Beef Cattle Grazing as Added Value and Its "Clouded Future?"

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Forest Grazing in the Blue and Wallowa Mountains:

- ✓ Less the $2 per AUM on public land
- ✓ Varies between $10 and $20 per AUM on private lands
- ✓ Need to apply appropriate stocking rate
- ✓ Stocking rate needs to be adjusted for topographical challenges

Examples:

OSU Hall Ranch 2000 acres 500 to 750 AUMs
- 2.6 to 4 acres per AUM

USDA Starkey Exp 22000 acres 2000 AUMs
- 11 acres per AUM

Listed Species:

Chinook Salmon

Bull Trout

Steelhead

Environmental Challenges/Opportunities

Laws that have Influenced Land Management:

- Multiple Use Act 1968:
  - Multiple Uses:
    - ***Domestic Livestock***
    - ***Timber & Mining***
    - ***Wildlife***
      - Big game, T&E Species, and Predators
    - ***Vegetation***
    - ***Recreation***
    - ***Aesthetic/Preservation Values***
- Federal Clean Water Act 1972
- Threatened & Endangered Species Act 1973

Beef Cattle Distribution on Western Rangelands

- Abiotic Factors:
  - Slope, Aspect, Soil Depth, Distance to Water, Distance to Fences, Shade/canopy, Temperature
  - ***Cook, 1966; Sneft et al., 1985; Howery et al., 1996; Bailey et al., 1996***

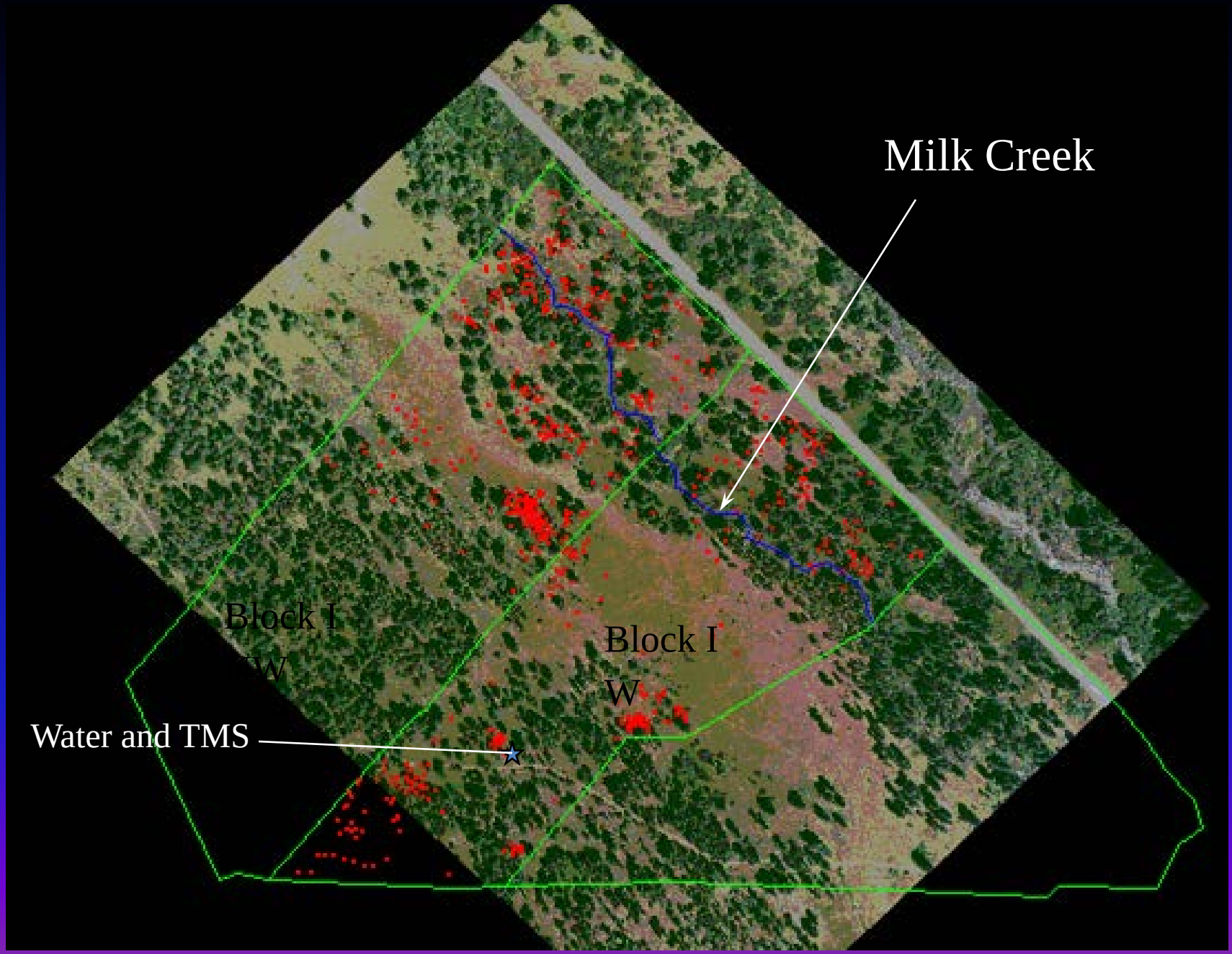
- Biotic Factors:
  - Grazing systems, water availability, strategic supplement placement,
  - Cow age, breed, type, production stage, etc..
  - ***Bailey et al., 2005; DelCurto et al., 2005, Parsons et al., 2003, Porath et al., 2002***

Season of Use:

DelCurto et al., 2002; WSASAS
Parsons et al., 2003; REM
DelCurto et al., 2013; WSASAS
DelCurto et al., 2013; WSASAS

Offstream Water and Salting as Management Strategies for Decreasing Grazing Pressure on Riparian Areas

Porath et al., 2002 JAS


Milk Creek
Block I
W
Block I
W
Water and TMS

Cow/Calf Performance

	W	NW
Cow wt. gain (lbs)	64.32[a]	38.88[b]
Calf ADG (lbs)	2.22[a]	1.91[b]
Cow condition score change	.18	.09

*values with different superscripts indicate significant differences $p<.05$

Water/Thermoregulation

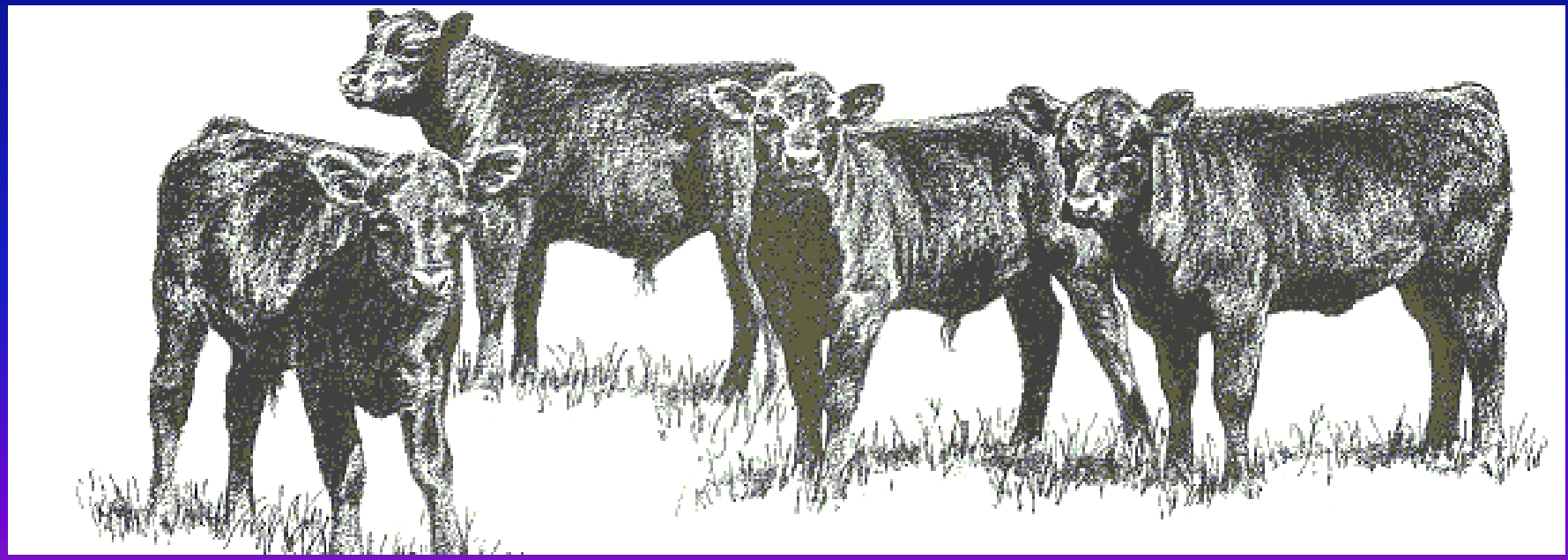
Grazing Times

Porath et al., 2002; Parsons et al., 2003; Morrison et al., 2004

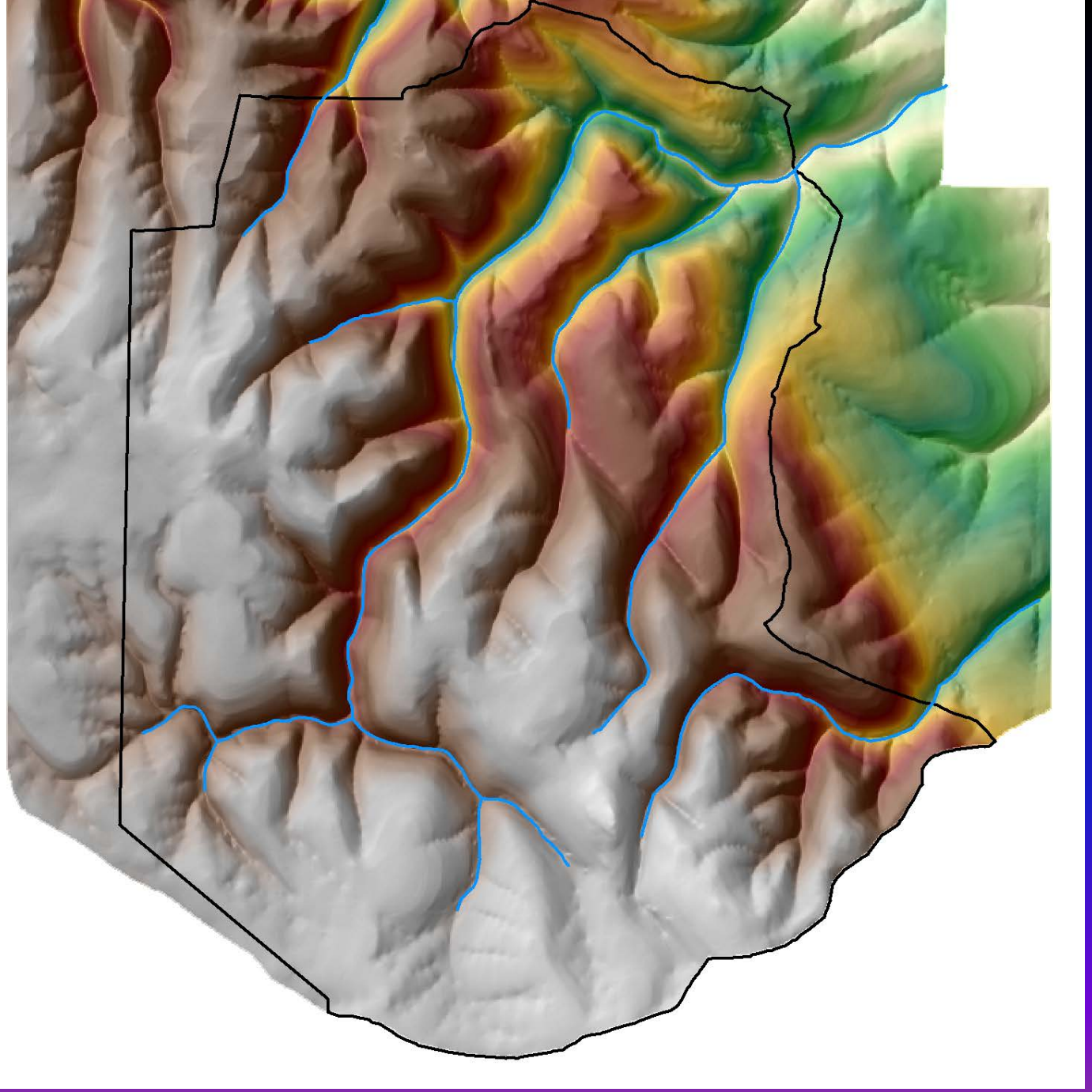
Other Projects:

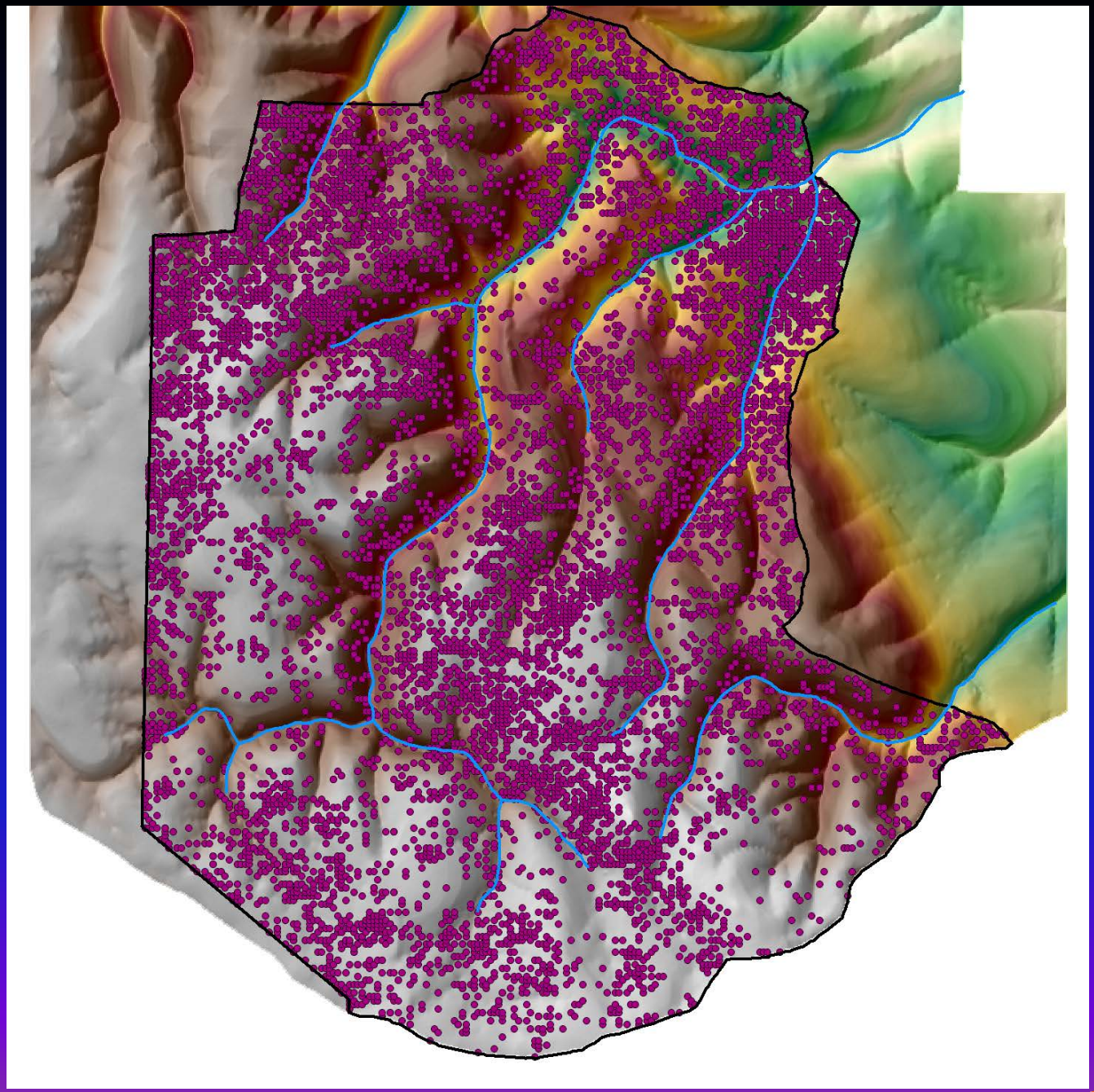
- *Influence of Cow Age on Distribution and Resource Utilization on Mixed Conifer Forested Rangelands*

  -Walburger et al., 2009; REM



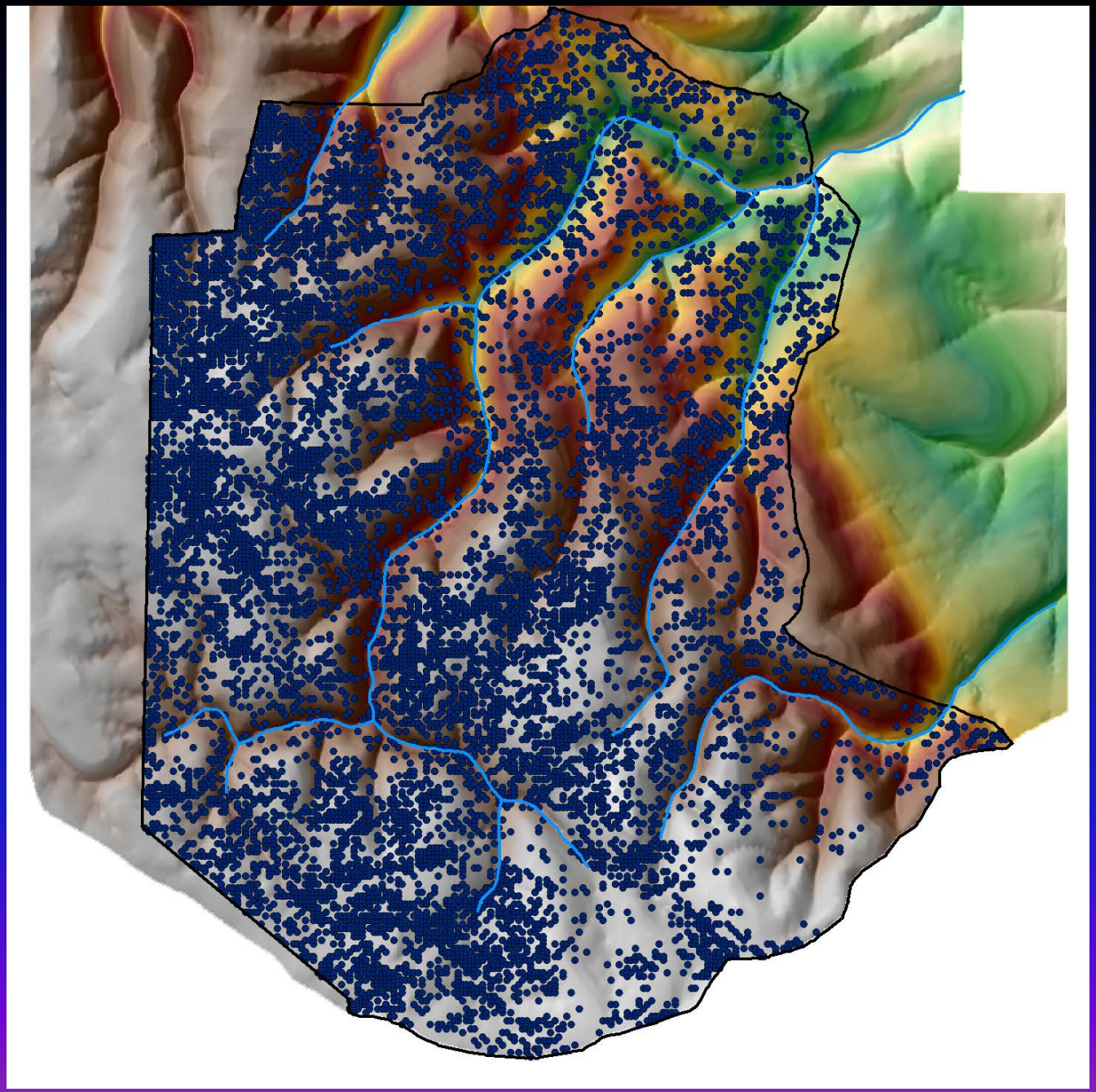
Bear Pasture
Starkey Exp.
Forest



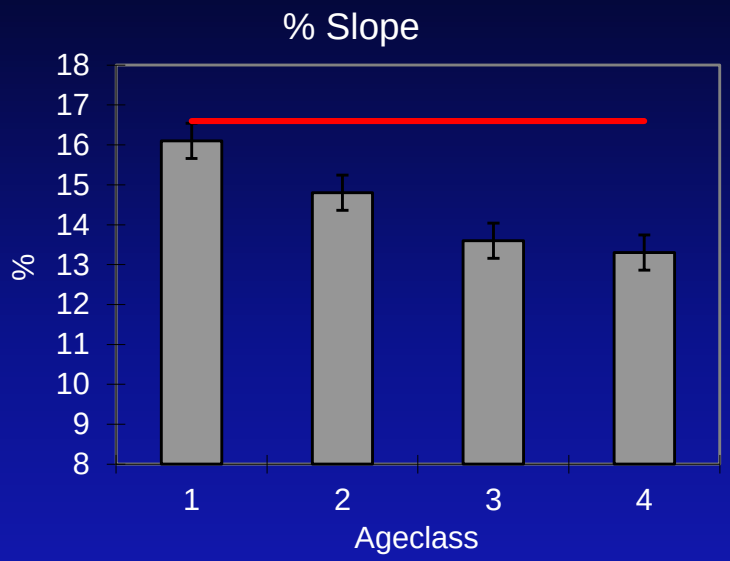


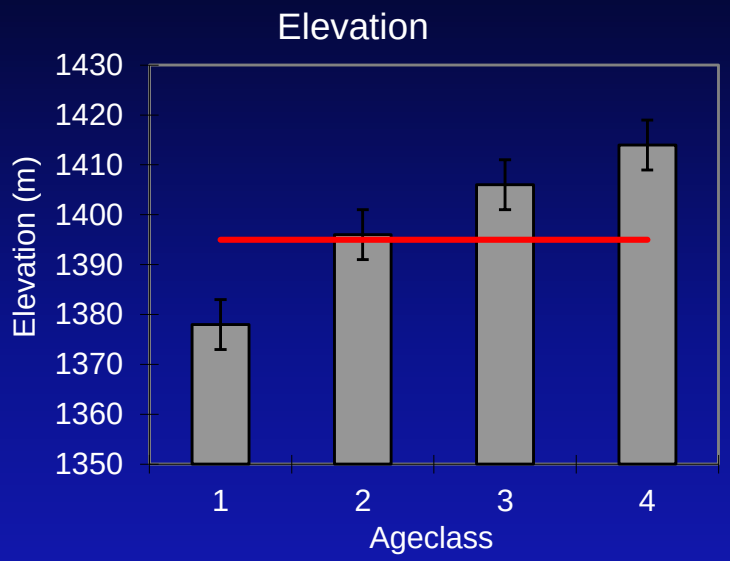
Age Class 1
2 – 3 year olds

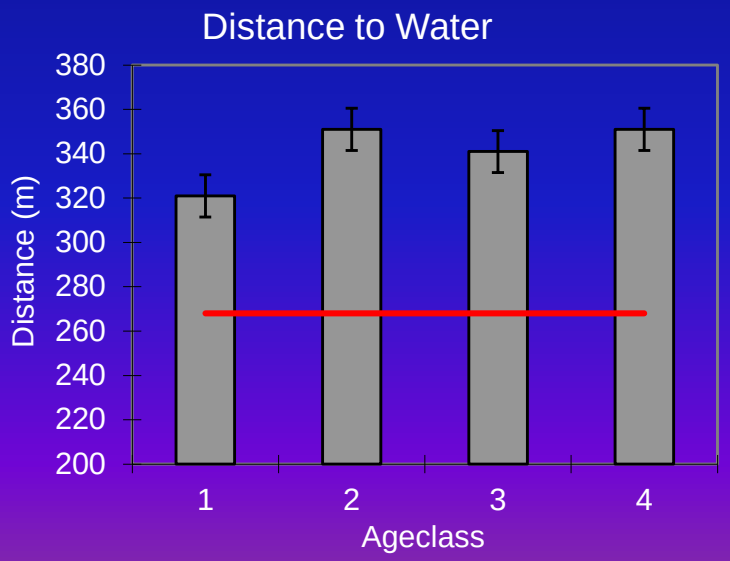
Age Class 4
≥ 8 year olds

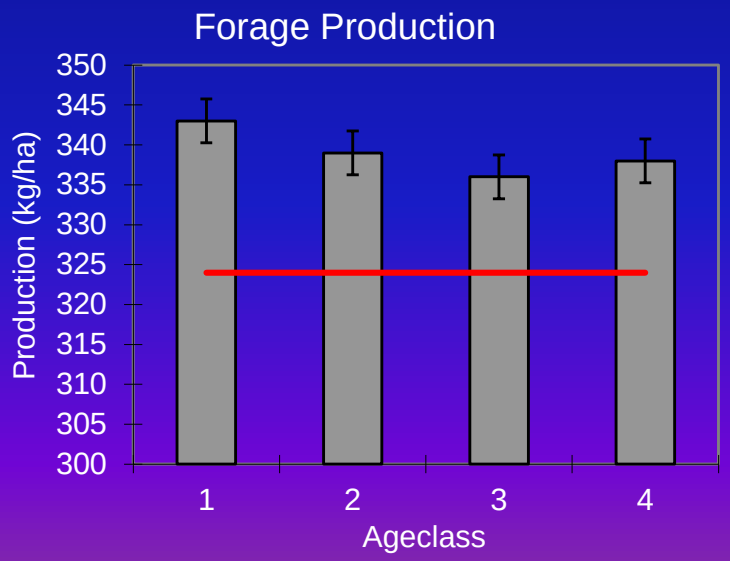


The effects of habitat on cattle distribution patterns





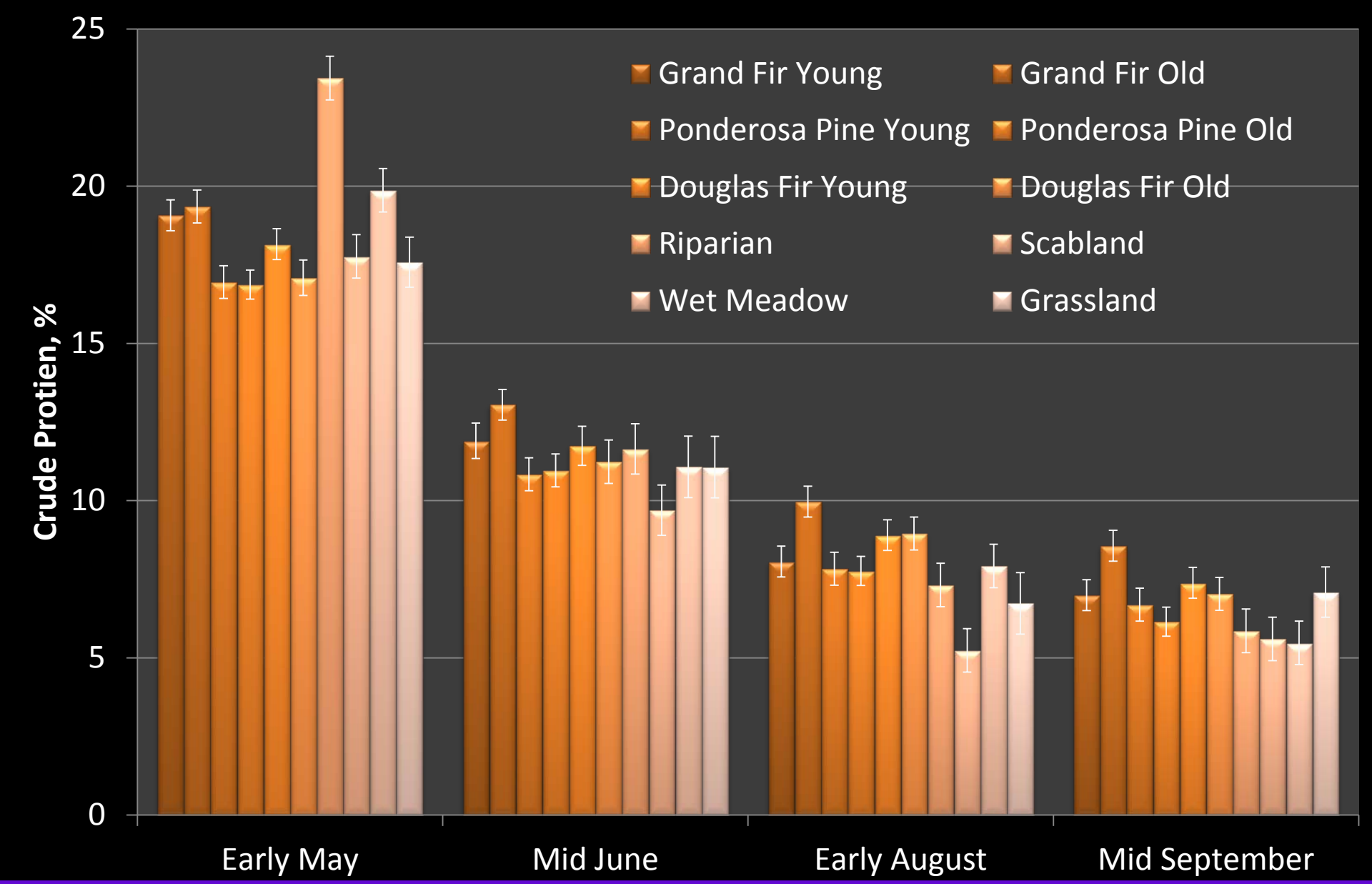


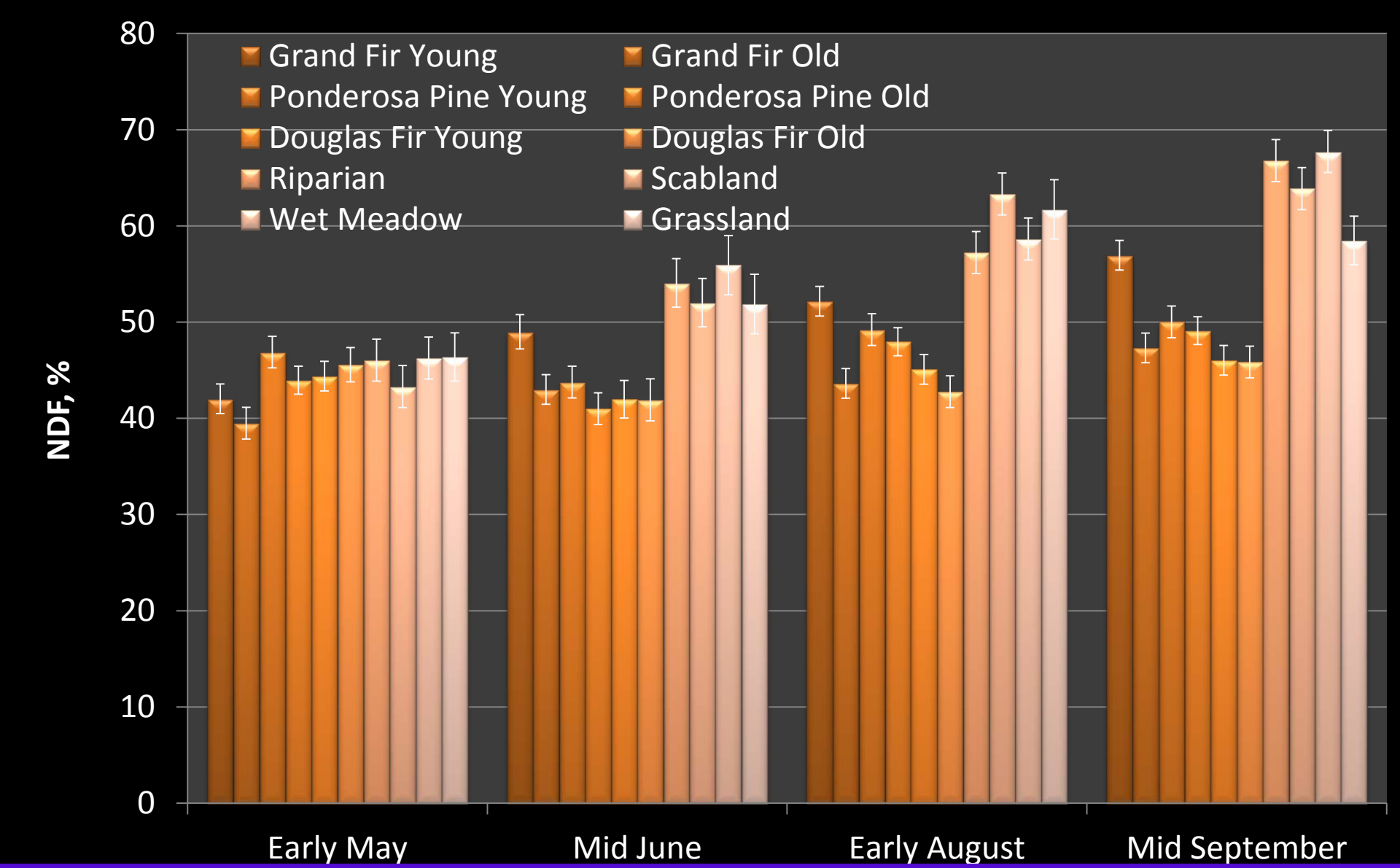


CHANGES IN FORAGE QUALITY OVER SEASON:

- Sled Springs Project
  - Three years of production estimates
  - Two years of diet quality
    - ***2500 individual plant species sampled***

      Early-May, mid-June, early-August, and mid-September


Crude Protien, %
25
20
15
10
5
0
Grand Fir Young
Grand Fir Old
Ponderosa Pine Young
Ponderosa Pine Old
Douglas Fir Young
Douglas Fir Old
Riparian
Scabland
Wet Meadow
Grassland
Early May
Mid June
Early August
Mid September


80
70
60
50
40
30
20
10
0
NDF, %
Grand Fir Young
Grand Fir Old
Ponderosa Pine Young
Ponderosa Pine Old
Douglas Fir Young
Douglas Fir Old
Riparian
Scabland
Wet Meadow
Grassland
Early May
Mid June
Early August
Mid September

SOLUTIONS TO LATE SEASON DISTRIBUTION PROBLEMS:

Management:

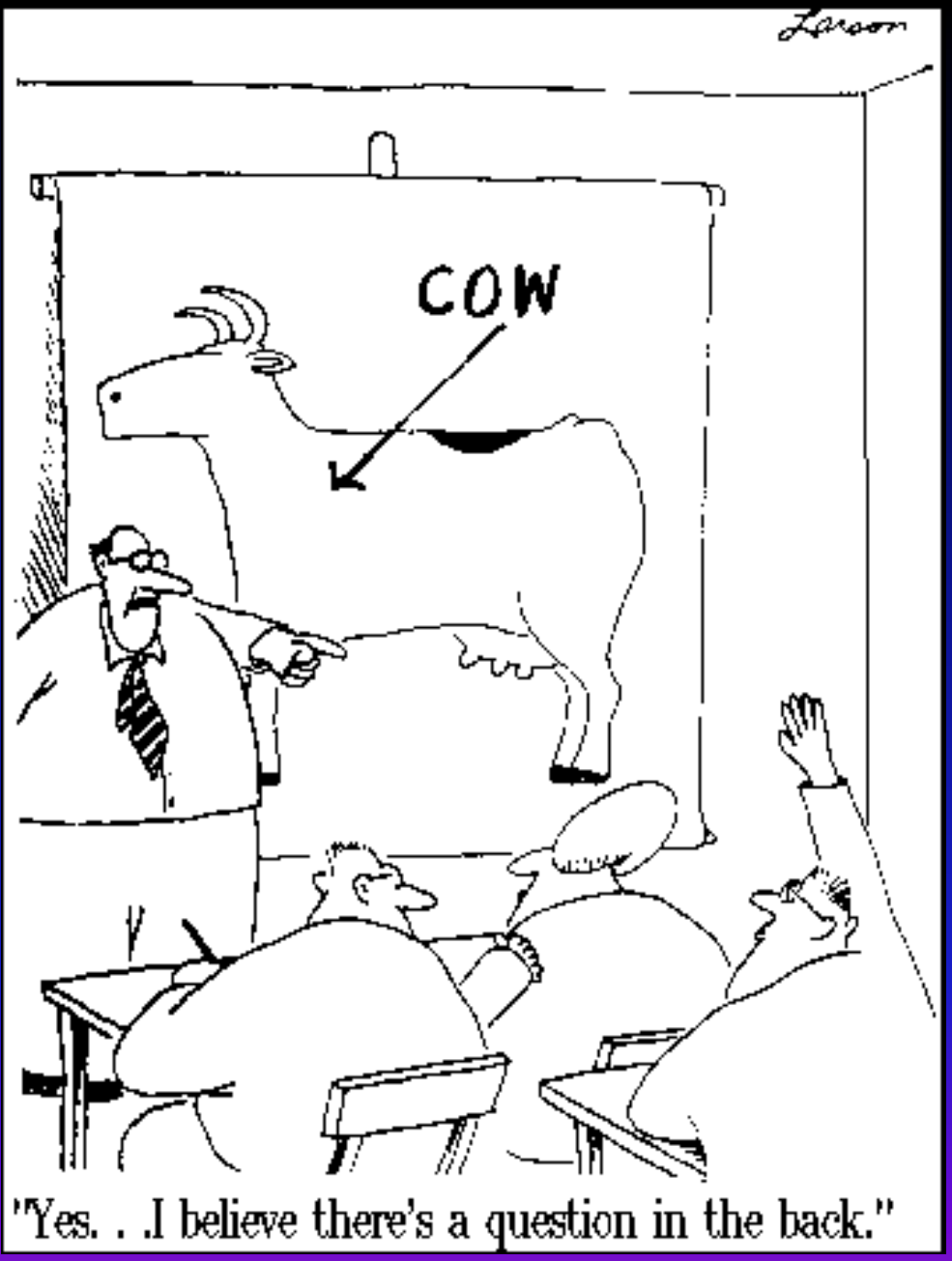
- Offstream Water
- Supplementation
- Vegetation keys
- Cow Factors:
  - Cow age, breed
  - Genetic correlation to ranging ability

OBSERVATIONS:

- **"What's Good for the Cows is good for the Fish" ..**
  Jimmy Eisner
- *It is easy to develop "win-win" scenarios*

Final Thoughts:

- Grazing can be “sustainable.”
- Land Managers have to focus on distribution and vegetation use patterns.
- Ranchers and Land Managers have to be committed to sustainable grazing practices.
- Researchers have to identify & quantify management tools



Thank You!

Questions?