

# Land, Water and the Future of Agriculture

Incorporating Cutting Edge Technology





A photograph of a cowboy on a brown horse herding a group of cattle in a dry, hilly landscape. A black and white dog is in the foreground. The image is split by a torn paper effect, with the right side being black.

# Introduction

- **Agriculture is a defining element for Utah**
- **Production requires Land and Irrigation**
- **75% of diverted water is used for agriculture**



# Empower Farmers, Protect Natural Resources

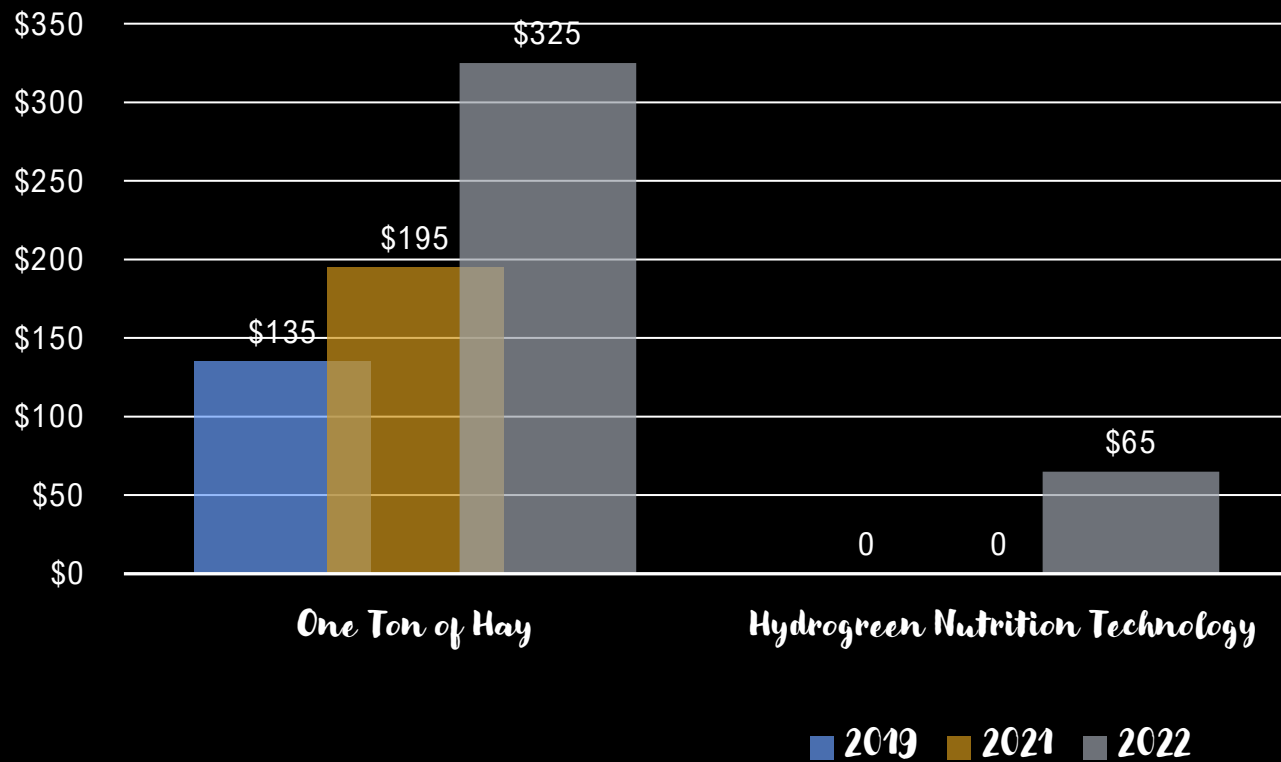
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- Multiple year drought  
→ need economic resilience
- Increasing hay prices
- Decreasing hay supply  
→ consider alternative feed sources



## Precipitation Affects Hay Production

### Hay production costs per ton





# Utah's Largest Crop by Acreage

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Much Water goes  
towards Alfalfa

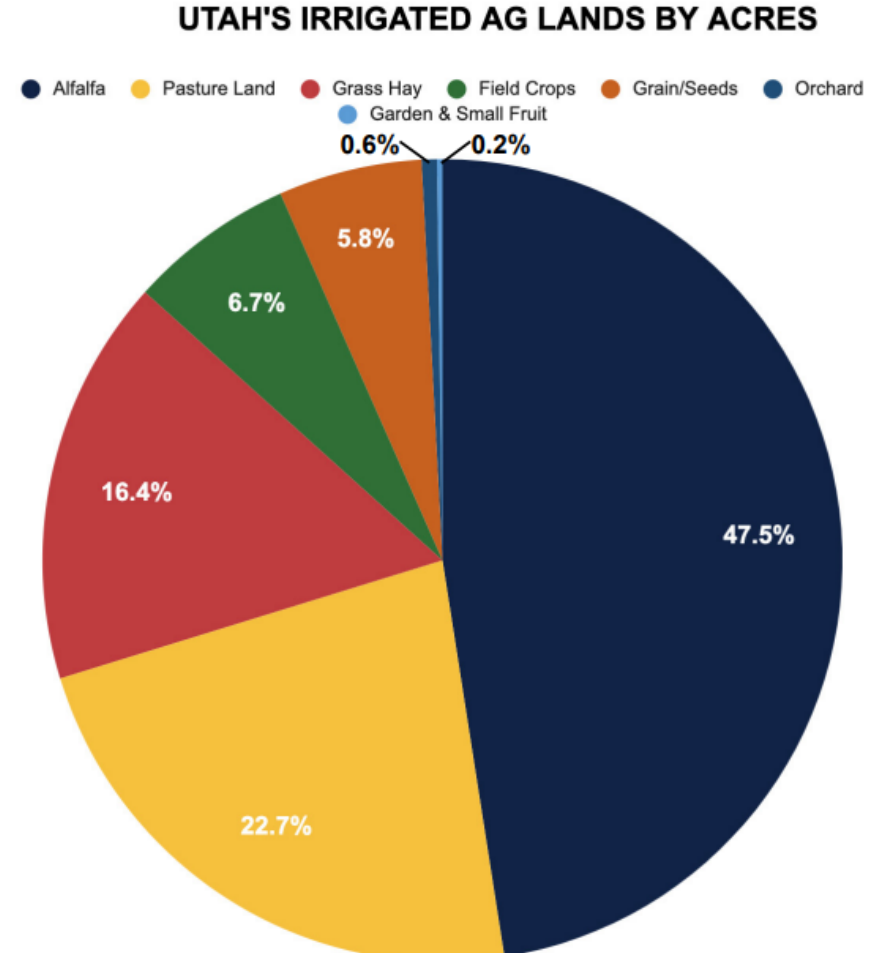
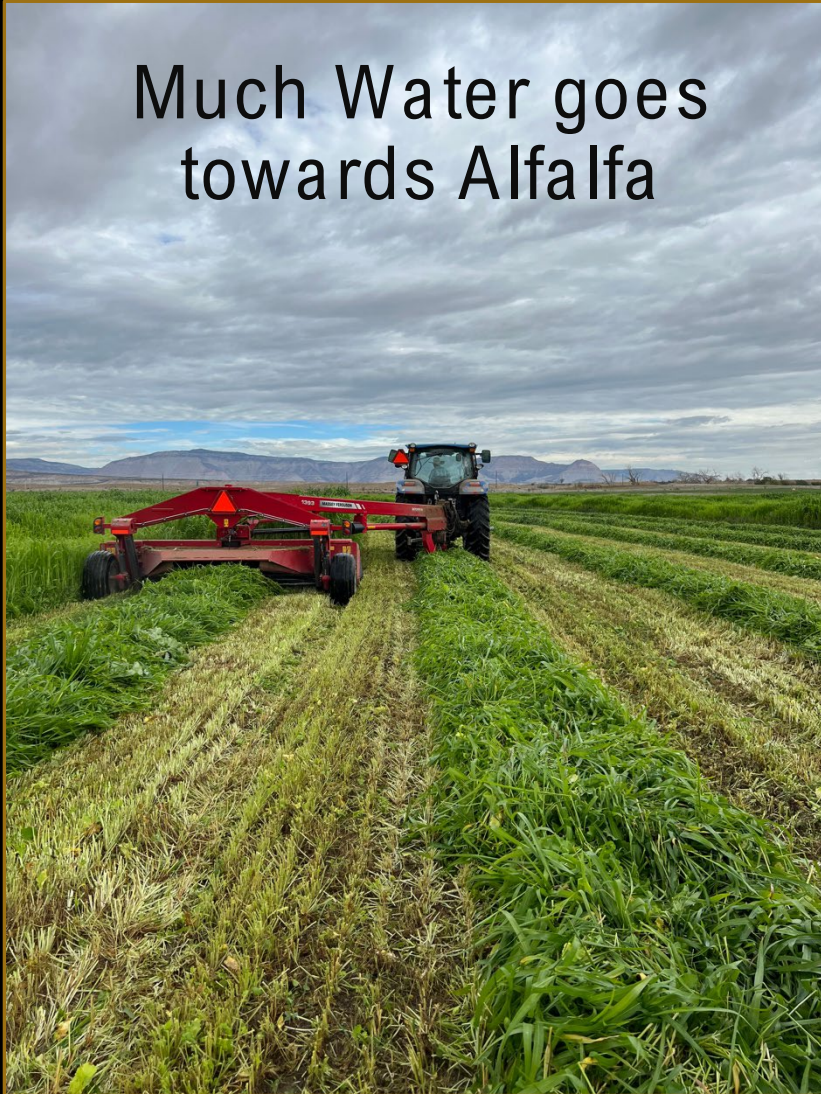


FIGURE 2 Utah's Irrigated Lands by Acres (Source: USDA)

# *The Future of Agriculture*

- **Utah's Coordinated Action Plan for Water**  
→ **1.2 million acres farmland lost 1997- 2017**
- **Need to connect agricultural production with agricultural processing for growth & security**





# Water Optimization

## Utah's Coordinated Action Plan:

- Prepare the State for Growth
- Protect public resources
- Facilitate innovation



# Utah's Water and Farmland

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**Land Use**



**Water**



**Agriculture Economic  
Sustainability**



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# The Next Generation





# Calf Roping





# Bull Riding





# Bronc Riding





# Herding



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# The Cowboys





# Watering the Cows





# Roping the Calves





# Branding





# Automated Hydroponic Fodder System

## Conveyor Racks



Photo: Jeffrey D. Allred, Deseret News



# Sprouting the Fodder





# Growing the Fodder





# Harvesting the Fodder





# Transporting the Fodder





# Loading the Fodder





# Silaging the Fodder

