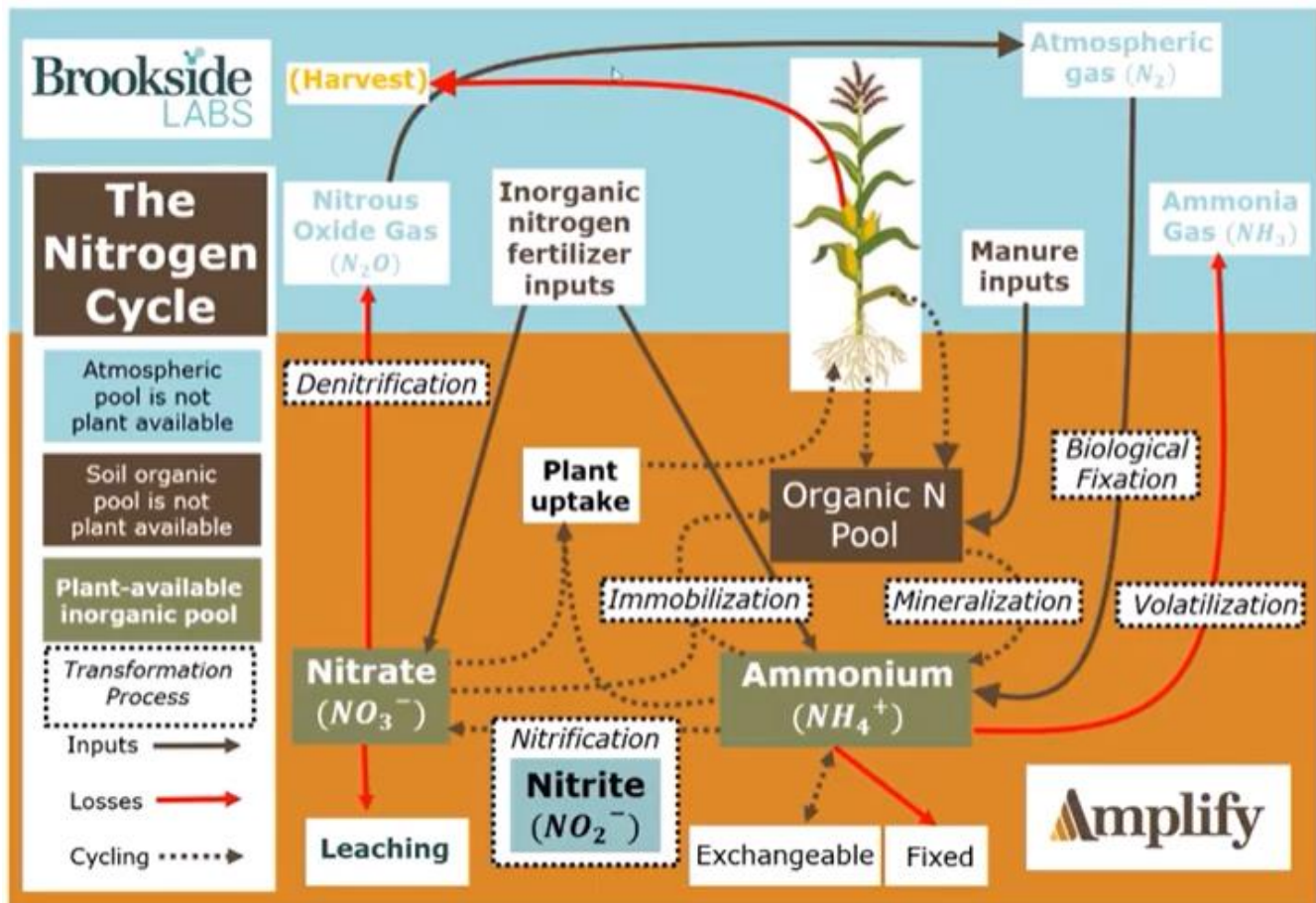


# SHELBY COUNTY CROP TALK

May 29, 2020

**Crop Scout:** This past week I have not seen too much going on in the fields other than flooding. I have seen some fields that had poor emergence due to cold water uptake. The corn had long strips of no emergence or reduced stand. Corn that did not emerge often had leafed out underground or had dead growing points. Some bleached heads in wheat due to frost have also been seen. A lot of wheat fields had fungicide applied last week. With warm and wet weather be on the look out for seedling diseases in all crops. If you have any questions don't hesitate to reach out to me or someone at a CO-OP branch.



**Nitrogen Cycle:** One of the most complex nutrients we work with is nitrogen. The cycle is one with many points of loss and few pipelines to the plant. In the cycle we have two massive sources of N with no direct access by plants. These two sources are the organic N pool and atmospheric N. They can be utilized by the plant but only after going through microbial processes. Nitrogen can only be utilized by plants when in the nitrate or ammonium form. The most mobile of these two forms is the nitrate form. Nitrate is in a negative state and soil particles repel it. Ammonium is positive, therefore soil will try to hold on to it. Unfortunately, ammonium is constantly being cycled through different processes by soil microbes. Microbes

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are involved in mineralization, immobilization, biological fixation, and nitrification. Mineralization and immobilization cycle ammonium and nitrate through the organic N pool. Mineralization converts organic N to ammonium which is usable by the plants. Immobilization converts the two plant available sources to the organic N pool making them no longer usable by plants. Fixation is the process of converting a small portion of atmospheric N to ammonium in the soil. Nitrification is converting ammonium to nitrate. This is a two-step process in which nitrite is formed, which is not plant available, then going to nitrate. Nitrate can leach out or undergo denitrification and be converted to nitrous oxide. These biological processes are dependent on soil temp, soil moisture, and pH. Each microbe prefers a different combination of those factors to complete its steps.

We can also lose nitrogen from non-biological processes like leaching. Nitrogen can be tied up in the soil in the ammonium form or converted into ammonia gas and lost to volatilization in the atmosphere. Nitrogen is also be carried off the field in the grain during harvest. We can add more nitrogen to the system through fertilizers, manures, and legumes. To learn more about the nitrogen cycle see the nitrogen cycle link below or contact me.

## **Nitrogen Resources**

- Nitrogen Cycle
  - <https://www.youtube.com/watch?v=CcFHoMZRDMs>
- Purdue Nitrogen Research
  - <https://extension.entm.purdue.edu/newsletters/pestandcrop/article/choosing-the-right-nitrogen-rate-for-corn-is-important-to-profitability/>

## **Prevented Planting Discussion Again in 2020?**

A farmer that cannot plant the insured corn crop by the final planting date of June 5 (in Indiana) has these options:

1. Claim Prevented Planting of corn. This is when a crop cannot be planted due to an insured cause of loss that is general to the surrounding area and that prevents other producers from planting acreage with similar characteristics.

- Must give your agent timely notice of PP, claim filed.
- PP must be general to the area.
- No PP coverage county/area policies, only individual policies.



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- o At least 20% of the unit or 20 acres are PP to receive a payment.
  - o Max acres of corn eligible = highest number corn acres planted in any of last 4 years.
2. Claim PP corn and plant soybeans after the June 30. You can plant a 2nd crop after June 30 if taking PP on corn, however coverage and premiums will be affected, as well as a penalty to your APH.
  3. Plant corn in the late plant period (next 25 days) and incur a 1% loss in guarantee each day.
  4. Planting a different crop (soybeans) in the late plant period (June 6-June 30) would void the prevent plant claim and make that the first crop.

### Prevented Plant Worksheet

Option 1. Taking straight Prevented Planting (PP) on **eligible Corn acres** and leaving the ground fallow for the remainder of the crop year.

185 Bu per Acre APH	x	85 % Coverage Level	=	157.25 Bu per Acre Bushel Guarantee	x	\$ 3.88 Spring Price	=	\$ 610.13 Revenue Guarantee
x								
55 % PP Base Guarantee								
=								
\$ 335.57 PP Indemnity								
-								
\$ 30 CI Premium								
=								
\$ 305.57 Net CI Dollars								

Option 2. Taking Prevented Planting (PP) on **eligible Corn acres** and planting a subsequent crop (i.e. soybeans).

\$ 335.57 Original PP Indemnity	x	35% of PP Indemnity	=	\$ 117.45 New PP Indemnity	-	\$ 10.5 35% CI Premium	=	\$ 106.95 Net CI Dollars
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<b>There's also a Yield Penalty</b>	185 Bu per Acre 1st Crop APH	x	60 % of 1st Crop APH	=	111.00 Bu per Acre Production History to Count for the 1st Crop in APH History
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Option 3. Plant beyond the final plant date and lose 1% coverage per day.

\$ 610.13 Revenue Guarantee	-	(	\$ 610.13 Revenue Guarantee	x	5 Days after June 5	x	1 % Reduction in Coverage/Day	)	=	\$ 579.62 NEW Revenue Guarantee
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Contact your agent with any questions.

