



Managing Grazing in Riparian Areas

Great Plains Riparian Forest Summit
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Sioux Falls, SD

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Most Widespread Impact in North America



Agent of Evil



Grazing – 2nd Order Process



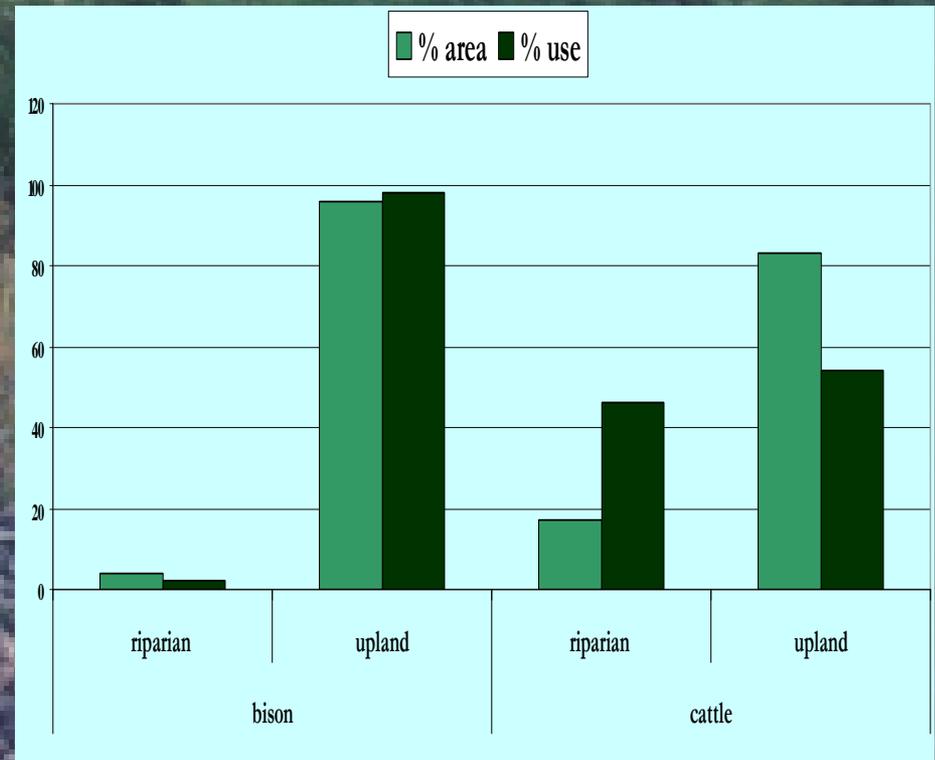
Short-term Negative Affects



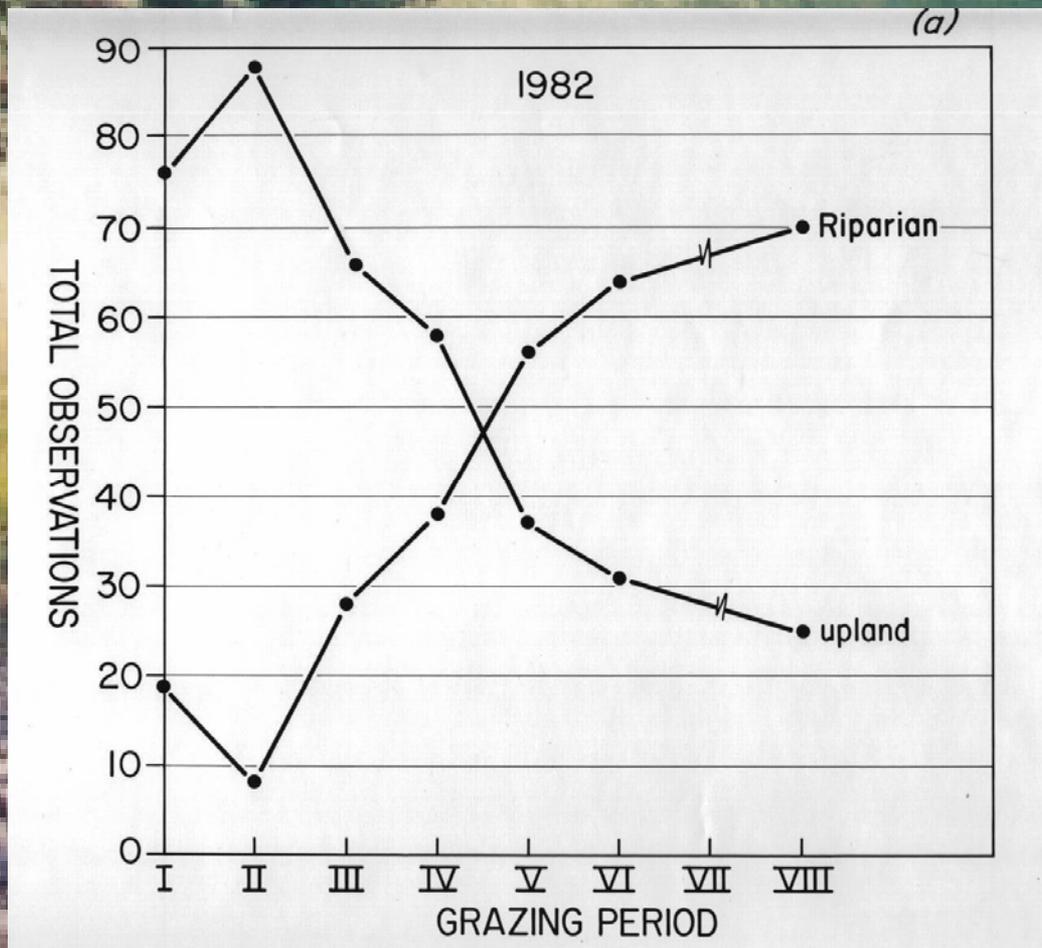
Recovery with time



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



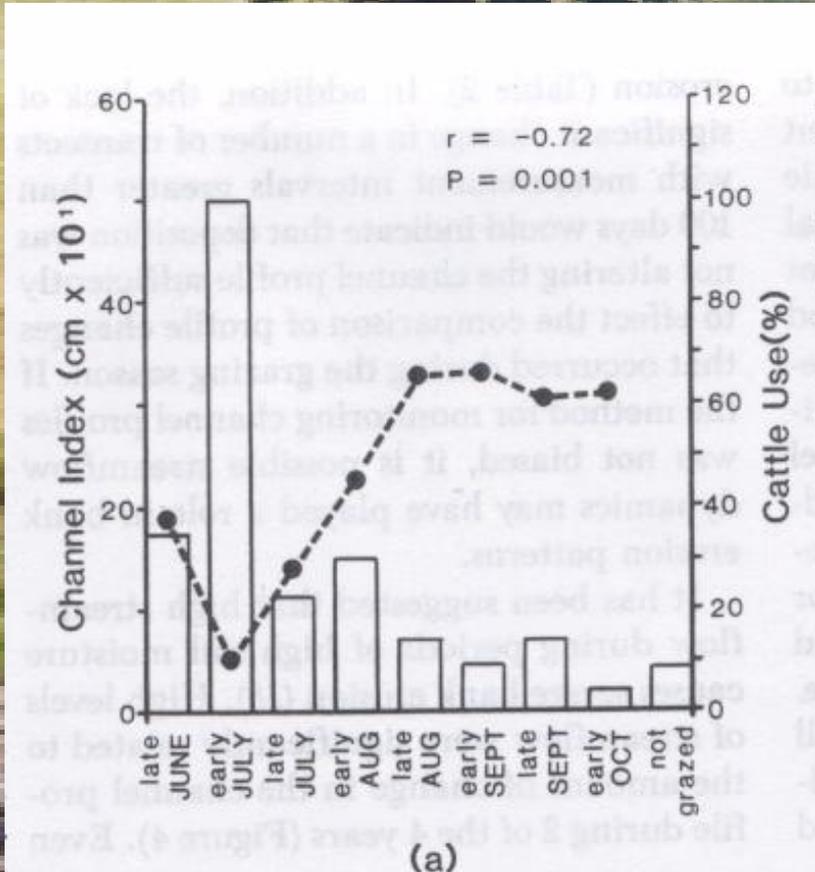
- Goals
 - Enhance herbaceous and woody species recovery
 - Limit bank trampling
 - Promote sediment and nutrient entrapment

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

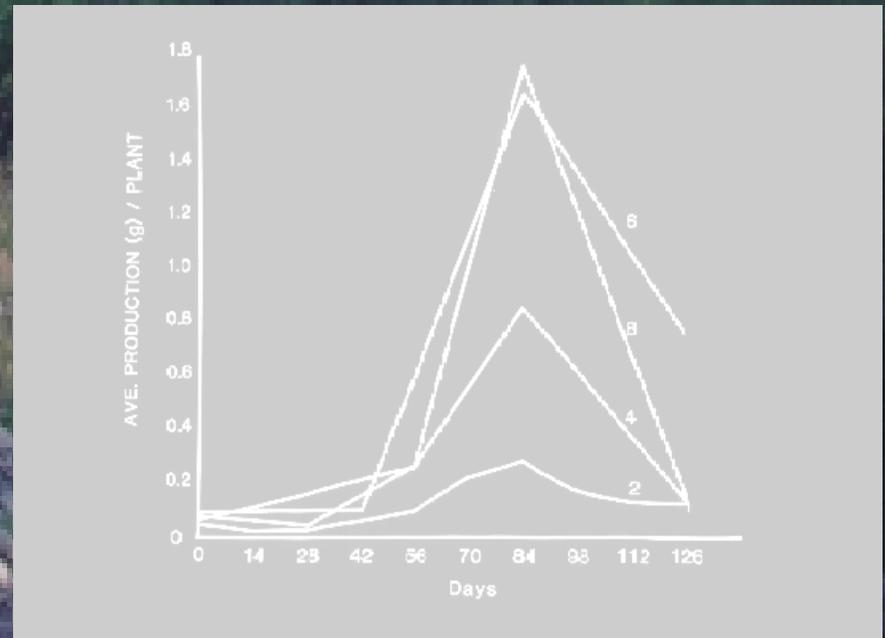
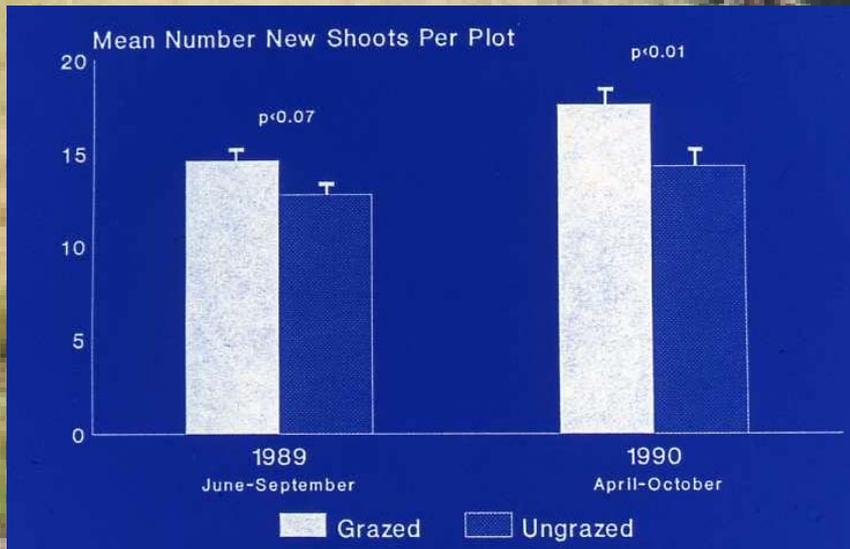
Sep

Oct

Defer Grazing

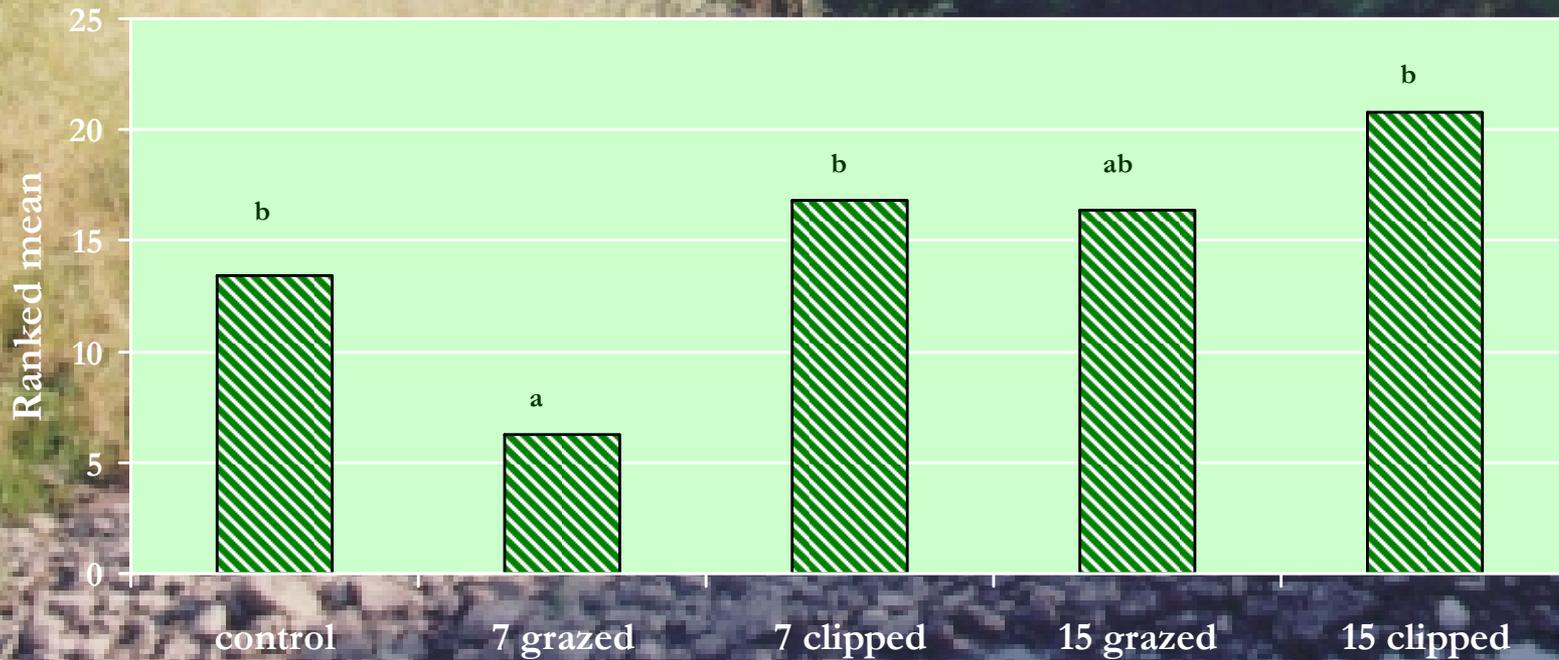
Graze

Sedge Response



Upland Sediment Production

October 1999



Grazing Schedule to Promote Herbaceous Recovery

June

July

Aug

Sept

Graze

Rest

Graze

< 20 days

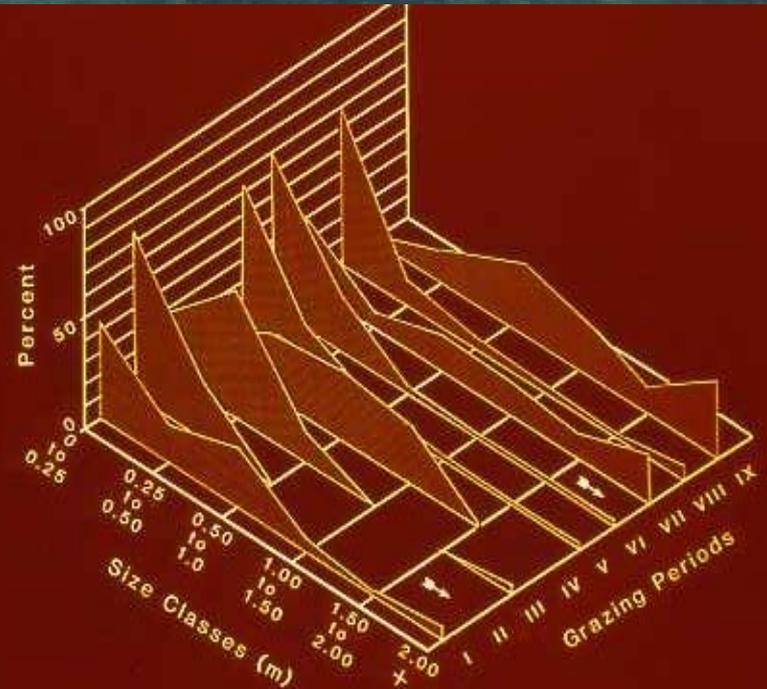
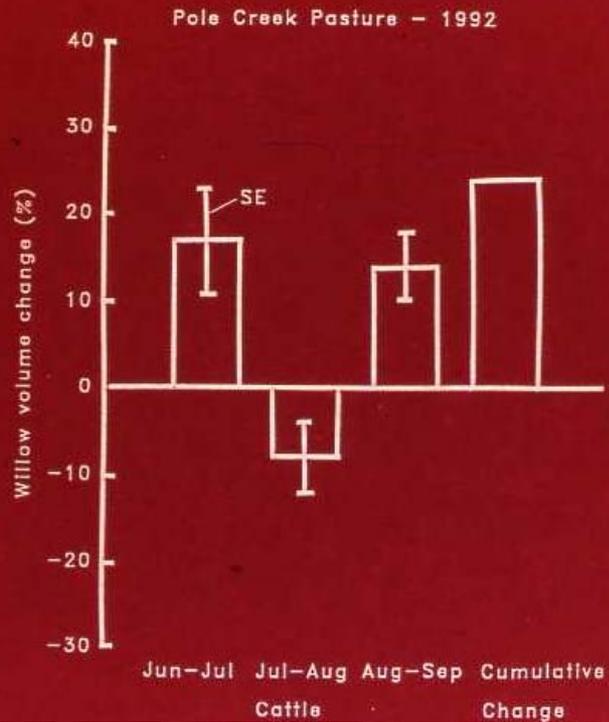
40 - 60 days

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?

