

Tests with no Load Ratio

AMT

2/9/2024

Today's main objective, determine if:

- Further investigation into the existing Agriculture Land Uses is warranted.

Things to keep in mind:

Land Uses help CAST with:

- Attributing loads to land use sources in greater detail than the sector
 - sector=agriculture
- BMP reporting specificity
- Nutrient application source (biosolid, manure, inorganic fertilizer)

Questions to think about:

- Is there a difference in pollution?
- Is the land use helpful for addressing load with different policies (i.e. future BMPs ?
- Would BMPs need to be eligible to a subset of this land use?

Testing in CAST:

- What happens if we don't have this table of ratios?

Chesapeake Bay Average			
Land class	Land Use	Loading Rate Ratio	Loading Rate (pounds per acre per year)
Cropland	Double Cropped Land	0.79	30.9
	Full Season Soybeans	0.71	27.7
	Grain with Manure	1.4	54.7
	Grain without Manure: Reference land use	1	39.1
	Other Agronomic Crops	0.45	17.6
	Silage with Manure	1.62	63.3
	Silage without Manure	1.16	45.3
	Small Grains and Grains	0.84	32.8
	Specialty Crop High	1.34	52.4
	Specialty Crop Low	0.31	12.1
Pasture	Ag Open Space	0.43	5.1
	Legume Hay	0.74	8.7
	Other Hay	1.04	12.3
	Pasture: Reference Land Use	1	11.8

Test

Ran CAST 17

Current Land Uses

Two scenarios:

Current Test

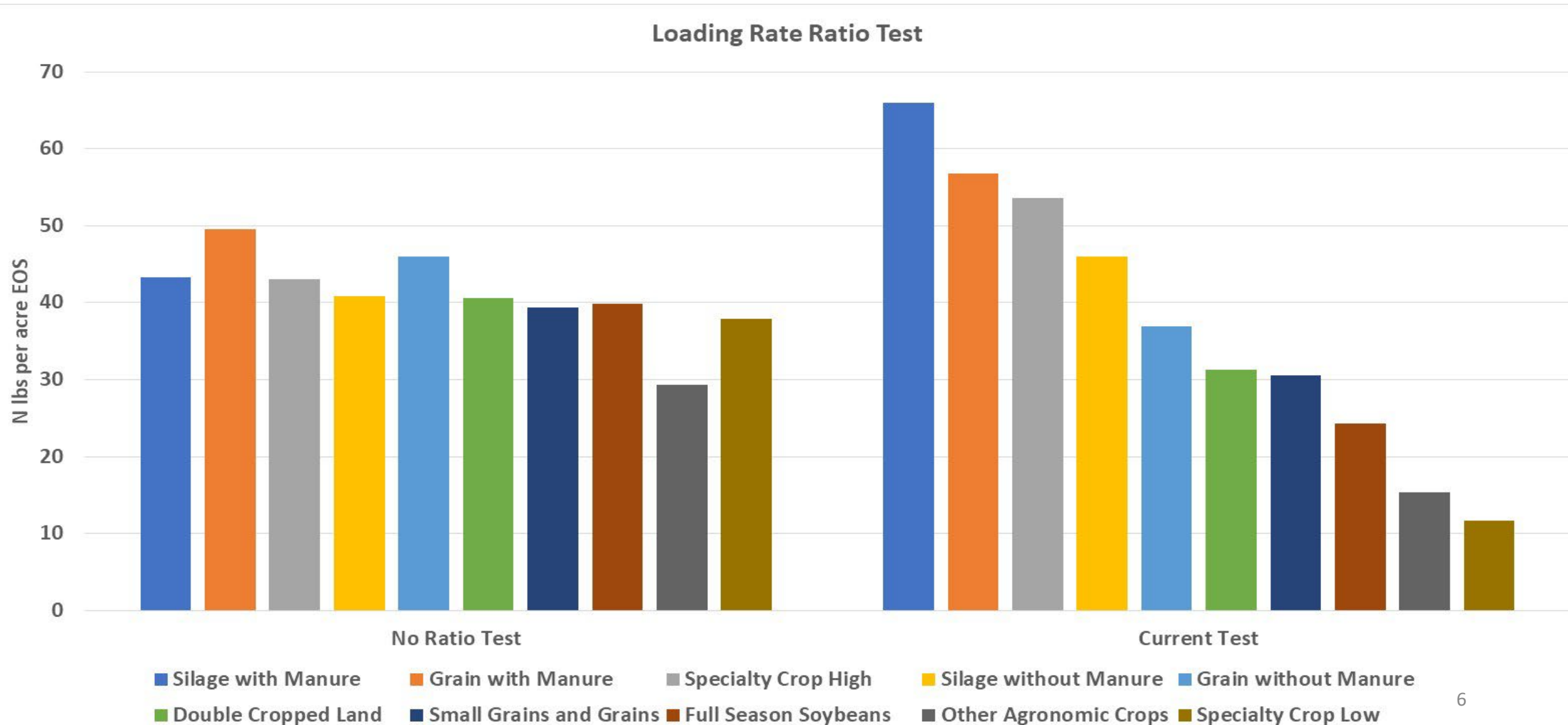
- Existing Loading Ratios (14 total)
- Average inputs are averaged across Land Uses

Ratio Test

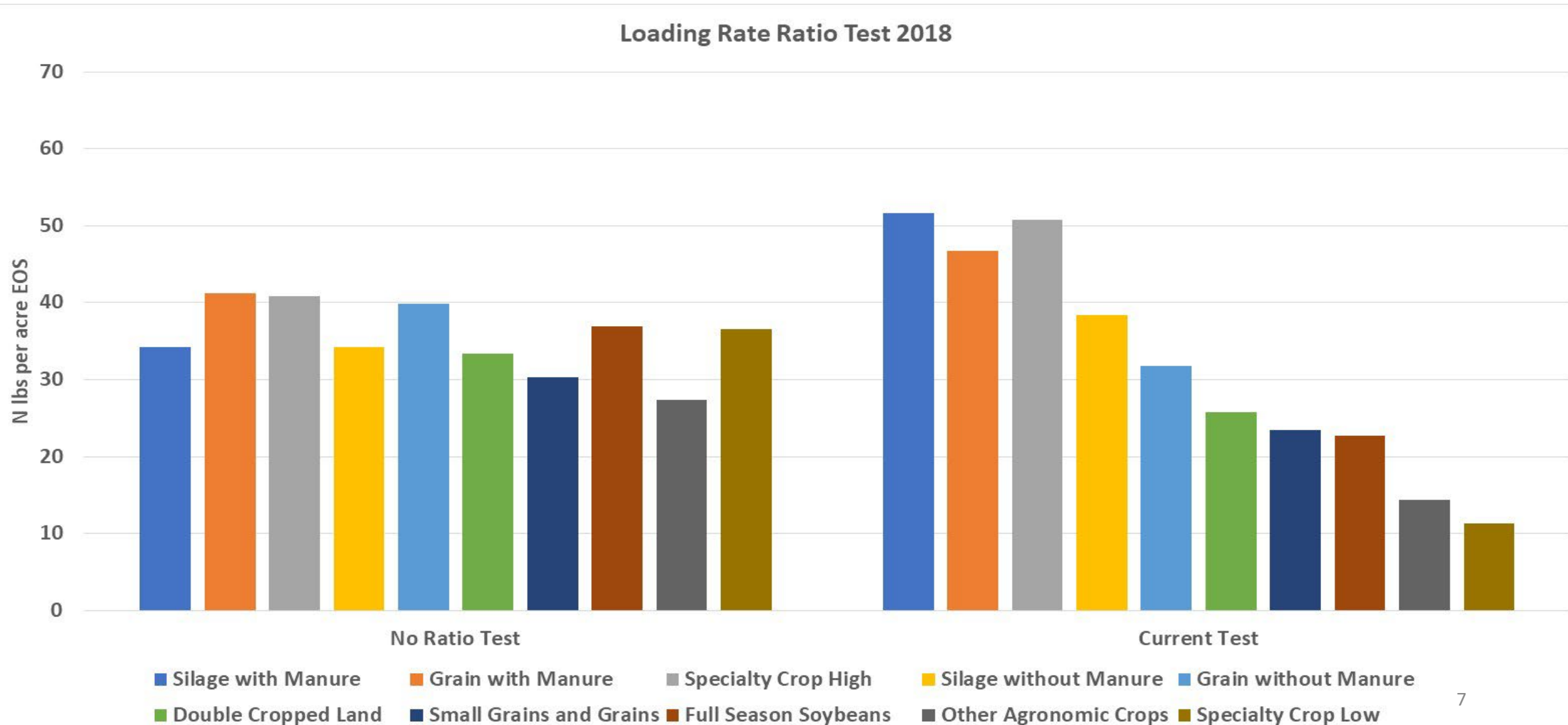
- One Loading Ratio for Crops and one for Pasture (2 total)
- Average inputs are averaged across Cropland and Pasture CLASSES

EFFECT: Allows CAST to differentiate between land uses based on differences in application rather than pre-specified ratios

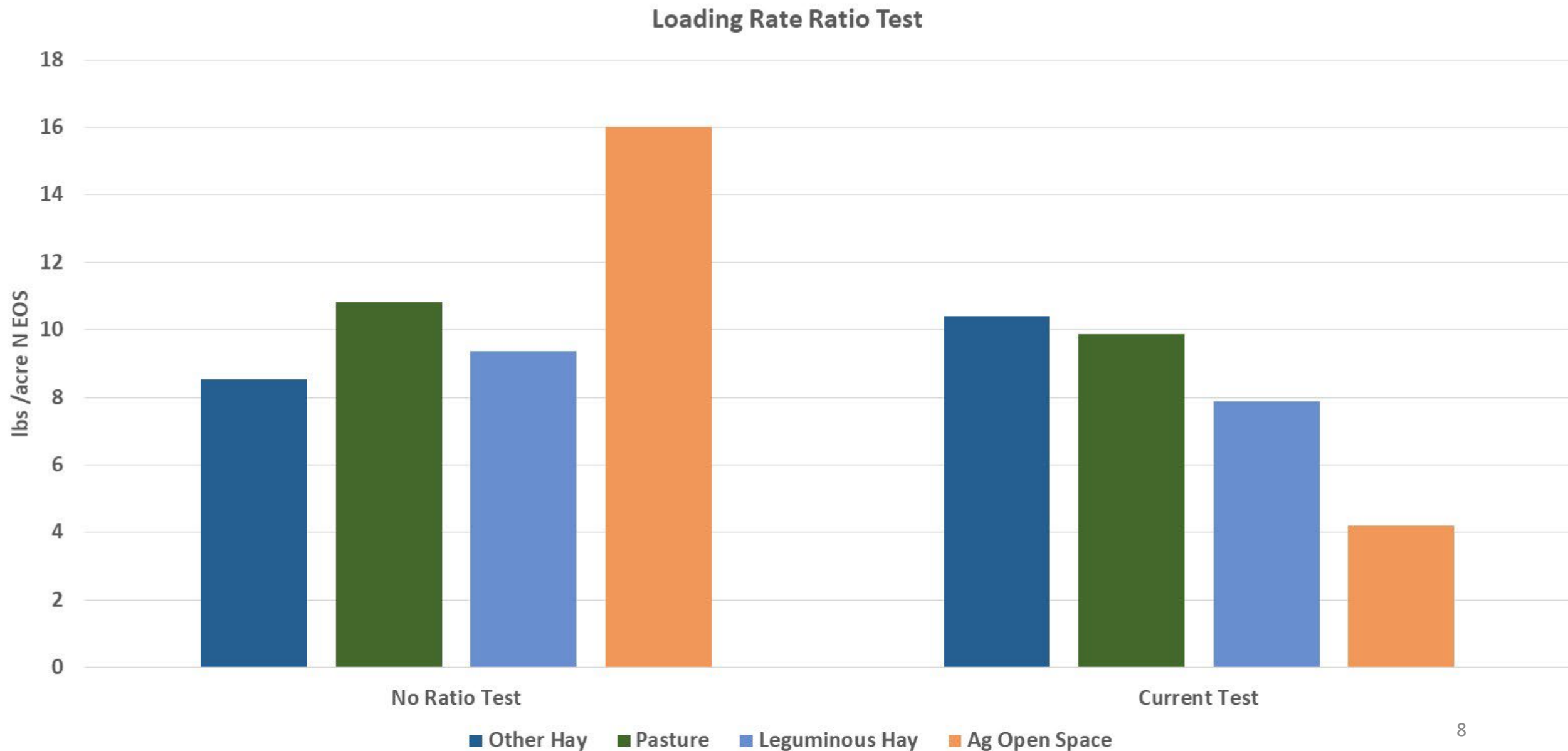
Current Test compared to No Ratio Test 1995



Current Test compared to No Ratio Test 2018



Current Test compared to No Ratio Test 1995



Considerations

- The total crop load will not change
- Changes can take place geographically or through scenarios
- Scenarios run without ratios will be less prone to variability
- Do we have confidence that those ratios are real?
- We can eventually test this in CalCAST later this year

Pause for questions

Today we are requesting a decision

- Test consensus voting
- Part of our sandbox efforts
- Subject to change as we progress

A brief walk through of the consensus process

1) Discuss item



2) Form Proposal



3) Call for consensus



4) Identify and address concerns



5) Modify proposal

A brief walk through of the consensus process

1) Discuss item

- 7 AMT meetings (September 2023 to present)

A brief walk through of the consensus process

2) Form Proposal

Further investigation into the existing
Agriculture Land Uses is warranted.

A brief walk through of the consensus process

3) Call for consensus

- Does anyone disagree with this?

A brief walk through of the consensus process

3) Call for consensus

Consensus Continuum



Questions?

Let's give it a try!