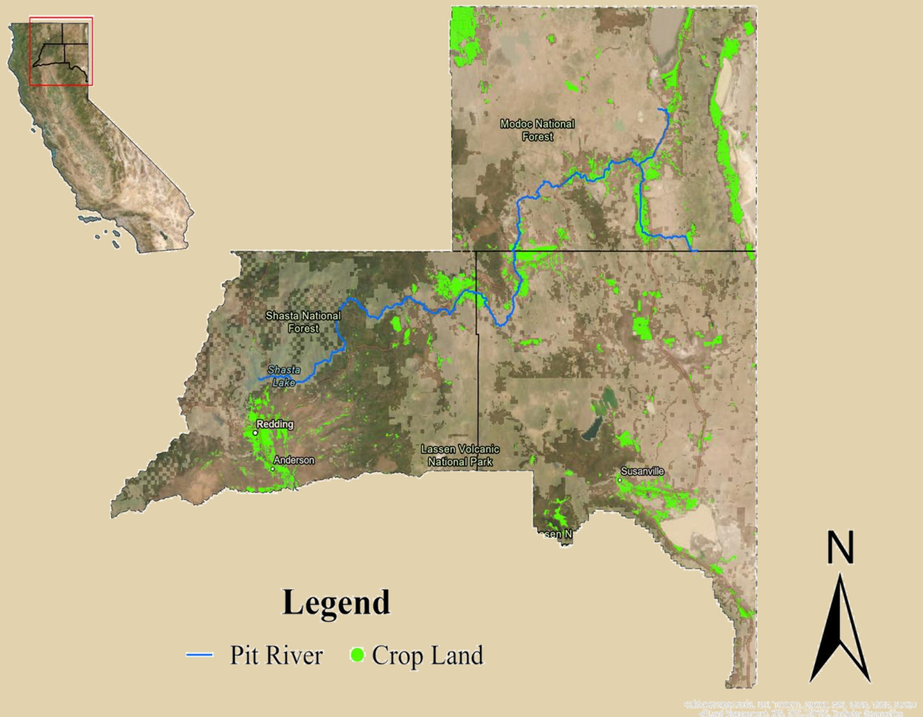
Production Challenges in Forage Systems: Needs Assessment in Northeast California

UC Cooperative Extension
University of California
Agriculture & Natural Resources

Devil's Garden
Research & Education

Program Area



Background

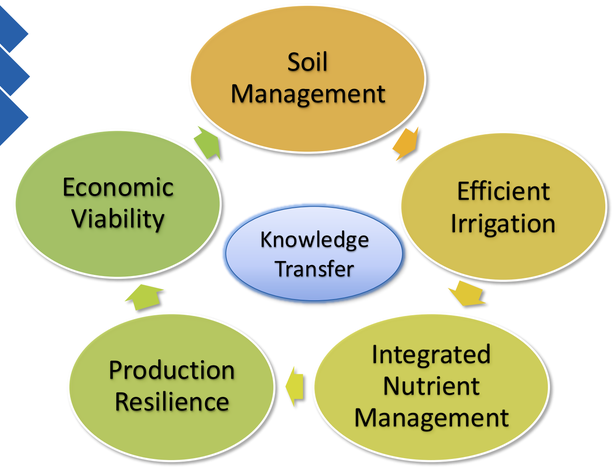
- Modoc, Lassen, & Shasta Counties are in the Northeastern California. This region is also known as the Intermountain Region (Elevation ~ >3000-5000 feet).
- Forage Hay (Alfalfa, Grass, Grain) and Irrigated Pasture constitute the major production systems.

County	Modoc	Lassen	Shasta
Forage acres[1]	118,324	54,426	11,745
Total acres[2]	128,573	62,939	30,222

[1] *all hay and haylage, grass silage, and greenchop*
[2] *Total harvested cropland acres*

- Almost 10% of the State's forage acres in three counties.
- Pit River Watershed is the primary source of irrigation water, Pit River originating from Warner Mountains and flowing into Lake Shasta and eventually into the Sacramento River.

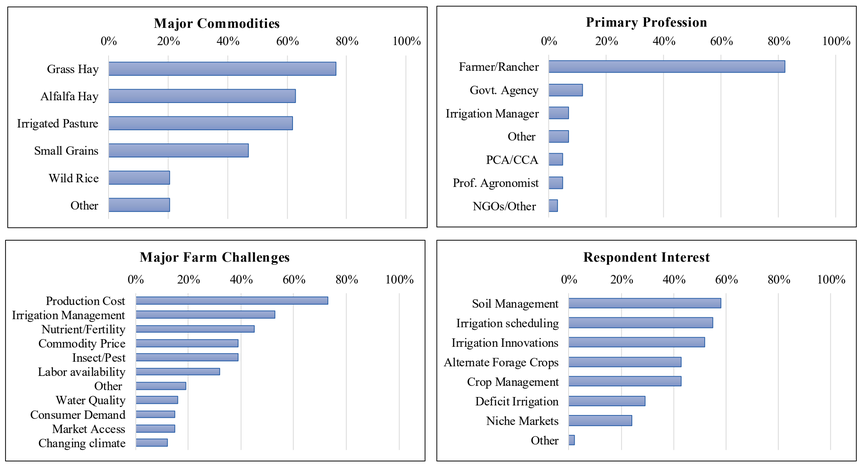
Theme 1 — Needs Assessment
Theme 2 — Improving Water Use Efficiency
Theme 3 — Sustainable Ag. Production

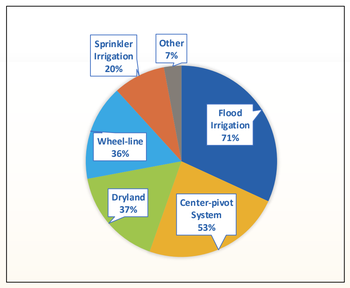


Needs Assessment

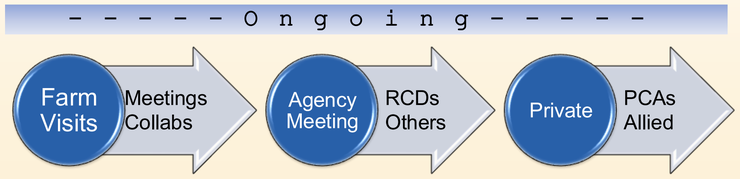
- The survey questionnaire consisted of 11 closed-ended questions (multiple choices, rank order) and one open-ended question
- During spring 2024, the paper survey was disseminated through various local agricultural workshops and meetings organized by UCCE and email distribution to Modoc (232 contacts) and Lassen County residents (133 contacts). A survey questionnaire was also mailed out to 48 stakeholders in Shasta County via USPS.
- A total of 102 responses were collected for the survey. The respondents worked in one or more counties, with 49% in Modoc County, 56% in Lassen County, and 22% in Shasta County.

Results





- In terms of irrigation scheduling, personal observation ranked as the top used metric on when and how much to irrigate, i.e., 89% of the respondents (n = 89).
- Soil moisture sensors and evapotranspiration (ET) data are utilized by only 18% and 16% of the respondents.
- 48% of respondents measure the irrigation volume, whereas 55% of respondents do not measure the applied water (n = 88).



Current & Future Activities

- Modoc National Wildlife Refuge Meadow Hay Quality Evaluation
- Soil Health Fact Sheet Series
  - Part I: Getting to Know Your Soil
  - Part II: Interpreting Soils Report
- Alfalfa Evapotranspiration Study
- Irrigated Grass-legume pasture Fertilization Trial
- Locally-relevant extension articles

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