



# Managing Grazing in Riparian Areas

Great Plains Riparian Forest Summit

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Sioux Falls, SD

Clayton B. Marlow

Animal and Range Sciences Department

Montana State University-Bozeman

# Most Widespread Impact in North America





# Agent of Evil



# Grazing – 2<sup>nd</sup> Order Process





# Short-term Negative Affects

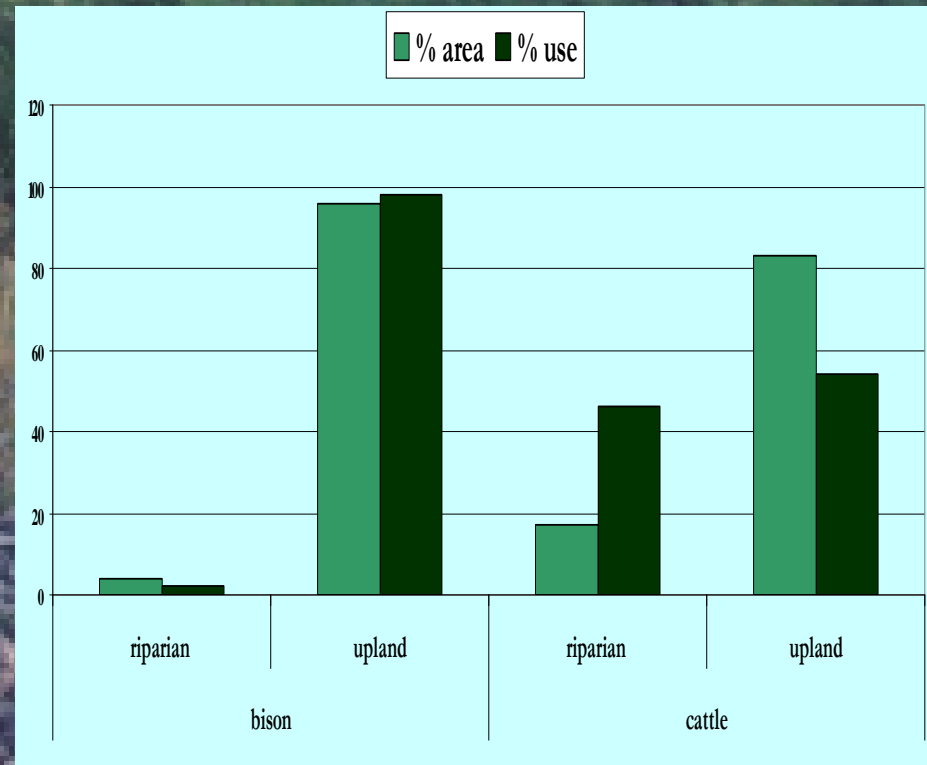




# Recovery with time

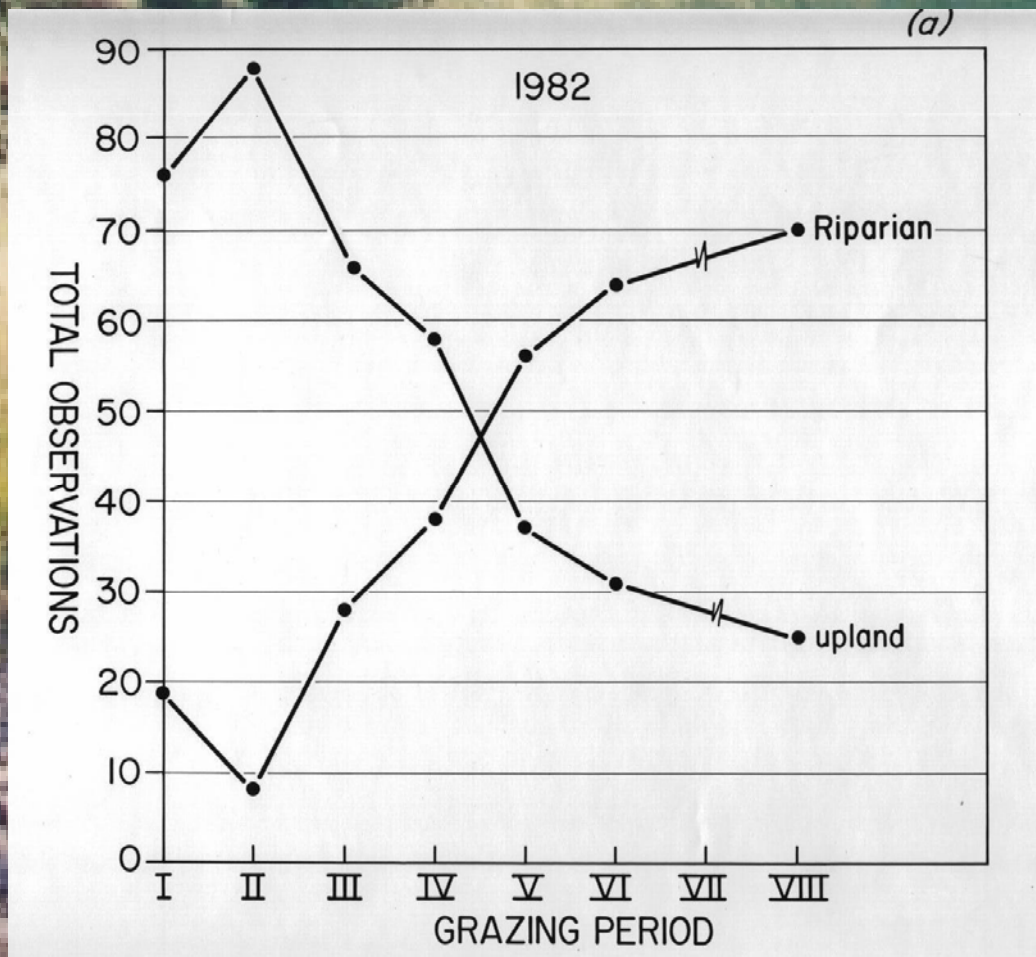


# Why Riparian Degradation?





# Cattle Preference





# Grazing Management



- The art and science of balancing the needs of livestock with the capacity of the ecosystem to recover from each grazing event

# Managing Grazing in Riparian Areas



- Goals
  - Enhance herbaceous and woody species recovery
  - Limit bank trampling
  - Promote sediment and nutrient entrapment

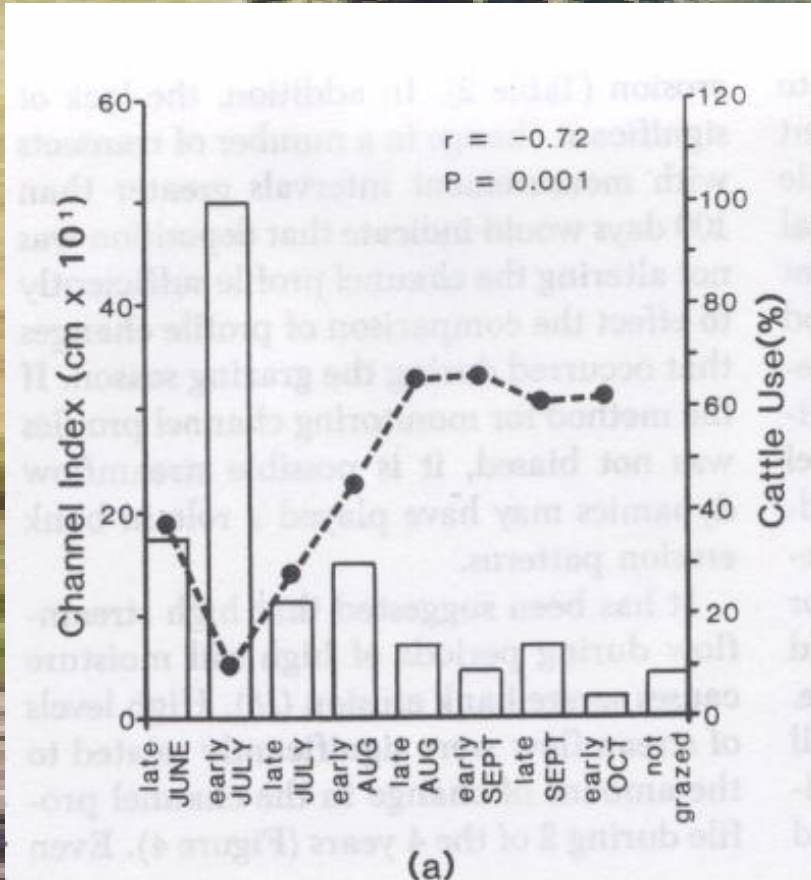


# Management strategies

Location	Where	When	How Long	How Many
Uplands	Goal: improve distribution Tool: supplements, fencing	Goal: enhance recovery Tool: defer to seed set	Goal: limit use tool: prescribed level	Goal: optimize performance Tool: stocking rate
Riparian	Goal: limit concentration Tool: off-site water, fencing	Goal: limit trampling Tool: defer to late runoff	Goal: avoid threshold Tool: greenline stubble height	Goal: optimize performance Tool: < 20 days

# Stream Bank Response

- Trampling damage greatest during runoff
- Lowest in late summer or fall





# Grazing Schedule for bank protection

Apr

May

Jun

July

Aug

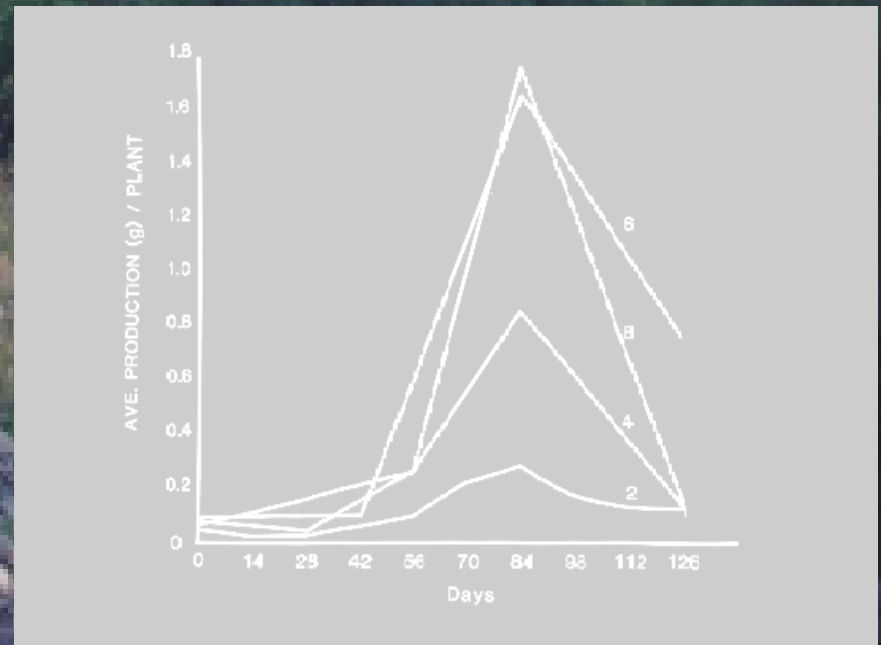
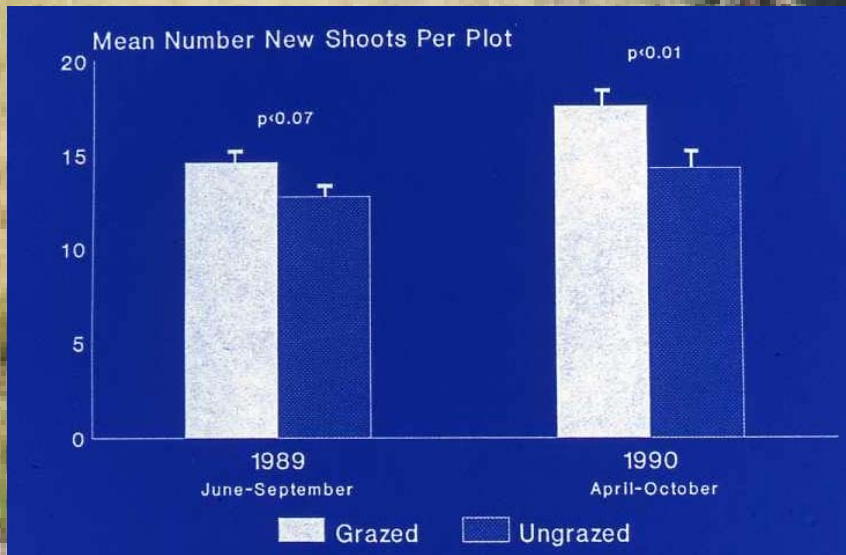
Sep

Oct

**Defer Grazing**

**Graze**

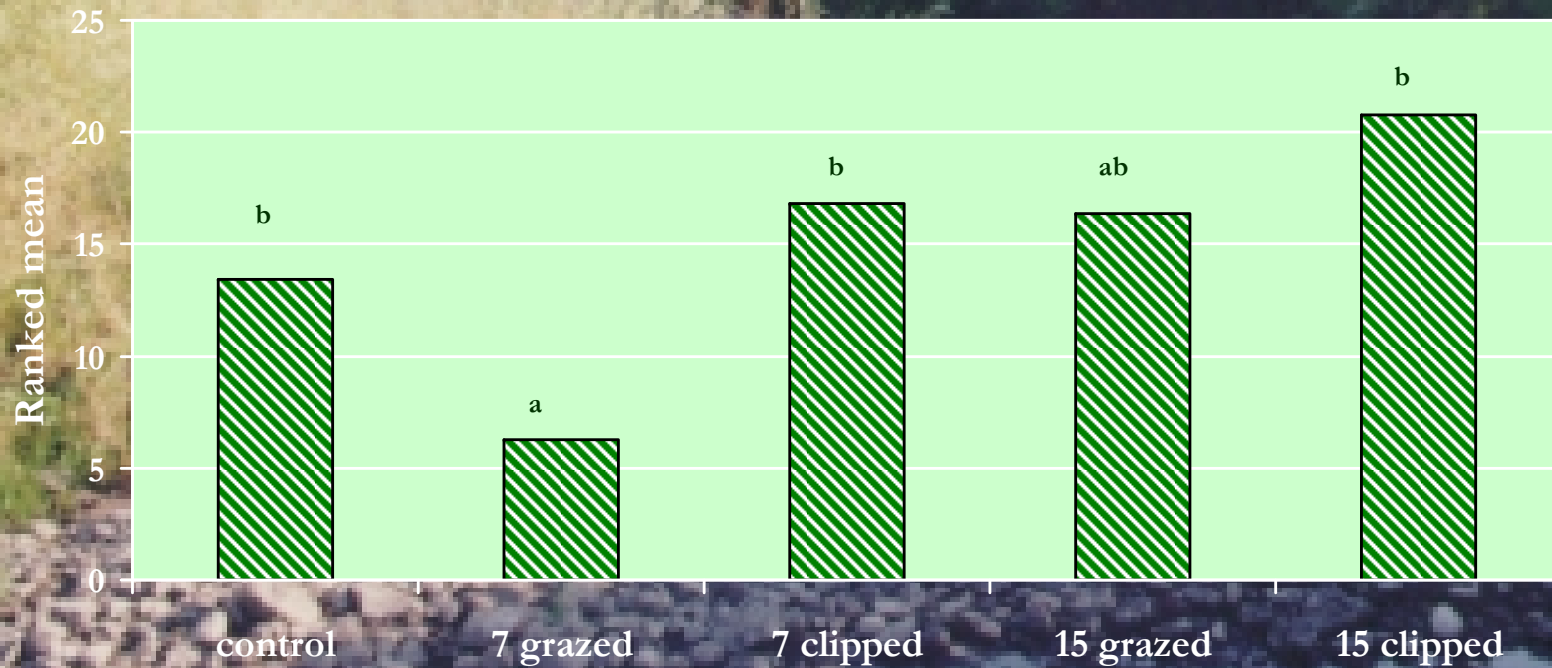
# Sedge Response





# Upland Sediment Production

October 1999



# Grazing Schedule to Promote Herbaceous Recovery

June

July

Aug

Sept

**Graze**

**Rest**

**Graze**

< 20 days

40 - 60 days

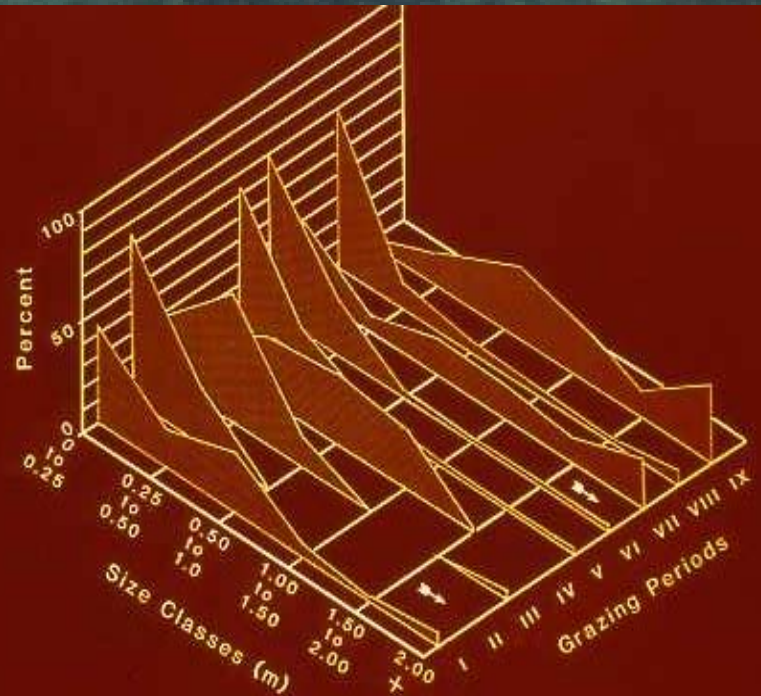
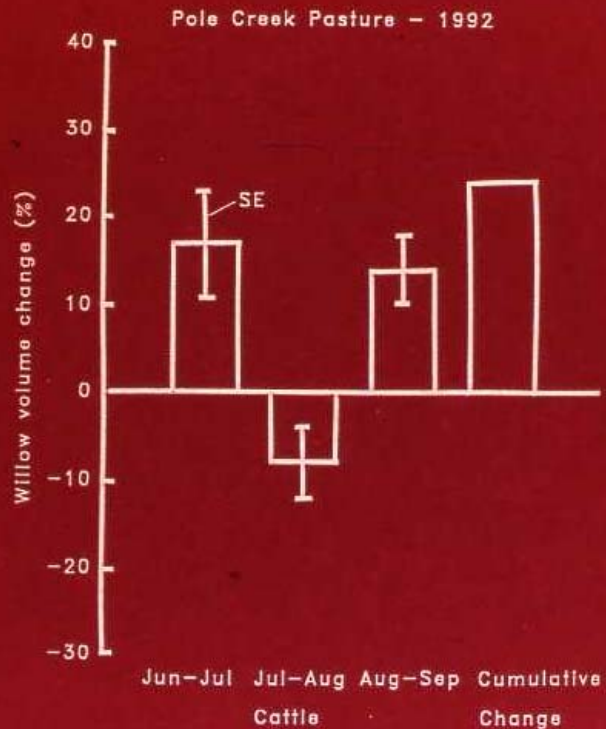
20 - 30 days

(Protects banks)

(Stubble height)



# Willow Response



# Grazing Schedule for Aspen and Cottonwood Regeneration

Apr

May

Jun

July

Aug

Sep

Oct

**Defer Grazing**

**Graze**



# Dormant Season Grazing (Tough Love)



- Feed cattle more than 300m from riparian forest edge

# Agent of Positive Change



- Grazing is a natural process
- Manage riparian areas for tons of forage/ac vs 100's of lbs/ac in uplands
- Low cost means of conserving habitat



# Most Likely Use of Farmlands



- Species Richness?
- Water Quality?
- Runoff?

Questions?

