Long Term Trends and the Future of the Alfalfa and Forage Industry

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Dangers of Extrapolation

As you can see, by late next month you'll have over four dozen husbands.
Hay Production (excluding alfalfa)

HAY PRODUCTION (excl. alf.) (million tons)


AZ CA CO ID MT NV NM OR UT WA WY

WV WA UT OR NM NV MT ID CO CA AZ
Alfalfa Hay Production

- Western US
- Non-Western US
Production of Milk, Hay, and Silage

- **Alfalfa hay**
- **Corn silage**
- **Milk**
Growth in Western Milk Production, 1970-2012

Percent of 1970:
- Total Milk: 454%
- Cow Numbers: 215%
- Production/Cow: 209%

(17.4% of US)

(46.2% of US)
Exports

- Alfalfa, timothy, sudangrass, and kleingrass
- From 7 Western states
  - 12% of alfalfa
  - 30% of grassy hays
- Half of exports to Japan
- Increases from China, Korea, UAE
- Up 60% since 2007
Volume of US All-Hay Exports from Western Ports\(^1\) (1998-2012)

1 Western ports include all ports in California, Oregon and Washinton. Data from US Dept. Commerce.

(Putnam, 2013)
CA Hay Balance Sheet (Hoyt, 2013)

- Dairy cows: 36%
- Horses: 23%
- Exports: 21%
- Replacement heifers: 9%
- Fed cattle: 4%
- Other: 7%

CA Hay Balance Sheet (Hoyt, 2013)
Limiting Factors for Forages

Industry

- Water
- Costs
- Pests
- Quality
- Yields

Specialists

- Water: 8
- Insects: 4
- Harvest: 2
- Fertilizers: 2
- Weeds: 2
Water Availability

• Major water shortages
  – Lake Shasta (37% cap.)
  – Lake Mead (47% cap.)

• Competition
  – Other crops
  – Urban areas
  – Environmental
Strategies for Limited Water

• Deficit irrigation
• Use of marginal water
• Genetic improvement
• Irrigation system eff.
• Irrigation scheduling eff.
• Alternative forages
Future of Forages

Industry
Specialist

No change
Positive
Negative
Conclusions

Good News

Bad News