

# Illinois S.T.A.R. FAQ

Instructions, definitions, and frequently asked questions: 2020 Crop Year



1. Should I mark something on each section of the Field Form? Yes, it is very important to mark all applicable activities in each section. Separate forms should be completed for each field you would like rated.
2. Why is my contact information needed? Once your field is rated, we will contact you with your results and offer a field sign to display your rating.
3. Why am I asked to sign and date the Field Form? Your signature acknowledges that you have completed the form as accurately as possible and that you understand your field may be randomly selected for verification.
4. What is the definition of a "Crop Year?" The 2020 Crop Year began the day after the 2019 fall harvest and ends the day of 2020 harvest. If cover crop was planted before 2019 fall harvest in late summer, that is included in this time frame.
5. How will my answers be verified? The S.T.A.R. Coordinator will use random sampling to identify up to 10% of the fields in regions of Illinois. Each county will have a person serve as the "Verifier" to contact the participant(s) to confirm the use of the practices identified on their Field Form.
6. Who will know my S.T.A.R. rating(s)? While we strongly encourage participants to post field signs to display their S.T.A.R. ratings, your ratings are confidential and will not be shared with anyone but you. Your Field Form may be placed in your NRCS folder (which is not subject to Freedom of Information Act requests). While we strongly encourage participants to post field signs to display their S.T.A.R. ratings, individual ratings, practices, and personal information is kept strictly confidential. Field-level practice data will be aggregated for use in tracking S.T.A.R. participation and program outcomes on a state/country basis once personal identifiable and specific location data has been removed.
7. Is a post provided with the S.T.A.R. sign? No.
8. The verification process will occur in Feb-March 2021. Potential items and information that may be requested from participants whose field or fields are randomly selected for verification are as follows:
  - Dated copies of soil test results and maps
  - Dated pictures or drone imagery for fall and spring cover crop growth
  - Dated fertilizer spread maps as applied or application logs
  - Invoices/receipts of fertilizer, seed, and/or application
  - Copy of MRTN plan
  - Manure application rate and sample test results
  - Planter or harvest log/map
  - FSA 578 or crop insurance APH summary
  - Enrollment verification in PCM, EQIP, CSP, or other government conservation programs
  - Cost share program documentation
  - Plans and results from trials
  - HEL compliance confirmation
  - Residue check fall and/or spring
9. **Section 9 – Conservation and Management Practices:** This section includes several recommended practices to reduce nutrient and soil loss in addition to the in-field management practices that S.T.A.R. prioritizes. Items should be checked only if applicable to the individual field being evaluated. The first eight items on the list should only be checked if they are still functioning as intended.
  - Having a "Conservation Plan" is good, but checking this item assumes it is working well enough to reduce sheet and rill erosion to the point that the field has reached the "T" goal. The soil loss tolerance rate (T) is the maximum rate of annual soil loss that will permit crop productivity to be sustained economically and indefinitely on a given soil. Erosion is considered greater than T if either the water (sheet and rill) erosion or the wind erosion rate exceeds the T rate.

- “Attended soil or nutrient management meeting/field day” may have been any meeting that includes some discussion or recommendations related to soil, nutrient use, or cover crops, including field days, no matter the length of time. It should have been within the past year at the time of completing the form and counts for every field evaluated.
  - “A written nutrient management plan” is often completed with the help of a retailer or private consultant and does not have to be an NRCS 590 plan. S.T.A.R. recognizes it is best if the person helping with any advice is a Certified Crop Advisor.
  - “Enrolled in a Federal, State, or Local Conservation Program” includes CSP, EQIP, PCM or others.
  - “Completed S.T.A.R. Form in 2019” is to be checked only if it was done for this specific field.
10. **Section 10 – Crop Rotation:** Rotating crops helps to improve above-ground and below-ground diversity. Ideally, a field would never have more than two continuous years of a crop (one exception would be continuous forage). Incorporation of a winter hardy or perennial crop into a corn/soy rotation offers several benefits including, but not limited to, improved soil structure, increased organic matter, greater diversity of soil biology, and reduced nutrient loss. A perennial forage crop also is considered a cover crop. The “Other” crop could be milo, sunflowers, canola, etc.
11. **Section 11 – Cover Crops:** A cover crop credited for the 2020 Crop Year must have been planted in the late summer or fall of 2019 and established, which means it must have had some growth before spring planting. According to NRCS Practice Standard Code 340, “established” means the cover crop was planted “in a timely matter and when there is adequate moisture to establish a good stand.” Planting dates for the likelihood of “adequate establishment” will vary by the species and geographic location. It is best to use winter hardy species, including annual ryegrass, cereal rye, winter wheat, etc., as these species provide more soil protection and nutrient capture over the winter months and into early spring than winter kill species. Cover Crop Resources: [www.mccc.msu.edu/statesprovince/illinois](http://www.mccc.msu.edu/statesprovince/illinois)
12. **Section 11 – Cover Crops:** How do I record my cover crop species? Check the category that applies to your cover crops. If you planted cereal rye, mark “Winter hardy single species.” If you planted cereal rye and radish, mark “Winter hardy – 2 or more species.” If you planted cereal rye and radish, mark “Winter hardy – single species” AND “winter kill single species.” It should be noted that planting more than one species will encourage additional above and below ground biodiversity that may offer distinct soil health benefits when compared to single species.
13. **Section 11 – Cover Crops:** The longer a winter hardy species is actively growing, the more environmental benefits it provides, so we encourage termination of a winter hardy cover crop AFTER spring planting (thus the participant “planted green”). It is important to note that termination timing is a very important aspect of successful cover crop management and we recommend utilizing the previously mentioned cover crop resources and/or reaching out to your local SWCD or NRCS office for technical assistance in deciding cover crop mixes and termination strategies appropriate for your operation.
14. **Section 12 – Soil Sampling:** Soil samples should be collected for each field every four years or less. To reduce the uncertainty associated with in-field soil variability and to inform accurate nutrient management decisions, samples should always be taken from the same locations identified via GPS. We encourage spring or summer sampling to provide ample time to incorporate soil analyses into nutrient recommendations for the upcoming crop year. How do I know if my sampling was done with GPS? If your sampling is done by a soil testing or related service firm, it is VERY likely done using GPS. The grid or zone sizes should be based on the University of IL Agronomy Handbook: [extension.cropsciences.illinois.edu/handbook/](http://extension.cropsciences.illinois.edu/handbook/)
15. **Section 13 & 14 – Fall and Spring Tillage:** Minimal soil disturbance is recommended. Ideally, everyone would implement conservation tillage or no-till systems to keep soils covered and minimize soil loss due to wind and water erosion. We acknowledge that fertilizer tool bars are likely to be low disturbance (unless it is a shank-type) and we consider these applications (with the shank-type exception) equivalent to no tillage. Strip-till systems are acceptable as they limit soil disturbance compared to full-width tillage systems, but should NEVER

be used on Highly Erodible Land, as the strips become a pathway for gullies to form. Any full width tillage on soybean stubble should be avoided! If a cover crop is planted or manure is applied in the fall, a shallow tillage operation to incorporate has some benefit, but is still considered one tillage pass. Use of a strip freshener in the spring is considered the same as strip tillage, again with the assumption it is NOT Highly Erodible Land. Tillage done in small areas of a field, such as rut repair, is not considered part of a routine tillage system and is outside the scope of S.T.A.R.

16. **Section 15 – Fall/Winter Nutrient Management:** We discourage fall and winter application of nitrogen fertilizers due to an increased risk of nitrate loss from rainfall on fields without an active crop. If applying MAP (11-52-0) or DAP (18-46-0) in the fall, it should be applied before December 1st. In wheat rotations, a top-dress nitrogen fertilizer in February with an active crop growing reduces the risk of nitrate loading to local waterways.
17. **Section 15 – Fall/Winter Nutrient Management:** If NH<sub>3</sub> (anhydrous ammonia = 82-0-0) is used during the fall through February time period, it should be applied with an inhibitor and when the 4-inch soil temperature is below 50 degrees. Though NOT recommended, if a fall through February NH<sub>3</sub> application is made, it should represent no more than 50% of the total Nitrogen Program.
18. **Section 15 – Fall/Winter Nutrient Management:** Manure/Biosolids are best applied in the spring when there is less likelihood of leaching or runoff. If Manure/Biosolids are to be applied in the fall through February time period, it should be injected or broadcast when the soil temperature is below 50 degrees Fahrenheit and if broadcast, it should be incorporated. Management of such applications should include soil tests to determine exact amounts of nutrients being added by the manure. Research on stabilizers used in conjunction with manure applications is inconclusive and the S.T.A.R. Science Advisory Committee does not feel that the use of manure stabilizers is warranted at this time.
19. **Section 16 – Spring/Summer Nutrient Management:** From an environmental perspective, it would be best if NO nitrogen fertilizer was applied to any crop because of potential negative consequences to water quality. However, most crops require additional nitrogen inputs. Therefore, nitrogen is best applied in the spring and/or summer, as close as possible to the time the crop will use it, minimizing or eliminating nutrient losses from the field.
20. **Section 16 – Spring/Summer Nutrient Management:** Manure/Biosolids applied during the spring or summer should be incorporated if broadcast.
21. **Section 17 – Additional Nutrient Activities:** The “total nitrogen program” for a crop should incorporate residual soil nitrogen as well as nitrogen made available from organic matter mineralization. The maximum levels identified for this section are based on the maintenance needs for optimal yield goals in Illinois and should limit losses due to leaching and denitrification. The continuous corn rotation allows higher nitrogen rates due to the maintenance needs of corn following corn versus corn following soybeans. Optimally, producers would follow the guidelines of the “Corn N-Rate Calculator” that is a part of the NRCS 590 Nutrient Management standards and specifications, found at this link: <http://cnrc.agron.iastate.edu>. The Corn N-Rate Calculator uses current corn and nitrogen prices to calculate the MRTN (Maximum Return to Nitrogen) but is NOT required for S.T.A.R. Participants should also consider using the 4R Principles (Right Source, Right Rate, Right Time, and Right Place) when making nutrient decisions. More details can be found here: [www.nutrientstewardship.com/4rs/4r-principles/](http://www.nutrientstewardship.com/4rs/4r-principles/)
22. **Section 17 – Additional Nutrient Activities:** Adding NO phosphorus to fields would help meet the water quality goals of the Illinois Nutrient Loss Reduction Strategy. However, if phosphorus is applied, either in the fall or spring, it is best to follow soil test recommendations and to be banded subsurface. Triple Super Phosphate is much better than MAP or DAP as it does not add the complexity of additional nitrogen. As stated earlier, it is also best to apply phosphorus and potassium based on soil testing, but it is reasonable to replace those nutrients using estimated removal rates.
23. **Section 17 – Additional Nutrient Activities:** If any fertilizer containing nitrogen or phosphorus, including manure, is broadcast on either frozen ground OR on snow covered ground, that would be VERY BAD both from an economic and environmental perspective. Applying fertilizers to frozen or snow-covered ground should be avoided because that practice DRASTICALLY increases the likelihood of loss, particularly via surface run-off.