January AMT Office Hours

1/10/2025

What is on the docket for today?

- Land Uses
- Inorganic agricultural fertilizer

Things to keep in mind:

- We want to improve
- It is ok if we cannot decide on anything new
  - We stay with the current data and methods
- Perfection should not get in the way
- We need to have support to improve

Land Uses

From the last AMT

Proposed decisions:	
Alter the Land Uses in CAST to represent, Managed and Unmanaged Hay as well as Managed and Unmanaged Pasture.	Modify the manure spread algorithm to create a fourth group as proposed by Virginia for Phase 7.

Recap: Multiple iterations

Phase 6

Group 1	Group 2	Group 3
Grain with manure	Other Hay	Soybeans
Silage	Pasture	Legume Hay
Small Grains		
Double cropped		
Other crops		
Specialty (high and low)		

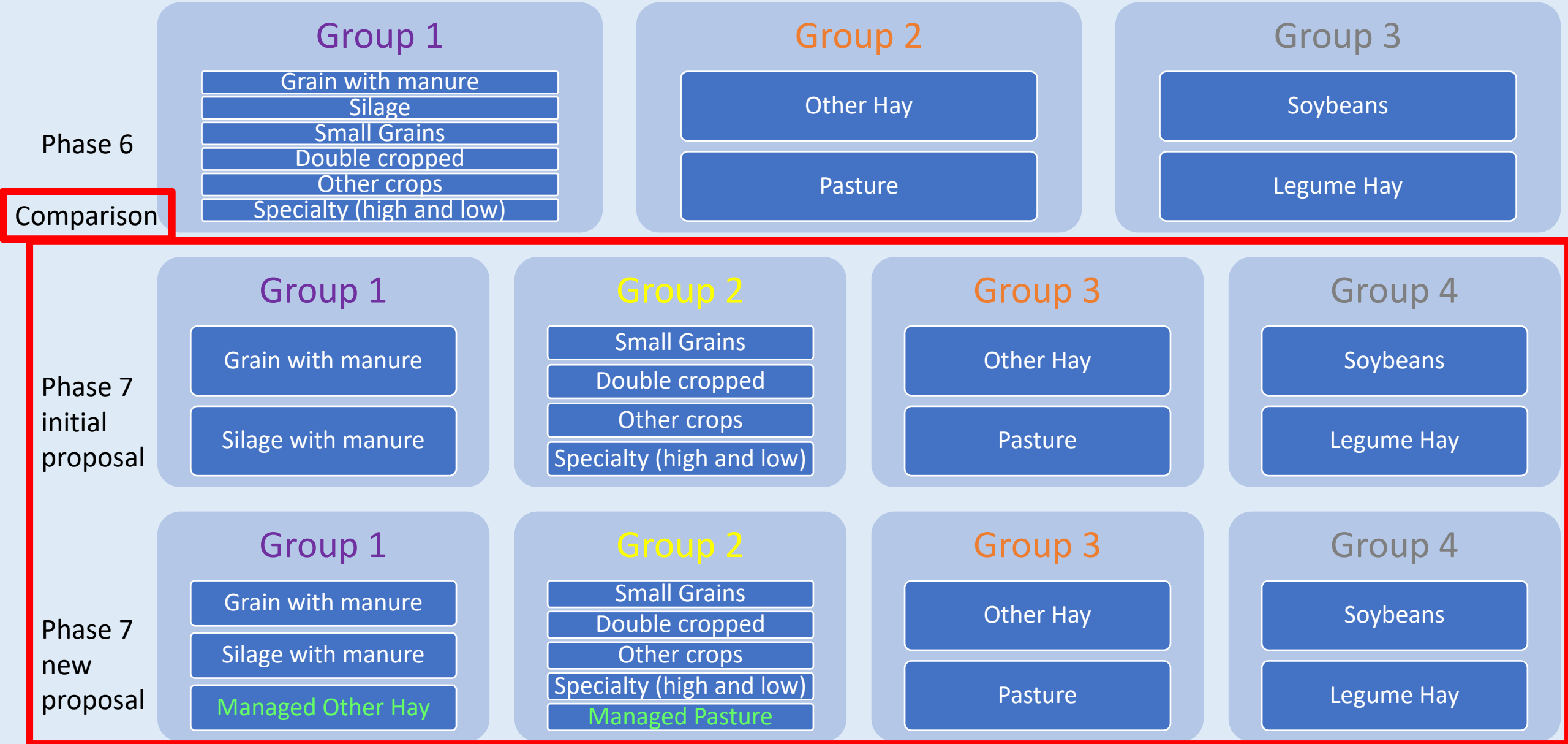
Phase 7 initial proposal

Group 1	Group 2	Group 3	Group 4
Grain with manure	Small Grains	Other Hay	Soybeans
Silage with manure	Double cropped	Pasture	Legume Hay
	Other crops		
	Specialty (high and low)		

Phase 7 new proposal

Group 1	Group 2	Group 3	Group 4
Grain with manure	Small Grains	Other Hay	Soybeans
Silage with manure	Double cropped	Pasture	Legume Hay
Managed Other Hay	Other crops		
	Specialty (high and low)		
	Managed Pasture		

Recap: Multiple iterations



What is in the new proposal?

Application rates for hay and pasture are changed to:

- N=120 and P=40 for managed hay (all crops)
- N=60 and P=30 for managed pasture

25% of hay acres = managed

10% of pasture acres = managed

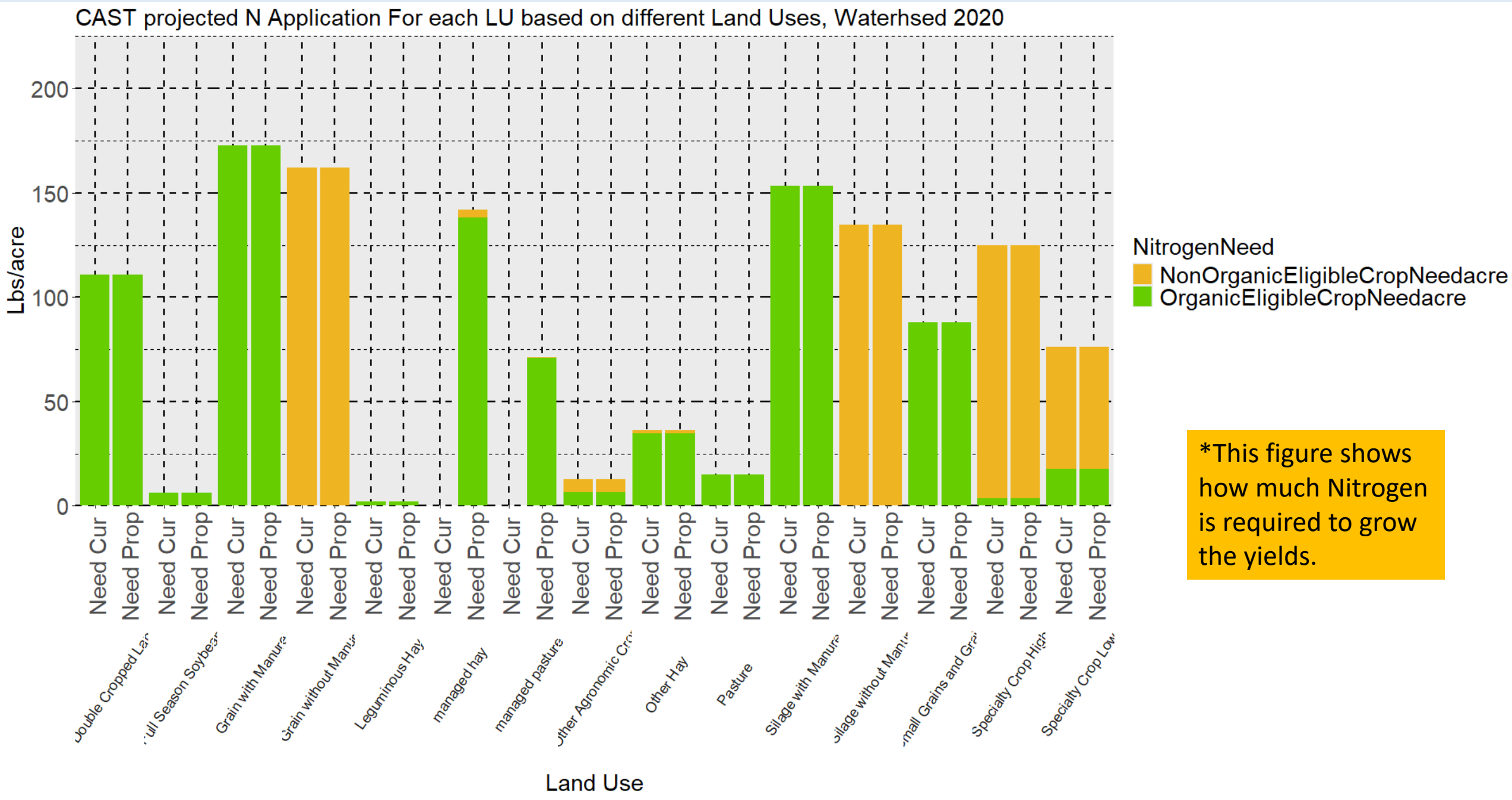
N NonNM factor for managed hay and pasture = 1.2

P NonNM factor for managed hay and pasture = 1.0

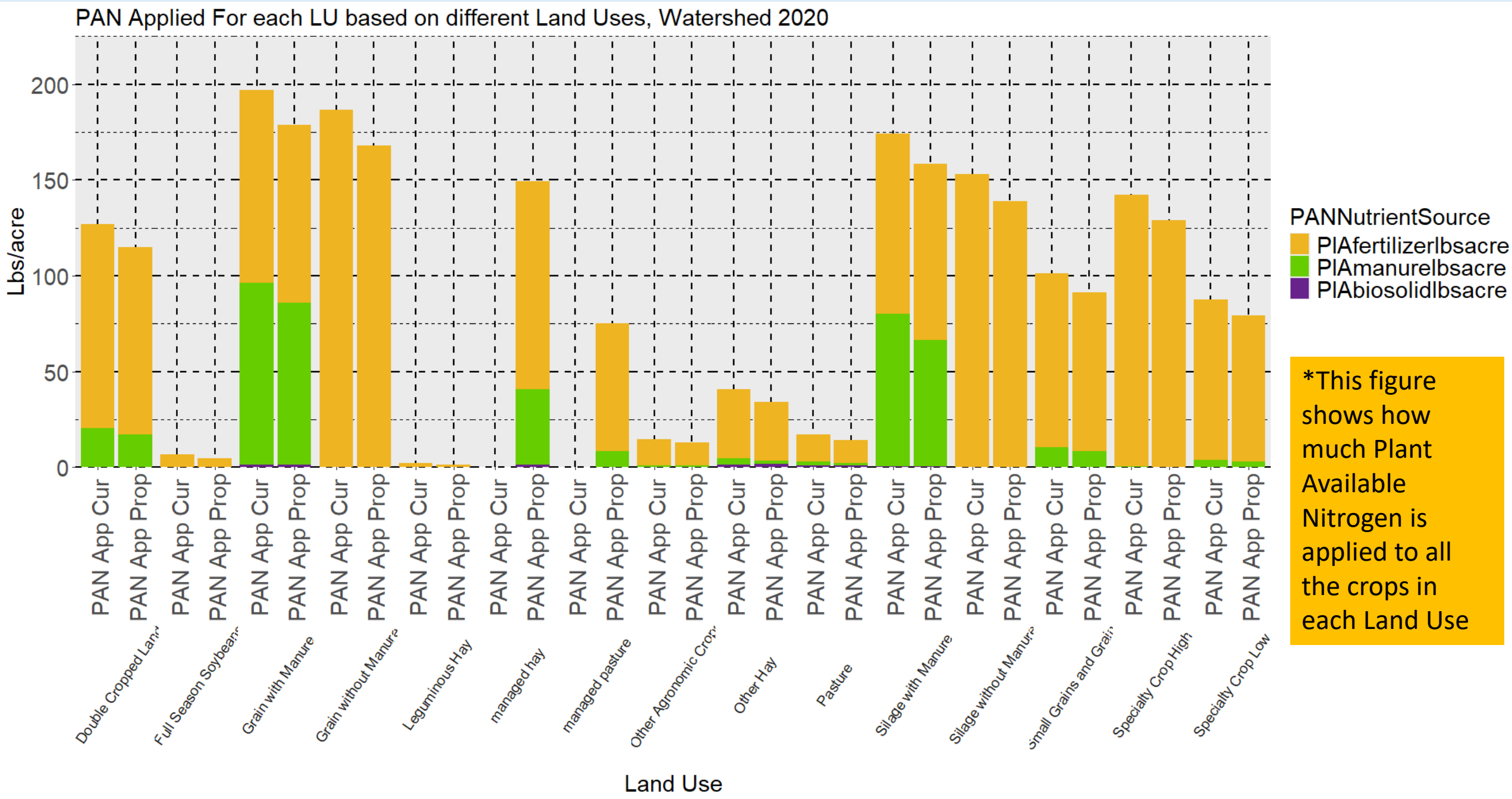
Summary

- Three scenarios have existed
    1. Phase 6 –
        1. Three application curves
    2. Phase 7 initial proposal
        1. Four application curves
    3. Phase 7 new proposal
        1. Four application curves
        2. New managed Pasture and Hay categories
- Compared scenarios Two and Three
    - Phase 7 initial (current) vs Phase 7 new (proposed)

What happens across the watershed?



*This figure shows how much Nitrogen is required to grow the yields.



*This figure shows how much Plant Available Nitrogen is applied to all the crops in each Land Use

Questions?

Fertilizer

Background

Ongoing concern

- Data omission
- Time lag
- Intended use

Fertilizer Expert Group (Phase 6)

- American Association of Plant Food Control Officials (AAPFCO) sales data is universal
- Data directly from states is an improvement
- Recommended further investigations

AMT (Phase 7)

- Alternative data sources should be examined
- Watershed wide stock could be improved

November introduction

State comments (not exhaustive):

- **Alternative data sources should be examined**
  - Falcone 2020
- **Watershed wide stock could be improved**
  - Shift to state specific fertilizer stocks

Our path to progress:

- Possible data sources
  - Falcone
    - DE, MD, NY
    - Modeled approach to nutrients
  - USGS national nutrient inventory
    - VA
    - National inventory of nutrients produced
- Scale

Questions?

Thank you for attending office hours!

We will begin our main meeting at 09:00.