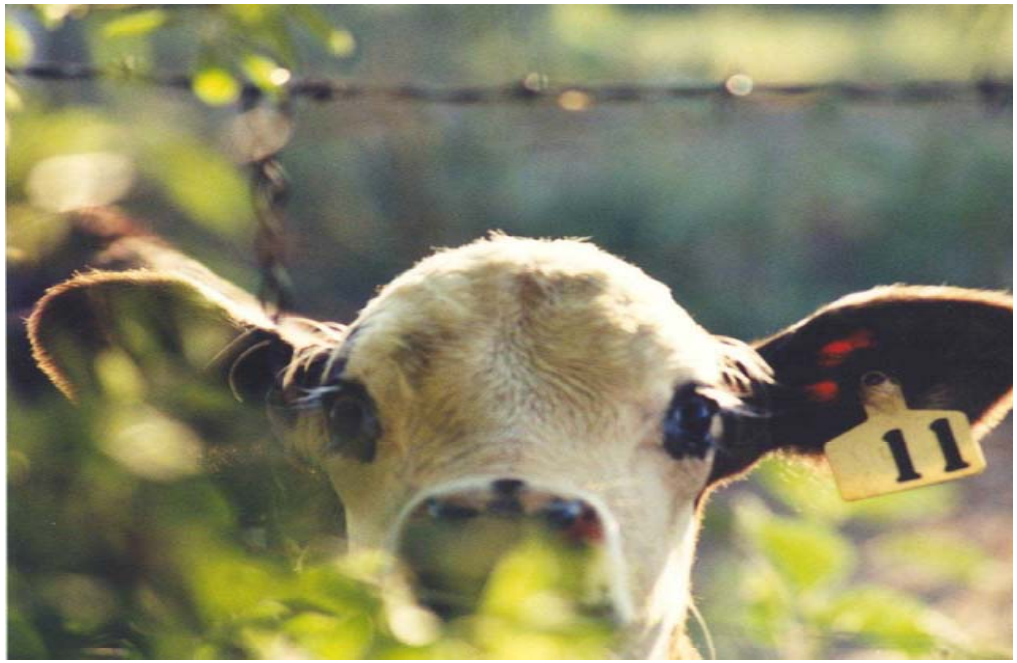
Presenting the

Northern Colorado Regional Food System Assessment



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Eleanor Herndon

Mark Roper

Jim Deeds

Joe Cacka

We would like to acknowledge the following participating counties and agencies

- Larimer County
- Boulder County
- Weld County
- Colorado State University
- Fort Collins Downtown Development Authority
- Colorado Dept of Local Affairs

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Mark Roper

Jim Deeds

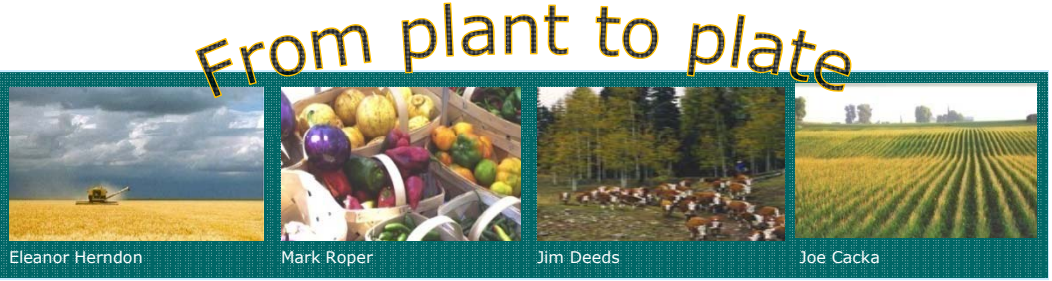
Joe Cacka

Contents

- Food System Assessment Overview and Process
- Data Collected from 4 Elements of the Food System
  1. Inputs to Agriculture
  2. Agriculture Production
  3. Processing, Distribution
  4. Public Health, Nutrition, Food Security
- County · Objectives · Advisory Teams · Statistics
- Next Steps for the Food System Assessment Project
- Extensions of the Food System Assessment

Overview and Process

- What is the food system?
- The four elements of the food system.
- Food Assessment goals • County objectives
- Taking a community engagement approach, success depends on community feedback /participation
  - Project Advisory Teams
  - Public Input at Open House Events



What is the food system?

- Infrastructure Systems
  - Transportation, water supply, sanitary sewer
  - Air quality, public schools, emergency services

- Food System Elements
  - Inputs to Agriculture (land, natural resources, water, equipment, feed, seed, financing, labor)
  - Agricultural Production
  - Processing, Distribution, Marketing
  - Public Health, Nutrition, Food Security

Food System Assessment Goals

- Understand the local food system as it relates to public health, economic development and quality of life
- Identify economic development opportunities resulting from current gaps in the food system
- Document needs and possible projects to strengthen the local food system

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County Objectives

Boulder County

Larimer County

Weld County

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Boulder County Objectives

Primary Objective - To build upon the 2009 analysis of Boulder County's farm and food economy and determine how to increase local food production and consumption. This overall objective will require the collection and analysis of data (numbers are not intended to convey priority, but used for reference):

1. Current agricultural production on public and private land in the County, including a focus on food production for personal consumption or direct sales;
2. Existing conditions (e.g., land and water access or labor shortages) that affect how much of what type of food is produced;
3. Existing food sales within the County, with specific attention to direct market sales (including retail, wholesale, and donations);
4. Institutional (e.g., hospitals, schools, corporations) direct purchasing of local foods;
5. Consumer buying behaviors and attitudes;
6. Existing and potential resources and assets available for production, processing, and distribution.

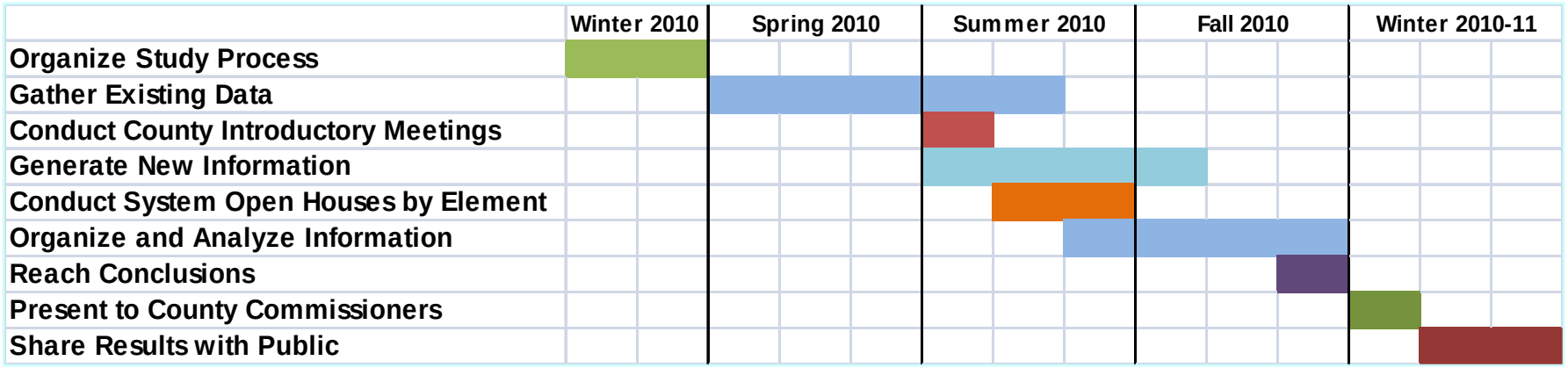
Larimer County Objectives

- Identify ways to enhance the economic vigor of all elements of the local food system
- Explore options for long-term viability of agricultural operations (generational transfers, linkages, etc.)
- Quantify consumer preferences for local food production
- Strengthen and expand connections among elements of the food system

Weld County Objectives

- Quantify information that can be used by local policy makers to guide land and water use decisions that will enhance the local agricultural economy.
- Identify projects needed to connect agricultural producers with the retail food system(groceries, schools, farmers markets.
- Determine the feasibility of a year around Farmer's Market in Weld County.
- Determine the sustainability of the food system in an emergency when normal supplies may be limited.

Food System Assessment Project Timeline



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County Project Advisory Teams

Project Advisory Teams (PAT), representing the 4 element areas of the food system were organized in phase 1 of the Food Assessment Study.

A complete list of PAT members for each county is available at

www.larimer.org/foodassessment/

on the Participants Page

Boulder County PAT

Inputs to Agriculture

- Boulder County Parks and Open Space
- City of Boulder Open Space and Mountain Parks
- Longs Peak Equipment (John Deere dealer)
- American Pride Coop (Mead)

Agricultural Producers

- Traditional crops
- Market Farm

Processing, Distribution, Marketing

- King Soopers - Longmont
- Backpackers Pantry
- Longmont Farmers' Market Manager
- City of Longmont Economic Development
- The Kitchen – restaurant
- Boulder County Dept of Health
- Mountain View Cannery

Public Health, Nutrition, Food Security

- OUR Center (food bank)
- Transition Boulder County
- Live Well Longmont
- Medical professional

Larimer County PAT

Inputs to Agriculture
- Water districts
- Public open lands
- Equipment dealer
- Feed supplier

Agricultural Producers
- Commodity scale
- Small acreage
- Non-profit

Processing, Distribution, Marketing
- Meat processor
- Northern Colorado Food Incubator
- Food Co-Op manager
- Farmer's market manager

Public Health, Nutrition, Food Security
- Larimer County Human Services
- Larimer County Food Bank
- Live Well, CanDo
- Poudre Valley Health Foundation

Weld County PAT

Inputs to Agriculture

- Water districts
- Public open lands
- Equipment dealer
- Feed supplier
- Banking

Agricultural Producers

- Commodity scale
- Small acreage/organic
- Large Dairy/feeding operations

Processing, Distribution, Marketing

- Ag Co-op
- School District and Farm to School
- CSU Dairy/4H

Public Health, Nutrition, Food Security

- Weld County Food Bank
- Live Well Weld County
- Weld County Government
- Weld County Public Health

4 Elements of the Food System

1. Inputs to Agriculture
2. Agriculture Production
3. Processing, Distribution, Marketing
4. Public Health, Nutrition, Food Security

Inputs to Agriculture

- Land is steadily being removed from production
- Water conservation has been a focus for at least 10 years, limited potential for significant continued improvements
- Water isn't water
- Supply and equipment vendors depend on projections of production to stock wares

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Photo: Michelle Price

Agriculture Production

- Agriculture is changing
  - Cropping patterns
  - Livestock production
  - Shrinking access to resources such as land and water
  - Types of farm enterprises are evolving
- Availability of water for irrigation is critical
- Demand for local food is growing; capacity to produce that food is threatened

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Processing, Distribution, Marketing

- Food safety regulations challenge local, small-scale producers
- Economies of scale exist for large farms
- Local food interest is related to: sustainability, food security, economics
- Processing and distribution capacity has influence on availability of food, variety of food choices, and access

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Public Health, Nutrition, Food Security

- Access to healthy food can be limited by:
  - Physical access to markets and sources
  - Cost
  - Cultural relevance
- Community gardens can improve access to healthy food for at-risk populations
- Self sufficiency challenge isn't limited to those below 'poverty' level

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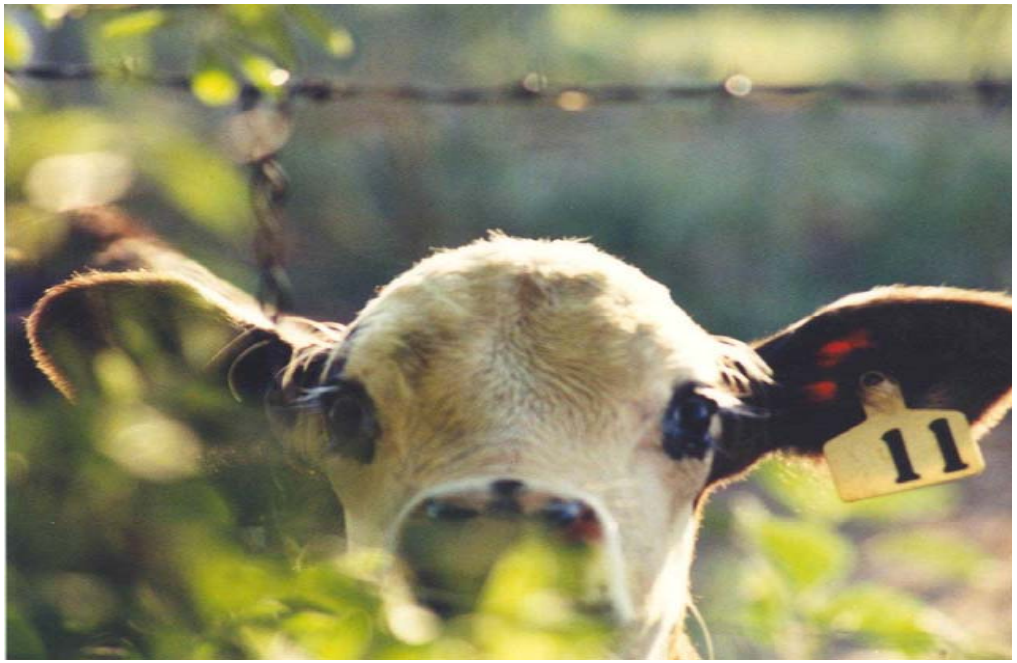
SUMMARY OF DATA COLLECTED



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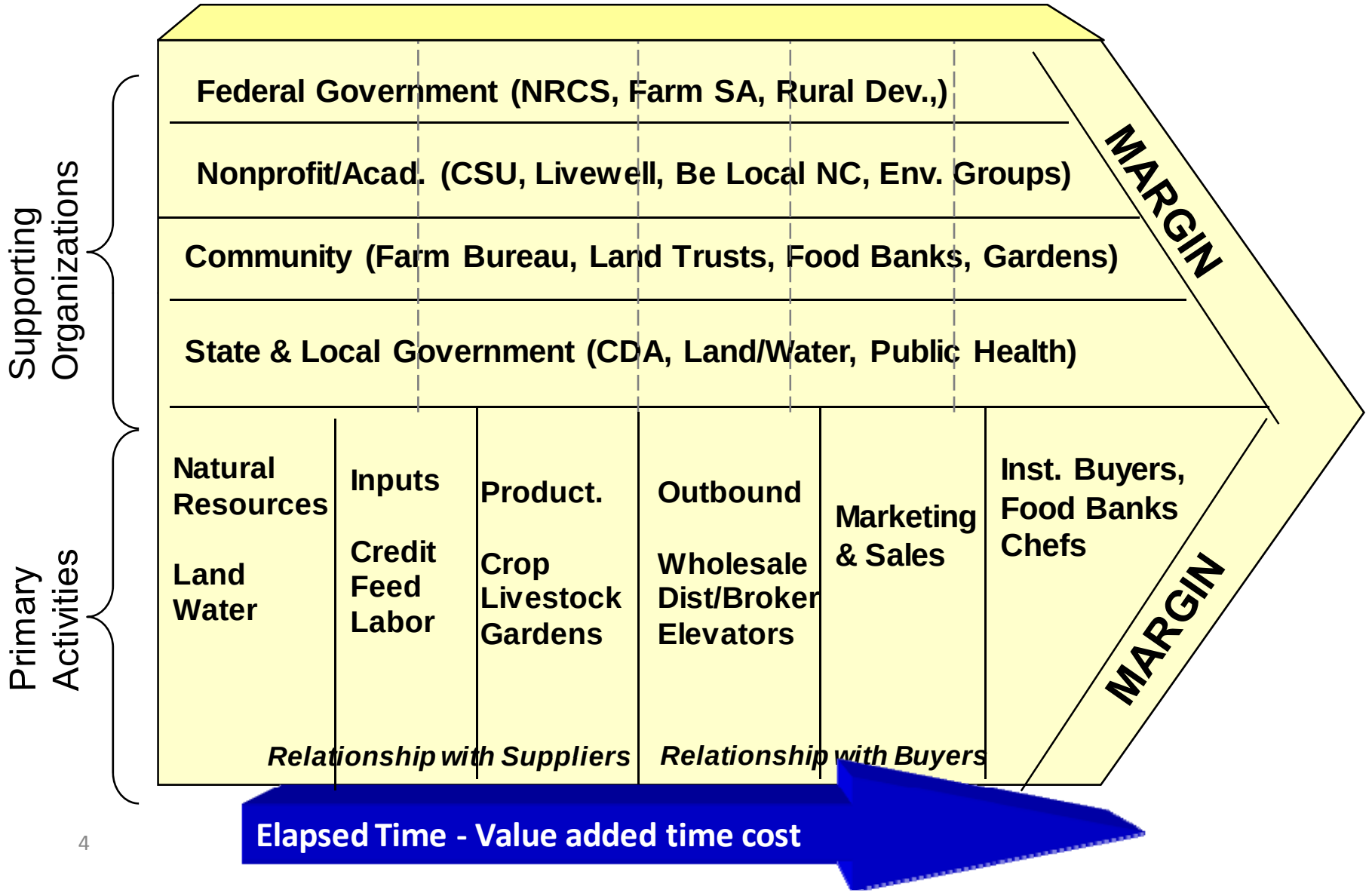
The Food System



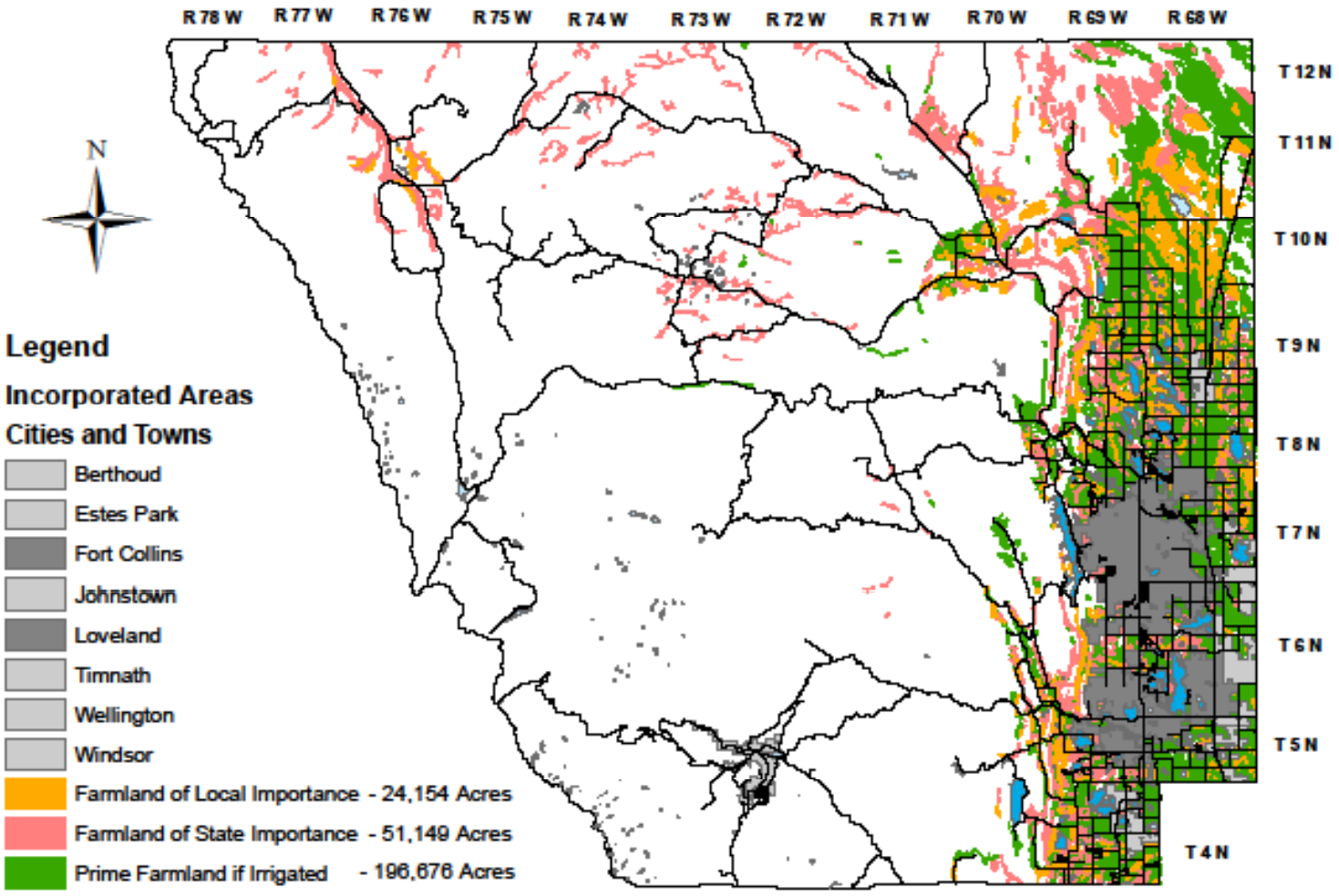
Inputs to Agriculture

Natural Resources - Data for each County

- Maps of county with current use/zoning delineated
- Maps of relevant water districts with production delineations (irrigated vs. non-irrigated, types of irrigation)
- Land use trends for the past 20 years
- Water consumption for past 20 years
- Estimates of 'revenue' per acre for land and acre-foot for water (from aggregate numbers)
- Bridge to Production

Larimer County Land Statistics **2007**

- County Land Area 1,684,320 acres
- Land in Farm & Ranches 489,819 acres 29%
- Cropland 119,984 acres
- Pasture and Rangeland 313,416 acres
- Irrigated Land 63,405 acres



Important Farmland by Soil Characteristics for Larimer County, Colorado

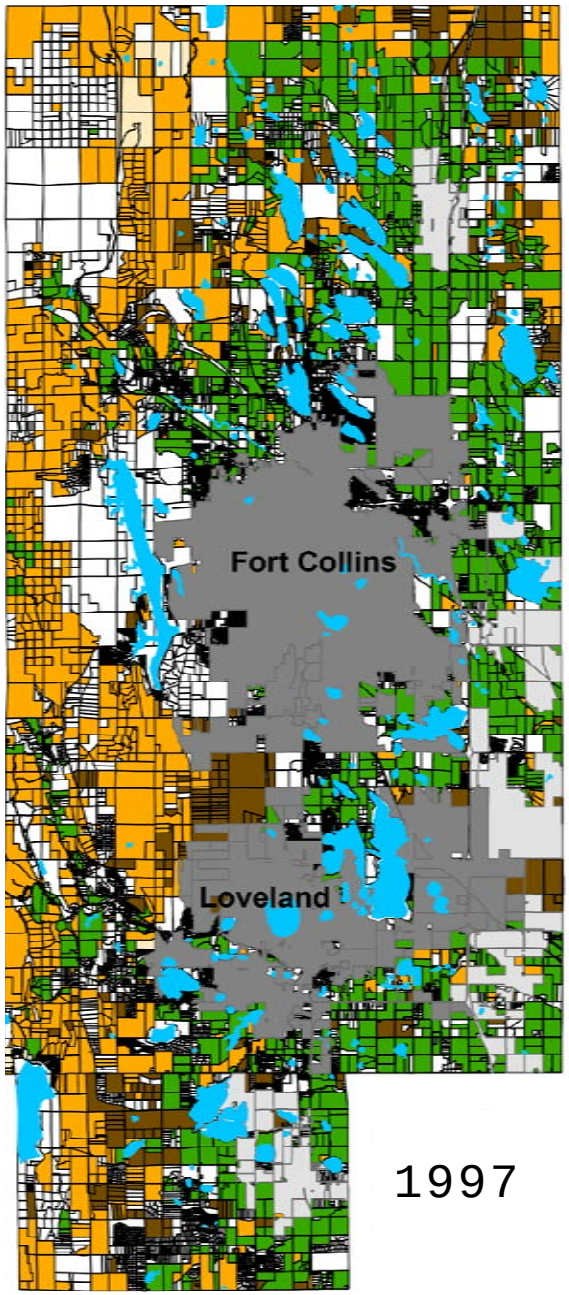
June 2010

Larimer County Front Range Area Agricultural Land Use

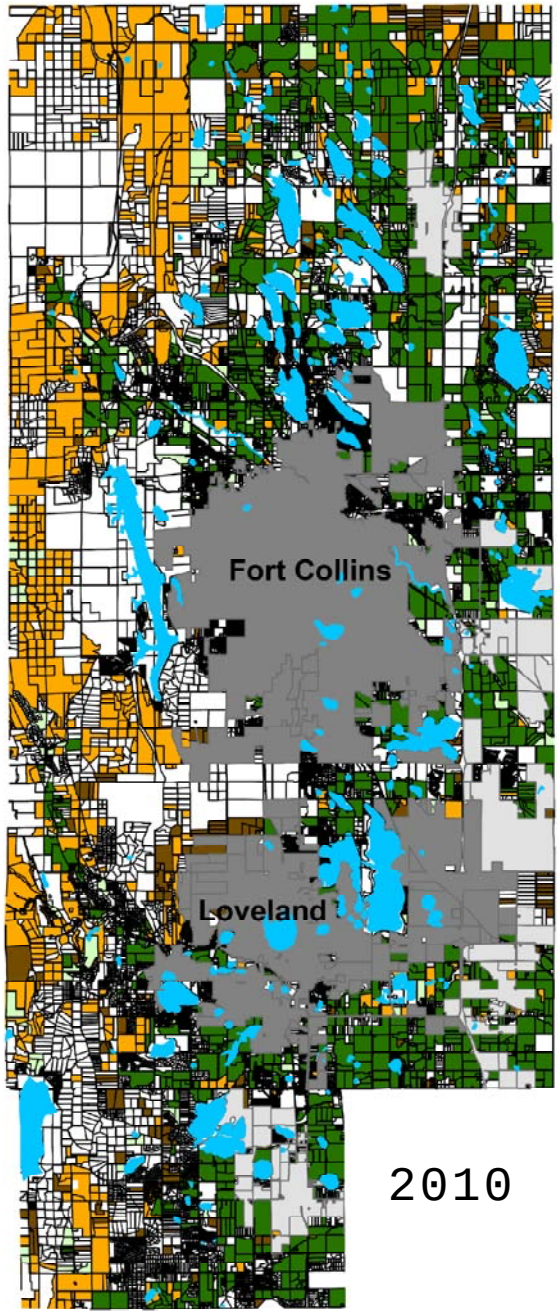
Agricultural Type	Acres 1997	Acres 2010
Irrigated land	75,072	65,622
Grazing land	64,543	52,611
Dry land	22,962	17,415
Meadow		9,026
Other agricultural land	2,463	

See maps on next slide

LARIMER COUNTY
COMMITTED TO EXCELLENCE

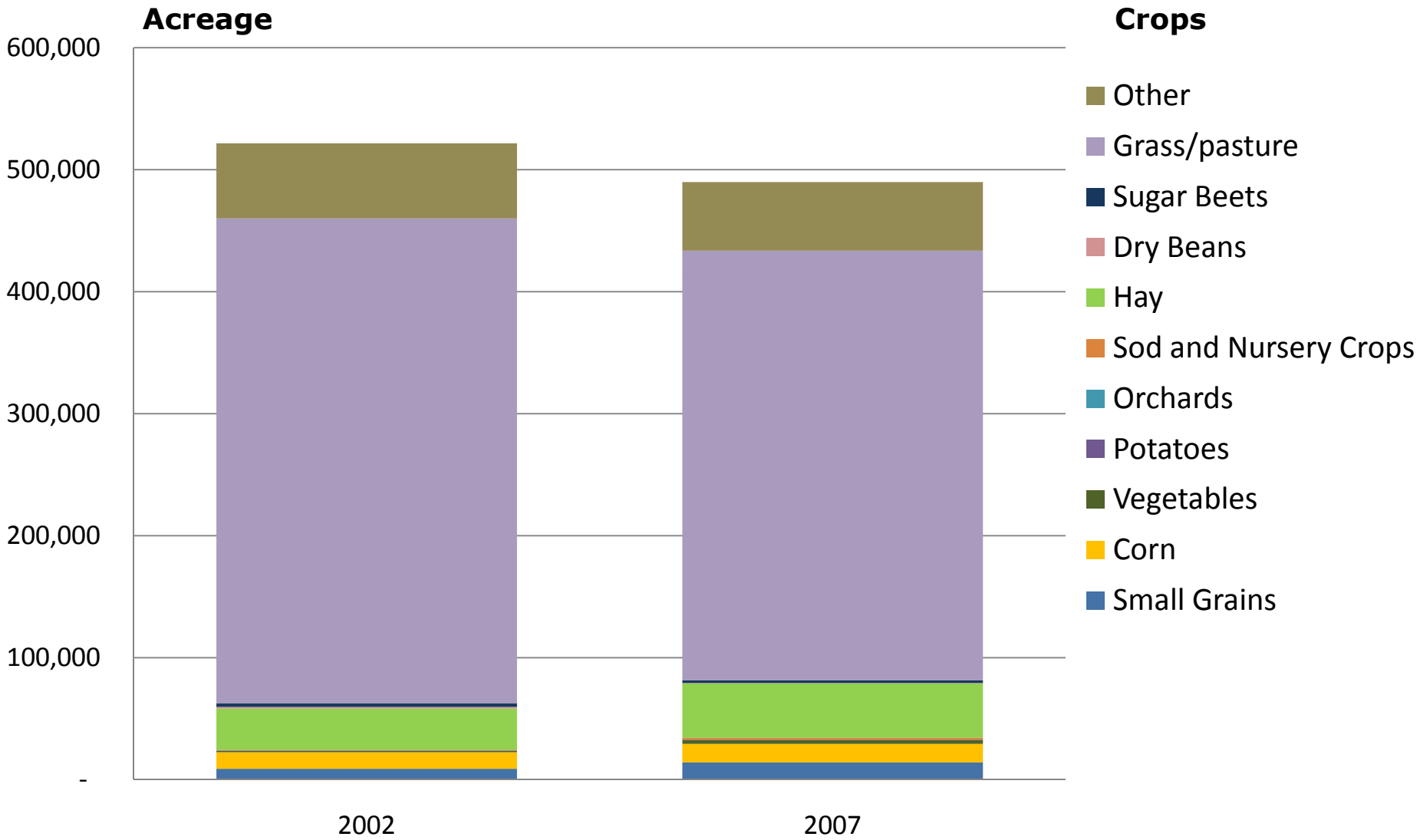


1997



2010

Land Use and Change **2002 - 2007**

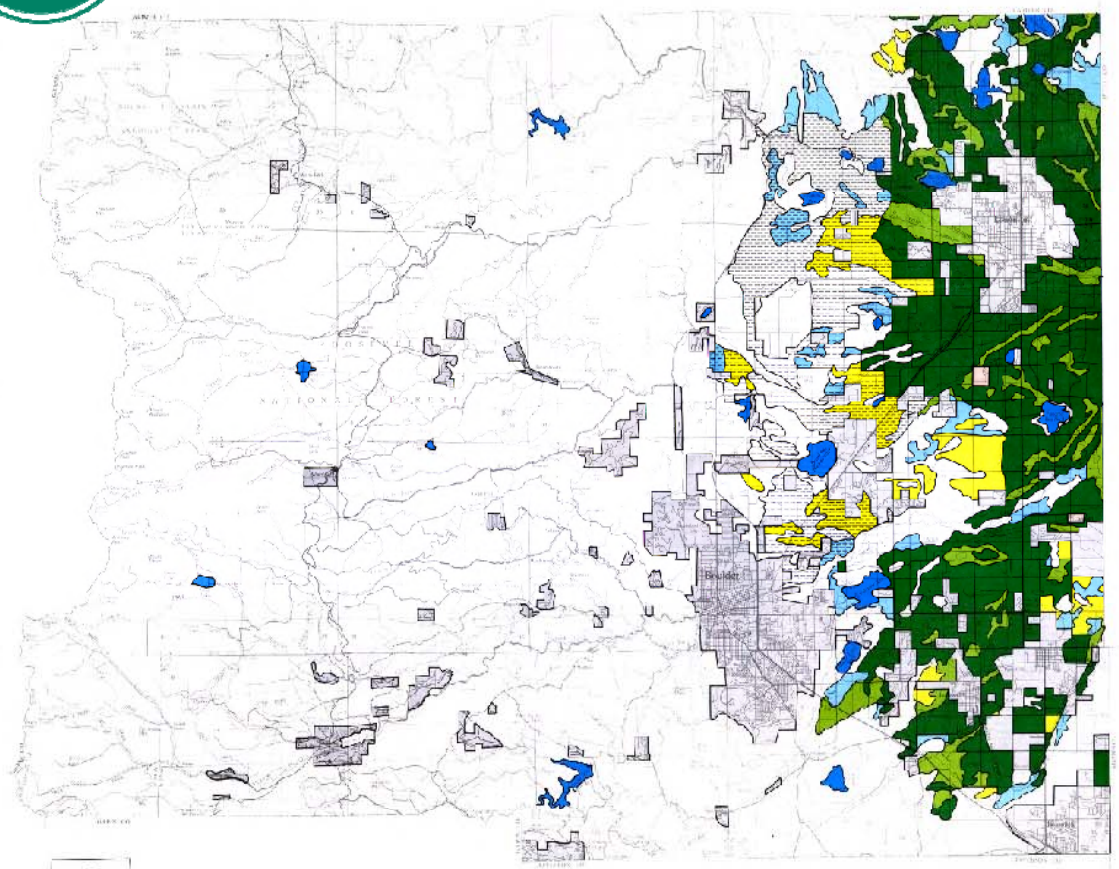


Boulder County Land Statistics **2007**

• County Land Area	473,907 acres	
• Land in Farms & Ranches	137,668 acres	29%
• Cropland	54,425 acres	
• Pasture and Rangeland	72,375 acres	
• Irrigated Land	33,871 acres	

Boulder County

IMPORTANT FARMLANDS OF BOULDER COUNTY COLORADO



FARMLANDS OF NATIONAL IMPORTANCE

- PRIME (IRRIGATED)

FARMLANDS OF STATEWIDE IMPORTANCE

- IRRIGATED LAND (NOT PRIME)
- IRRIGATED LAND (WATER SUPPLY INADEQUATE)
- HIGH POTENTIAL DRY CROPLAND - PRIME IF THEY BECOME IRRIGATED

OTHER CATEGORIES

- PRIME IF THEY BECOME IRRIGATED
- URBAN AND URBAN BUILD-UP LAND
- WATER
- OTHER LAND

FOR EXPLANATION SEE BACK

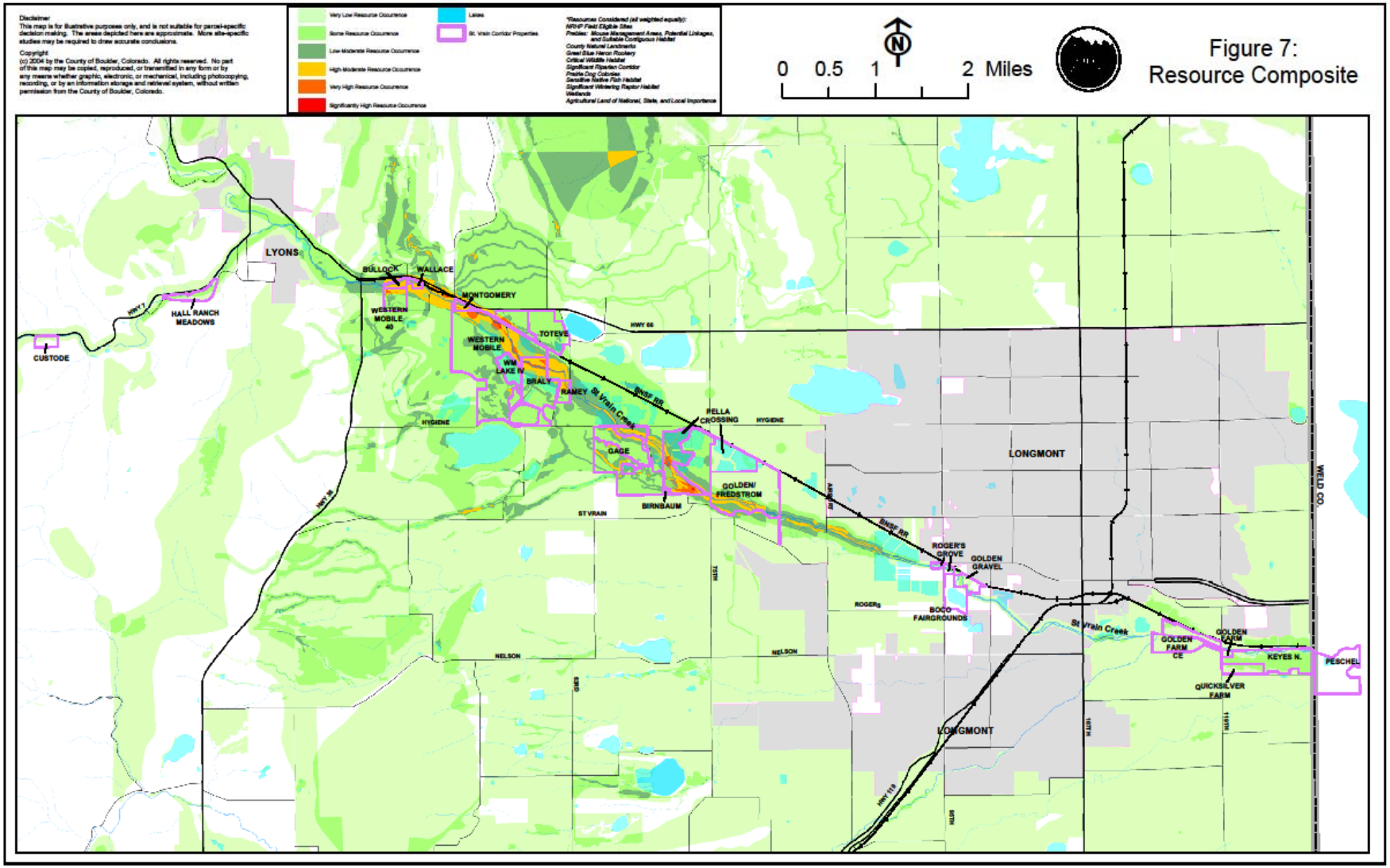
LOCATION MAP

SCALE 1:100 000

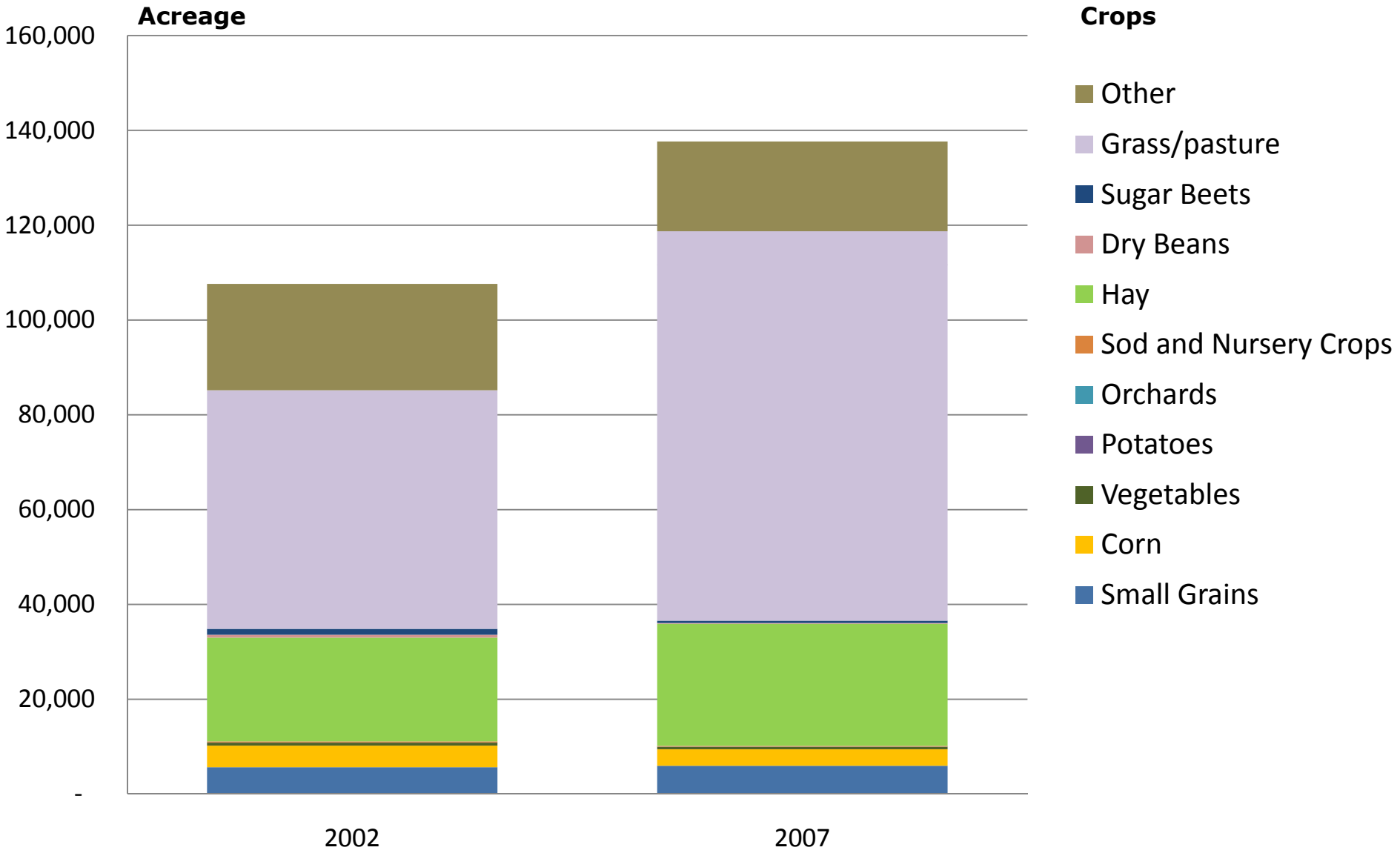
BOULDER COUNTY, COLORADO

PREPARED BY USDA-SOIL CONSERVATION SERVICE AND COLORADO STATE UNIVERSITY EXPERIMENT STATION 1979

Boulder County



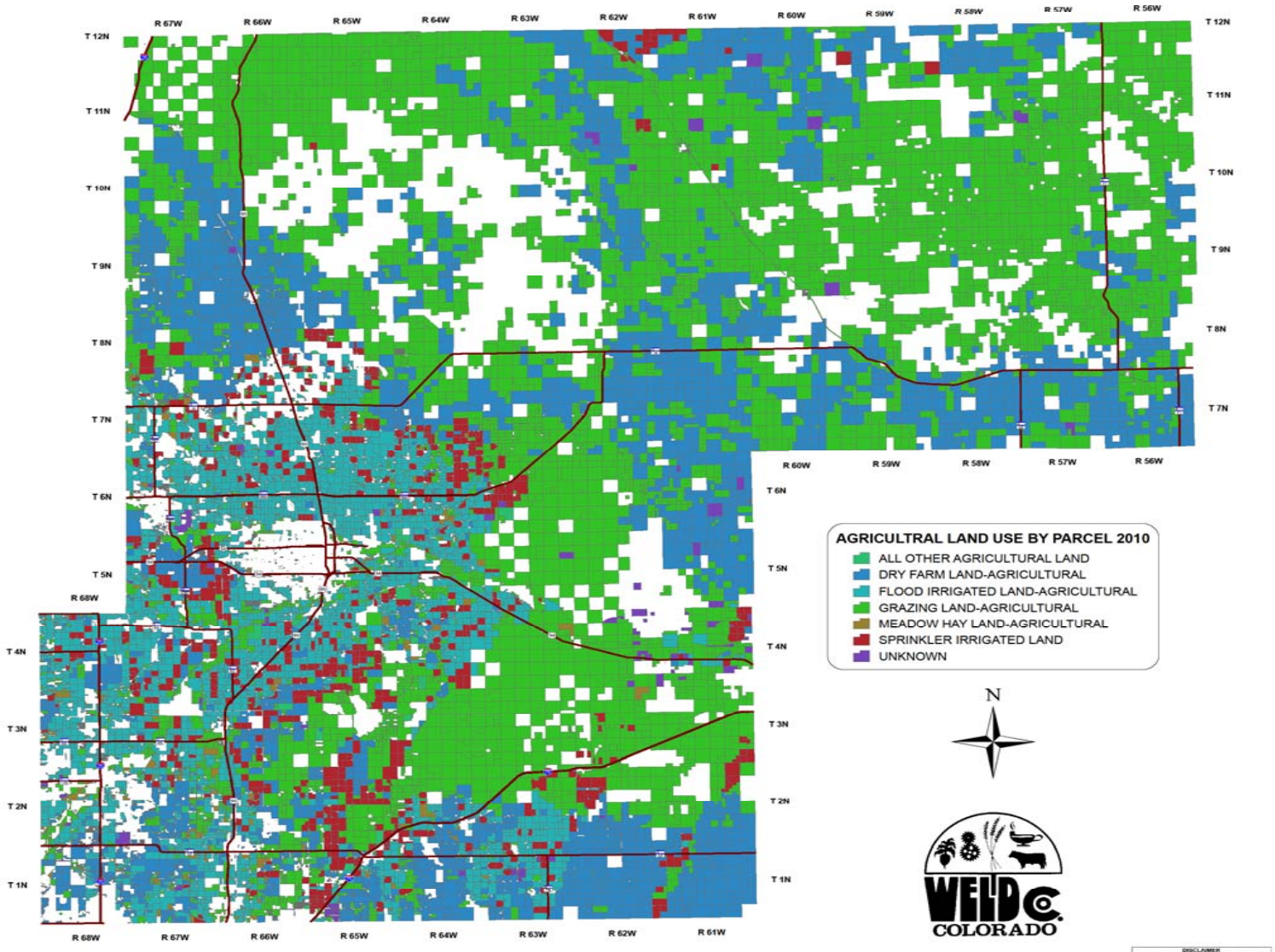
Land Use and Change **2002 - 2007**



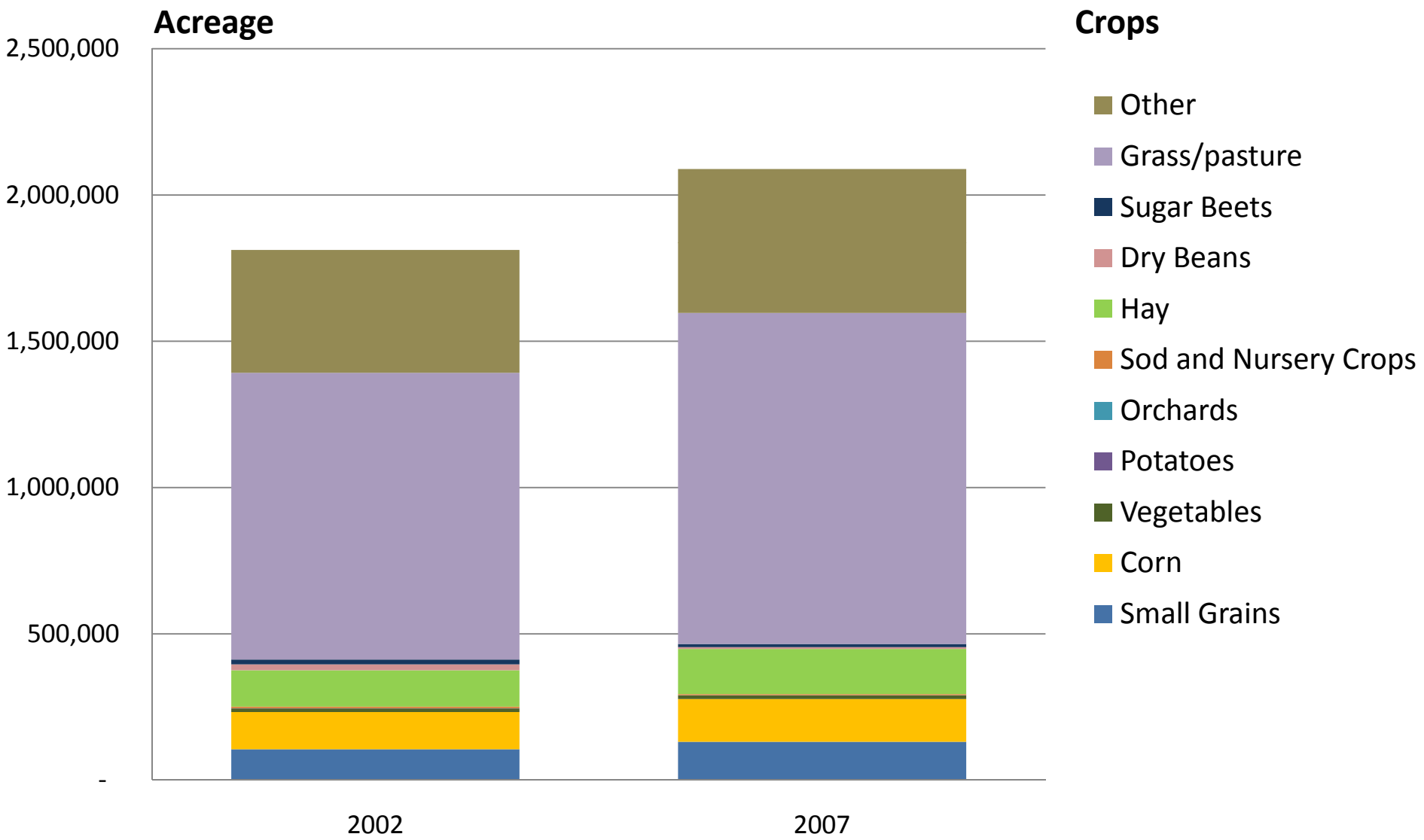
Weld County Land Statistics **2007**

• County Land Area	2,568,855	acres	
• Land in Farms & Ranches	2,088,715	acres	81%
• Cropland	987,892	acres	
• Pasture and Rangeland	1,018,667	acres	
• Irrigated Land	327,836	acres	

WELD COUNTY AGRICULTURAL USE



Land Use and Change **2002 - 2007**



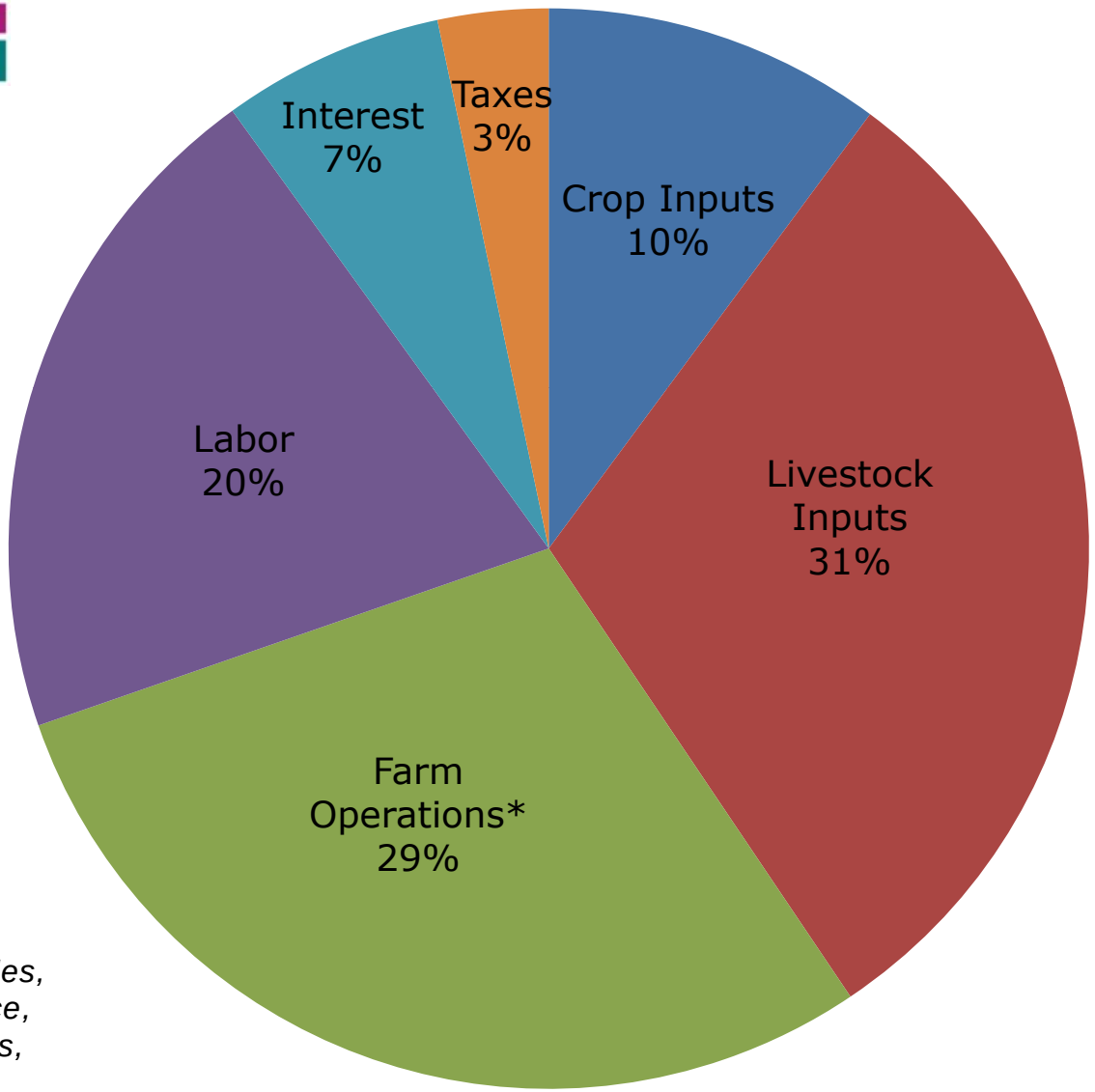
Inputs to Agriculture

Products and Services

- Data from Business Census on Revenue/Employment
- Estimates of production expenses invested by producers in the region, derived from reported expenses in the 2007 Census
- Data shared by participating coops, businesses and industry organization contacts
- When necessary, state-level Business Census data was used to estimate our region's share of state total
- More complete state data helps to 'truth' estimates
- Baseline labor use data for region from Census and USDA estimates

Larimer County Production Expenses

Total $113,596,000

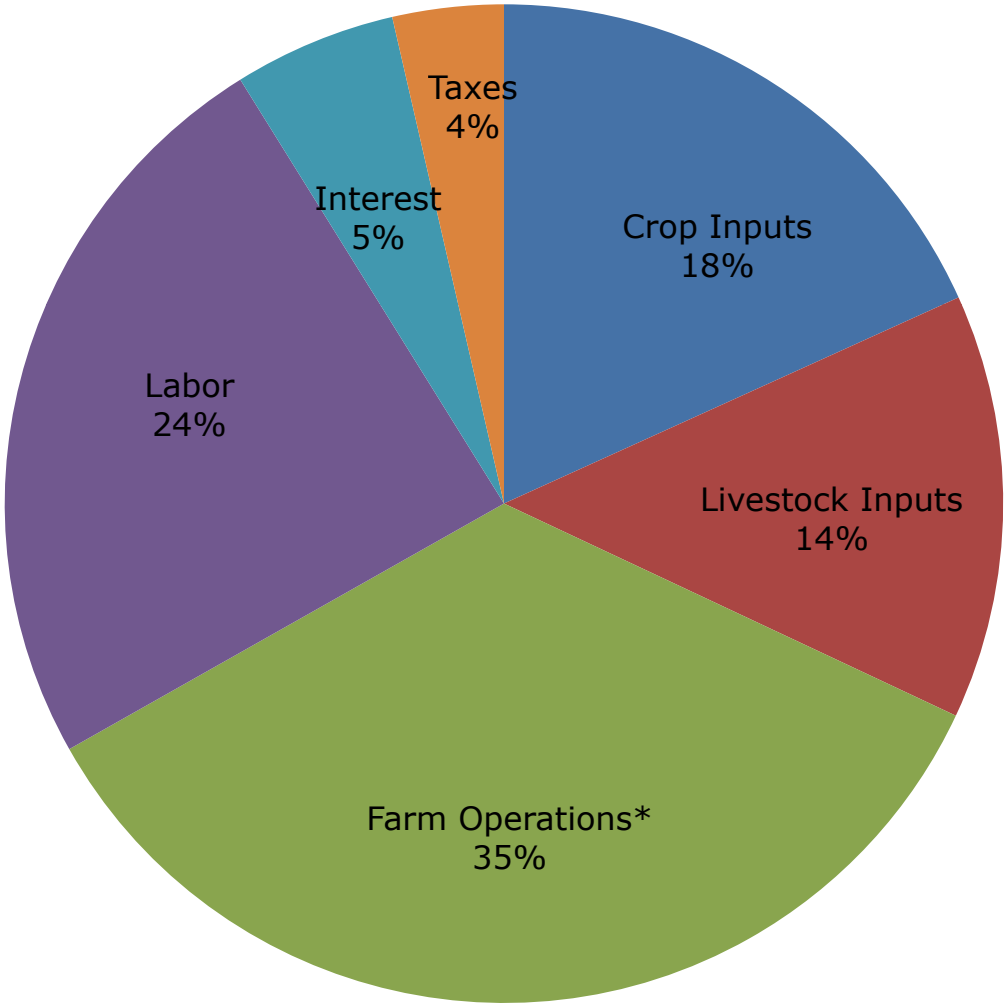


*** Farm Operations**

include rent on land, buildings, pasture, machinery, and vehicles, as well as maintenance, supplies, utilities, fuels, and other costs

Boulder County Production Expenses

Total $39,382,000

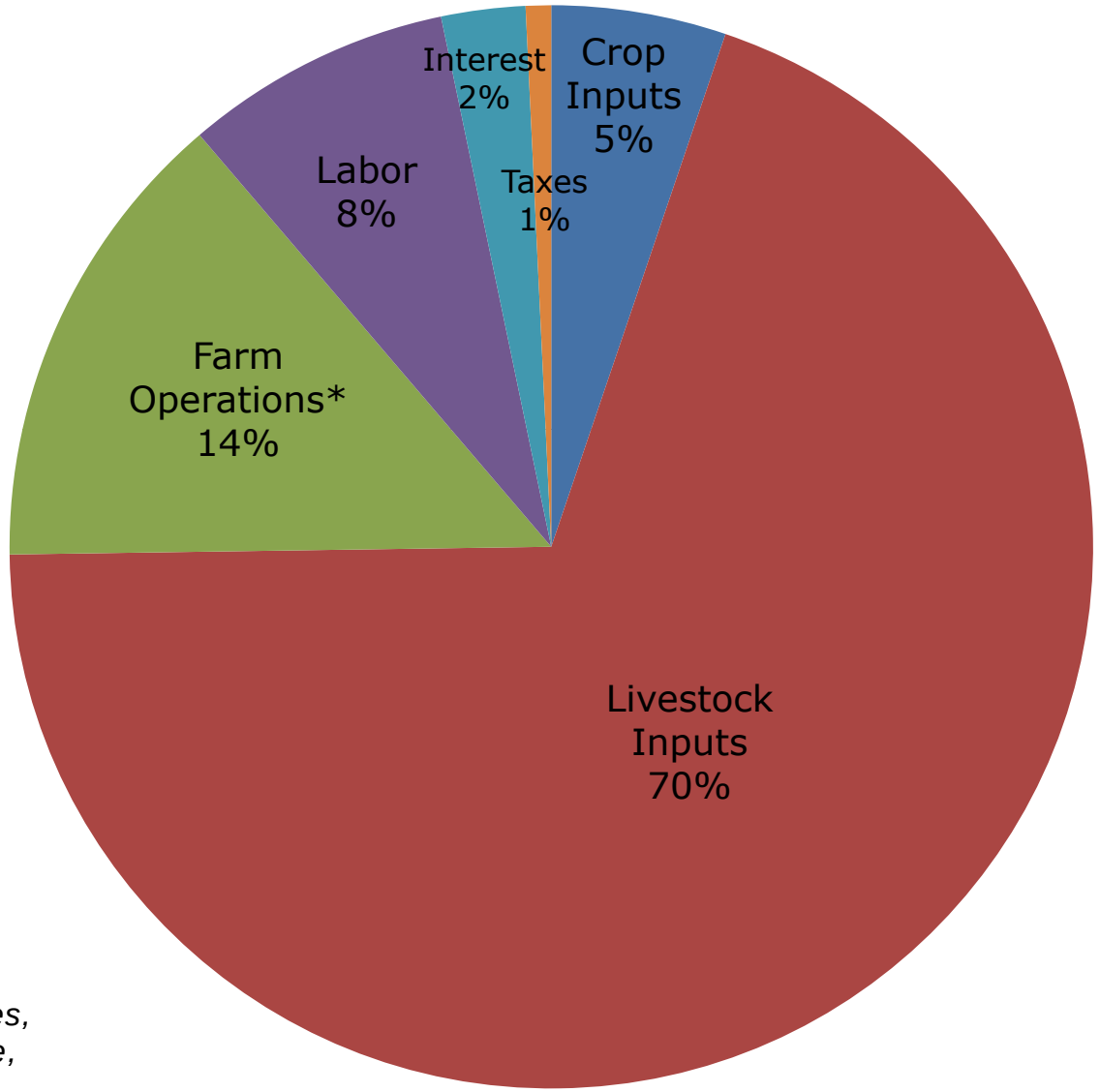


*** Farm Operations**

include rent on land, buildings, pasture, machinery, and vehicles, as well as maintenance, supplies, utilities, fuels, and other costs

Weld County Production Expenses

Total $1,377,792,000



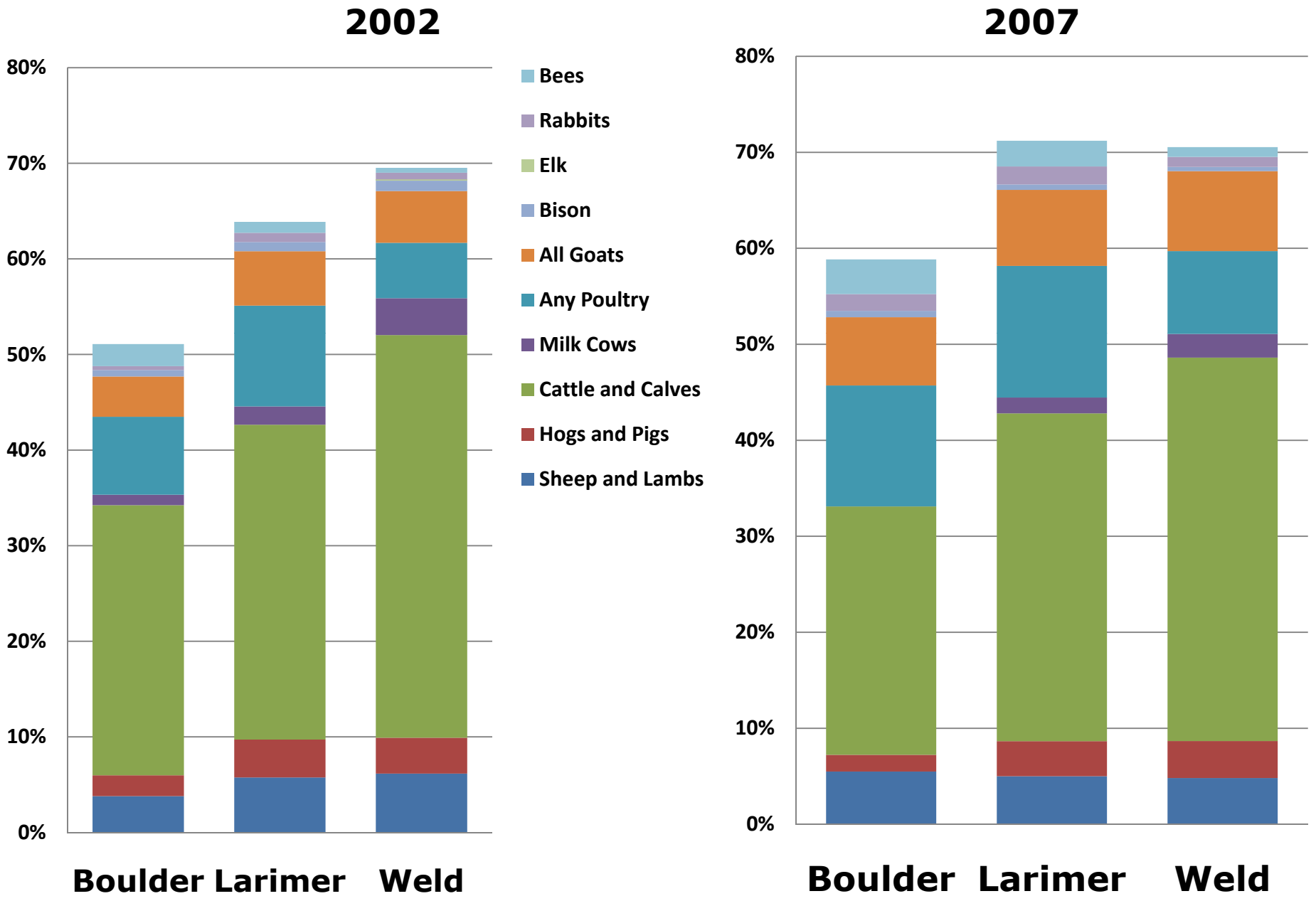
*** Farm Operations**

include rent on land, buildings, pasture, machinery, and vehicles, as well as maintenance, supplies, utilities, fuels, and other costs

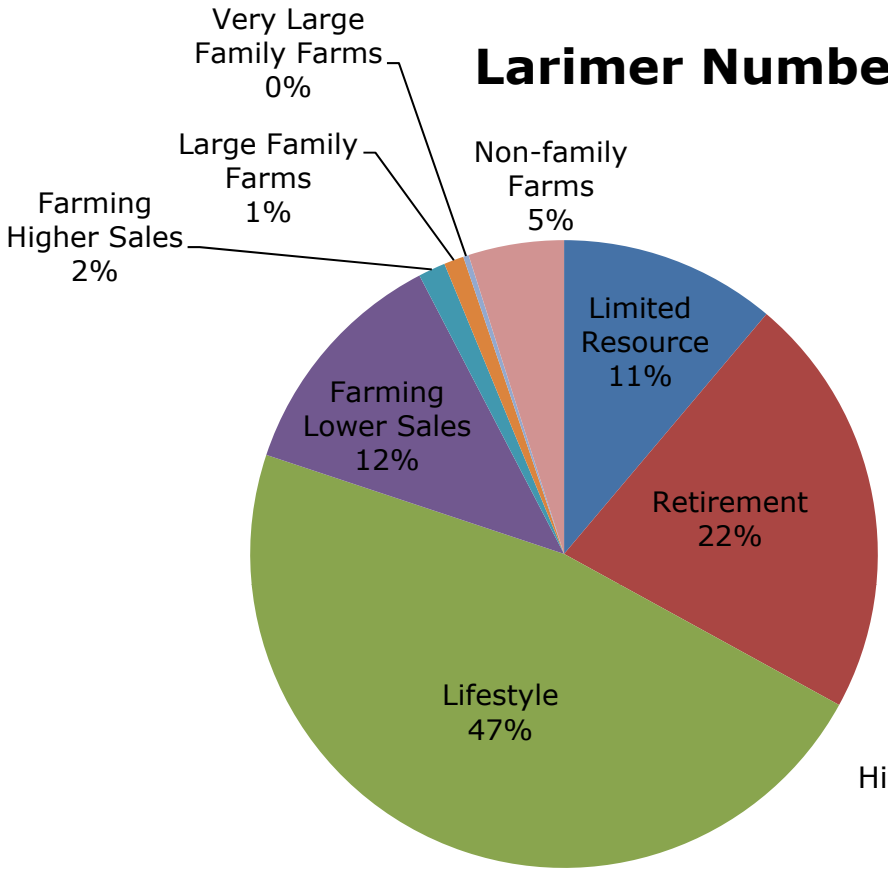
Agricultural Production

- Data collected on total acres, revenues, cropping mix, structure of farms (by size), animal numbers and revenues
- Trends on total land, animals, revenues and major crops
- Some differentiation by market; direct sales, agritourism, organic
  - Bridge to marketing and distribution
- Trends in size and ages of ag operators
- Estimates of 'revenue' per acre for land in different cropping systems
  - Bridge to Ag Inputs

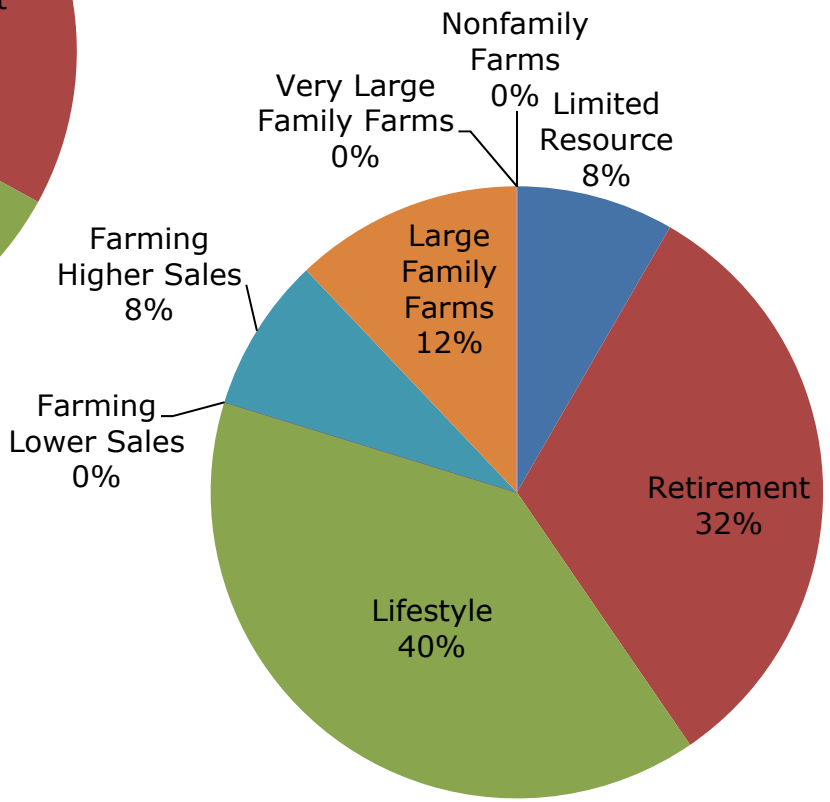
Types of Livestock



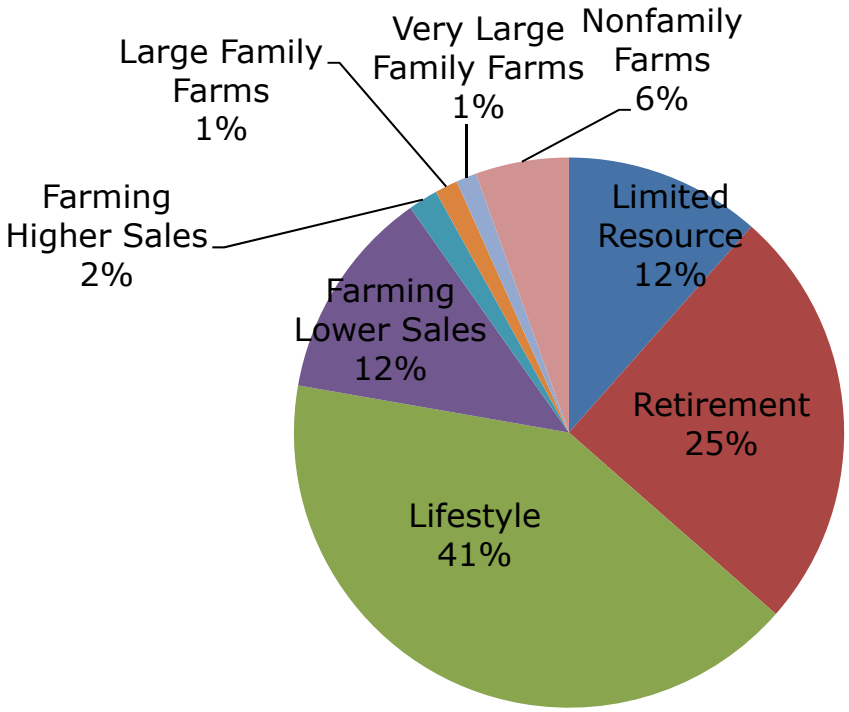
Larimer Number of Farms



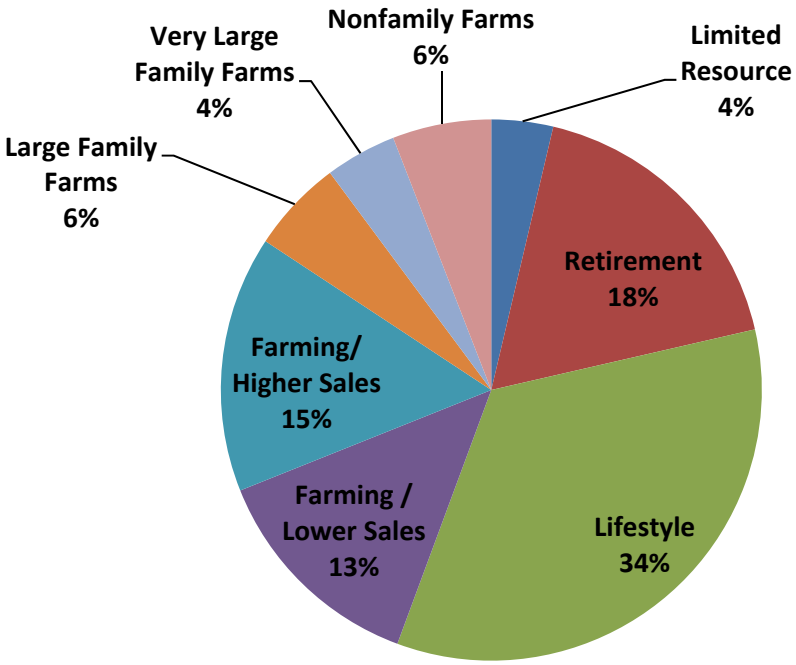
Larimer County Acres



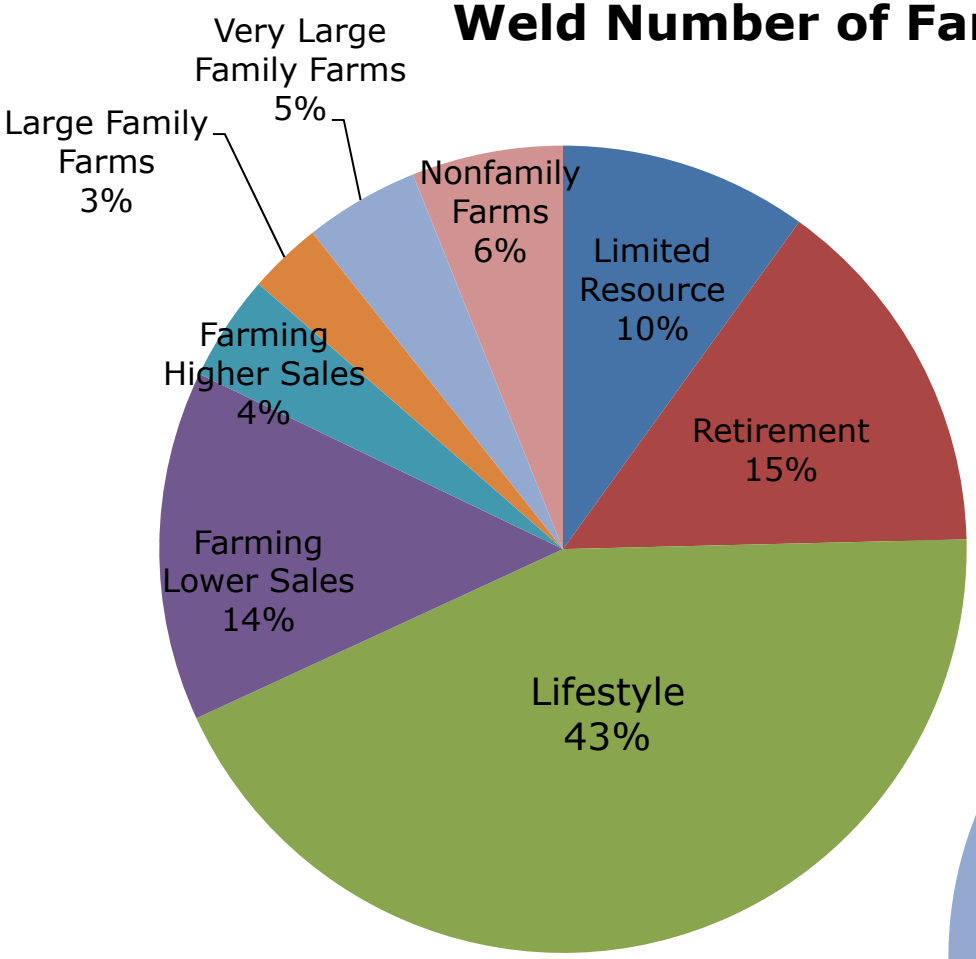
Boulder Number of Farms



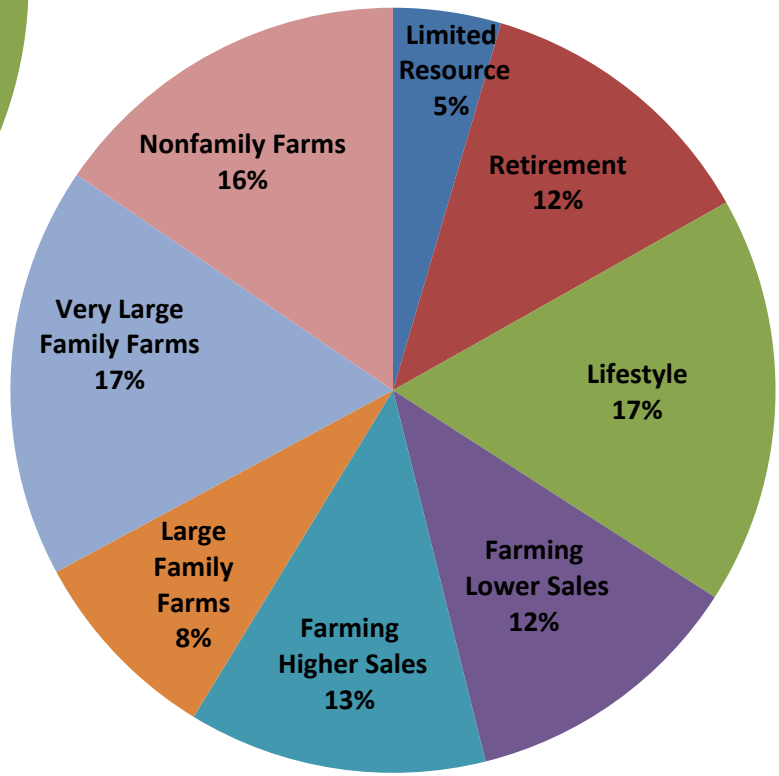
Boulder County Acres



Weld Number of Farms



Weld County Acres

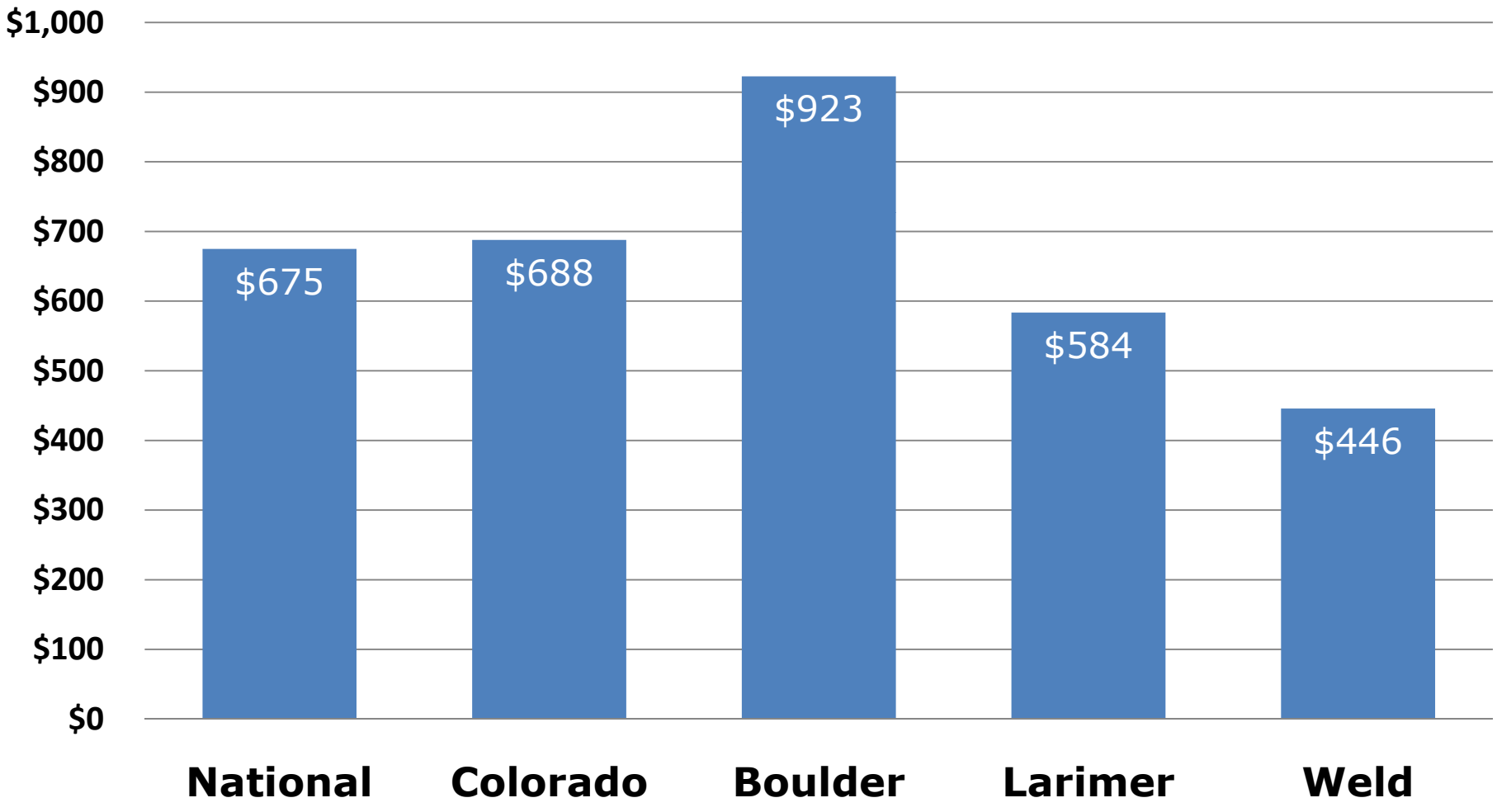


Processing, Distribution, and Marketing

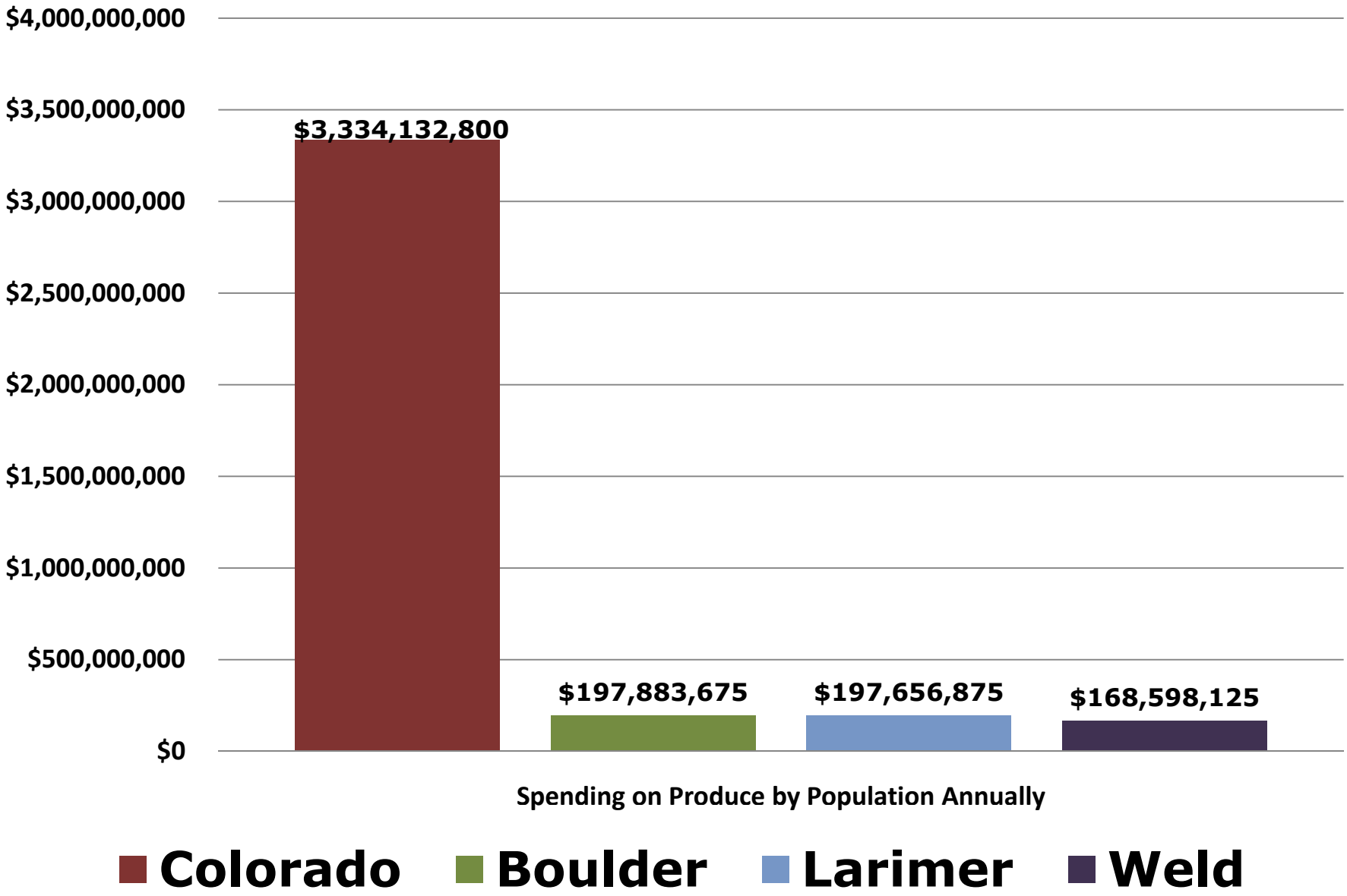
- Household income, food spending and fresh produce spending
  - From CSU study, estimates on primary and seasonal food markets
  - Food expenditure estimates altered by higher Colorado spending and income
- Data from Business Census, retail food sales revenues and money spent at food service/restaurants
  - Wholesale distribution and food brokering
  - Capacity estimates on USDA inspected livestock/animal product slaughter and processing (link to marketing)
- Estimates on food expenditures by school district (estimated using per-student numbers)
  - Share that are reduced-free as bridge to Food Security
- Comparisons of local, direct sales (Ag Census) with households who shop/prefer local and direct purchases to determine 'gaps'
  - Bridge to production

Annual Per Capita Spending on Produce

Based on per capita weekly spending on produce (CSU study average), per capita population estimate adjustments for county buying patterns



Potential Market Size for Produce

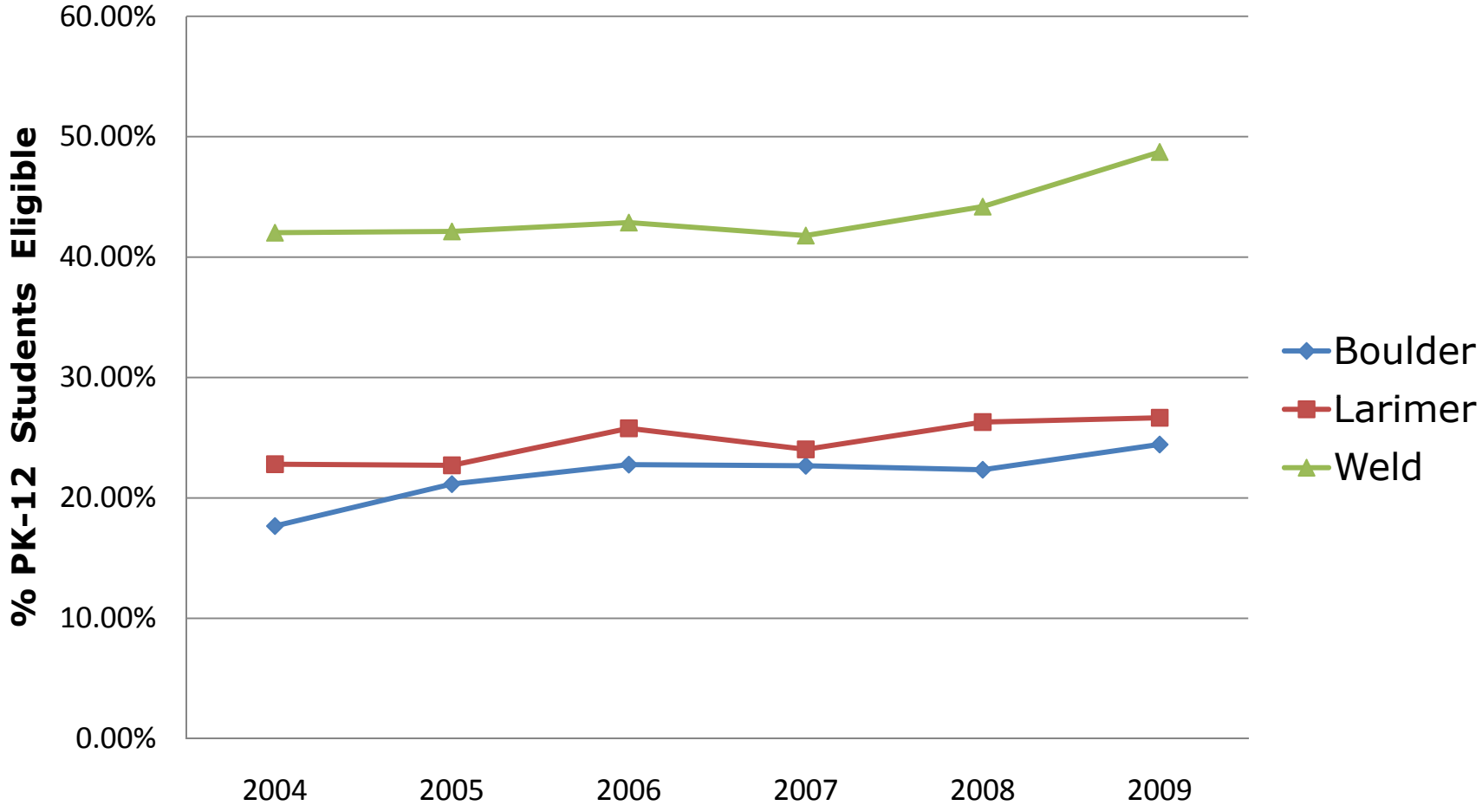


Public Health, Nutrition, and Food Security

- Free and reduced lunch usage (as indicator of food security)
  - Bridge to marketing
- Number of community gardens in the three counties
  - Bridge to production
- Food provided by Food Banks and food security programs
- Incidence of obesity and diabetes (diet related health outcomes)
- Share of households consuming recommended produce
  - Bridge to marketing

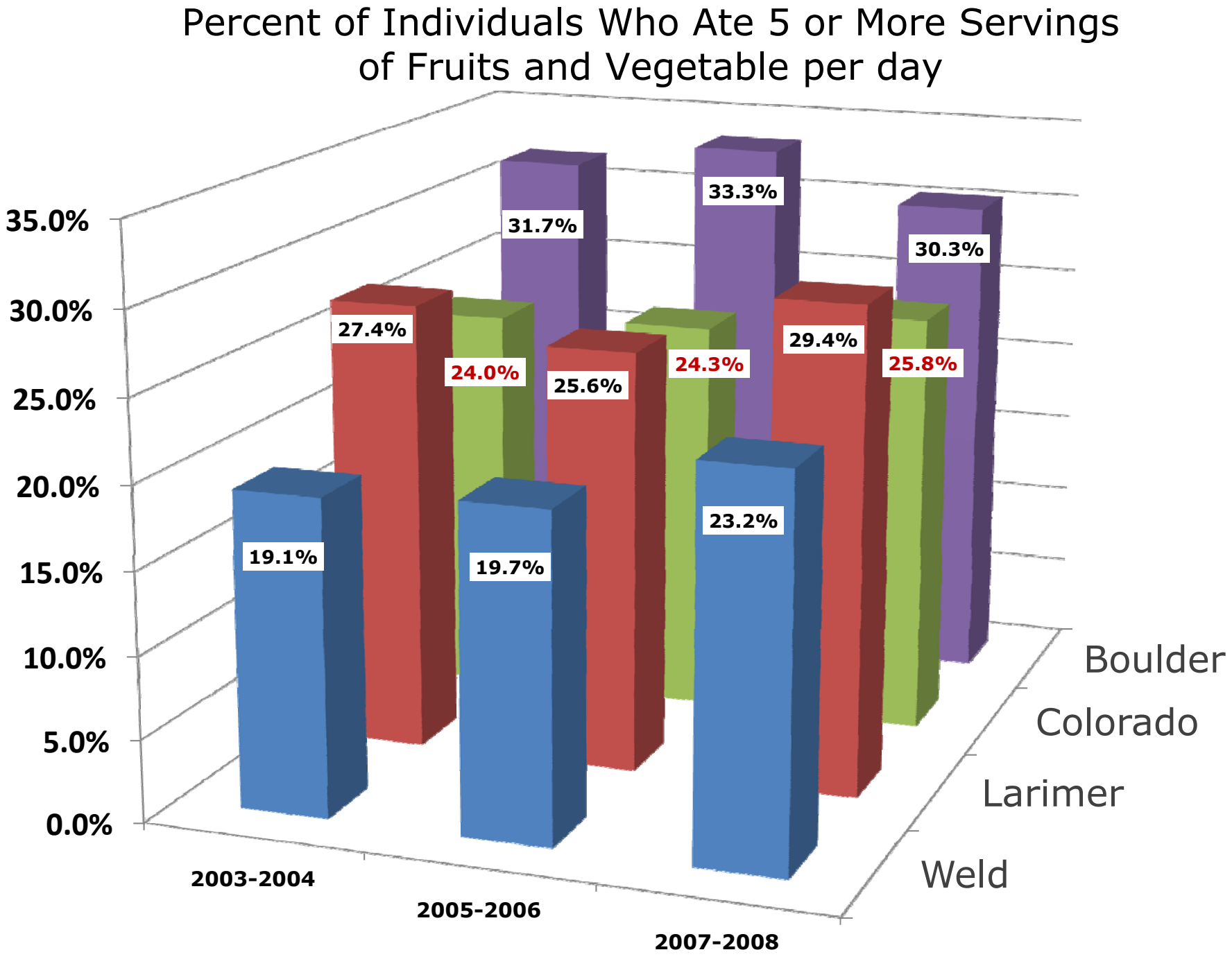
Free and Reduced School Lunch

Eligibility of Students by County

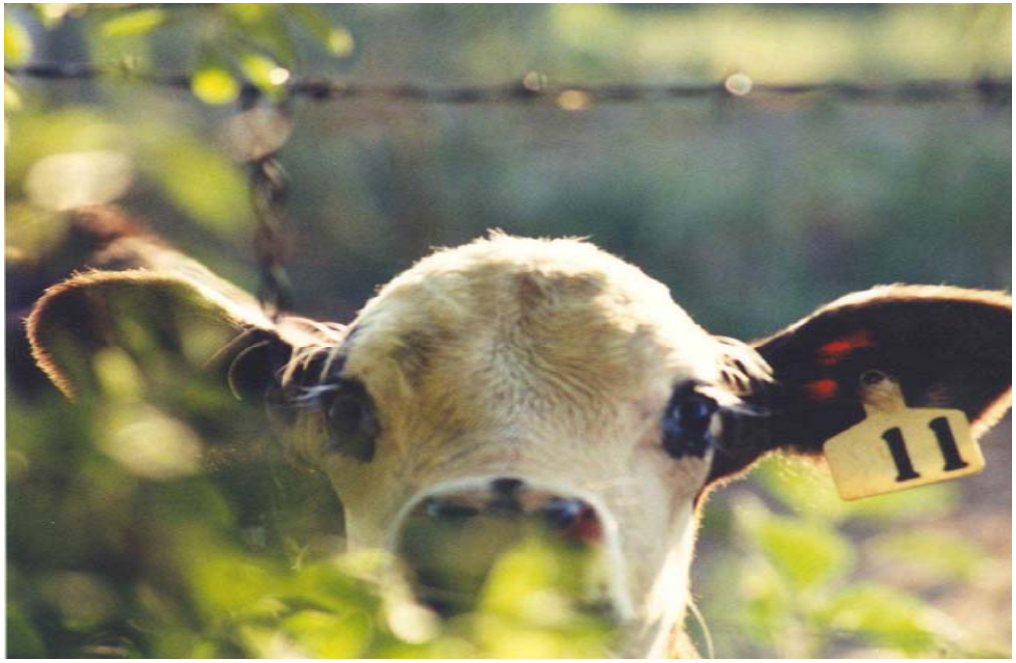


Regional value of potential school lunches*	$ 24,379,920
Regional value of potential free & reduced school lunches*	$ 7,737,120

*2009 PK-12 student membership, 180 school days, $1 per meal


Percent of Individuals Who Ate 5 or More Servings of Fruits and Vegetable per day
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
31.7%
33.3%
30.3%
27.4%
24.0%
25.6%
24.3%
29.4%
25.8%
19.1%
19.7%
23.2%
2003-2004
2005-2006
2007-2008
Boulder
Colorado
Larimer
Weld

NEXT STEPS



Northern Colorado Regional Food System Assessment

www.larimer.org./foodassessment/

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Jim Deeds

Joe Cacka

Food Assessment Public Meetings

- **Food System 'Element' Open Houses**
  August/September 2010

- Southwest Weld County Services Complex
- 4209 Weld County Rd 24½, Longmont
- I-25 and Exit 240
- **Thursdays** 4:00 – 7:00 PM
-
- **Date** **Topic**
- Aug 12 Inputs to Agriculture (land, water, labor, financing)
-
- Aug 19 Agricultural Production
-
- Aug 26 Processing, Distribution, Marketing
-
- Sept 2 Public Health, Nutrition, Food Security
-
- Details online at www.larimer.org/foodassessment/ *(Public Meetings Page)*

- **Results' Meetings Winter 2010**

Northern Colorado Regional Food System Assessment

www.larimer.org/foodassessment/

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Context of this Work

- Colorado Food Systems Advisory Council
- Fort Collins Downtown Development Authority Market Place Project
- Food, Conservation, and Energy Act of 2008 (Farm Bill)

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Trivia Quiz & Answers

Question	Boulder County	Larimer County	Weld County
What percentage of the county's land area is in agriculture?			
answer	29%	29%	81%
What percentage of production expenses go to paid labor?			
answer	24%	20%	8%
What was the fastest growing livestock category, as measured by the number of farms?			
answer	Goats*	Bees	Bees
How many school lunch meals are potentially served in the region per year?			
answer	24,379,920 (for the region)		
What percentage of the county's consumers ate the suggested 5 or more servings of fruits and vegetables per day in the '07-'08 period?			
answer	30.3%	29.4%	23.2%

*In Boulder county, bees are the 2nd fastest growing livestock category