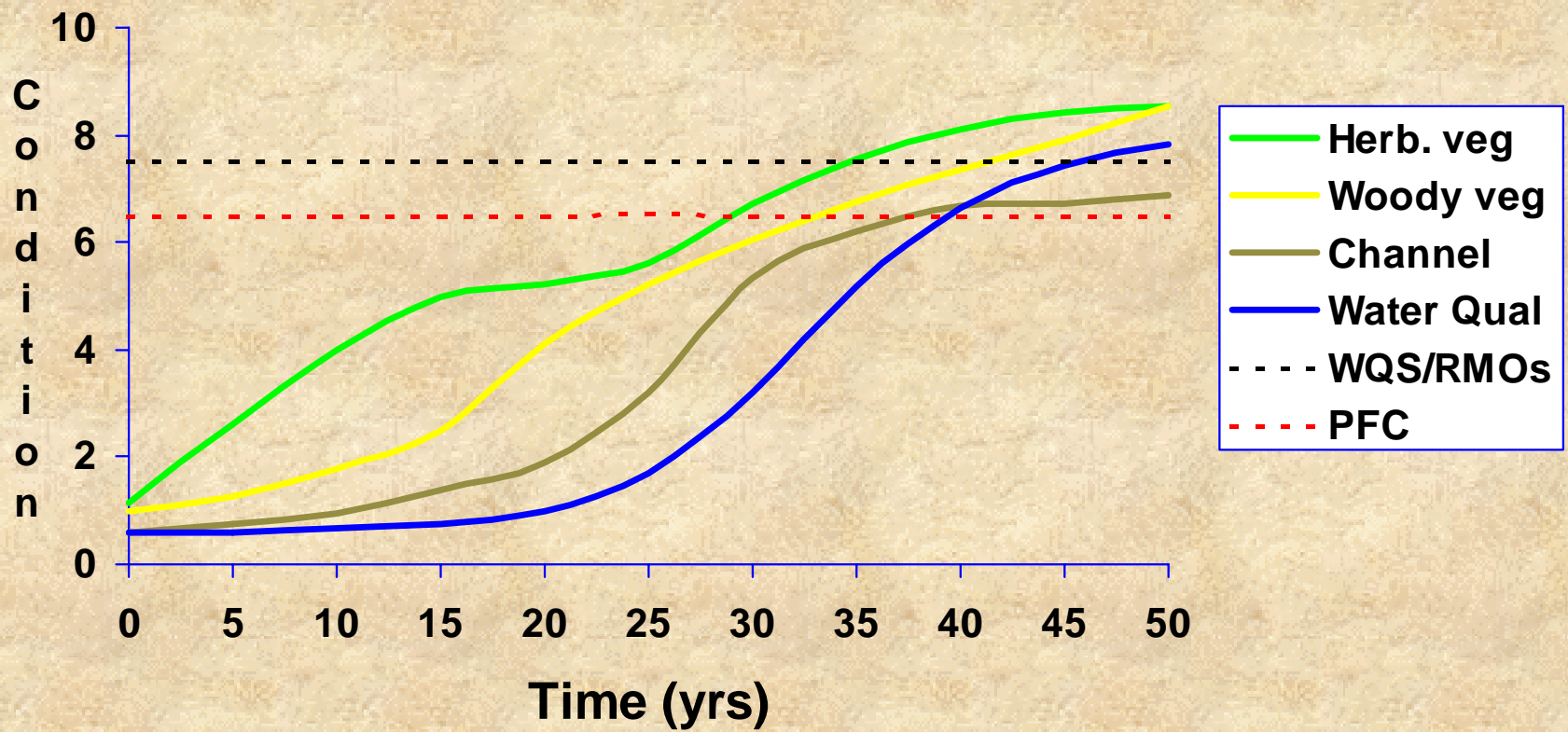


KEY GRAZING CONSIDERATIONS ON RIPARIAN AREAS

Recovery Rates

Non-Functional



Lower Dixie Creek 1989



Lower Dixie Creek 1994



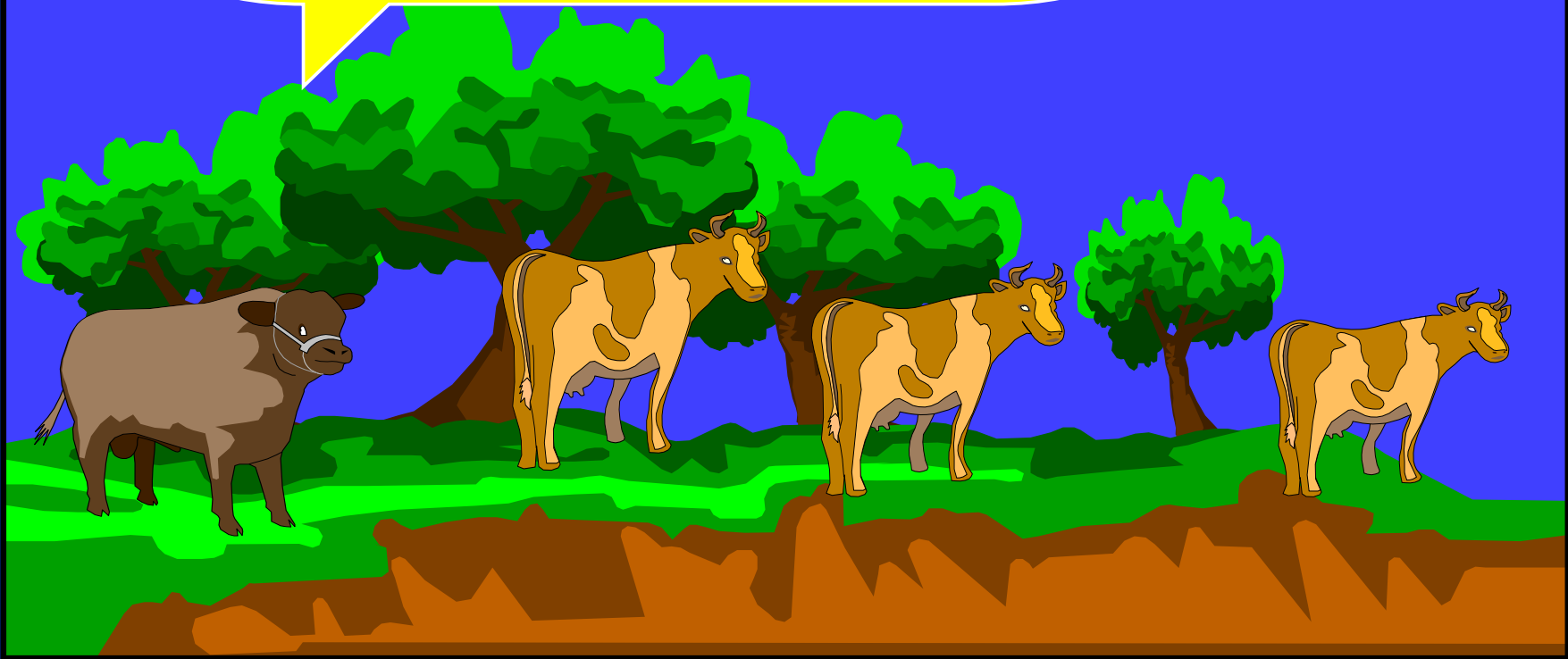
Lower Dixie Creek 1989



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



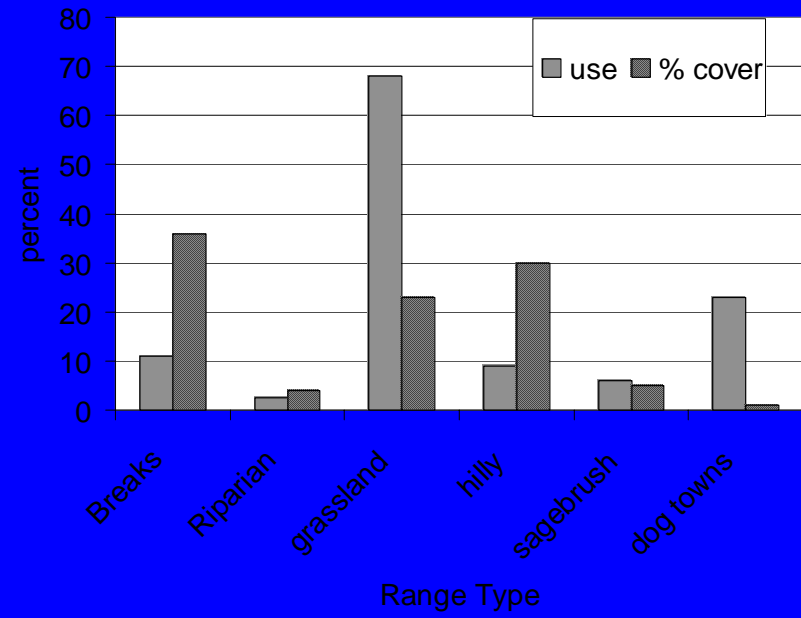
Bear Creek 1977



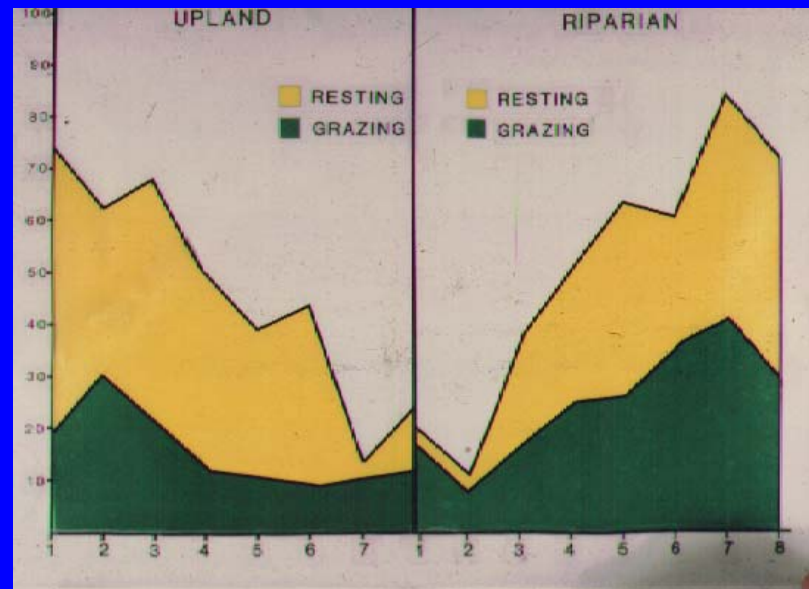
Bear Creek



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.

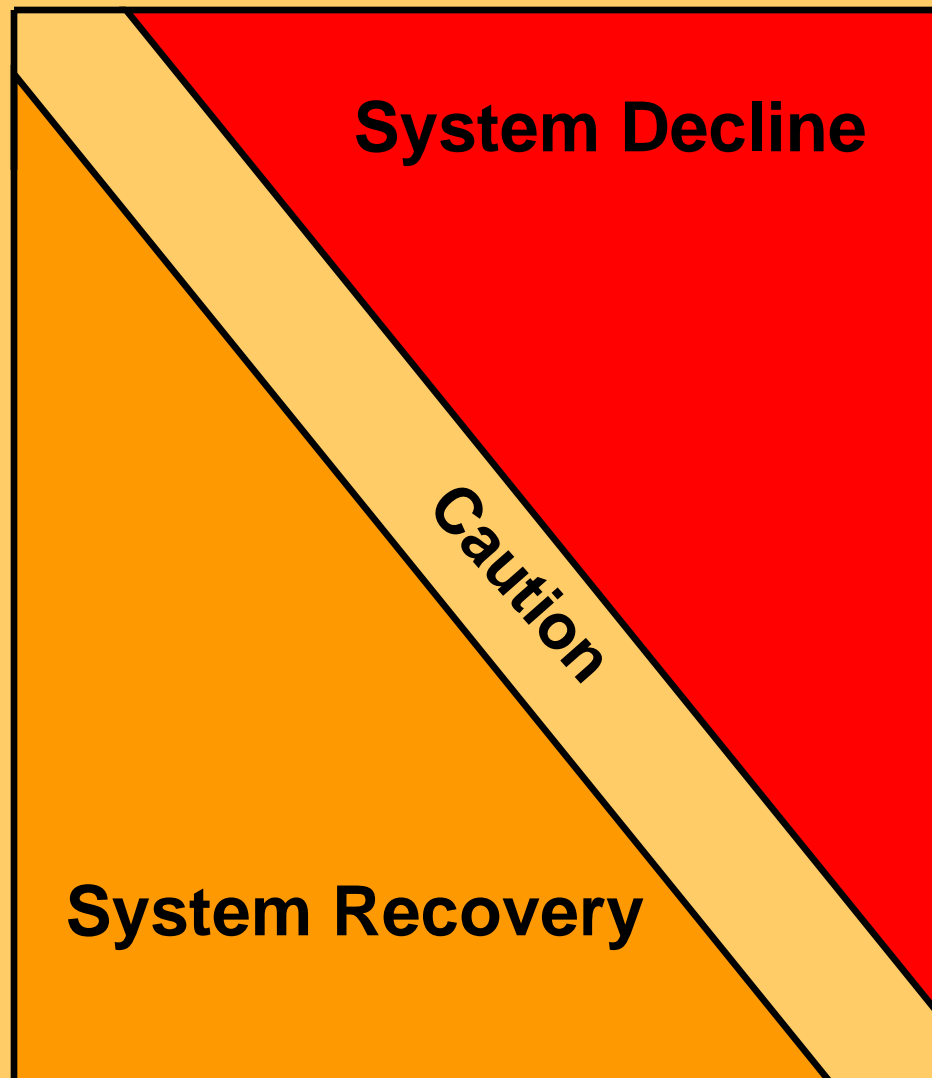
H

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Natural Stress

Soils, Gradient, Flow, Climate, etc.



System Decline

Caution

System Recovery



Fitzhugh Creek



Fitzhugh Creek



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

Successful Systems	12.5 days	± 10.5
Unsuccessful Systems	33.4 days	± 10.4

Average Days Duration of Grazing Treatments

Successful Systems

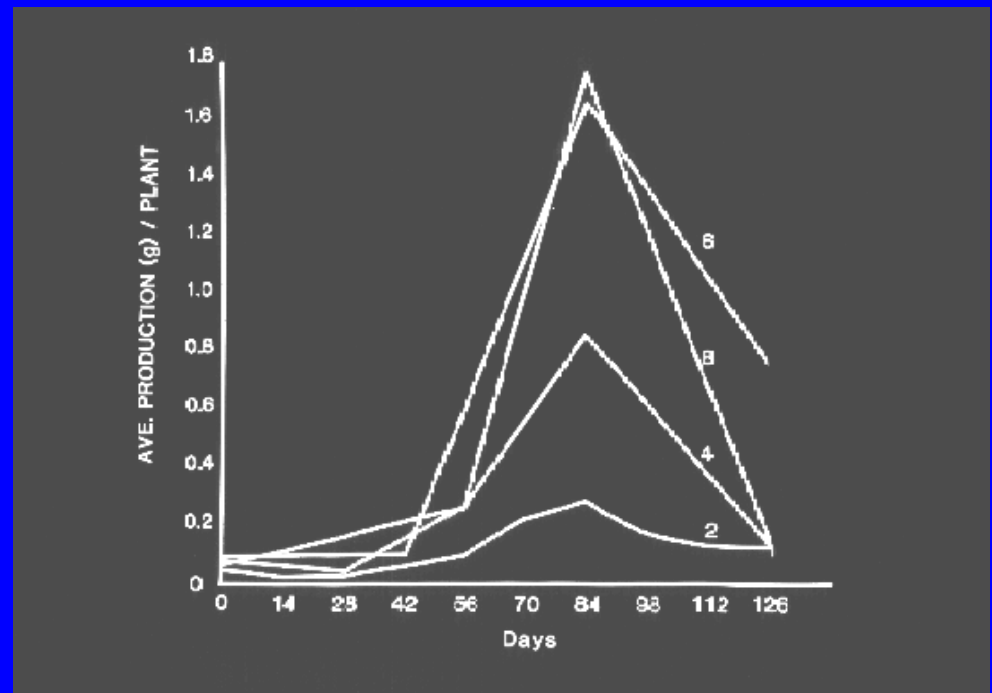
28.2 days ± 3.7

Unsuccessful Systems

59.3 days ± 8.1

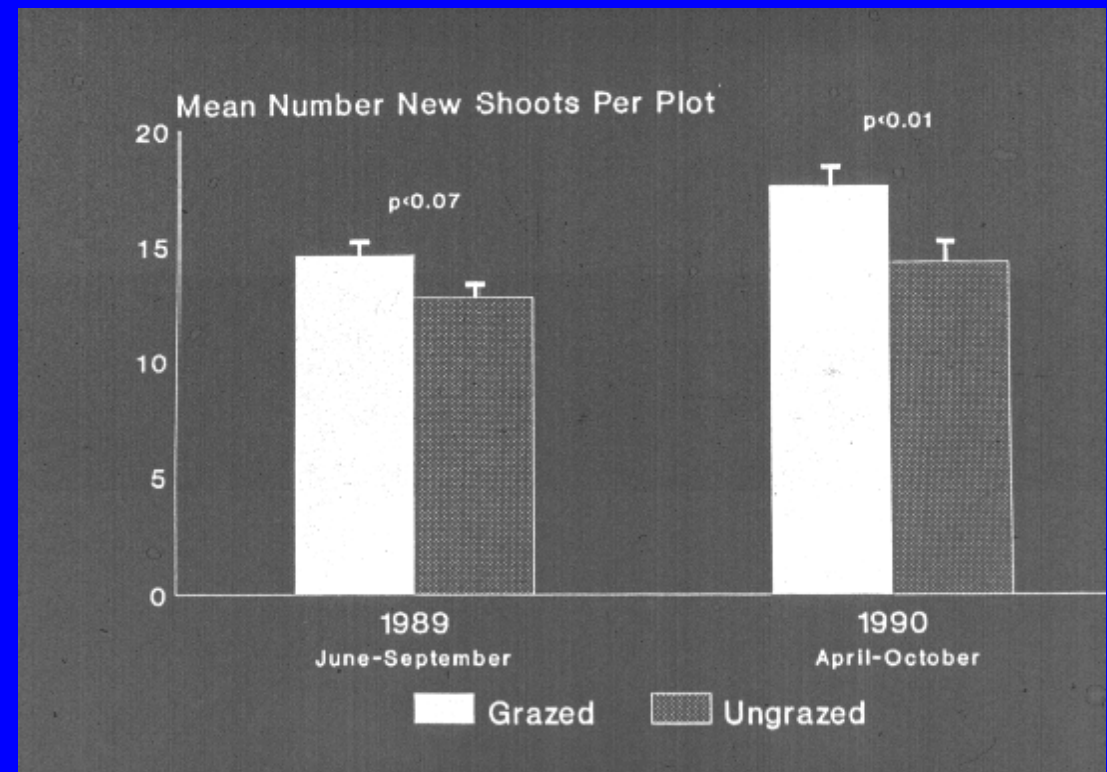
Riparian Forage Response

- 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”



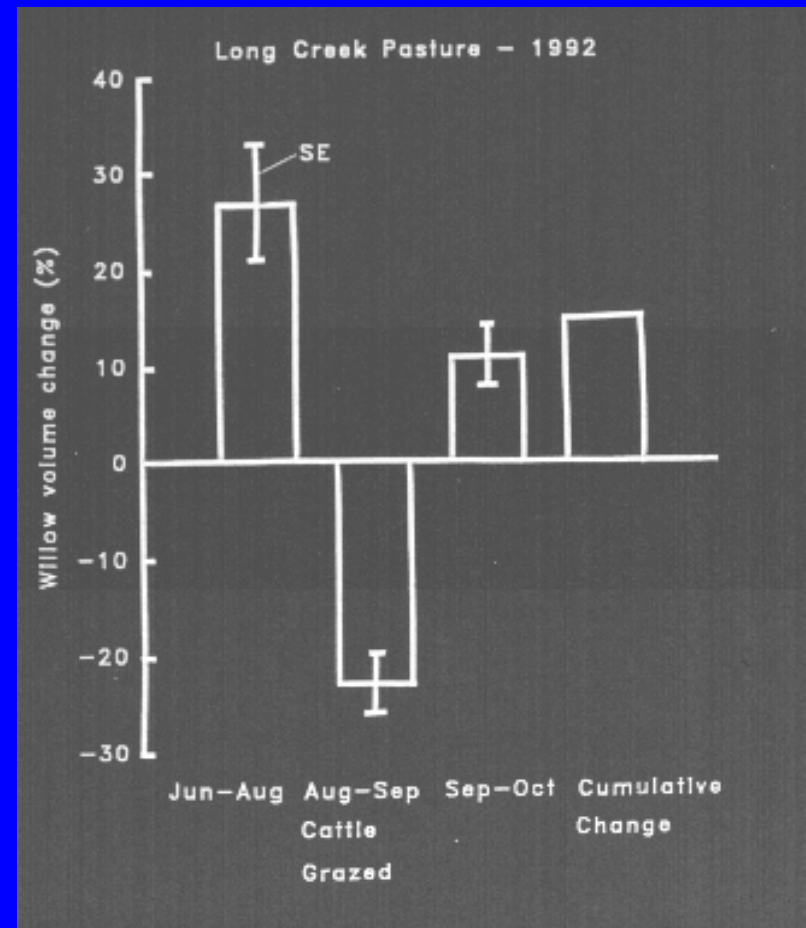
Riparian Forage Response

- 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

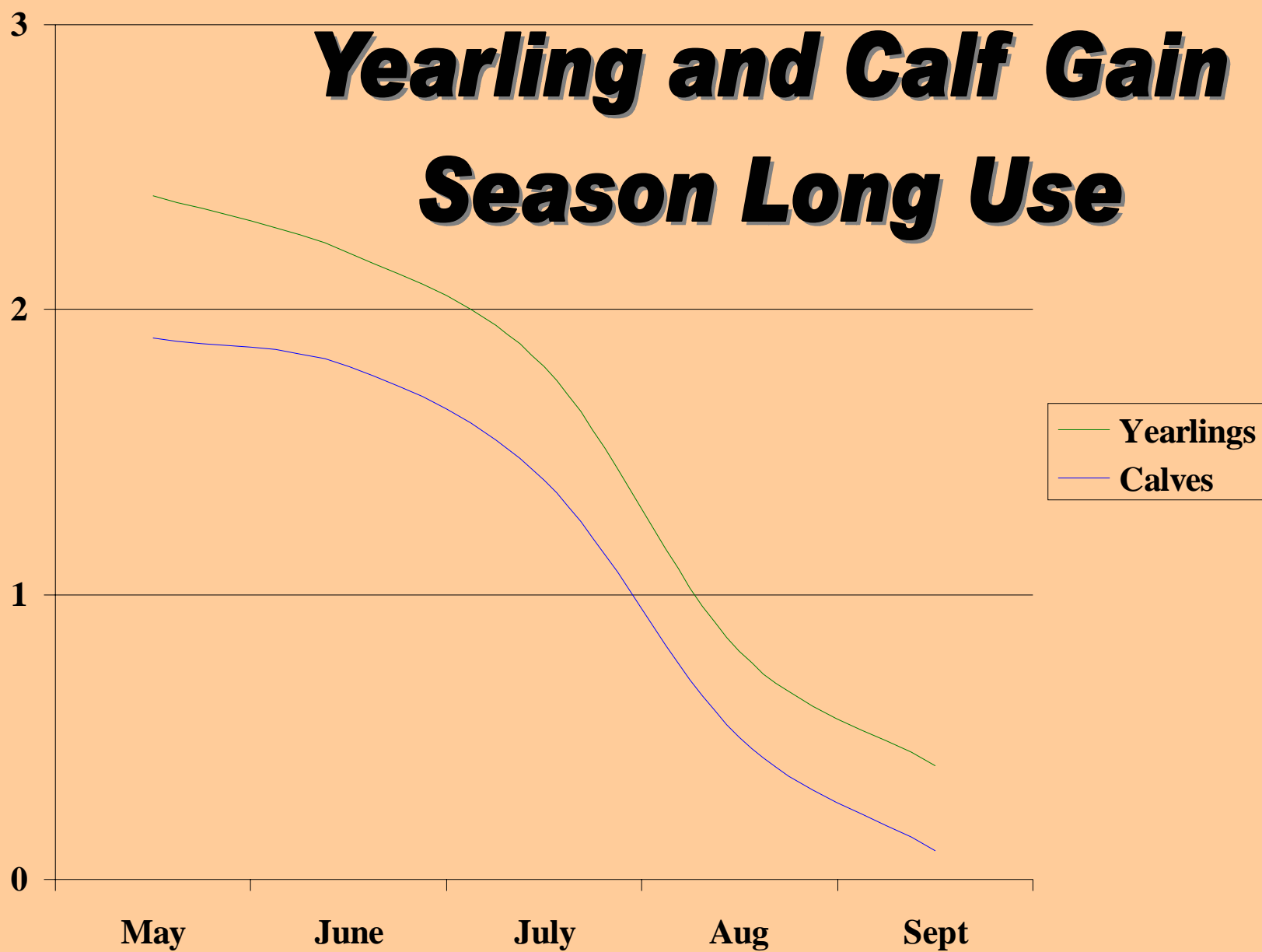
Beaver Creek Gentle Terrain



Trout Creek Mountains



Yearling and Calf Gain Season Long Use



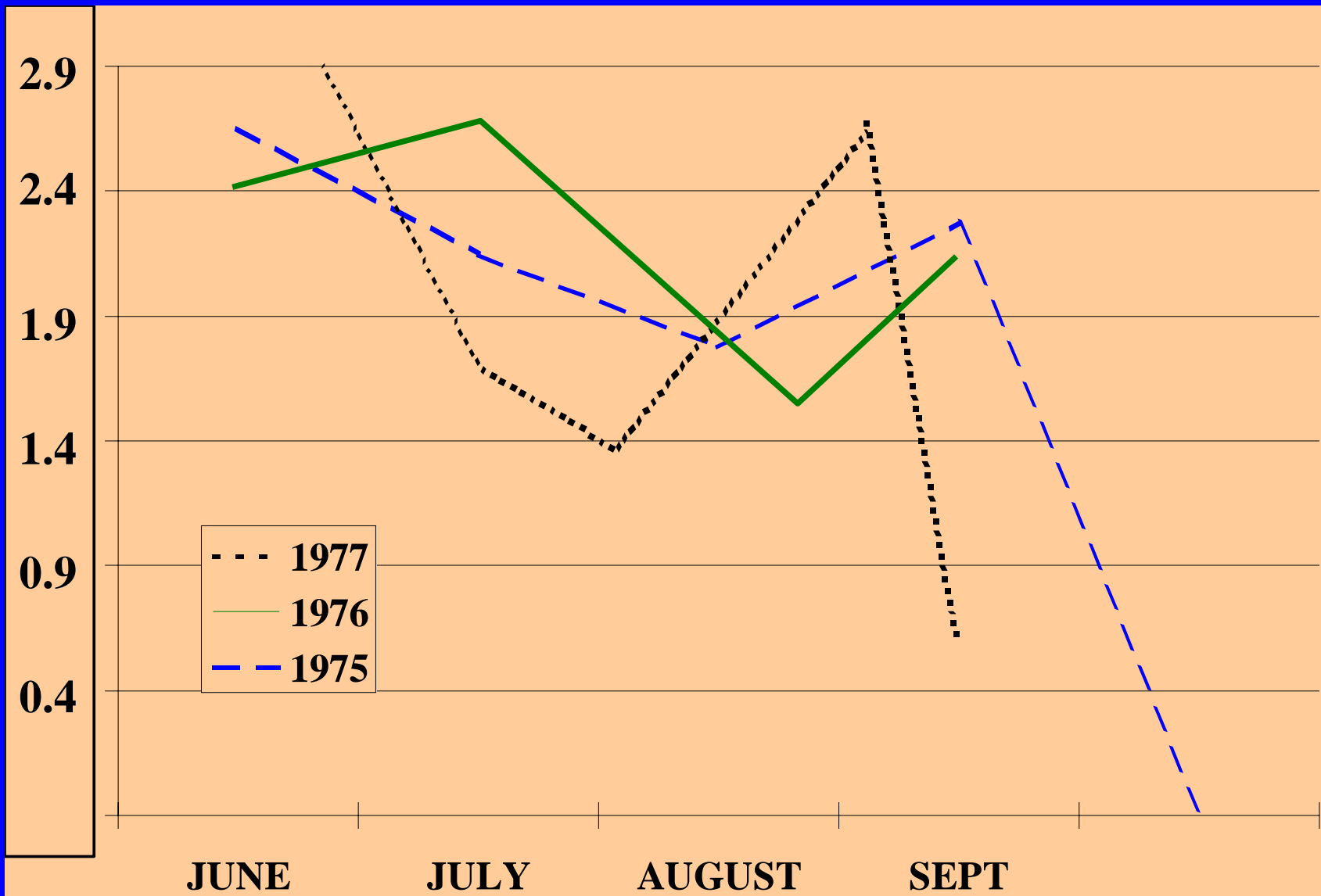


Figure 5. Average Daily Gain of Calves for the Summer Grazing Season

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).

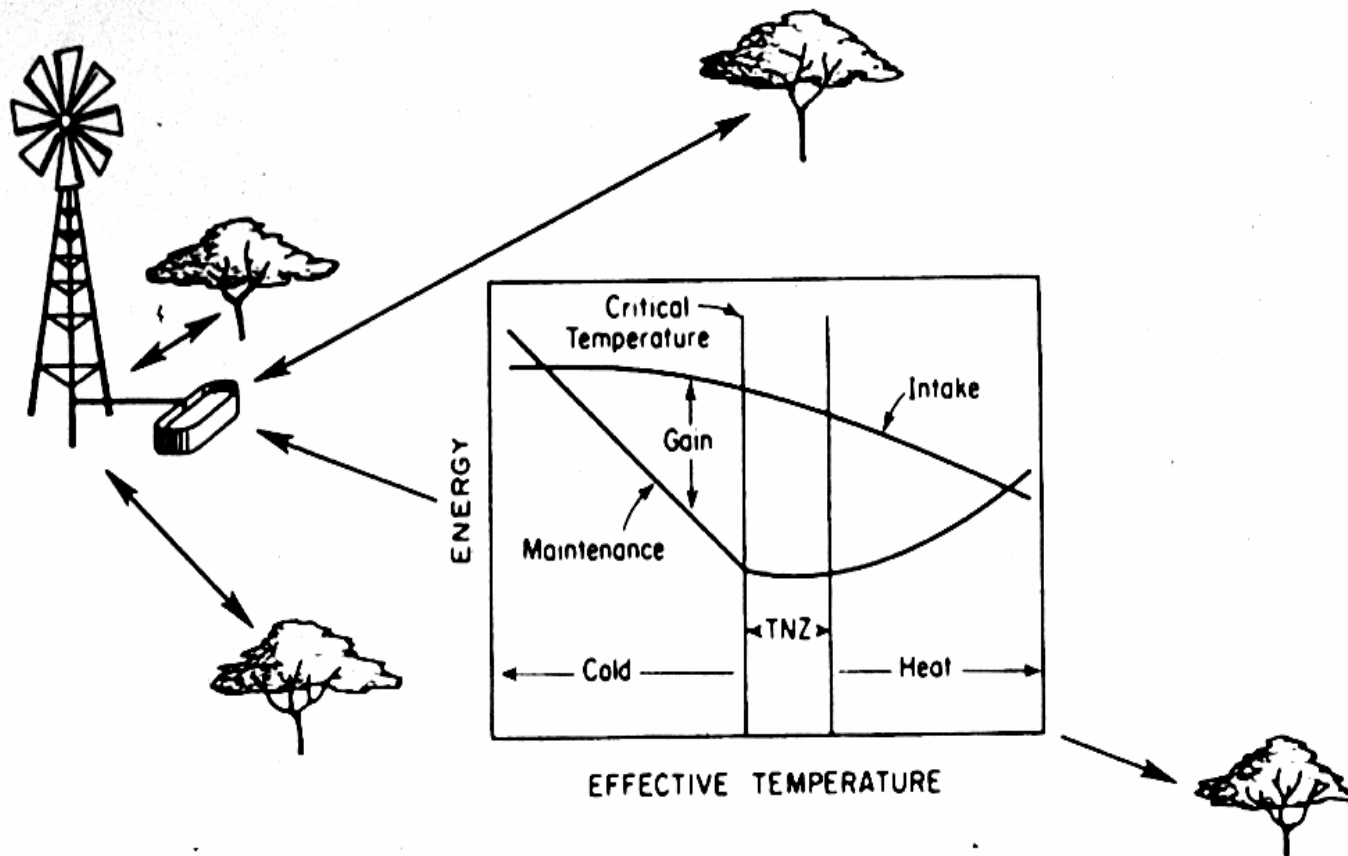


Figure 3.5. Interactive effects of water and thermal foci as they affect energy maintenance and intake of ruminant animals.