Inorganic Fertilizer

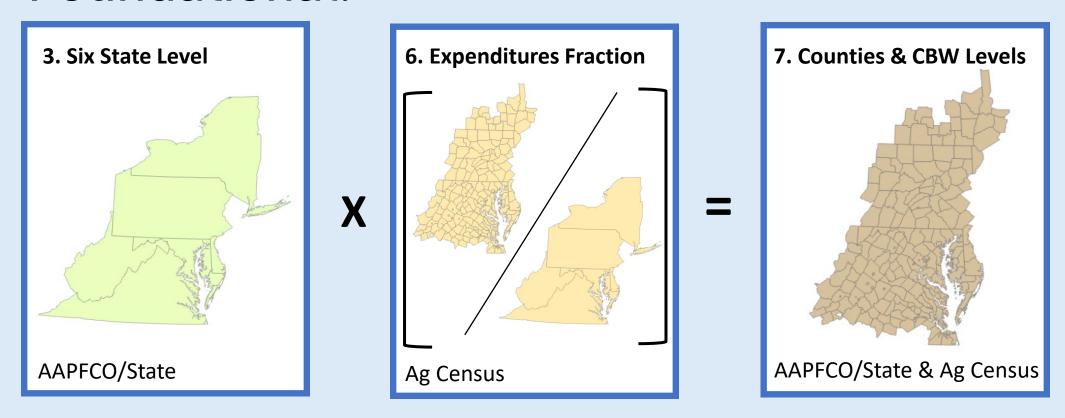
3/14/2025

Tom Butler, EPA

Recap inorganic fertilizer in CAST

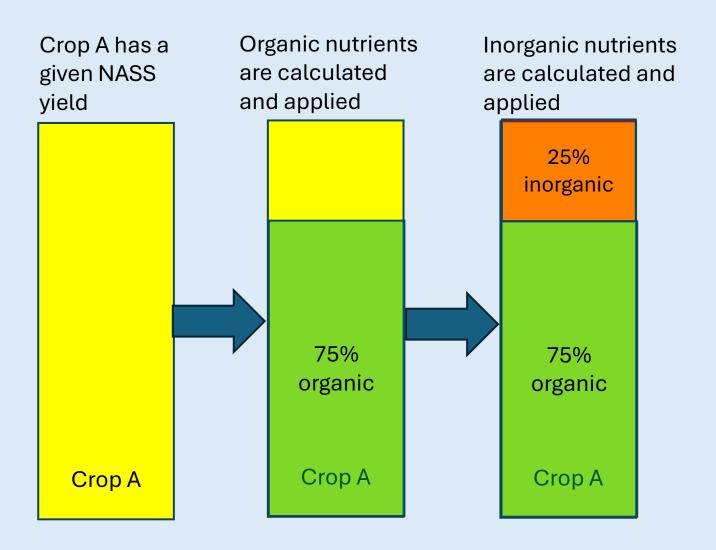
Current Foundational Path towards fertilizer knowledge improvement scale

Foundational:

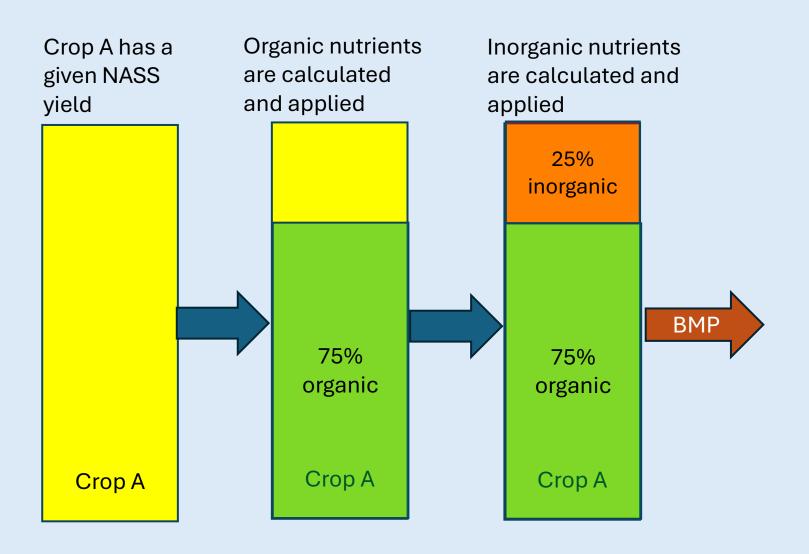


- CURRENTLY fertilizer from ALL states feeds a single stock
- Fertilizer from one state can theoretically be applied in another
- Implications for all the watershed

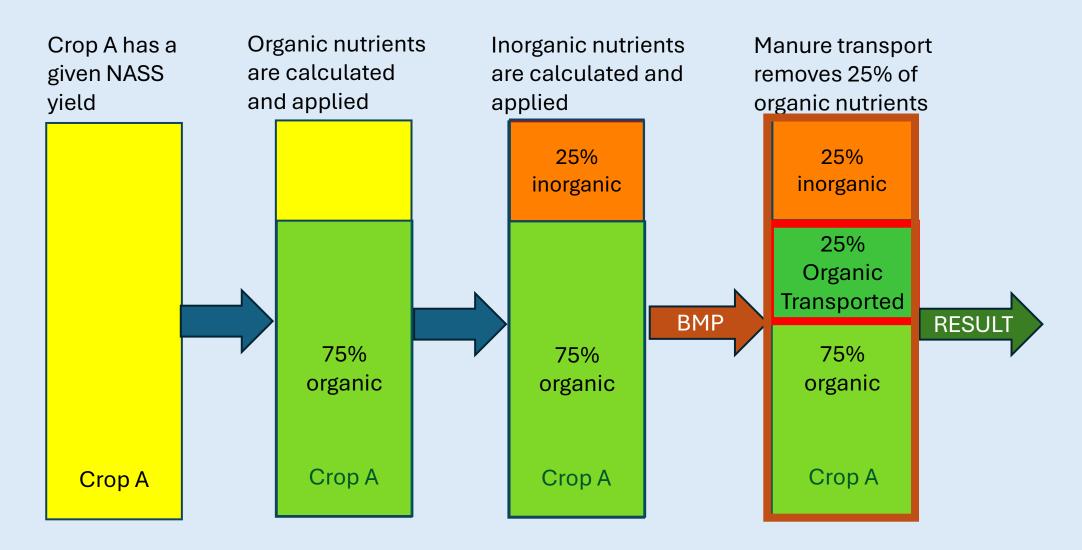
Example: an example application



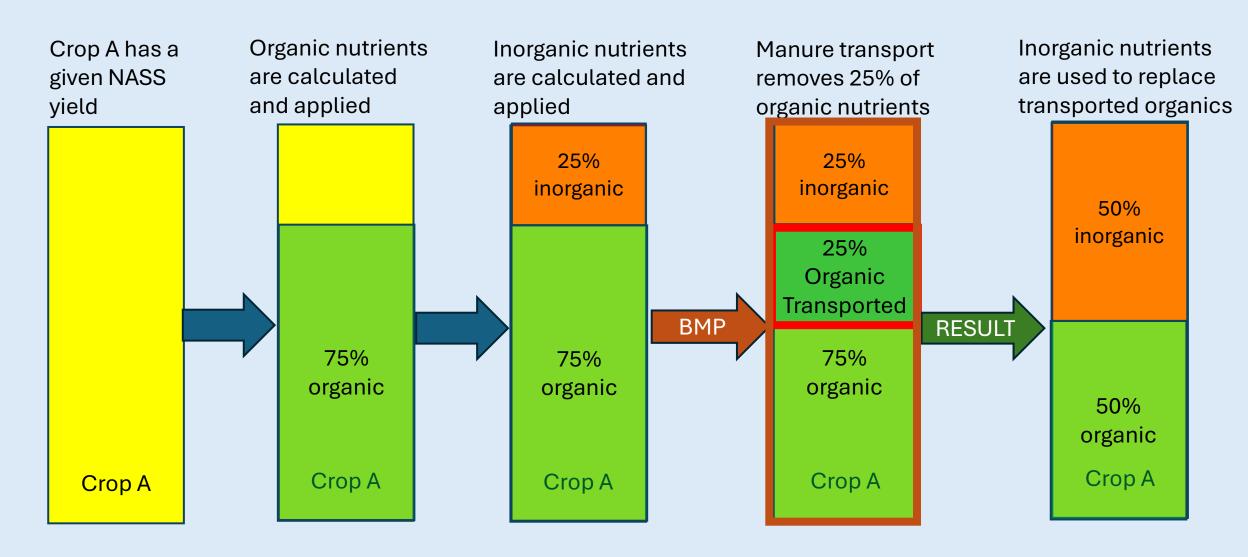
Example: an example application of BMPs



Example: an example application of BMPs

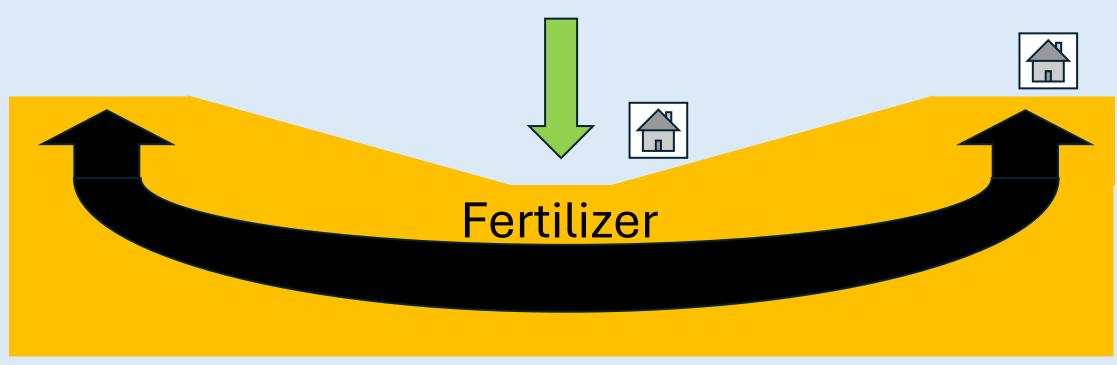


Example: an example application of BMPs



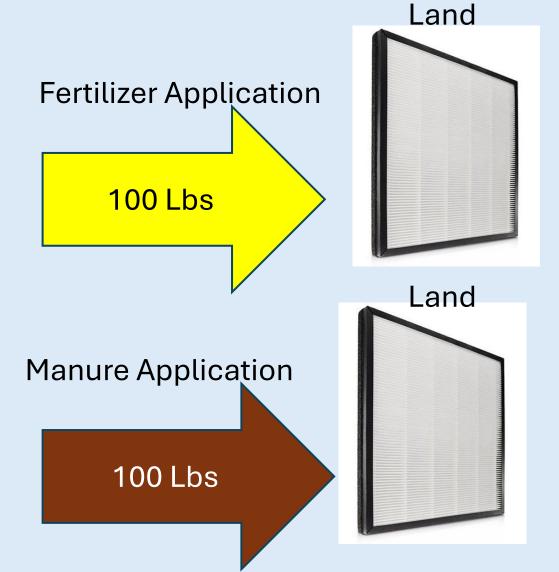
Remember, fertilizer is a watershed product

• If one area uses less fertilizer other areas will use more.



A note on Nitrogen Loading

If you have two IDENTICAL fields, and apply the same amount Inorganic fertilizer will load MORE than manure



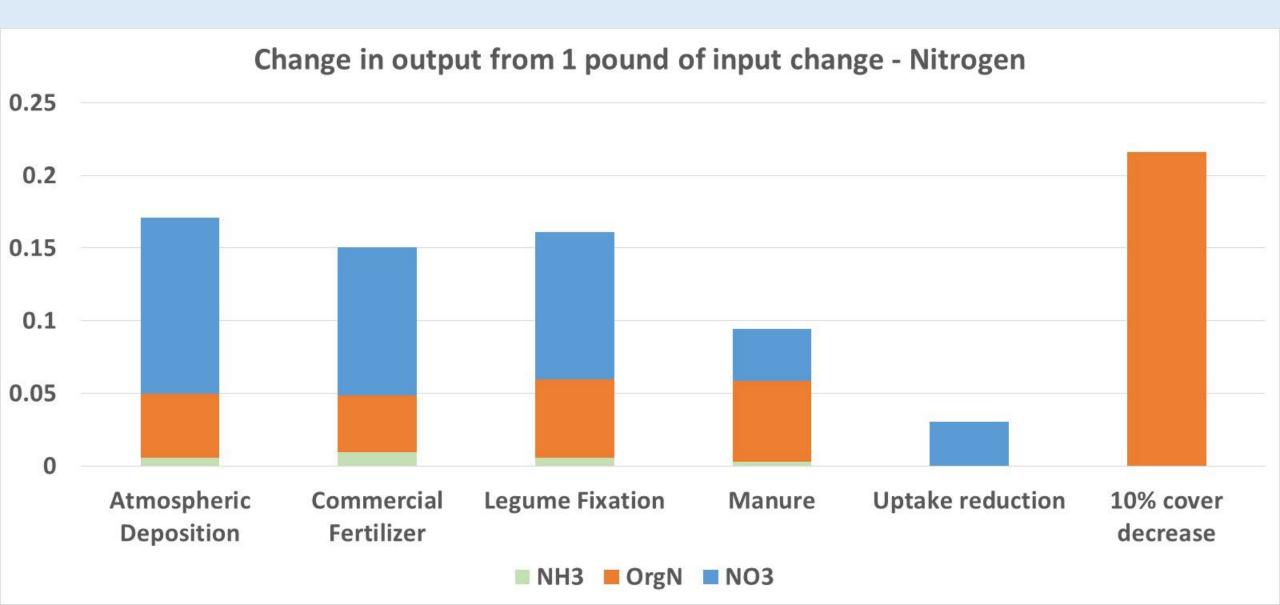
Runoff from Fertilizer



Runoff from Manure



Sensitivities – all else being equal



Questions?

What can we improve?

Different scale?

States won't influence each other the same way.

Different methods for backfilling?

 Cap the percentage of fertilizer used to replace organic nutrients.