

# S.T.A.R. - FAQ

## Instructions, definitions and (FAQ) Frequently Asked Questions: 2019 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 of the Field Form. Separate forms should be completed for every field you would like rated through the S.T.A.R. Program.
2. Why is my contact information needed? Once your field is rated, we will contact you with your results and offer to you a field sign to display your rating.
3. What is the definition of the “Crop Year?” The 2019 Crop Year began the day after the 2018 fall harvest and ends the day of 2019 harvest.
4. How will my answers to the form(s) be verified? The county Resource Conservationist will typically have enough knowledge of any farm to know if there are inconsistencies. However, the S.T.A.R. Coordinator will use random sampling to identify up to 10% of the fields in each of multiple regions in Illinois. Each county will have a person serve as the “Verifier” who will contact the participant(s) to confirm the use of the practices identified.
5. 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), but all materials submitted to the S.T.A.R. Program are destroyed annually once the verification process is complete.
6. Is a post provided with the sign? No.
7. Why am I asked to sign and date the form? Your signature acknowledges that you have completed the form as accurately as possible and that you understand that your field may be randomly selected for verification.
8. Verification process will occur in March of 2020. 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 of growing cover crops
  - Dated 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
  - Dated drone imagery confirmation for fall and spring growth
  - Residue check fall and/or spring
9. **Section 9:** A cover crop credited for the 2019 Crop Year must have been planted in the Fall of 2018 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)

10. **Section 9:** How do I record my cover crop species? Mark all species of cover crops planted in the fall of 2018. If the cover crop you are utilizing is not listed, write it/them under “Other species.” Using more than one species is recommended to increase above-ground and below-ground biodiversity. Additionally, 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.

11. **Section 10:** 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. However, 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/)

12. **Section 11:** 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 1<sup>st</sup>. In wheat rotations, a top-dress nitrogen fertilizer in February is an exception to the no fall or winter nitrogen recommendation as there is an active crop growing which substantially reduces the risk of nitrate loading to local waterways. However, wheat crops north of I-70 are likely to still be dormant and soils in the region are often frozen well into February, so S.T.A.R. only accepts this practice on fields south of I-70.

13. **Section 11:** 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.

14. **Section 11:** 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 AFTER October 20<sup>th</sup> 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 Committee does not feel that the use of manure stabilizers is warranted at this time.

15. **Section 12:** 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.

16. **Section 12:** Manure/Biosolids applied during the spring or summer should be incorporated if broadcast.

17. **Section 13:** 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 the S.T.A.R. program. 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/)

18. **Section 13:** 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.

19. **Section 13:** 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.

20. **Section 14:** 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.

21. **Section 15:** 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 the S.T.A.R. Program.

22. **Section 16:** This section includes several recommended practices to reduce nutrient and soil loss in addition to the in-field management practices that the S.T.A.R. Program 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 2018” is to be checked only if it was done for this specific field.