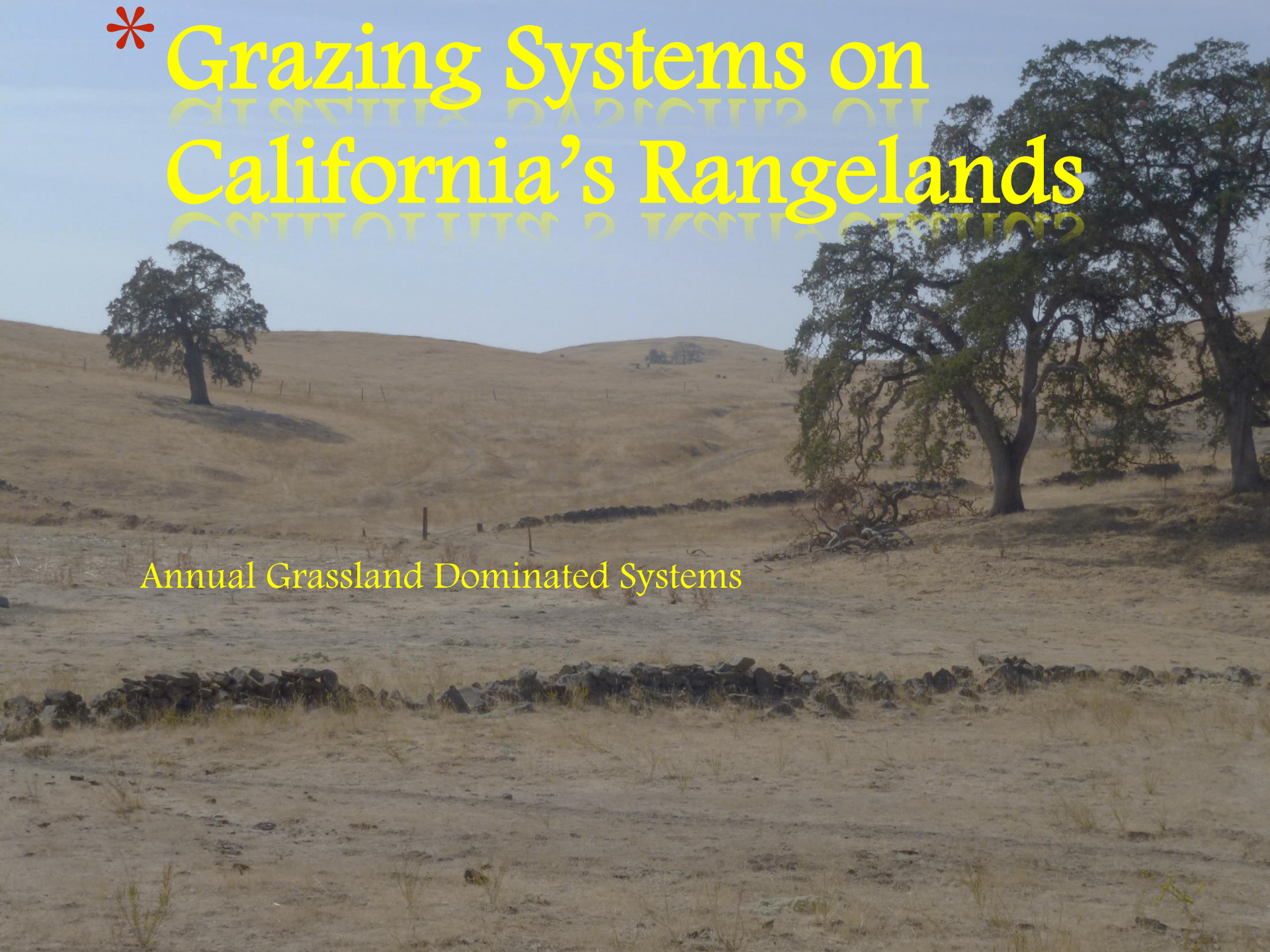


# Grazing Systems on California's Rangelands

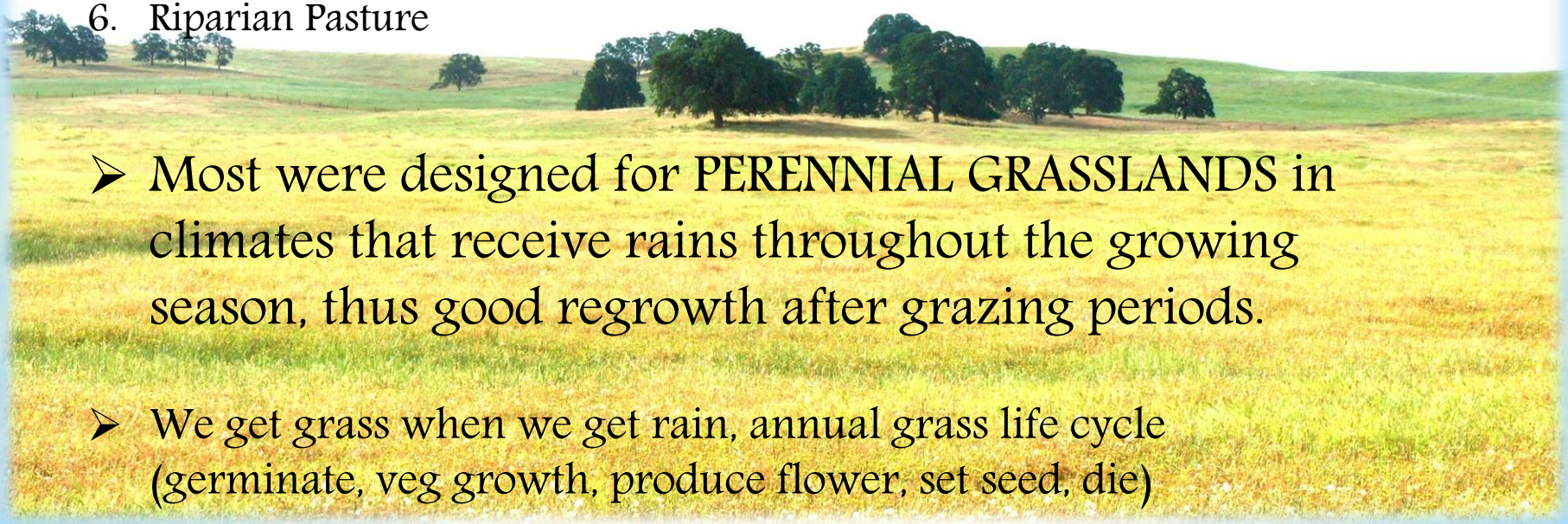
Annual Grassland Dominated Systems

## What is a Grazing System & are they applicable for California

- Grazing Systems refers to specialized grazing management that facilitate rest period between grazing periods.

There are numerous types including:

1. Season long, continuous
2. Deferred
3. Rest-rotation
4. Short duration-High intensity
5. Rotation
6. Riparian Pasture



- Most were designed for PERENNIAL GRASSLANDS in climates that receive rains throughout the growing season, thus good regrowth after grazing periods.

- We get grass when we get rain, annual grass life cycle (germinate, veg growth, produce flower, set seed, die)

## Deferred Grazing

Delay in use for some resource concern:

* Nesting
* Vegetation development
* Habitat Needs
* Wet Soils
* Range readiness

## Rotational Grazing

Livestock movement from one pasture to another

- Provides periodic rest and graze patterns.
- Rotations should be driven by resource needs and forage base
- Livestock movement triggered by some environmental or forage condition

# Both do well in Pasture or Perennial Range but can be used on Annual Range

## Short Duration/High Intensity

Short grazing periods/high animal numbers:

* Mob Grazing
* Targeted Grazing
* Used for Weed Control
* Livestock are your tool
* Livestock movement is high during high growth, slower during slow growth
* May be used on annual or perennial range

## Rest-Rotational Grazing

One pasture always rested entire season

- Rest for a full growing season.
- Usually for full plant recovery (after fire or after seeding)
- Used on perennial rangelands
- Should be resource driven
- Not used on annual grassland very often – no need to rest an annual

# Would either of these work on your ranch?

# California Mediterranean Climate
# Forage Availability & Quality

1. Summer Drought – Inadequate Dry Season – Poor Quality, low quantity
2. Fall / Winter –Inadequate Green Season – Good Quality, low quantity
3. Late Winter / Spring – Adequate Green Period – Good Quality, high quantity

Typical grazing system is continuous season long (Green Season)

Typical California Grazing System = Continuous Season-long
(Season = Green Period)

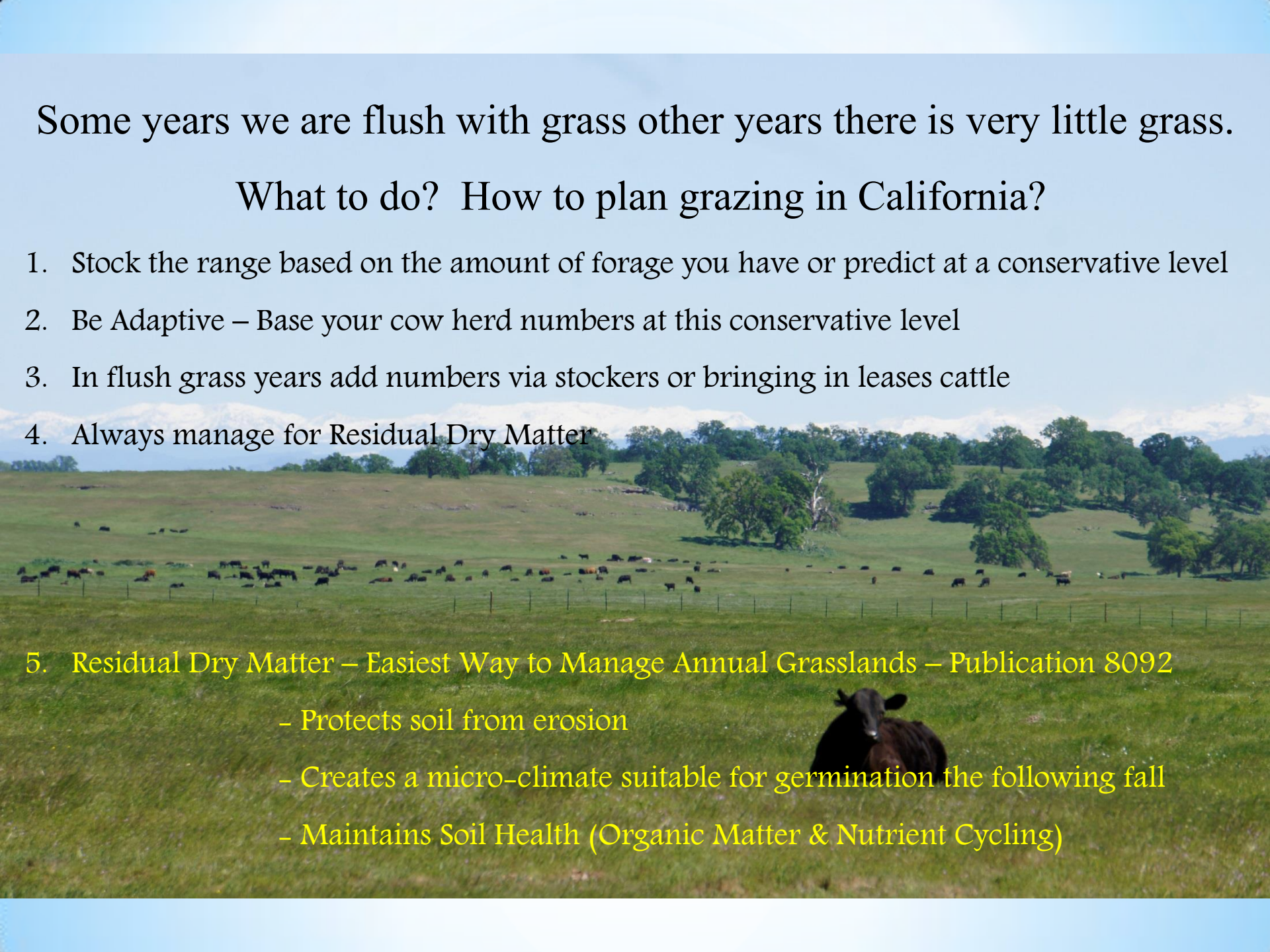
Systems employed – Rotational, Deferred, High Intensity-Short Duration, Riparian Pastures

What does that mean when our forage is so dependent on rainfall amount & timing?

Some years we are flush with grass other years there is very little grass.

What to do? How to plan grazing in California?

1. Stock the range based on the amount of forage you have or predict at a conservative level
2. Be Adaptive – Base your cow herd numbers at this conservative level
3. In flush grass years add numbers via stockers or bringing in leases cattle
4. Always manage for Residual Dry Matter



5. Residual Dry Matter – Easiest Way to Manage Annual Grasslands – Publication 8092
   - Protects soil from erosion
   - Creates a micro-climate suitable for germination the following fall
   - Maintains Soil Health (Organic Matter & Nutrient Cycling)

Reasons to Plan Grazing on Annual Grasslands?

Plan based on Ranch Goals & Resource Objectives or Need: (Every ranch is unique)

- Wildlife Habitat
- Special Plant considerations (Oak recruitment, native grasses)
- Riparian Areas (Streams, springs)
- Soil Health/Carbon Sequestration
- Water Quality/Quantity
- Invasive Species Management
- Improve Cattle Distribution & Forage Utilization
- Animal Health
- Could be driven by regulatory concerns

# Base Grazing Plan on:

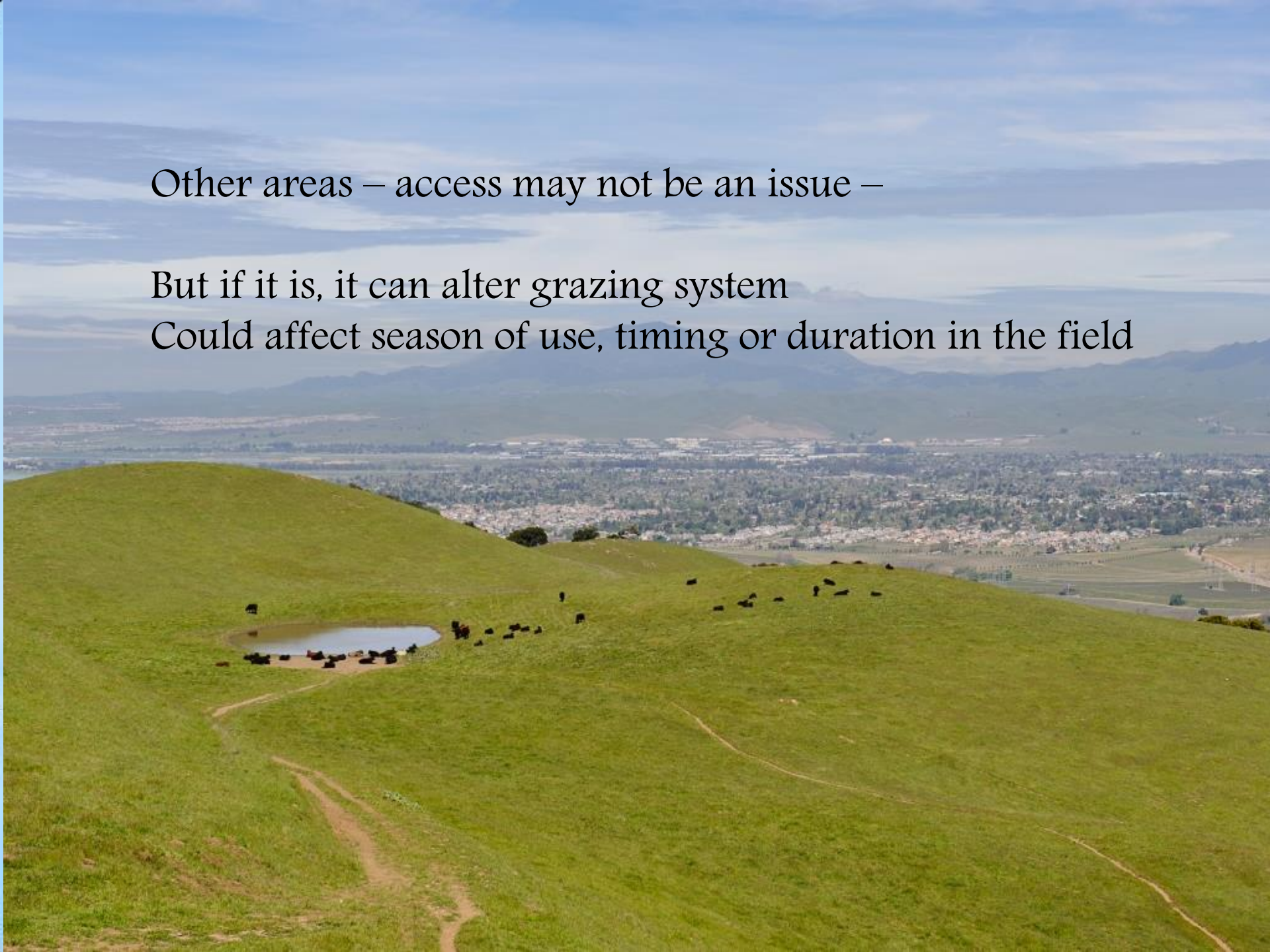
1. Ranch Goals
2. Resource Concerns (how can grazing use mitigate res concerns)
3. Stock animal numbers based on Conservative levels
4. Design grazing pattern:
   a) Season of use
   b) Timing
   c) Duration
   d) Frequency
   e) To address resource concerns

5. Adapt to the current forage year
6. Be flexible with management to meet ongoing changes in range condition, climate, market, etc.
7. Monitor the plan, resource concern, animal condition and adapt as need to move toward ranch goals.


Targeted Grazing


Weed Control

* **Managing access to riparian areas may be necessary for numerous reasons; water quality, wildlife habitat**



Other areas – access may not be an issue –

But if it is, it can alter grazing system
Could affect season of use, timing or duration in the field

# Native grass community management

- Need some rest at onset of growth
- Manage for some stubble height during growing season to feed roots

What are potential benefits of perennials?

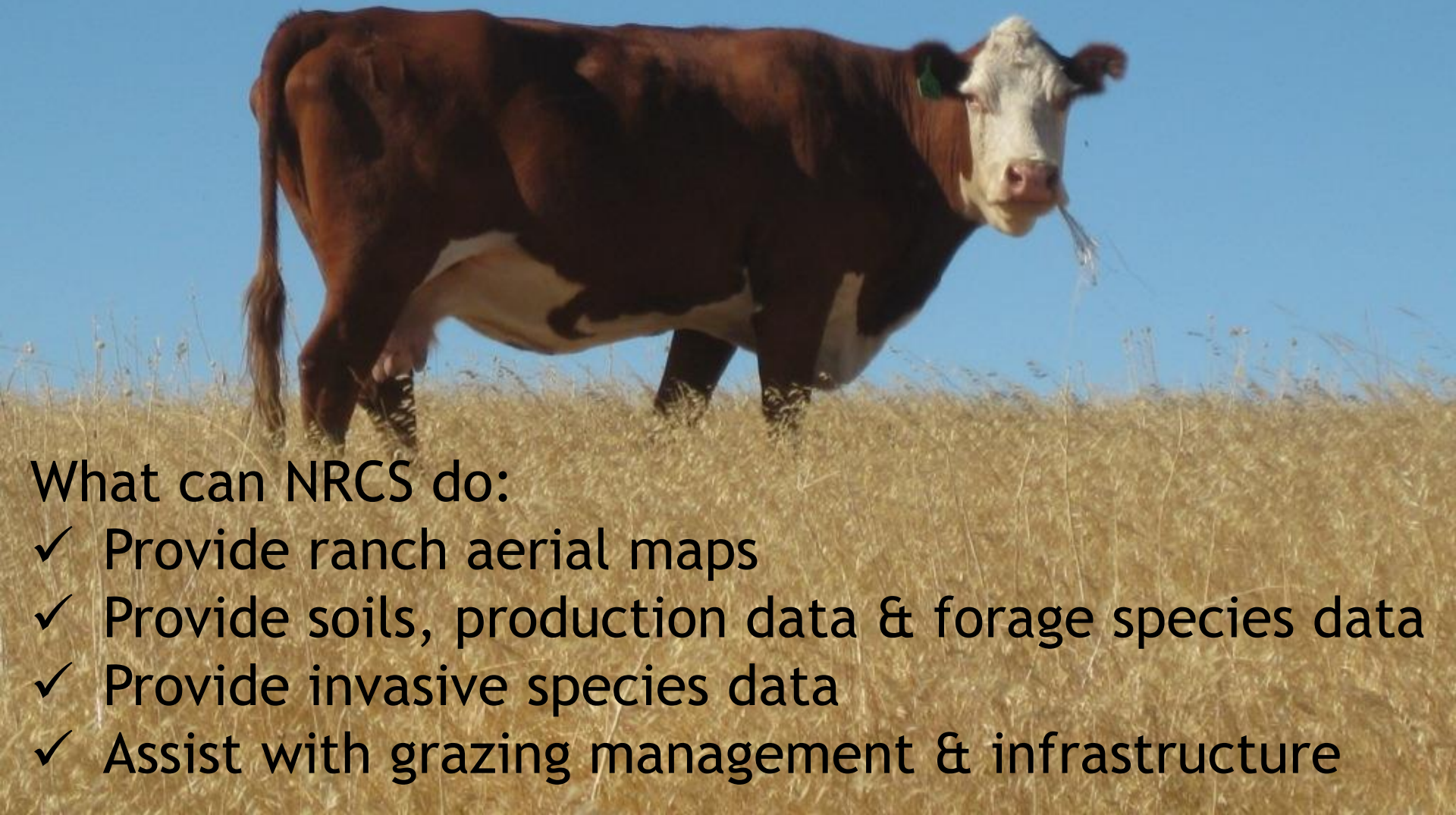
Manage for diversity in your range plant community = resiliency & added forage types (functional/structural groups)

# *Oak regeneration

**Reduce livestock concentration areas – move sites regularly**

# Keys for Success on Annual Range

- Manage for Residual Dry Matter (RDM)
- Conservative long term stocking rates
- Be Flexible – Adjust to current conditions based on monitoring
- Add Resiliency & Utilize Best Management Practices



What can NRCS do:

- ✓ Provide ranch aerial maps
- ✓ Provide soils, production data & forage species data
- ✓ Provide invasive species data
- ✓ Assist with grazing management & infrastructure


Grazing Systems
NRCS
BMP's