800-282-1955 or online at <http://pested.osu.edu>