

Land Use Details

2/14/2025

Outline:

January recap

Lingering questions

Next steps

January recap:

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.

We decided to move forward

- No objections = consensus
- Waiting on Delaware

Group 1

Grain with manure

Silage with manure

Managed Other Hay

Group 2

Small Grains

Double cropped

Other crops

Specialty (high and low)

Managed Pasture

Group 3

Other Hay

Pasture

Group 4

Soybeans

Legume Hay

Details of the testing scenario:

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

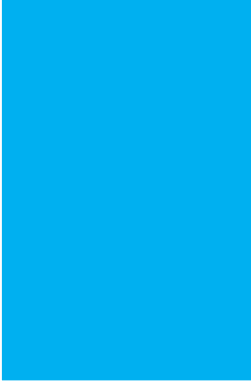
N NonNM factor for managed hay and pasture = 1.2

P NonNM factor for managed hay and pasture = 1.0


Still some questions:




What is our definition of managed vs unmanaged hay and pasture?



How should the acres of managed vs unmanaged categories be determined/reported?



What should the relative nutrient loading rate be for each of these new Land Uses (Loading Rate Ratio)?



What should the impact of Nutrient Management (NM) be?

Next steps:

Feedback

- Lock in details

Further
testing

- Crop yields
- Inorganic fertilizer

Definition:

Other Hay -

- Hay crops that exclude species that fix nitrogen such as alfalfa and clover. Fertilizer and/or manure may be applied. Includes haylage, grass seed, and failed crops.

Managed Hay -

- Hay crops that exclude species that fix nitrogen such as alfalfa and clover. Fertilizer and/or manure are regularly applied. In addition to the BMPs eligible on Other Hay, this load source is eligible for Core and Enhanced NM practices. Includes haylage and grass seed. (Excludes the failed crops)

Definition:

Pasture -

- Land used for pasture or grazing animals. Fertilizer and/or manure may be applied in addition to directly excreted manure.

Managed Pasture -

- Land used for pasture or grazing animals. Fertilizer and/or manure are regularly applied in addition to directly excreted manure. In addition to the BMPs eligible on Pasture, this load source is eligible for Core and Enhanced NM practices.

Acres: Hay lands

The acres of Managed Hay will be reported by states following the process used for reporting harvested forest and construction acres.

- A value of 10% of the acres of haylands from the Land Cover will serve as a minimum value and default if states do not provide the data.

Acres: Pasture lands

The acres of Managed Pasture will be reported by states following the process used for reporting harvested forest and construction acres.

- A value of 5% of the acres of pasturelands from the Land Cover will serve as a minimum value and default if states do not provide the data.

Loading Rate Ratios:

Follow the Phase 6 investigative pathway (will not have all answers today)

- Subgroup to review the previously used literature along with any new science and make a recommendation to the AMT.

Impact of Nutrient Management: Phase 6

Land Use	Non-Nutrient Management Nitrogen Multiplier	Non-Nutrient Management P Multiplier
Full Season Soybeans	1.2	1.5
Grain w/ Manure	1.3	3
Grain w/o Manure	1.2	1.5
Legume Hay	1.2	1
Silage w/ Manure	1.4	3
Silage w/o Manure	1.2	1.5
Small Grains and Grains	1.2	1.5
Small Grains and Soybeans	1.2	1.5
Specialty Crop High	1.3	2
Specialty Crop Low	1.2	2
Other Agronomic Crops	1.1	1.5
Other Hay	1	1
Pasture	1	1

Impact of Nutrient Management: Proposed

Land Use	Non-Nutrient Management Nitrogen Multiplier	Non-Nutrient Management P Multiplier
Full Season Soybeans	1.2	1.5
Grain w/ Manure	1.3	3
Grain w/o Manure	1.2	1.5
Legume Hay	1.2	1
Silage w/ Manure	1.4	3
Silage w/o Manure	1.2	1.5
Small Grains and Grains	1.2	1.5
Small Grains and Soybeans	1.2	1.5
Specialty Crop High	1.3	2
Specialty Crop Low	1.2	2
Other Agronomic Crops	1.1	1.5
Other Hay	1	1
Pasture	1	1
Managed Hay	1.2	1.5
Managed Pasture	1.2	1.5

Questions?

Discussion: Definitions what needs to change?

Other Hay -

Hay crops that exclude species that fix nitrogen such as alfalfa and clover. Fertilizer and/or manure may be applied. Includes haylage, grass seed, and failed crops.

Managed Hay -

Hay crops that exclude species that fix nitrogen such as alfalfa and clover. Fertilizer and/or manure are regularly applied. In addition to the BMPs eligible on Other Hay, this load source is eligible for Core and Enhanced NM practices. Includes haylage and grass seed. (Excludes the failed crops)

Pasture -

Land used for pasture or grazing animals. Fertilizer and/or manure may be applied in addition to directly excreted manure.

Managed Pasture -

Land used for pasture or grazing animals. Fertilizer and/or manure are regularly applied in addition to directly excreted manure. In addition to the BMPs eligible on Pasture, this load source is eligible for Core and Enhanced NM practices.

Discussion: Acres

Reported by states following the process used for reporting harvested forest and construction acres

10% of the acres of haylands from the Land Cover will serve as a minimum value and default if states do not provide the data

5% of the acres of pasturelands from the Land Cover will serve as a minimum value and default if states do not provide the data.

Discussion: Nutrient Management

Land Use	Non-Nutrient Management Nitrogen Multiplier	Non-Nutrient Management P Multiplier
Other Hay	1	1
Pasture	1	1
Managed Hay	1.2	1.5
Managed Pasture	1.2	1.5

Discussion: Loading Rate Ratios

Not
something
we can
finalize
today

Literature review

Science review

Need
Volunteers

Offline discussions

Expert involvement
