

# KEY GRAZING CONSIDERATIONS ON RIPARIAN AREAS

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# Recovery Rates

## Non-Functional



# *Lower Dixie Creek 1989*



# Lower Dixie Creek 1994



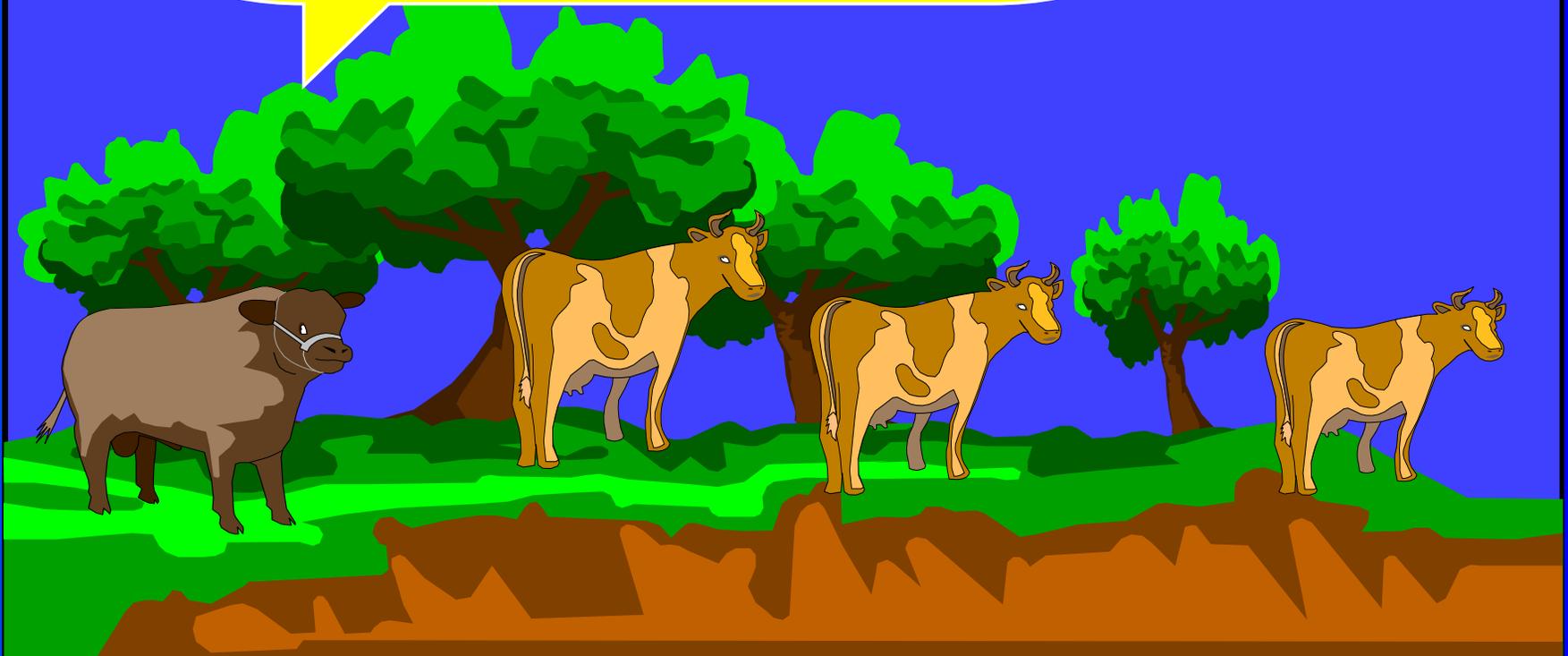
# *Lower Dixie Creek 1989*



# *Lower Dixie Creek 1995*



OK Mabel, you hit the woodies,  
Betty trample the streambanks,  
and Ethel bomb the water!



# *Lower Dixie Creek*



# ***Bear Creek Exclusion***

## ***1977-1998***



# *Bear Creek 1977-1998*



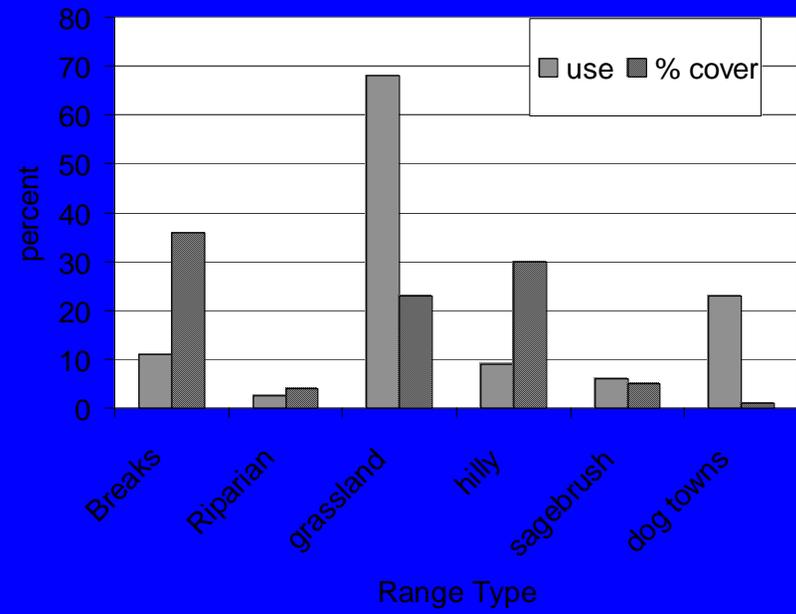
# ***Bear Creek 1977***



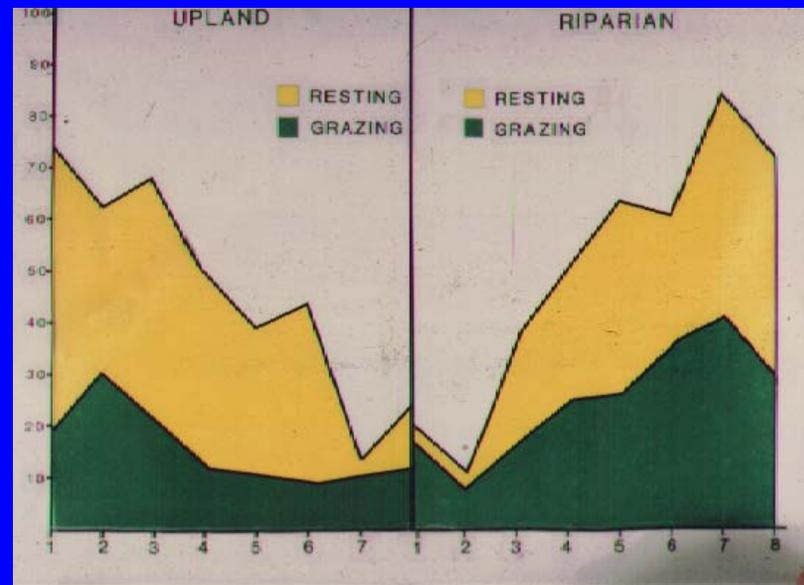
# Bear Creek



# Bison



# Cattle



# Grazing “systems” for riparian areas must generally

- Limit grazing intensity and season of use to provide sufficient rest to encourage plant vigor, regrowth, and energy storage;
- Ensure sufficient vegetation is left during periods of high flow to protect streambanks, dissipate energy, and trap sediments, and;
- Control the timing of grazing to prevent damage to streambanks when they are most vulnerable to trampling.

## Other factors to consider when designing a grazing strategy include:

- Stocking rates & utilization levels
- Type(s) of stream
- Post-grazing regrowth and residual cover (especially prior to high flows)
- Duration of treatments by season (length of time in a pasture regardless of use)
- Topography of the ranch and riparian areas
- Economic feasibility and practicality
- Wildlife requirements

# ***Stocking Rates***









**Management Stress**

Roads,  
Grazing,  
Logging, etc.

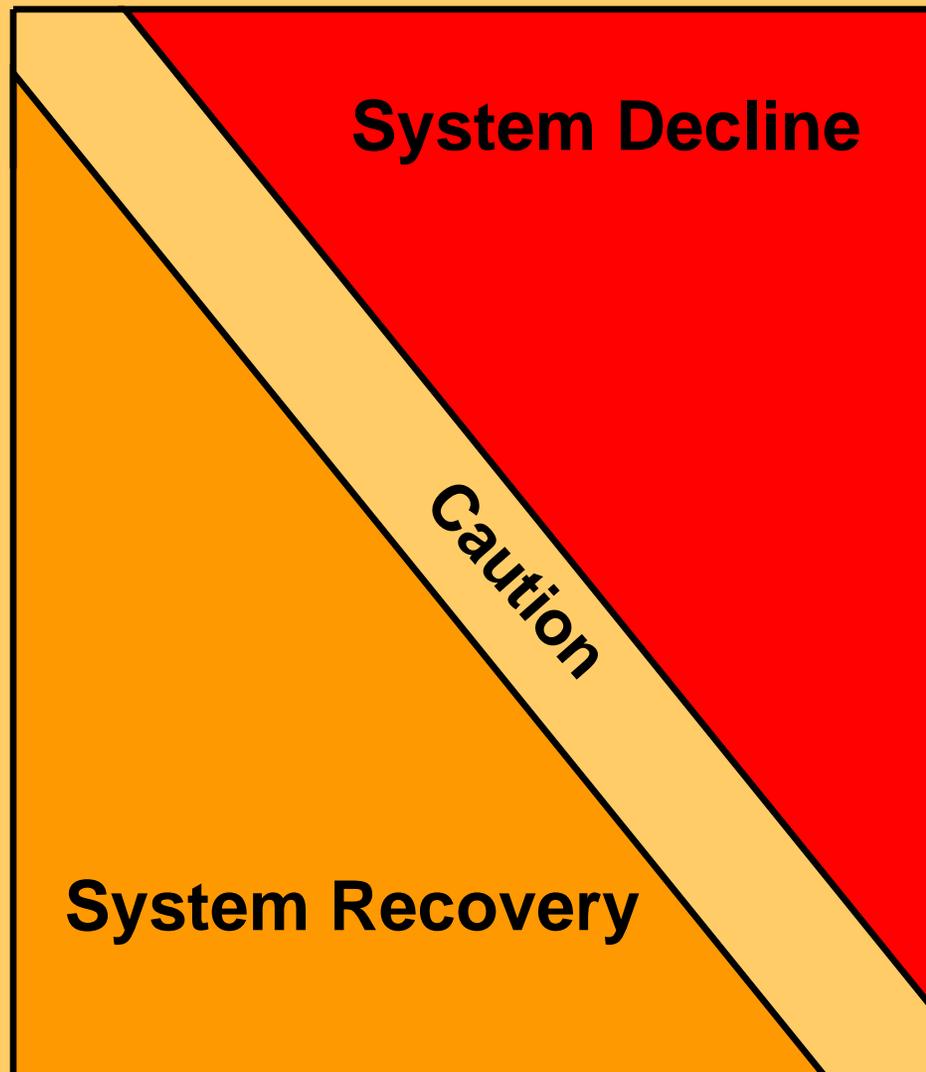
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**Natural Stress**

Soils, Gradient, Flow, Climate, etc.





# *Fitzhugh Creek*



# Fitzhugh Creek



# Average Days Duration of Hot Season (7/1 - 9/15) Grazing Treatments

Successful Systems	12.5 days	$\pm 10.5$
Unsuccessful Systems	33.4 days	$\pm 10.4$

# Average Days Duration of Grazing Treatments

Successful Systems

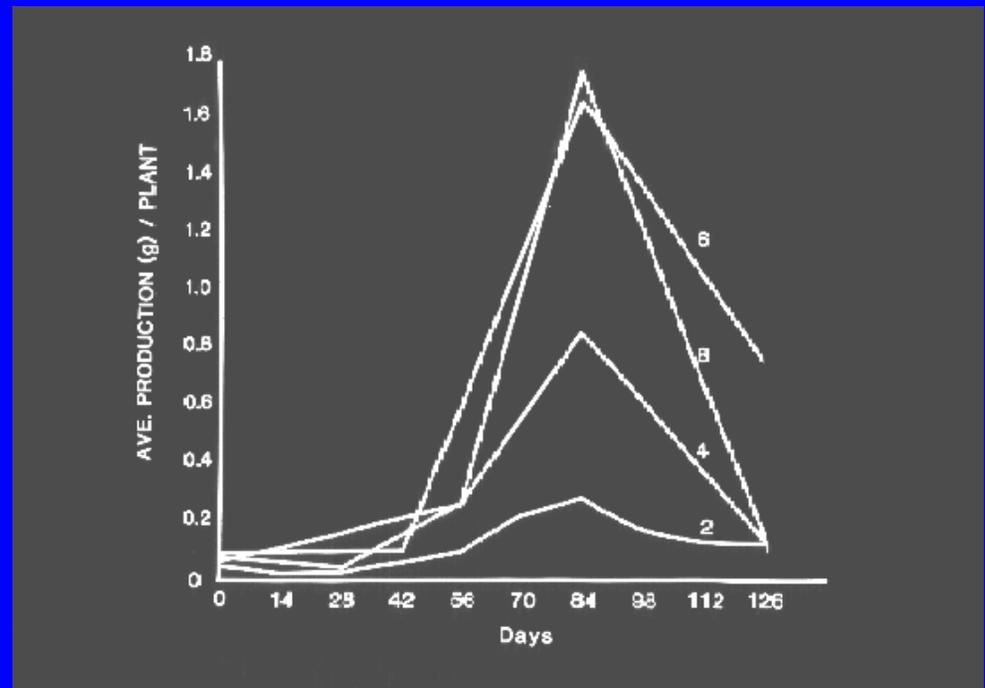
28.2 days  $\pm 3.7$

Unsuccessful Systems

59.3 days  $\pm 8.1$

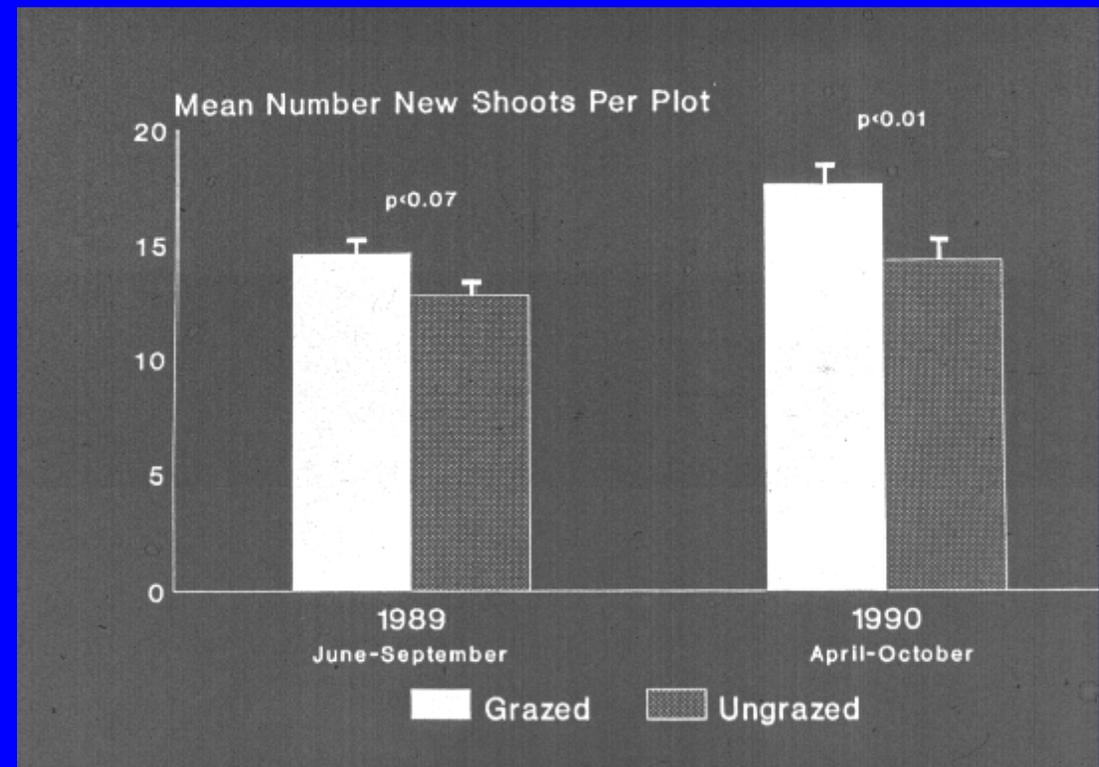
# Riparian Forage Response

- Cattle, elk, bison regraze same plant every 7-9 days
- Plant reserves adequate for 4-7 days
- After 7-9 days PSN must “kick-in”



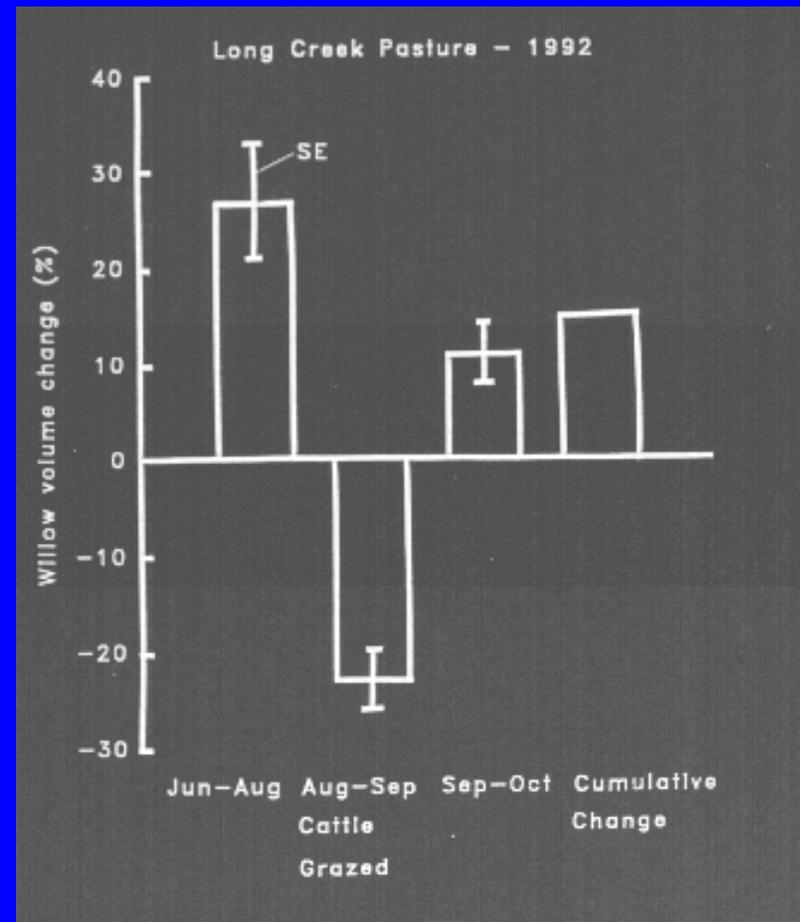
# Riparian Forage Response

- Grazed 30-40%
- (8hd/ac; 4-6 days)
- Rested for 60 days
- Remove another 40%



# Riparian Forage Response

- Grazing season shifted
  - June to November
  - July to Oct
  - 20-25 day grazing period
- Recovery possible without killing frost
- Positive response
- Big game and beaver



## Number of reaches (polygons) used during each grazing length category

<u>Length of Grazing Period</u>	<u>No. of Reaches</u>
No more than 8 days	12
Between 9 and 21 days	8
Between 22 and 35 days	13
Between 36 and 45 days	14
More than 45 days (late Apr-late Dec)	13
More than 45 days (late Dec-late Apr)	11

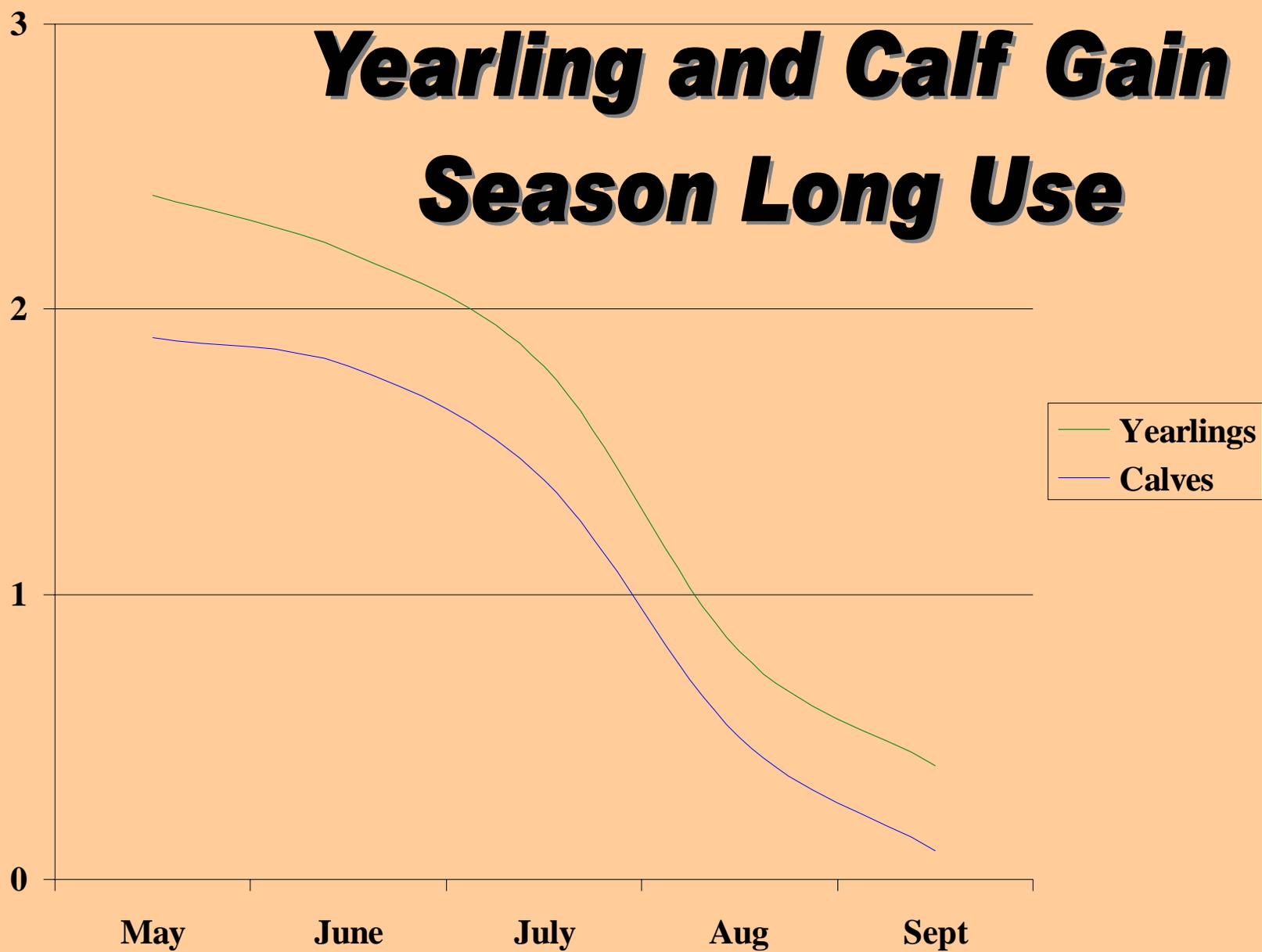
# ***Beaver Creek Gentle Terrain***



# ***Trout Creek Mountains***



# ***Yearling and Calf Gain Season Long Use***



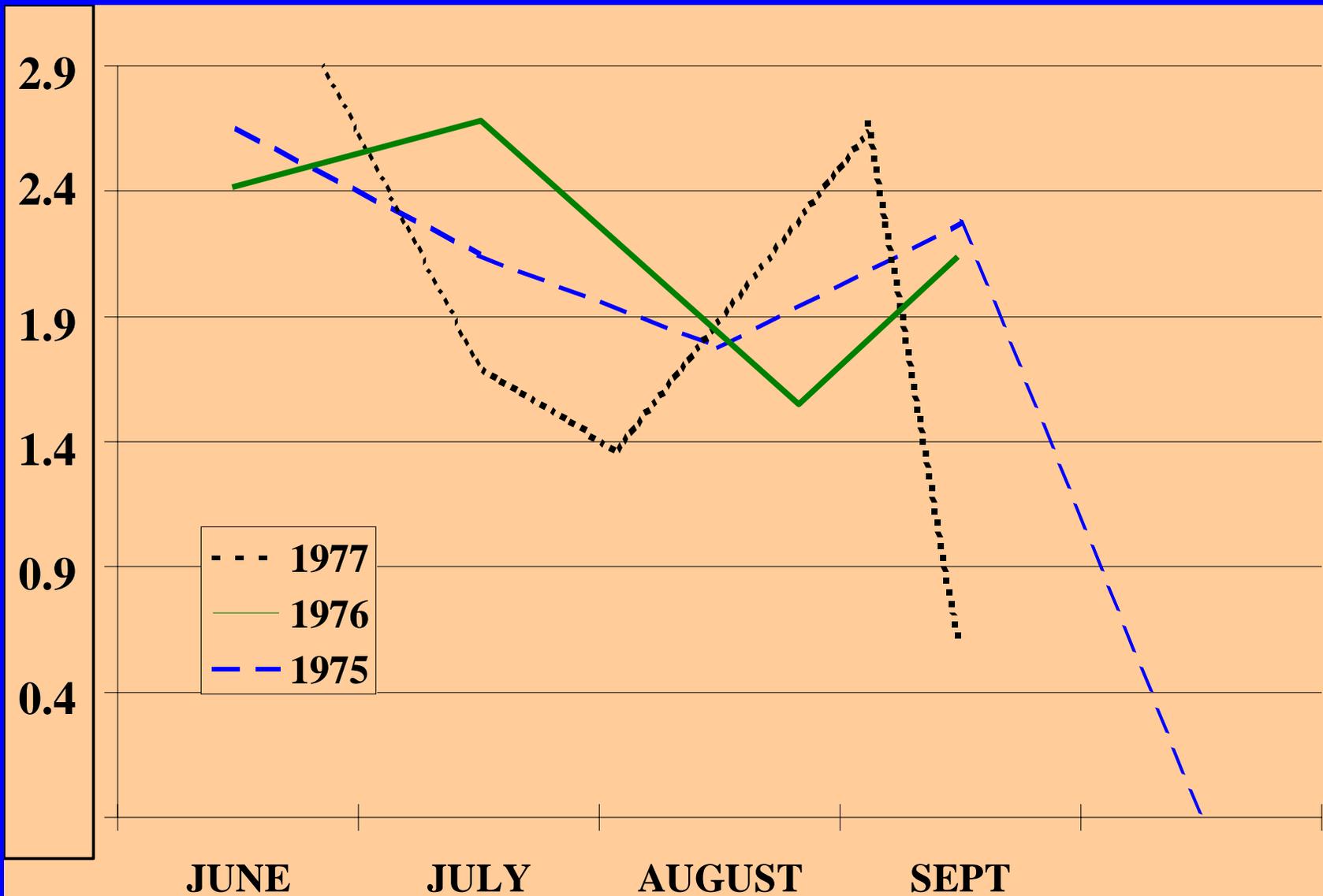


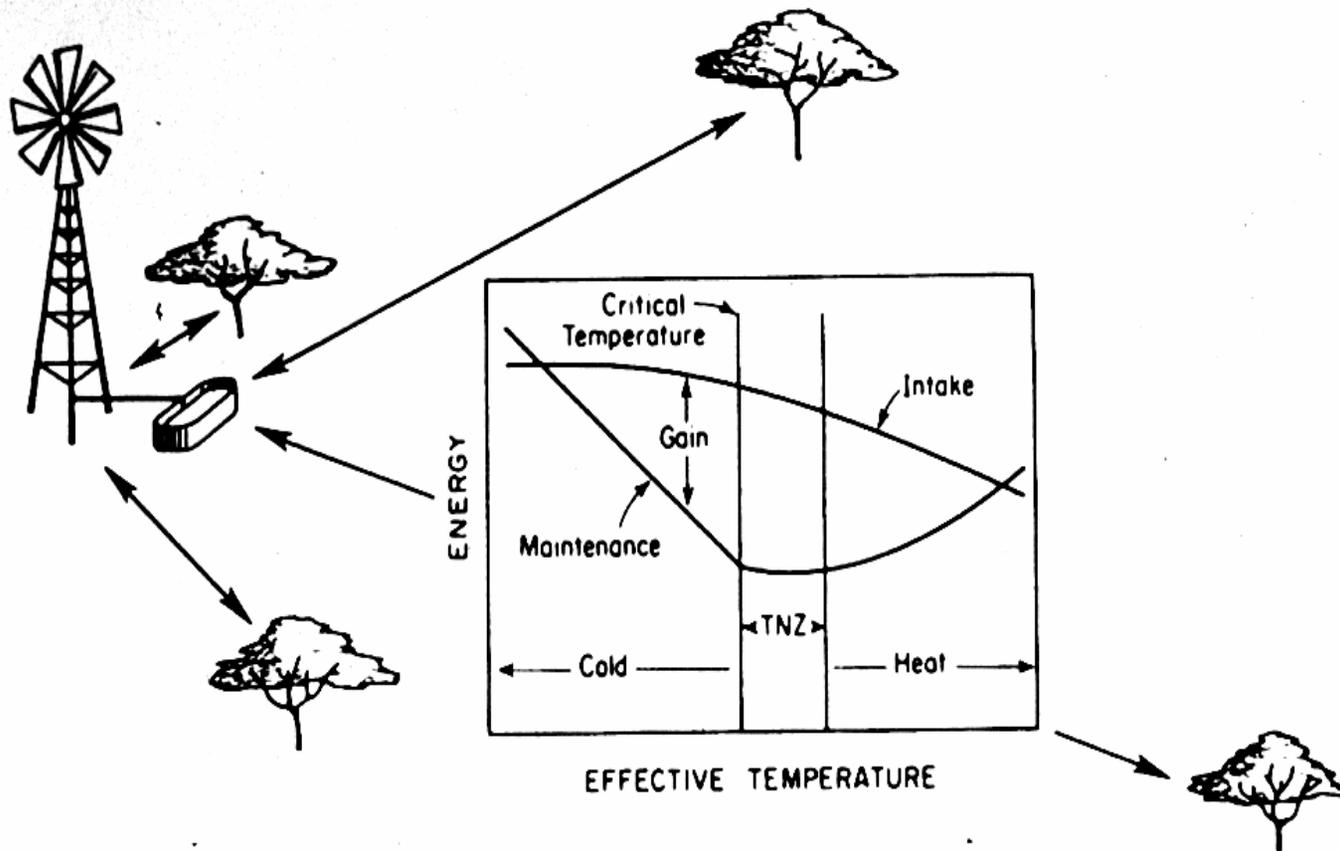
Figure 5. Average Daily Gain of Calves for the Summer Grazing Season

# Pasture Design

- Include as much of a stream as possible.
  - Small stream sections and small riparian areas (springs, seeps) in large pastures cannot be effectively managed.
  - Exclusion fencing is often most practical and economical for small areas.

# Pasture Design

- Center streams in pasture where possible.
- Don't use streams as a division line if possible (if so fence one or both sides with water gaps to stream if needed).
- Have multiple access to pastures that can be rotated to avoid habitual use patterns.
- Don't plan pasture access along streams if possible (make them find the stream after turn in).



**Figure 3.5. Interactive effects of water and thermal foci as they affect energy maintenance and intake of ruminant animals.**