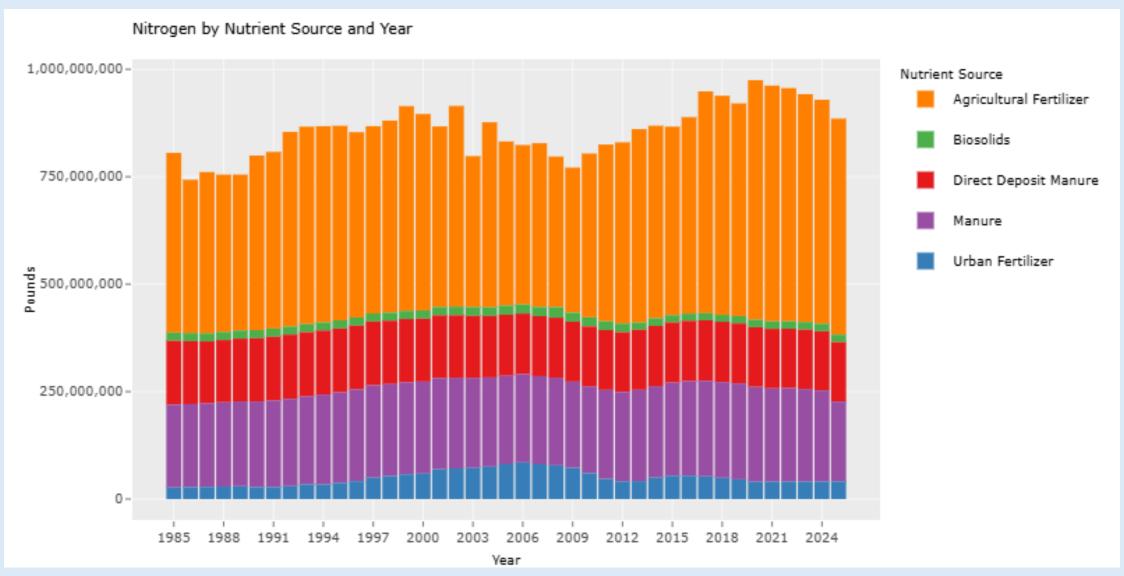
Inorganic Fertilizer

Tom Butler, EPA; Jess Rigelman, J7llc 10/10/2025

Inorganic Fertilizer Progress to date

- June 2025
 - 1. Fertilizer Data Trend walkthrough
 - 2. Requested update to state supplied data
 - 3. State Scale fertilizer stock investigation
- July 2025
 - State Scale fertilizer stock analysis
 - <u>Decision</u> to move to state scale
- August 2025
 - Alternative <u>fertilizer modeling</u> presentation

Why does this matter?



https://cast.chesapeakebay.net/EstuaryTrends/NutrientsApplied

Next steps:

Continued examination of raw data sources

Methods/options to project fertilizer sales trends for non reporting states

Smoothing methods for current data sources

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Continued examination of raw data sources

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Smoothing methods for current data sources

What are we doing now?

Association of American Plant Food Control Officials (AAPFCO)

 Coalition of fertilizer control officials who compile and process state reported data.

Direct state data

State chemist who provides the same data as what is sent to AAPFCO.

"Projection"

Utilize trends in fertilizer sales tonnage from reporting states if data gaps exist.

What does it mean? AAPFCO

States report data

Sales tonnage

Lbs of N/P/K

Processing occurs for uniformity between states

Reports are purchased

What does it mean? Direct State Data

Fertilizer sales tonnage provided by State Chemist, or analogue.

Lbs N/P/K

Same data as AAPFCO just from individual states

Shorter latency

What does it mean? "Projection"

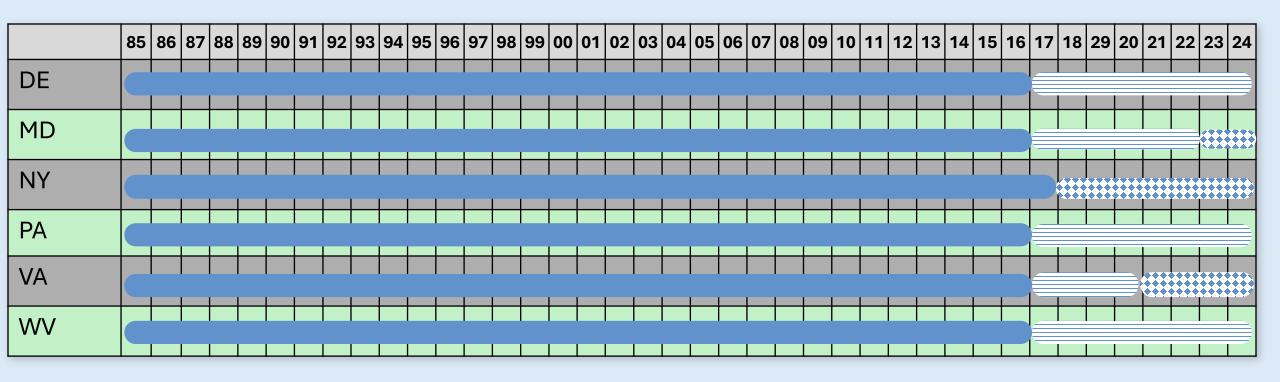
For states without data

Utilizes data that is reported by **OTHER** states

Requires at **LEAST** three states to supply data

Utilizes trend of fertilizer sales to predict values

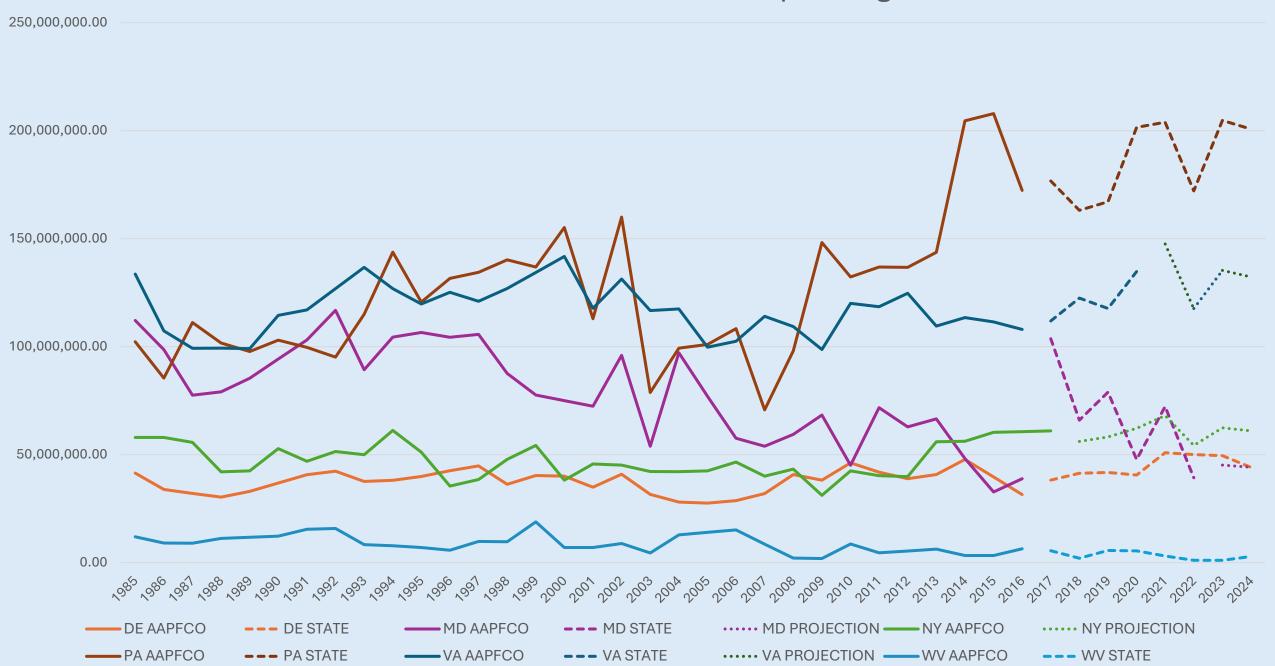
What timeframe does each source cover?





*NOTES

- VA is currently providing 2021-2024 data
- NY trends 2018-2020 uses DE, MD, PA, VA, WV
- NY and VA trends 2021-2022 use trends from DE, MD, PA, WV
- NY, VA, MD 2023+2024 use trends from DE, PA, WV



Some things to consider:

- Currently follows Phase 6 Fertilizer Expert Group recommendations for calculating data
 - Calculations based on other states sales data NOT crop expected need met
 - Should this be changed?
- Accounts for <u>state specific stocks</u> of exclusively agricultural fertilizer.
- NOT smoothed

Questions?

Discussion to follow

Questions for the group

- Should we calculate fertilizer stocks for nonreporting states based on those who report?
 - Should we utilize non reporting states crop application goal met?(crop need)
- Are there more/better sources of raw data we can look at?
 - 1985 to present