Economic Trade-Off Analysis
Components

- **PHYGROW**
  Current and Future Forage Availability

- **Rancher Inputs**
  Management and Herd information

- **NIRS/NUTBAL**
  Forage quality via fecal sample
  Herd nutritional management
  Estimated animal performance

- **Projected Reproductive Performance**

- **Market Environment**
  Current and future market prices for calves and breeding stock
  Value of de-stocking vs. value of retaining cattle and feeding
Forage Deviation from Long-term Average Forecasts (30, 60, 90 days)
Rancher Input

Provides ranch specific information

- Enterprise production practices and costs budgets
- Interest rate (opportunity cost)
- Selected performance goal

Trade-off Analysis

- Current herd Characteristics
- Feedstuffs available & costs

NIRS/NUTBAL
NIRS/NUTBAL

Predicts animal performance

- Forage deviation forecast
- Fecal sample (forage quality)
- Feedstuffs available & costs
- Selected performance goal

NIRS/NUTBAL

- Current herd characteristics

Projected costs to keep & feed livestock

Projected BCS of herd

Projected calf weight & percentage, culling rate
Market Environment

Determines the economic feasibility of keeping vs. selling cattle

Projected costs to keep & feed livestock

Projected Revenues (keep & feed)

Expected buy-back costs

Expected herd sale revenue

Interest rate

Projected net returns & NPV of keep & feed

Projected NPV of sell, buy-back

Keep cattle, Buy feed

Destock

Restock (recovery)

Price forecasts (futures mkt, breeding stock)

Current herd characteristics

Current regional cattle prices

Projected calf weight & percentage, culling rate

AMS link
Economic Related Outputs

- Current and Future Forage Supplies
- Projected costs of keeping and feeding cattle during drought
- Projected calf weights, calving %, and culling rates
- Projected revenues and breeding stock costs
- Projected Net Present Value of delayed de-stocking and feeding
- Projected Net Present Value of de-stocking and future restocking
FRAMS Structure

Current & Forecasted Livestock Prices Database

Soils

Plant Communities Database

Herd Structure Log

Rain Gauge Log

Forage Conditions Portal

Trade Off Tool

PHYGROW Engine

NOAA 12x12 Weather System

NIRS/NUTBAL Auto System

CP & DOM Database

GANLAB Process Fecal Samples

Producer Files of Livestock Performance & Least Cost Feed

Fecal Sample Mailed Via Priority Mail

Producer Files of Livestock Performance & Least Cost Feed

Forage Risk Assessment & Management System (FRAMS) Web Interface

On-Line Tutorials