Northern Ohio Field Notes

August 22, 2022 John Schoenhals, Pioneer Field Agronomist

High Yielding Wheat

- ❖ begins with understanding and executing important management factors this fall
- ❖ continues with management of fertility and plant health in the spring

Key components to address this fall include:

Fly Free Dates

1. Plant Early (within 10-days of the fly-free date). Early planting allows for enough warm weather to achieve:
   (1) emergence
   (2) tiller formation
   (3) adequate vegetative grow before winter
2. Optimum Seeding Rate - 1.6 to 1.8 million seeds/acre is ideal starting point for planting in the early window
   - If planting date is delayed 3+ weeks beyond the fly-free date, consider an increase of 100,000 seeds/acre for each week delay
   - In wide (15") row wheat, 1.4-1.5 million seeds/acre is a good starting point, with increases at delayed planting dates
3. Nitrogen Application of 25-30 lb/ac at planting is ideal to stimulate fall growth.
4. Phosphorus is a key nutrient for wheat to establish a strong root system and overwinter well. Soil test P levels should be at least 40 ppm (Mehlich-3), with 60-80 lbs Phosphorus (P_2O_5) crop removal expected from a 100+ bu/A crop
5. Planting Depth between 1 and 1.5 inches deep and make sure planting depth is uniform across the field
6. Plant into "fit" Soil - "If you wouldn't plant corn into the seedbed, then don't plant wheat into it".

Sudden Death Syndrome (SDS) in Soybeans

SDS began appearing in numerous fields last week. Primary locations where it has been noted are on sand ridges (likely due to high SCN counts) and in compacted areas/headlands (remember the conditions for much of harvest last fall). Now through harvest is an ideal time to pull SCN samples for counts. I have more sample kits if desired.

Details on SDS:

- Caused by a soil-born fungus (*Fusarium solani*) that infects plant roots early in the growing season when periods of cool, wet soils prevail
- Soybean Cyst Nematode (SCN) can act as a compounding factor for SDS
- Leaf symptoms first appear as yellow spots (usually on the upper leaves) in a mosaic pattern, likely the result of toxin accumulation in soybean leaves
- Yellow spots coalesce to form chlorotic blotches between the leaf veins
- Flowers and pods abort, and seeds are smaller
- Later-developing pods may not fill, and seeds may not mature

Management Options to control Sudden Death Syndrome (SDS) for next year:

- There are no management options at this time of the season - foliar fungicides will not control this disease
- ILeVO® seed treatment can help manage both SDS and SCN
- Soybean varieties can vary significant in tolerance to SDS- select high tolerance varieties
- Improve soil drainage and limit compaction

Stink Bugs in Soybeans

- Stink bug egg masses and the presence of nymphs/adults have been noted at higher levels than average in both corn and soybeans this year
- Several species of stink bugs are present in Ohio. Brown marmorated and green stink bugs are most common
- Stink bug pressure in soybeans often rises toward the end of the growing season as corn and other plants begin to mature
- Stink bugs feed directly on pods/seeds with a needle-like mouthpart that pierces pods, allowing them to feed directly on the seeds inside
- The result of stink bug feeding is shriveled, deformed, and discolored seeds at harvest. Green stem syndrome can also accompany feeding damage from stink bugs
- Feeding is most impactful in the late seed filling stages (R5 & R6)
- Scouting for stink bugs can be difficult, since visual symptoms of feeding can be hard to find, and visual observation easily misses stink bugs in the canopy
    - Levels are often highest in field edges
    - Best methods involve the use of a sweep net
    - Stink bug treatment thresholds:
        - Seed beans (or food grade): 2 stink bugs (any size) per 10 sweeps
        - Grain soybeans: 4 stink bugs (any size) per 10 sweeps

Adult Stink Bug

Young Stink Bug Nymphs