High Stakes for California Rangelands
California State University-Chico
October 10, 2014
The Value of California Rangelands

- Of the 100 million acres in California, 38 million acres are range and pasture land. Over 19 million acres of this grazed land is privately owned.

  The California beef cattle industry contributes 3.3 billion dollars to the state economy, with almost 5 million head raised annually.
The Value of California Rangelands

- California’s rangelands provide grazing resources as well as the most diverse habitat values for both special status and common species
  - Vernal Pools
  - CTS
  - CRLF
  - Raptors
The Value of California Rangelands

- The California Rangeland Conservation Coalition

- 100+ Signatories
  - USFWS
  - Ducks Unlimited
  - Defenders of Wildlife
  - Environmental Defense
  - Audubon California
  - Endangered Species Coalition
  - California Resource Agency
  - SJ Raptor/Wildlife Rescue Center
  - Institute for Ecological Health
  - California Invasive Plant Council
The Value of California Rangelands

• The California Rangeland Trust

  – 285,000 Acres with easements

  – 100+ Applicants with over 400,000 acres
Invasive Plants On Annual Rangelands
We are Losing the War

- Yellow Star Thistle
- Purple Star Thistle
- Medusahead
- Barbed Goatgrass
- Perennial Pepperweed
- Artichoke Thistle
- Stinkwort
- Salt Cedar/Tamarisk
Rangeland Benefits For All Californians

» Wildlife Habitat

» Carbon Sequestration

» View shed

» Recreation Opportunities

» Food Production

» Water Quality

» Air Quality

» Cultural Preservation
Ranching Economics 101

• Expenses - Based Upon 100 Cows @ 12 acres/CYL
• 1200 AUMs @ $25/AUM

  – Pasture $30,000
  – Hay/Supplement/Mineral $15,000
  – Vet/Medicine/Preg Exam $3,000
  – Freight $1,000
  – General Overhead
    • Taxes Insurance $36,000
    • Labor Interest
    • Living Draw Depreciation
    • Accounting

• Total $85,000
Ranching Economics 101

Income-Based Upon 100 Cows (90% Weaned Calf Crop/ Retain 10 heifers)

<table>
<thead>
<tr>
<th>Animal Type</th>
<th>Weight (lbs)</th>
<th>Price ($/lb)</th>
<th>Revenue ($    )</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 Steer Calves</td>
<td>600</td>
<td>2.00</td>
<td>54,000</td>
</tr>
<tr>
<td>35 Heifer Calves</td>
<td>500</td>
<td>1.80</td>
<td>31,500</td>
</tr>
<tr>
<td>10 Cull Cows</td>
<td>1,100</td>
<td>0.80</td>
<td>9,350</td>
</tr>
</tbody>
</table>

Total Revenue: $94,850
Ranching Economics 101

• With the $9,850 estimated net profit from this 100 Mother Cow operation, there is limited cash to wage the war on weeds that may be necessary.

  $9,850 / 1200 acres = $8.21 / Acre

• Weed management practices on rangelands must be based upon an IPM analysis, with industry economics playing a crucial role.

• Following analysis, with significant emphasis upon economics, the rancher\landowner may choose to do nothing.
The Consequences of Doing Nothing

Cal-IPC website states that, nationwide, invasive weeds in pastures and farmlands cost an estimated 33 billion dollars annually.

University of Nebraska study of North Dakota rangelands indicated that a 40% cover of leafy spurge reduced total grazing capacity by 50%.

EBRPD estimates that YST infestations reduce recreational use of parklands by 25 to 30%.

As per a study conducted by Colorado State University, 100 million acres of the US are weed infested, with an annual increase of 6 to 8%.
Weapons of War on Rangeland Weeds

General Categories

Mechanical
Chemical
Biological

Rangeland limitations

Topography
Scale
Cost\Economics - Labor, fencing
Regulations
Effectiveness
Weapons of War on Rangeland Weeds

Mechanical

• Hand Removal: Cost and topography
• Disking: Topography
• Mowing: Topography
• Prescriptive Burns: Economics /Regulations
Weapons of War on Rangeland Weeds

Chemical

Regulations are a primary factor relative to product used and application location

Back Pack  Cost
Ground Rig  Topography
Aerial  Cost

Biological

Rust/fungal pathogen  Scale
Beetles  Scale
Conservation Grazing\Hoof Impact  Timing, economics
Conventional Grazing  Timing
Collaborative Partners

• **CDFA \ CDFW**
  – Legislation-Buchanan AB2402
    • WMA funding and organizational restoration
    • Research
    • Application – On the ground

• **County Agriculture Departments**
  • WMA Mapping, Planning and Distribution
  • Education
Collaborative Partners

Utility Providers

- Water Districts
- PG&E, SPP
  Vegetation Management Specialists

Cal Trans

Current Practices

Local\Regional Park and Open Space Districts

- EBRPD
- SC Open Space Authority
- Mid Peninsula Open Space District
  IPM specialists and PCAs
Collaborative Partners

• **2011 Cal Fire – SRA Fee (Fire Prevention Fund)**
  – 800,000 structures @ $115- $150
  – Rural Residential Education
  – I-Zone Fire Fuel Reduction

• **HOAs (Home Owners Associations)**
  – I-Zone Fire Fuel
  – Landscape Infestations
The End