

# Colorado's Agribusiness System: Its Contribution to the State Economy in 1997

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# The Contribution of Colorado's Agribusiness System to the State's Economy in 1997



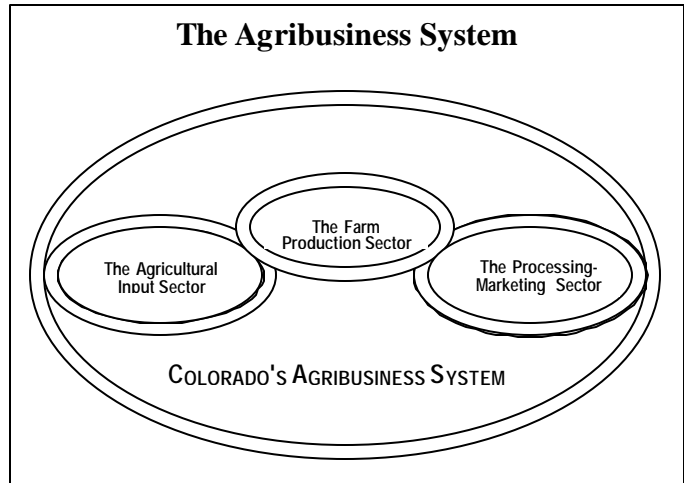
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## Executive Summary \*

### What is the Agribusiness System?

The *Agribusiness System* is composed of three distinct economic sectors: Farm Production, Agricultural Inputs, and Agricultural Processing and Marketing.

*Agribusiness* encompasses the traditional farm production of commodities such as wheat, corn, and livestock, green industry, and horse industry with linkages to the agricultural inputs necessary for their growth. Agribusiness also includes the first order processing and marketing necessary to bring the final goods to the consumer. Agribusiness does not include economic contributions from restaurants and supermarkets.



### What is Economic Contribution?

This paper describes *economic contribution* in four ways: employment, income, value added, and gross sales.

**Employment** shows the number of jobs that are located in the different industries. Farm employment production numbers reflect FTE labor and include farmer owner/operator's labor only if (1) the farmer owner/operator reported agriculture as the primary source of income and (2) the farmer owner/operator employed additional laborers as reported by the Colorado Department of Labor and Employment.

**Proprietor and Labor Income** includes net income from employees and business but does not include corporate farm income, which is provided in the full report. This section does not suffer from the double counting problem associated with gross sales.

| Economic Sector           | Employment     |             | Income         |             | Value Added (\$Million) | Gross Sales (\$Million) |
|---------------------------|----------------|-------------|----------------|-------------|-------------------------|-------------------------|
|                           |                | % of State  | (\$Million)    | % of State  |                         |                         |
| Farm Production           | 38,508         | 1.63        | \$733          | 0.65        | \$816                   | \$4,534                 |
| Inputs                    | 36,364         | 1.54        | 685            | 0.61        | 872                     | 1,531                   |
| Processing/Marketing      | 30,267         | 1.28        | 1,046          | 0.93        | 1,611                   | 9,803                   |
| <b>Total Agribusiness</b> | <b>105,140</b> | <b>4.44</b> | <b>\$2,464</b> | <b>2.19</b> | <b>\$3,299</b>          | <b>\$15,868</b>         |
| State Totals:             | 2,365,508      |             | \$112,699      |             | N/A                     | N/A                     |

**Value added** is often cited as the most accurate measure of economic contribution. It is net income plus indirect business taxes paid to government entities.

**Gross Sales** is a common measure of economic performance. However, double counting as each product moves from one sector to the next in the agribusiness system limits its validity.

\* This is the executive summary of the full report that can be obtained from the Colorado State University Cooperative Extension Resource Center, General Services Building, Fort Collins, Colorado, 80523-1172 (970-491-6198), or the Department of Agricultural and Resource Economics website: <http://dare.agsci.colostate.edu/questions.html>

## Colorado Farm Gate and Agribusiness Employment, Income, and Sales by County in 1997

| County          | Employment    |                |                | Personal Income (\$1,000) |                    |                | Sales (\$1,000)         |                      |
|-----------------|---------------|----------------|----------------|---------------------------|--------------------|----------------|-------------------------|----------------------|
|                 | Farm Gate     | Agribusiness   | % Total County | Farm Gate                 | Agribusiness       | % Total County | Farm Gate+Agribusiness* |                      |
| Adams           | 1,491         | 5,951          | 4.3%           | \$28,590                  | \$145,176          | 2.1%           | \$87,739                | \$941,927            |
| Alamosa         | 468           | 677            | 7.2%           | 17,333                    | 21,523             | 7.9%           | 57,195                  | 68,323               |
| Arapahoe        | 411           | 5,279          | 1.8%           | -1,487                    | 114,278            | 0.7%           | 23,612                  | 487,242              |
| Archuleta       | 180           | 239            | 5.3%           | -60                       | 698                | 0.7%           | 6,149                   | 8,256                |
| Baca            | 869           | 1,034          | 27.6%          | 26,058                    | 28,417             | 36.5%          | 77,369                  | 93,978               |
| Bent            | 493           | 589            | 19.4%          | 15,969                    | 17,445             | 16.8%          | 50,975                  | 56,269               |
| Boulder         | 1,055         | 5,069          | 3.1%           | 14,308                    | 107,094            | 1.1%           | 43,671                  | 624,242              |
| Chaffee         | 177           | 269            | 3.2%           | -682                      | 747                | 0.4%           | 5,161                   | 9,563                |
| Cheyenne        | 278           | 384            | 24.0%          | 7,311                     | 9,586              | 23.7%          | 33,645                  | 40,507               |
| Clear Creek     | 0             | 36             | 0.8%           | 0                         | 404                | 0.3%           | 30                      | 1,799                |
| Conejos         | 610           | 810            | 23.7%          | 5,849                     | 8,847              | 12.9%          | 25,488                  | 34,635               |
| Costilla        | 279           | 421            | 28.6%          | 6,355                     | 7,332              | 20.7%          | 15,978                  | 20,056               |
| Crowley         | 291           | 327            | 20.7%          | 10,518                    | 11,185             | 22.0%          | 73,487                  | 74,990               |
| Custer          | 138           | 163            | 11.4%          | -559                      | -324               | -1.2%          | 4,816                   | 5,600                |
| Delta           | 1,301         | 1,968          | 15.9%          | 4,878                     | 18,087             | 6.3%           | 39,083                  | 106,484              |
| Denver          | 29            | 9,604          | 1.9%           | 942                       | 316,500            | 1.1%           | 2,174                   | 2,328,405            |
| Dolores         | 144           | 181            | 24.0%          | -290                      | 583                | 3.3%           | 8,601                   | 14,552               |
| Douglas         | 694           | 2,378          | 5.3%           | -624                      | 29,741             | 1.7%           | 17,119                  | 87,657               |
| Eagle           | 132           | 730            | 2.4%           | -985                      | 9,157              | 0.8%           | 7,413                   | 36,037               |
| Elbert          | 629           | 978            | 19.9%          | -2,751                    | 2,402              | 2.1%           | 31,249                  | 47,754               |
| El Paso         | 870           | 4,074          | 1.6%           | 566                       | 56,323             | 0.5%           | 30,330                  | 306,344              |
| Fremont         | 437           | 636            | 3.7%           | 1,186                     | 3,862              | 0.6%           | 12,126                  | 28,971               |
| Garfield        | 578           | 1,069          | 4.5%           | -1,113                    | 9,006              | 1.2%           | 22,817                  | 68,748               |
| Gilpin          | 0             | 0              | 0.0%           | 0                         | 20                 | 0.0%           | D                       | 0                    |
| Grand           | 184           | 257            | 3.4%           | -817                      | 37                 | 0.0%           | 8,833                   | 11,308               |
| Gunnison        | 261           | 333            | 3.2%           | -238                      | 916                | 0.3%           | 8,436                   | 11,489               |
| Hinsdale        | 0             | 3              | 0.6%           | 111                       | 126                | 1.2%           | 377                     | 453                  |
| Huerfano        | 281           | 315            | 9.0%           | -1,771                    | -1,455             | -2.2%          | 9,681                   | 10,743               |
| Jackson         | 290           | 314            | 25.2%          | 4,112                     | 4,397              | 17.4%          | 15,593                  | 16,401               |
| Jefferson       | 711           | 8,886          | 4.0%           | 5,670                     | 300,659            | 2.4%           | 19,474                  | 2,014,734            |
| Kiowa           | 250           | 314            | 26.1%          | 7,403                     | 8,122              | 27.2%          | 61,724                  | 66,954               |
| Kit Carson      | 1,083         | 1,598          | 26.2%          | 43,855                    | 53,752             | 34.5%          | 177,051                 | 243,906              |
| Lake            | 0             | 11             | 0.4%           | 0                         | 116                | 0.1%           | 513                     | 879                  |
| La Plata        | 805           | 1,494          | 5.1%           | -2,801                    | 9,782              | 1.1%           | 15,797                  | 93,977               |
| Larimer         | 1,568         | 5,337          | 4.5%           | 18,186                    | 121,004            | 2.1%           | 100,483                 | 671,103              |
| Las Animas      | 646           | 715            | 9.5%           | 322                       | 961                | 0.5%           | 20,336                  | 24,420               |
| Lincoln         | 601           | 736            | 18.7%          | 7,359                     | 8,876              | 9.7%           | 44,773                  | 55,040               |
| Logan           | 1,203         | 2,283          | 18.2%          | 44,724                    | 77,346             | 19.4%          | 292,740                 | 509,264              |
| Mesa            | 1,458         | 2,717          | 4.3%           | 0                         | 27,024             | 1.4%           | 50,450                  | 233,861              |
| Mineral         | 44            | 67             | 10.4%          | 70                        | 115                | 0.8%           | 146                     | 674                  |
| Moffat          | 590           | 764            | 9.3%           | -370                      | 2,640              | 1.0%           | 18,938                  | 38,996               |
| Montezuma       | 1,351         | 1,647          | 11.4%          | -2,197                    | 2,950              | 0.9%           | 21,874                  | 48,080               |
| Montrose        | 1,172         | 2,548          | 12.9%          | 9,038                     | 31,065             | 5.8%           | 88,274                  | 299,954              |
| Morgan          | 1,499         | 4,658          | 27.7%          | 49,988                    | 129,696            | 23.9%          | 405,945                 | 1,159,574            |
| Otero           | 577           | 1,395          | 12.5%          | 1,395                     | 30,925             | 10.0%          | 100,214                 | 244,527              |
| Ouray           | 103           | 136            | 6.7%           | -1,296                    | -968               | -2.1%          | 3,237                   | 4,295                |
| Park            | 172           | 235            | 7.1%           | 633                       | 1,737              | 1.9%           | 3,622                   | 6,958                |
| Phillips        | 687           | 940            | 28.2%          | 29,379                    | 35,198             | 39.9%          | 117,064                 | 151,880              |
| Pitkin          | 79            | 418            | 2.2%           | 0                         | 7,770              | 1.0%           | 1,527                   | 22,937               |
| Prowers         | 799           | 1,212          | 13.7%          | 43,618                    | 51,078             | 18.9%          | 150,677                 | 187,900              |
| Pueblo          | 666           | 1,982          | 3.3%           | 3,681                     | 33,215             | 1.4%           | 33,642                  | 286,423              |
| Rio Blanco      | 355           | 466            | 10.9%          | -4,002                    | -2,379             | -1.7%          | 14,086                  | 18,230               |
| Rio Grande      | 479           | 1,344          | 20.5%          | 16,413                    | 35,470             | 17.4%          | 72,818                  | 129,576              |
| Routt           | 431           | 607            | 3.7%           | 531                       | 3,940              | 0.8%           | 22,858                  | 30,492               |
| Saguache        | 470           | 781            | 27.3%          | 9,894                     | 15,713             | 25.6%          | 50,305                  | 72,723               |
| San Juan        | 0             | 0              | 0.0%           | 0                         | 7                  | 0.1%           | D                       | 0                    |
| San Miguel      | 0             | 92             | 1.6%           | -443                      | 1,758              | 1.0%           | 2,897                   | 7,286                |
| Sedgwick        | 339           | 615            | 31.2%          | 9,632                     | 11,877             | 28.6%          | 54,751                  | 73,490               |
| Summit          | 0             | 173            | 0.9%           | -744                      | 2,689              | 0.4%           | 1,511                   | 9,011                |
| Teller          | 0             | 96             | 1.1%           | -753                      | 24                 | 0.0%           | 1,277                   | 4,164                |
| Washington      | 1,024         | 1,365          | 34.3%          | 33,355                    | 39,105             | 41.5%          | 97,898                  | 152,806              |
| Weld            | 5,384         | 13,306         | 17.0%          | 170,053                   | 390,528            | 11.6%          | 1,286,636               | 2,874,124            |
| Yuma            | 1,393         | 2,019          | 28.9%          | 93,939                    | 106,200            | 48.8%          | 481,374                 | 562,631              |
| <b>Colorado</b> | <b>38,508</b> | <b>105,140</b> | <b>4.4%</b>    | <b>\$733,144</b>          | <b>\$2,463,988</b> | <b>2.2%</b>    | <b>\$4,534,213</b>      | <b>\$15,868,129+</b> |

Source: See Appendix 2. Note: Counties do not sum to state total due to estimations and non-disclosed data (D) at the county level.

\* Procedures for estimating county-level sales provided by Colorado Department of Agriculture. For complete procedures see full report.

+Sales at the Farm Gate and Colorado Total Gross Sales use Colorado Agricultural Census data. See Appendix 2 in full report.

## COUNTY AGRIBUSINESS DEPENDENCY

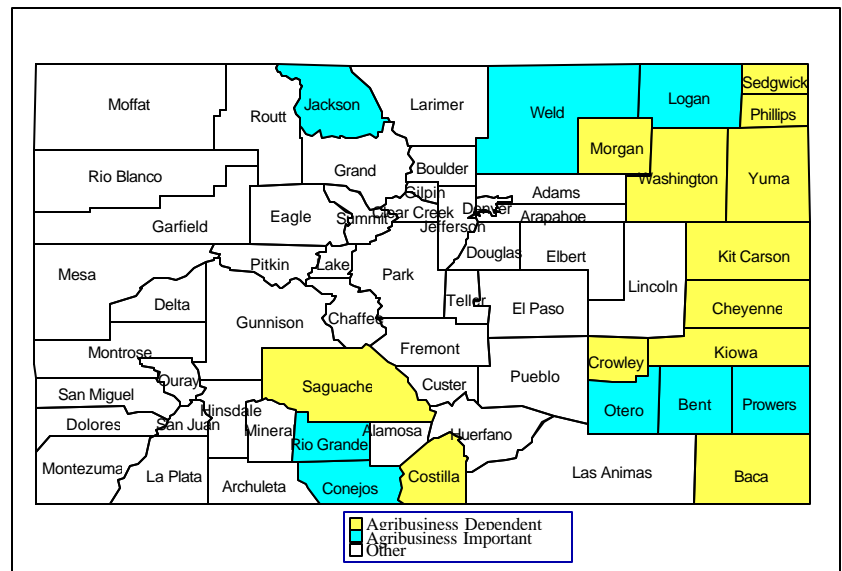
### Colorado Rankings by Agribusiness Income and Percent of Total County Income in 1997

| <u>Agribusiness Income (\$1,000)</u> | <u>Agribusiness % of County Total</u> |
|--------------------------------------|---------------------------------------|
| Weld                                 | 390,528                               |
| Denver                               | 316,500                               |
| Jefferson                            | 300,659                               |
| Adams                                | 145,176                               |
| Morgan                               | 129,696                               |
| Larimer                              | 121,004                               |
| Arapahoe                             | 114,278                               |
| Boulder                              | 107,094                               |
| Yuma                                 | 106,200                               |
| Logan                                | 77,346                                |
| El Paso                              | 56,323                                |
| Kit Carson                           | 53,752                                |
| Prowers                              | 51,078                                |
| Washington                           | 39,105                                |
| Rio Grande                           | 35,470                                |
| Phillips                             | 35,198                                |
| Pueblo                               | 33,215                                |
| Montrose                             | 31,065                                |
| Otero                                | 30,925                                |
| Douglas                              | 29,741                                |
| Baca                                 | 28,417                                |
| Mesa                                 | 27,024                                |
| Alamosa                              | 21,523                                |
| Delta                                | 18,087                                |
| Bent                                 | 17,445                                |
| Saguache                             | 15,713                                |
| Sedgwick                             | 11,877                                |
| Crowley                              | 11,185                                |
| La Plata                             | 9,782                                 |
| Cheyenne                             | 9,586                                 |
| Eagle                                | 9,157                                 |
| Garfield                             | 9,006                                 |
| Lincoln                              | 8,876                                 |
| Conejos                              | 8,847                                 |
| Kiowa                                | 8,122                                 |
| Pitkin                               | 7,770                                 |
| Costilla                             | 7,332                                 |
| Jackson                              | 4,397                                 |
| Routt                                | 3,940                                 |
| Fremont                              | 3,862                                 |
| Montezuma                            | 2,950                                 |
| Summit                               | 2,689                                 |
| Moffat                               | 2,640                                 |
| Elbert                               | 2,402                                 |
| San Miguel                           | 1,758                                 |
| Park                                 | 1,737                                 |
| Las Animas                           | 961                                   |
| Gunnison                             | 916                                   |
| Chaffee                              | 747                                   |
| Archuleta                            | 698                                   |
| Dolores                              | 583                                   |
| Clear Creek                          | 404                                   |
| Hinsdale                             | 126                                   |
| Lake                                 | 116                                   |
| Mineral                              | 115                                   |
| Grand                                | 37                                    |
| Teller                               | 24                                    |
| Gilpin                               | 20                                    |
| San Juan                             | 7                                     |
| Custer                               | -324                                  |
| Ouray                                | -968                                  |
| Huerfano                             | -1,455                                |
| Rio Blanco                           | -2,379                                |
| Yuma                                 | 48.8%                                 |
| Washington                           | 41.5%                                 |
| Phillips                             | 39.9%                                 |
| Baca                                 | 36.5%                                 |
| Kit Carson                           | 34.5%                                 |
| Sedgwick                             | 28.6%                                 |
| Kiowa                                | 27.2%                                 |
| Saguache                             | 25.6%                                 |
| Morgan                               | 23.9%                                 |
| Cheyenne                             | 23.7%                                 |
| Crowley                              | 22.0%                                 |
| Costilla                             | 20.7%                                 |
| Logan                                | 19.4%                                 |
| Prowers                              | 18.9%                                 |
| Rio Grande                           | 17.4%                                 |
| Jackson                              | 17.4%                                 |
| Bent                                 | 16.8%                                 |
| Conejos                              | 12.9%                                 |
| Weld                                 | 11.6%                                 |
| Otero                                | 10.0%                                 |
| Lincoln                              | 9.7%                                  |
| Alamosa                              | 7.9%                                  |
| Delta                                | 6.3%                                  |
| Montrose                             | 5.8%                                  |
| Dolores                              | 3.3%                                  |
| Jefferson                            | 2.4%                                  |
| Adams                                | 2.1%                                  |
| Elbert                               | 2.1%                                  |
| Larimer                              | 2.1%                                  |
| Park                                 | 1.9%                                  |
| Douglas                              | 1.7%                                  |
| Pueblo                               | 1.4%                                  |
| Mesa                                 | 1.4%                                  |
| Hinsdale                             | 1.2%                                  |
| Garfield                             | 1.2%                                  |
| Denver                               | 1.1%                                  |
| La Plata                             | 1.1%                                  |
| Boulder                              | 1.1%                                  |
| San Miguel                           | 1.0%                                  |
| Pitkin                               | 1.0%                                  |
| Moffat                               | 1.0%                                  |
| Montezuma                            | 0.9%                                  |
| Mineral                              | 0.8%                                  |
| Eagle                                | 0.8%                                  |
| Routt                                | 0.8%                                  |
| Archuleta                            | 0.7%                                  |
| Arapahoe                             | 0.7%                                  |
| Fremont                              | 0.6%                                  |
| Las Animas                           | 0.5%                                  |
| El Paso                              | 0.5%                                  |
| Summit                               | 0.4%                                  |
| Chaffee                              | 0.4%                                  |
| Gunnison                             | 0.3%                                  |
| Clear Creek                          | 0.3%                                  |
| Lake                                 | 0.1%                                  |
| San Juan                             | 0.1%                                  |
| Grand                                | 0.0%                                  |
| Teller                               | 0.0%                                  |
| Gilpin                               | 0.0%                                  |
| Custer                               | -1.2%                                 |
| Rio Blanco                           | -1.7%                                 |
| Ouray                                | -2.1%                                 |
| Huerfano                             | -2.2%                                 |

The figure below shows the location of Colorado's 63 counties and their degree of dependency on agribusiness. Production agriculture alone does not fully represent the economic importance of farming and ranching to an economy. As discussed throughout the full report, other industries depend on production agriculture such as fertilizer sale, food processing, and farm machinery production.

In order to recognize the degree of contribution of agribusiness to a county, two categories have been developed. *Agribusiness Dependent* counties receive over 20% of total county income from agribusiness industries. *Agribusiness Important* counties receive between 10% and 20% of total county income from agribusiness industries. The Other category represents those counties that receive less than 10% of their total county income from agribusiness. Agribusiness dependent counties are not the only counties with large agribusiness sectors. Some counties are not classified as agribusiness important or dependent because they have relatively large non-agricultural sectors. Eight of the 63 counties are *agribusiness important* and twelve are *agribusiness dependent*. Therefore, over 31% of Colorado counties continue to be either *agribusiness dependent* or *agribusiness important* in 1997, which does not represent a significant change from 1992. However, there have been some individual changes within the categories. Of particular note is Lincoln County, which had been ranked in 1992 as agricultural dependent but is now at less than 10%. Dolores County, which had been ranked as agricultural important is now less than 5%. Costilla County is now ranked as agricultural dependent at over 20% and Conejos County has increased to agricultural important with over 12%.

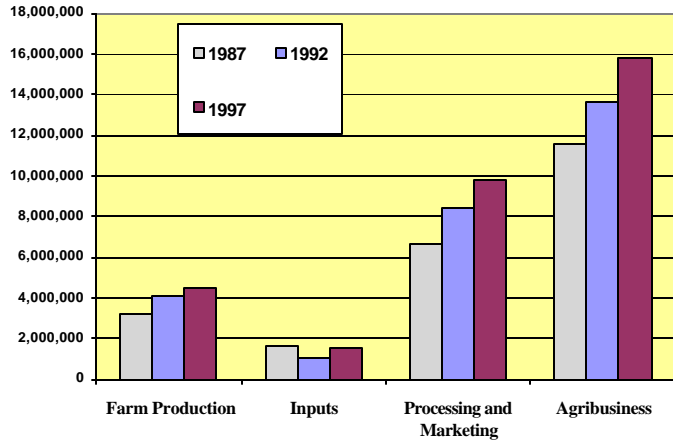
The county rankings of agribusiness importance and dependency are shown in the table on the left. In the first two columns, the counties are ranked according to the total size of agribusiness. The last two columns show the ranking by the percentage of total county income that agribusiness provides in each county. Metro counties rank highest in size while rural sectors rank highest in importance.



# COLORADO AGRIBUSINESS SYSTEM

## Colorado Agriculture in 1997

**Agribusiness Sales (in \$1,000s)**



- 28,268 farms and ranches  
Increase of 11% from 1992
- Average farm size of 1,154 acres  
Decreased by 10% from 1992
- Farm sales total \$4.53 billion  
Increased by 13% from 1992  
Crop sales are 29%; Livestock sales are 71%
- Land in Farms: 32.6 million acres  
Decreased by 4% from 1992
- Farm Assets equal \$22.8 billion  
Increase of 33% from 1992
- Farm debt is \$3.6 billion  
Increase of 27% from 1992
- 1/3 of operators worked 200 days or more off farm  
up 22% from 25 years ago

**Complete Citations and references are disclosed in full report.  
Partial funding provided by the Colorado Department of Agriculture**

## INTRODUCTION

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This report is one of a series of reports that appears approximately every five years to describe the contribution of agribusiness to the state's economy. Colorado's economy has continued to boom in the decade of the nineties and personal wealth is among the highest in the Rocky Mountain Region. In some areas, agriculture has grown while in the more traditional areas, we've seen continual declines. In spite of difficult times for agricultural producers in the U.S., Colorado continues to do well in several areas. The state still ranks 17<sup>th</sup> (as it did in our last report) in total value of agricultural products sold. We rank fourth in value of cattle and calf sales. This report will document and discuss these as well as other contributions of the agribusiness system to Colorado's economy.

### Agribusiness

encompasses the **traditional farm production** of commodities such as wheat, corn, and livestock, green and horse industries with linkages to the **agricultural inputs** necessary for their growth. Agribusiness also includes the **processing and marketing** necessary to bring the final goods to the consumer.

Unlike past editions of this report, this study is changing how the wholesale and retail sector is analyzed. This sector will not be included as part of the agribusiness system because it is made up of such things as beer, wine, liquor, groceries, and retail foods. Their importance to the Colorado economy is obviously extremely important, but we have tried to keep the measurement of economic

factors as closely tied to the actual agribusiness system as possible and many of these items are in reality outside of this system. Thus changes in this sector are reported in Appendix 3 at the end of this report.

This study, as done in the past, will measure the importance of Colorado's agribusiness system in several ways including analysis of agricultural production value, crop and livestock concentration, farm financials, and export data. It will also provide data on agribusiness employment, income, and sales breaking out this

information into the three primary sectors where possible. In order to make comparisons to past census data, this report will provide economic measurements in the same format as the past two reports published in 1991 and 1995 where possible.

In some instances, comparisons are made more difficult by the fact that SIC codes and some data sources have changed since 1992. These changes are noted, however, and no trend analysis is made in such cases.

### Colorado Agriculture in 1997

- 28,268 farms and ranches  
Increase of 11% from 1992
- Average farm size of 1,154 acres  
Decreased by 10% from 1992
- Farm sales total \$4.53 billion  
Increased by 13 percent from 1992  
Crop sales are 29%; Livestock sales are 71%
- Land in Farms: 32.6 million acres  
Decreased by 4% from 1992
- Farm Assets equal \$22.8 billion  
Increase of 33% from 1992
- Farm debt is \$3.6 billion  
Increase of 27% from 1992
- 1/3 of operators worked 200 days or more off farm  
up 22% from 25 years ago

The face of agriculture continues to change and grow and by the next census report, we will be facing the challenge of incorporating the internet sales, employment, and income into our agribusiness numbers. If agriculture is to continue to be a force in the Colorado economy, however, this is a challenge that we cannot ignore and should embrace beginning now.

## HOW TO DEFINE THE AGRIBUSINESS SYSTEM

The agribusiness system is made up of three sectors: farm production, agricultural inputs, and processing/marketing.<sup>1</sup> Each sector provides a different view of how agriculture and related industries impact the state. Values are reported for all three sectors throughout this report.

growth of businesses that began to specialize in the inputs that farmers used in production agriculture. The **Ag Input** sector of this report includes such items as chemicals, seed, fertilizer, feed, fuel, and machinery. There has also been tremendous growth in the service component of this sector where we have seen explosive growth in the areas of horticulture and landscape architecture.

### Farm Production:

Farm production has changed dramatically over the past 150 years in America. Up until the Civil War, 90 percent of American families made their living and were entirely self sufficient from the products produced on the farm. Today, however, all farm employees (proprietors and laborers) total only one percent of the population. The economic contribution of Colorado's farms and ranches is called the "**Farm Production**" sector in this report.

### Agricultural Inputs:

As farmers moved to industrial jobs over the past decades, there was an increased trend towards the

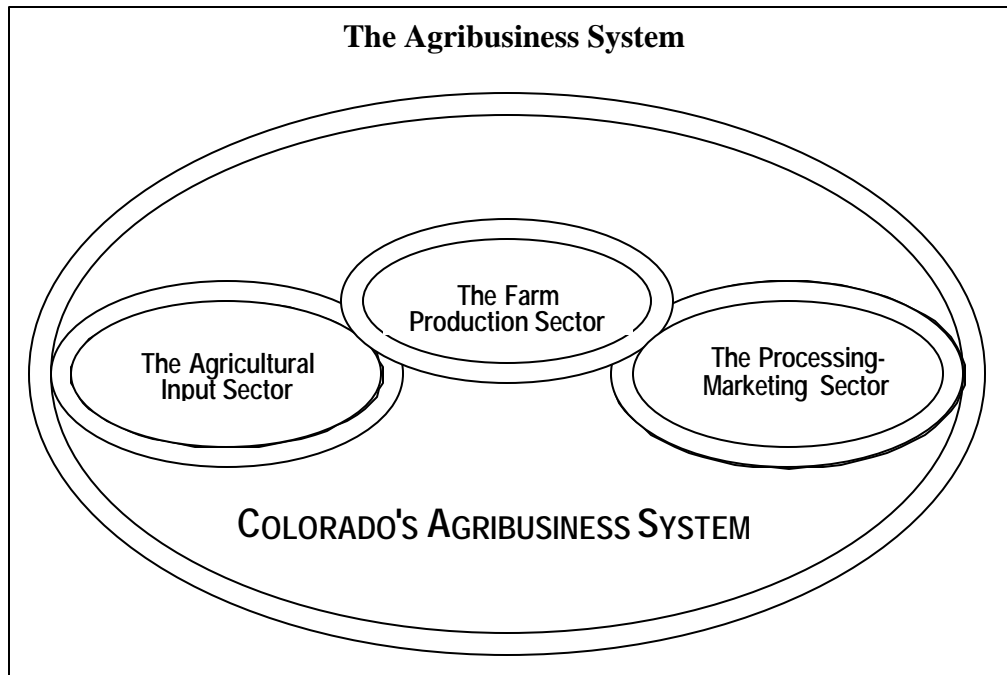
ture and landscape architecture.

### Processing and Marketing:

Just as the agricultural input sector was growing in response to the change in production agriculture, the need for commodity processing and marketing was also moving off of the farm.

The individual farmer found that it was no longer efficient to do his/her own processing of commodities grown on the farm. Technological changes that are still continuing today have instead allowed for the evolution and growth of processing and marketing firms, the value of which is included in the **Processing/Marketing** sector of this report.

Many economic activities have important ties to agriculture. The green industry (turf grass produc-



<sup>1</sup> A complete description of all sectors and subsectors is given in Appendix 1. Information for Food wholesaling and retailing is included in Appendix 3. Figure source: *Principles of Agribusiness Management*, p.7, 1995.



## MEASURING ECONOMIC CONTRIBUTION

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tion and landscaping) and the horse industry are two examples. In this report, we have tried to include all activities closely tied to agriculture such as turf production on agricultural land, breeding, feeding,

and health care of horses. However, it is beyond the scope of this study to report the complete impact of these industries.

## MEASURING ECONOMIC CONTRIBUTION

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There are at least seven ways to measure economic contribution. We will look at all of these in various combinations for the three agribusiness sectors.

**1) *Production information*** - This measure delineates the products being produced, how much is being produced, who is producing the products and where the products are being used. The two most common ways to measure production information are sales, also called cash receipts, and the total value of production. Value differs from sales since many products are consumed on the farm or ranch.

**2) *Sales*** - Sales, also called cash receipts, include the sum of all sales transactions in each of the economic sectors. This measure is what people think of most often when they look at economic activity. Unfortunately, sales can be a misleading measure of economic contribution. The problem with sales measures is multiple counting that works in the following way: A product is sold to a processor for \$1.00. The processor adds value to the product and sells it for \$1.50. While only \$1.50 of value has been created, the sales measure reports a value of \$2.50.

**3) *Value added*** - Value added is considered the most accurate and appropriate measure of economic contribution, but it can be difficult to measure. Value added sums income with indirect taxes.

**4) *Income (Proprietor and Labor Income)*** - Income subtracts out all multiple counting from sales. In the example above, income would be reported as \$1.50. Income can be thought of as *Sales* minus costs. It includes labor and proprietor's income from the market and government payments. It does not include corporate farm income, which is provided in Appendix 4.

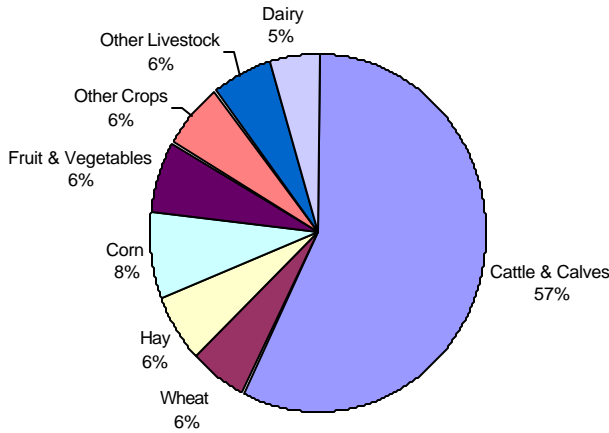
**5) *Employment*** - shows the number of jobs that are located in the different industries. Farm employment production numbers reflect FTE labor and include farmer owner/operator's labor only if (1) the farmer owner/operator reported agriculture as the primary source of income and (2) the farmer owner/operator employed additional laborers as reported by the Colorado Department of Labor and Employment. Employment is a useful and easily understood measure, but it may short change agriculture's economic contribution. The capital intensive nature of agriculture means that each agricultural worker is considerably more productive than workers in labor intensive sectors.

**6) *Capital investment*** - The measure of capital investment from the balance sheet of agriculture is a useful indicator of economic contribution since investments generate opportunities for earnings.

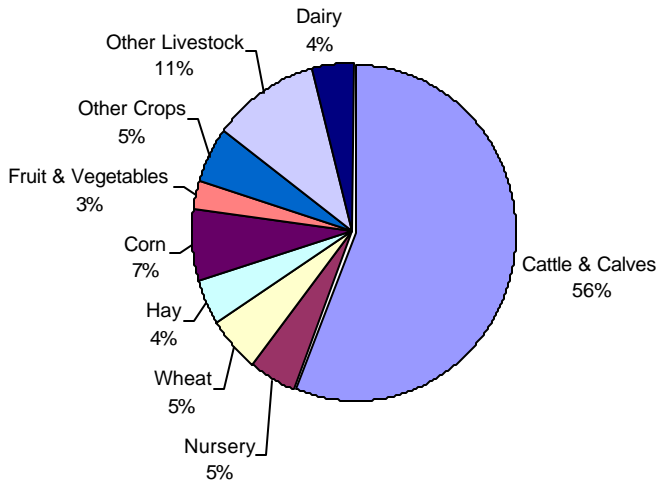
**7) *Multiplier effects*** - The multiplier effects show the impact of every dollar generated by agriculture creating new sales, more income, and more jobs.

## AGRICULTURAL PRODUCTION VALUE IN 1992 AND 1997

### Agricultural Production Value in 1992



### Agricultural Production Value in 1997



The distribution of agriculture production value in 1997 is fairly consistent with the values recorded in 1992 as shown by the two graphs on this page. Value is considered to be slightly different from sales since some products are consumed on the farm or ranch. About two-thirds of the value from farm sales in Colorado continues to be from cattle and calves and livestock. This can be attributed to the large expanses of public and private rangeland, irrigated hay land, and Colorado's large feedlots. We have included a new category in the 1997 chart entitled "nursery" to reflect the dramatic growth in Colorado's green industry. Major commodity crops for the state are wheat, corn, hay, sorghum, and proso millet. Colorado continues to rank high nationally for value of sales in some crops such as hay, silage, field seeds, grass seeds, and millet and the state also continues to rank 17<sup>th</sup> overall in livestock and crops for the US.

|                            | Rank in the US in 1997 | Value (Million \$) |
|----------------------------|------------------------|--------------------|
| Total                      | 17                     | 4,534              |
| Livestock                  | 11                     | 3,207              |
| Crops                      | 24                     | 1,327              |
| <b>Leading Commodities</b> |                        |                    |
| Cattle/Calves              | 4                      | 2,538              |
| Corn                       | 10                     | 240                |

Source: Colorado Agricultural Statistics, 1997 and USDA-ERS State Financial Summary, 1996.

## FARM INVESTMENT AND FINANCIAL HEALTH

This section refers only to **farm production** and does not include financial statements for the agribusiness system in total. It is important to remember that profitability is only one measure of business success and the wealth of Colorado's farms also reflects the economic well being of farmers and their contribution to the economy. Wealth, or net worth, equals the assets a farmer holds minus liabilities. In 1997, assets increased by over 33% from 1992, a fact that can be attributed in large part to the improved value of real estate holdings, which increased by 41%. This compares with an increased U.S. real estate value of 24.6%. Land values in the state have increased anywhere from 40-100% along the front range during the past decade to virtually no (or negative) growth along the eastern plains.

| <b>Colorado Farm Balance Sheet</b> |                         |              |             |
|------------------------------------|-------------------------|--------------|-------------|
| (Millions of Dollars)              |                         |              |             |
|                                    |                         | <b>1992*</b> | <b>1997</b> |
| <b>Farm assets</b>                 | <b>Total</b>            | \$17,109     | \$22,778    |
|                                    | Real estate             | \$12,584     | \$17,793    |
|                                    | Livestock and poultry   | \$2,056      | \$2,124     |
|                                    | Machinery/motor vehicle | \$1,169      | \$1,190     |
|                                    | Crops                   | \$359        | \$428       |
|                                    | Purchased inputs        | \$113        | \$92        |
|                                    | Financial               | \$828        | \$1,151     |
| <b>Farm debt</b>                   | <b>Total</b>            | \$2,792      | \$3,555     |
|                                    | Real estate             | \$1,487      | \$1,692     |
|                                    | Non-Real estate         | \$1,305      | \$1,862     |
| <b>Equity</b>                      | <b>Total</b>            | \$14,317     | \$19,223    |

\*1992 Data Revised from Last Report.  
Source: Colorado Agricultural Statistics 1999

| <b>Financial Indicators</b> |              |             |
|-----------------------------|--------------|-------------|
|                             | <b>1992*</b> | <b>1997</b> |
| <b>Solvency</b>             |              |             |
| Debt/Equity                 | 19.46        | 18.50       |
| Debt/Assets                 | 16.29        | 15.60       |

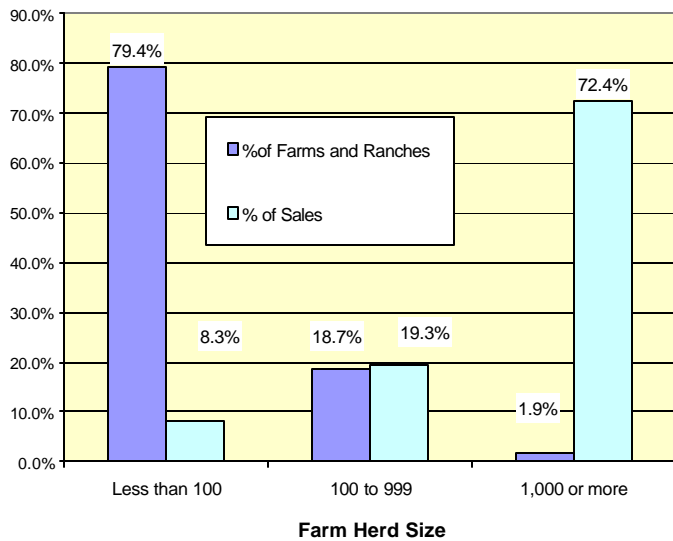
\* 1992 Data Revised from Last Report.  
Source: U.S. Dept. of Agriculture, ERS, State Financial Summary

Farm debt has increased by 27% since 1992, a fact which is due in some measure to the volatility of the cattle and hog businesses over the past several years. In addition, we are finding an increase in the leveraging of the dairy business given the improvement that the industry has been enjoying of late. This debt figure compares with only a 12.1% increase nationally. It is important, however, to look at these levels on a relative basis as well and for the Colorado producer, debt ratios have remained relatively stable over the past five years as shown in the Financial Indicators Table to the left. Unfortunately this continued strong balance sheet has *not* translated into very substantial income increases over the past ten years. This is discussed in more detail in the Economic Impact Section.

## CROP AND LIVESTOCK CONCENTRATION

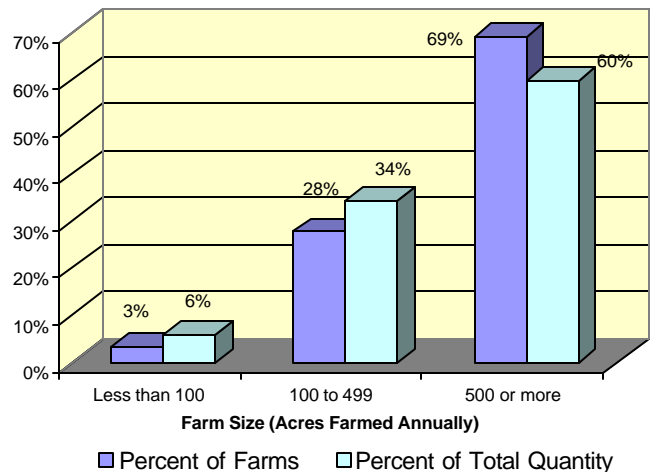
Concentration in the production of grains and livestock is shown here by comparing the percentage of farms that are a given size (number of animals or acres) to the percentage of sales produced in that size category.

### Concentration in Cattle and Calf Production 1997



The graph on the left illustrates concentration with respect to sales of cattle and calves. The dark bars are the percentage of farms in each size category and the light bars are the percentage of sales in each size category. Colorado is continuing to experience concentration in the cattle industry with little change occurring over the past 10 years. Producers that sell under 100 animals each year make up almost 80% of the farms (compared with 76% in 1987) while only accounting for approximately 8% and 9% of sales respectively. In contrast, those farms and ranches with more than 1,000 animals sold annually account for over 72% of sales but represent only 2% of the producers. This compares with 67% and 2% respectively in 1987. Most of the concentration continues to occur in feedlots.

### Concentration in Grain Production Includes Corn, Wheat, Sorghum, and Barley 1997

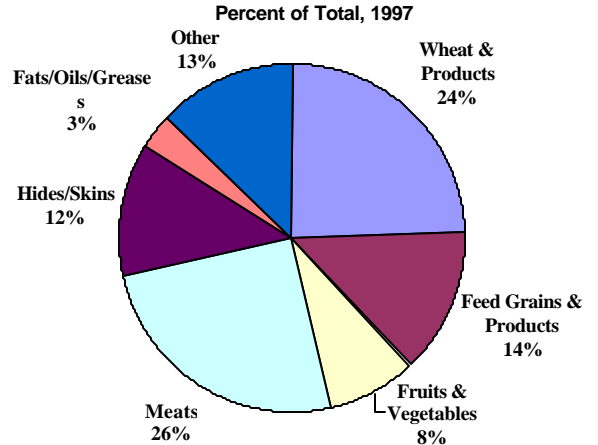


As shown to the right, the extent of concentration in the production of grain is much less than concentration in cattle, however, concentration has increased somewhat over the past decade. In 1987 large farms with over 500 acres accounted for 46% of sales with farms holding less than 100 acres accounting for 11% of the sales. In 1997, the large farms now account for 60% of the sales with the smaller farms down to 6% of sales.

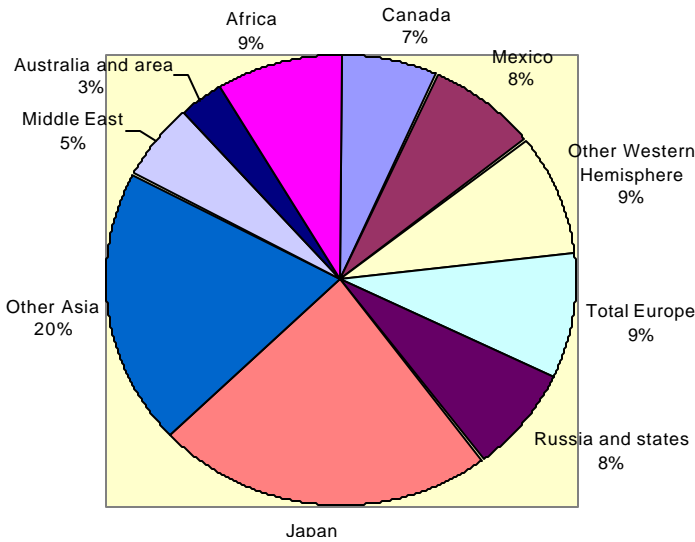
## EXPORTS

Agricultural exports increased by almost 18% from 1992 and totaled \$985 million. Although wheat continues to be a main exported crop, it has fallen over the past decade and has now been replaced by meats. This can best be explained by the increased processed meat products which are finding their way overseas where Japan and Asia remain the primary importers of Colorado exported agricultural products. Asia accounts for over 36% of US wheat exports and Japan accounts for 16% of all US soybean exports and Asia, as a whole, accounts for 1/3 of US corn exports. Thus the health of these Asian economies, and most especially Japan, has an important and direct impact on producers in the US and Colorado in particular.

### Colorado's International Agricultural Exports



### 1996 Colorado Food and Ag Product Exports by Region



With respect to our two border neighbors, the following has occurred. Exports to Canada have continued to increase, growing by 26% from 1994 to 1998 but imports, on the other hand, have been increasing at an even faster rate giving the US a negative trade balance with Canada since 1995. Agricultural exports to Mexico have also been increasing (12% since 1995), however, the US currently has a positive balance of trade balance with Mexico.

Sources: University of Colorado at Boulder, Business Research Division. *1996 Colorado Business Economic Outlook*. Boulder, CO 1996 and 1999. U.S. Dept. of Agriculture, ERS, *Agricultural Exports: Estimated Value by Commodity Group and State*, 1998.

## ECONOMIC IMPACTS OF AGRIBUSINESS ON COLORADO

In the following economic impact sections, we have had to be careful with any trend analysis and comparisons due to the fact that both methodology and industrial classifications have changed between 1992 and 1997. Thus **direct** comparisons of **absolute** values between the 1992 and this publications are done only with sales data. (Relative comparisons are done using same data sources to allow for trend analysis.)

The total contribution of each sector to Colorado employment, income, value added and sales for the current census is shown in Table 1 below. Income includes labor wages and proprietor income only. Value added sums indirect business taxes and income and as already discussed, it is regarded as a better indicator of agriculture's contribution to the state's economy because gross sales include multiple counting since most items exchange hands several times.

The first row of Table 1 is farm production, which is the most basic agricultural sector. Agricultural inputs and processing/marketing are then added to farm production to give a total for agribusiness numbers for the state.

Gross sales in the agribusiness system totaled \$15,868 million. This is a 16% increase over 1992 and a 37% increase over 1987.<sup>2</sup> The total agribusiness income is up by over 17.5%. (More details are in the following pages.) As a *percent of the state's total income*, agribusiness' contribution is down by less than  $\frac{1}{10}$  of one percent. Colorado's overall economy is simply exceptionally strong and has been growing faster than the agribusiness sector. Agribusiness employment is up by 9.5% and again as a *percent of the state's overall employment*, agribusiness is down about  $\frac{1}{10}$  of one percent.

**Table 1. The Agribusiness System Contribution to Colorado's Economy in 1997.**

| Economic Sector           | Employment     |             | Income         |             | Value Added    | Gross Sales     |
|---------------------------|----------------|-------------|----------------|-------------|----------------|-----------------|
|                           |                | % of State  | (\$Million)    | % of State  | (\$Million)    | (\$Million)     |
| Farm Production           | 38,508         | 1.63        | \$733          | 0.65        | \$816          | \$4,534         |
| Inputs                    | 36,364         | 1.54        | 685            | 0.61        | 872            | 1,531           |
| Processing and Marketing  | 30,267         | 1.28        | 1,046          | 0.93        | 1,611          | 9,803           |
| <b>Total Agribusiness</b> | <b>105,140</b> | <b>4.44</b> | <b>\$2,464</b> | <b>2.19</b> | <b>\$3,299</b> | <b>\$15,868</b> |
| State Totals:             | 2,365,508      |             | \$112,699      |             | N/A            | N/A             |

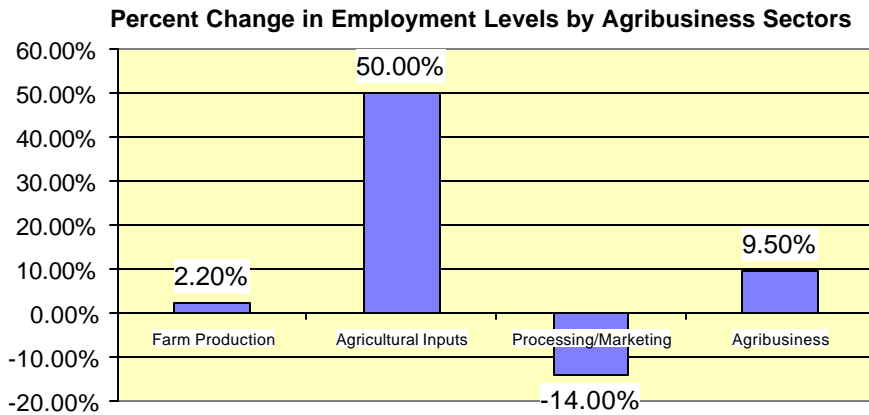
<sup>2</sup> Value added shows a 10% decline between 1992 and 1997 but this is due to a change in the SIC codes and no value added was reported in 1987 so no trend comparison could be provided at this time.

## ECONOMIC IMPACTS OF AGRIBUSINESS ON COLORADO

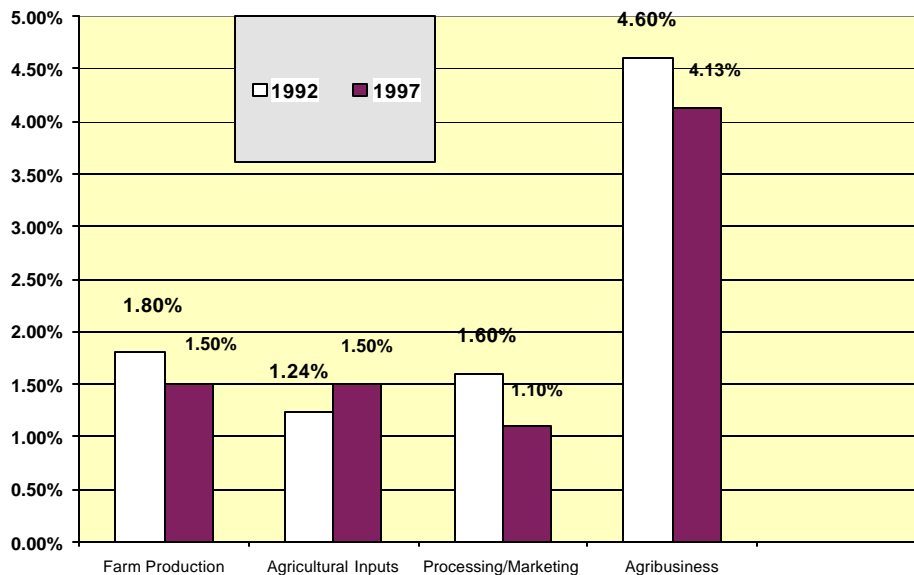
### COLORADO AGRIBUSINESS EMPLOYMENT

As shown in the graphs below, overall agribusiness employment has grown 9.5% since 1992. As a percent of the state's total employment, labor numbers at the farm gate have been dropping over the past decade from 3.5% down to the current level of 1.63%. With a decrease in the average size of farms coupled with the overall tight labor market in the state, this is not a surprising fact. Much of the growth in employment numbers in the input sector (50% since 1992) can be tied to the increased service component that includes horticulture, landscape architecture and even construction. Both Gilpin and Summit Counties have experienced an increase of employment, which can be tied to the growth in this sector. Employment numbers are down in the food manufacturing/processing sector, which accounts for much of the 14% drop in agribusiness marketing/processing employment numbers since 1992. (The majority of this decrease occurred in Jefferson County.)

**NOTE:** As previously discussed, **direct** comparison of absolute numbers between years is not possible with income and employment figures.



**Colorado Agribusiness Employment as a Percent of State Employment Totals**



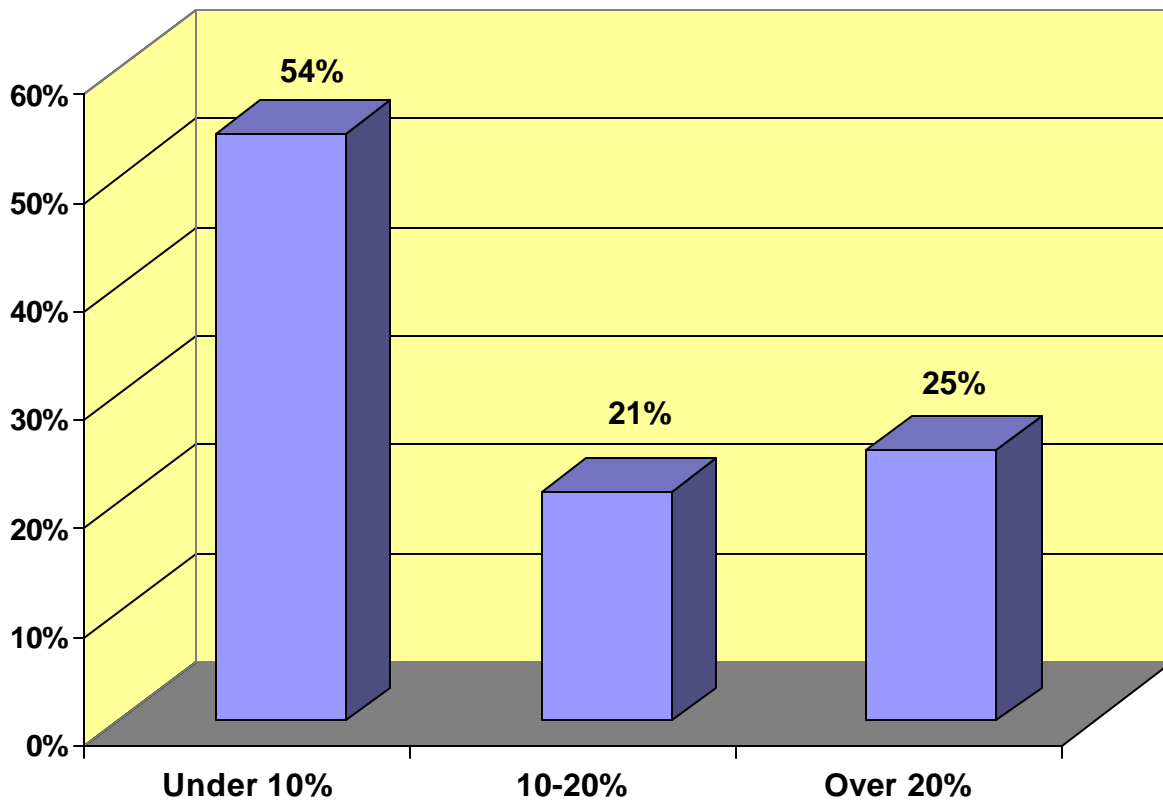
## COUNTY EMPLOYMENT IN THE AGRIBUSINESS SYSTEM

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Employment from agribusiness is given by county on the next page in Table 2. Total employment in the agribusiness system has grown by 9.5%. As a percent of the total state employment numbers, agribusiness employment has remained relatively stable and has decreased by only  $\frac{1}{10}$  of 1% since 1992. It is also important to note that the overall size of counties with a high proportion of agricultural jobs tends to be small.

Washington County has the highest percentage of jobs owed to agribusiness at 34%. As shown in the graph below, 54% of the counties have less than 10% of their employment in agribusiness, and about 25% owe more than 20% to agribusiness.

### County Employment from Agribusiness 1997



Percent of County Employment from Agribusiness



**Table 2: Colorado Employment in Agribusiness by County (1997)**

| County          | Farm Production | Ag. Inputs    | Processing/<br>Marketing | Agribusiness<br>Employment | Total County<br>Employment | % of County<br>Employment |
|-----------------|-----------------|---------------|--------------------------|----------------------------|----------------------------|---------------------------|
| Adams           | 1,491           | 1,968         | 2,492                    | 5,951                      | 139,172                    | 4.3%                      |
| Alamosa         | 468             | 199           | 10                       | 677                        | 9,385                      | 7.2%                      |
| Arapahoe        | 411             | 3,965         | 903                      | 5,279                      | 293,856                    | 1.8%                      |
| Archuleta       | 180             | 60            | 0                        | 239                        | 4,511                      | 5.3%                      |
| Baca            | 869             | 112           | 52                       | 1,034                      | 3,744                      | 27.6%                     |
| Bent            | 493             | 88            | 8                        | 589                        | 3,032                      | 19.4%                     |
| Boulder         | 1,055           | 2,332         | 1,682                    | 5,069                      | 163,676                    | 3.1%                      |
| Chaffee         | 177             | 86            | 6                        | 269                        | 8,469                      | 3.2%                      |
| Cheyenne        | 278             | 95            | 11                       | 384                        | 1,603                      | 24.0%                     |
| Clear Creek     | 0               | 35            | 2                        | 36                         | 4,376                      | 0.8%                      |
| Conejos         | 610             | 191           | 10                       | 810                        | 3,420                      | 23.7%                     |
| Costilla        | 279             | 142           | 0                        | 421                        | 1,470                      | 28.6%                     |
| Crowley         | 291             | 36            | 0                        | 327                        | 1,582                      | 20.7%                     |
| Custer          | 138             | 25            | 0                        | 163                        | 1,437                      | 11.4%                     |
| Delta           | 1,301           | 485           | 183                      | 1,968                      | 12,379                     | 15.9%                     |
| Denver          | 29              | 3,156         | 6,418                    | 9,604                      | 507,319                    | 1.9%                      |
| Dolores         | 144             | 19            | 18                       | 181                        | 752                        | 24.0%                     |
| Douglas         | 694             | 1,679         | 5                        | 2,378                      | 44,913                     | 5.3%                      |
| Eagle           | 132             | 593           | 5                        | 730                        | 30,315                     | 2.4%                      |
| Elbert          | 629             | 337           | 13                       | 978                        | 4,906                      | 19.9%                     |
| El Paso         | 870             | 2,629         | 575                      | 4,074                      | 262,798                    | 1.6%                      |
| Fremont         | 437             | 154           | 44                       | 636                        | 17,092                     | 3.7%                      |
| Garfield        | 578             | 378           | 113                      | 1,069                      | 23,735                     | 4.5%                      |
| Gilpin          | 0               | 0             | 0                        | 0                          | 5,000                      | 0.0%                      |
| Grand           | 184             | 72            | 0                        | 257                        | 7,494                      | 3.4%                      |
| Gunnison        | 261             | 71            | 1                        | 333                        | 10,394                     | 3.2%                      |
| Hinsdale        | 0               | 3             | 0                        | 3                          | 479                        | 0.6%                      |
| Huerfano        | 281             | 34            | 0                        | 315                        | 3,484                      | 9.0%                      |
| Jackson         | 290             | 23            | 0                        | 314                        | 1,243                      | 25.2%                     |
| Jefferson       | 711             | 3,524         | 4,651                    | 8,886                      | 224,504                    | 4.0%                      |
| Kiowa           | 250             | 47            | 16                       | 314                        | 1,200                      | 26.1%                     |
| Kit Carson      | 1,083           | 300           | 215                      | 1,598                      | 6,097                      | 26.2%                     |
| Lake            | 0               | 11            | 0                        | 11                         | 2,899                      | 0.4%                      |
| La Plata        | 805             | 463           | 226                      | 1,494                      | 29,343                     | 5.1%                      |
| Larimer         | 1,568           | 2,650         | 1,119                    | 5,337                      | 118,495                    | 4.5%                      |
| Las Animas      | 646             | 59            | 10                       | 715                        | 7,487                      | 9.5%                      |
| Lincoln         | 601             | 105           | 31                       | 736                        | 3,932                      | 18.7%                     |
| Logan           | 1,203           | 468           | 612                      | 2,283                      | 12,565                     | 18.2%                     |
| Mesa            | 1,458           | 750           | 509                      | 2,717                      | 63,887                     | 4.3%                      |
| Mineral         | 44              | 23            | 0                        | 67                         | 640                        | 10.4%                     |
| Moffat          | 590             | 114           | 60                       | 764                        | 8,229                      | 9.3%                      |
| Montezuma       | 1,351           | 236           | 60                       | 1,647                      | 14,457                     | 11.4%                     |
| Montrose        | 1,172           | 558           | 818                      | 2,548                      | 19,753                     | 12.9%                     |
| Morgan          | 1,499           | 609           | 2,550                    | 4,658                      | 16,819                     | 27.7%                     |
| Otero           | 577             | 301           | 517                      | 1,395                      | 11,172                     | 12.5%                     |
| Ouray           | 103             | 33            | 0                        | 136                        | 2,032                      | 6.7%                      |
| Park            | 172             | 58            | 5                        | 235                        | 3,291                      | 7.1%                      |
| Phillips        | 687             | 157           | 95                       | 940                        | 3,333                      | 28.2%                     |
| Pitkin          | 79              | 316           | 23                       | 418                        | 18,740                     | 2.2%                      |
| Prowers         | 799             | 329           | 83                       | 1,212                      | 8,817                      | 13.7%                     |
| Pueblo          | 666             | 530           | 787                      | 1,982                      | 59,632                     | 3.3%                      |
| Rio Blanco      | 355             | 111           | 0                        | 466                        | 4,266                      | 10.9%                     |
| Rio Grande      | 479             | 782           | 83                       | 1,344                      | 6,544                      | 20.5%                     |
| Routt           | 431             | 175           | 1                        | 607                        | 16,435                     | 3.7%                      |
| Saguache        | 470             | 248           | 63                       | 781                        | 2,856                      | 27.3%                     |
| San Juan        | 0               | 0             | 0                        | 0                          | 352                        | 0.0%                      |
| San Miguel      | 0               | 92            | 0                        | 92                         | 5,812                      | 1.6%                      |
| Sedgwick        | 339             | 226           | 51                       | 615                        | 1,970                      | 31.2%                     |
| Summit          | 0               | 173           | 0                        | 173                        | 19,901                     | 0.9%                      |
| Teller          | 0               | 96            | 0                        | 96                         | 8,926                      | 1.1%                      |
| Washington      | 1,024           | 148           | 193                      | 1,365                      | 3,979                      | 34.3%                     |
| Weld            | 5,384           | 3,247         | 4,675                    | 13,306                     | 78,133                     | 17.0%                     |
| Yuma            | 1,393           | 364           | 263                      | 2,019                      | 6,977                      | 28.9%                     |
| <b>Colorado</b> | <b>38,508</b>   | <b>36,364</b> | <b>30,267</b>            | <b>105,140</b>             | <b>2,365,508</b>           | <b>4.4%</b>               |

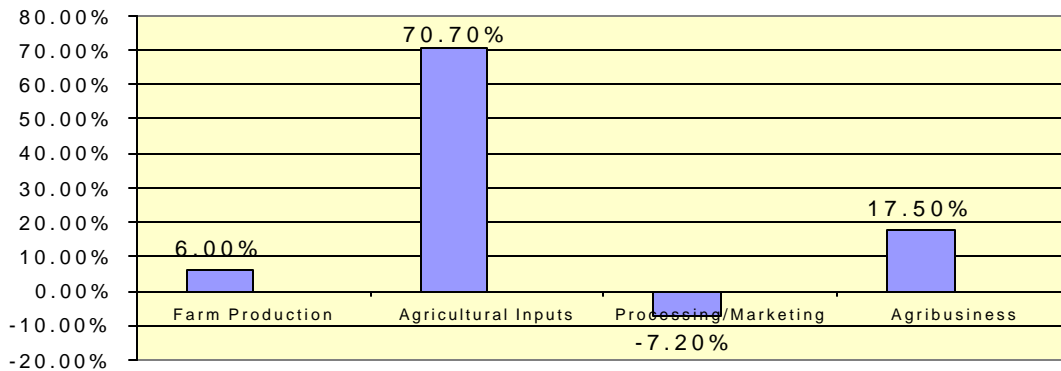
Source: See Appendix 2. % of County Employment = Agribusiness Employment/Total County Employment. Counties do not sum to state total due to estimations made at the county level.

## COLORADO AGRIBUSINESS INCOME (PROPRIETOR AND LABOR INCOME)

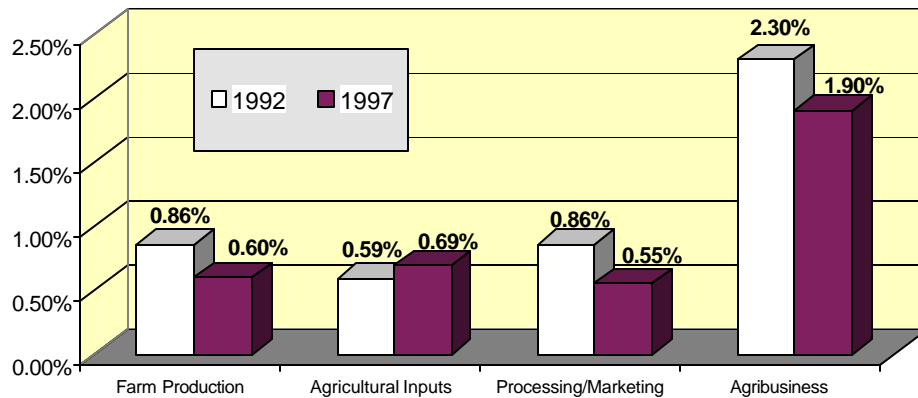
As shown in the graphs below, overall agribusiness income is up by 17.5% since 1992. This increase, however, is not evenly distributed over the three sectors. Farm income generated from production is \$733 million, which is up by 6% from 1992. Income as a percent of the state's total income has remained relatively constant only falling by 0.2% in 1997. The agricultural input sector has seen a dramatic increase in income of 70.7% since 1992. Input costs have been increasing faster than the growth in farm commodity prices and this is reflected in the higher values associated with agricultural input income levels. Coupled with this is the large increase in the service component of the input sector that includes horticulture and landscape architecture as already discussed in the employment section. Finally the processing/marketing sector has actually dropped by about 7% and this has to do with a decrease in the food manufacturing sector only (primarily in Jefferson County). Corporate Farm Income of \$167 million is not included in these numbers and is provided in Table 8 in Appendix 4.

**NOTE:** As previously discussed, **direct** comparison of absolute numbers between years is not possible with income and employment figures.

**Percent Change in Income Levels by Agribusiness Sector**



**Colorado Income as a Percent of State Income Totals**  
Percents will vary slightly from Table 1 because of differing source data



Adjustments for inflation would reduce these 1997 nominal figures by 16.4%.

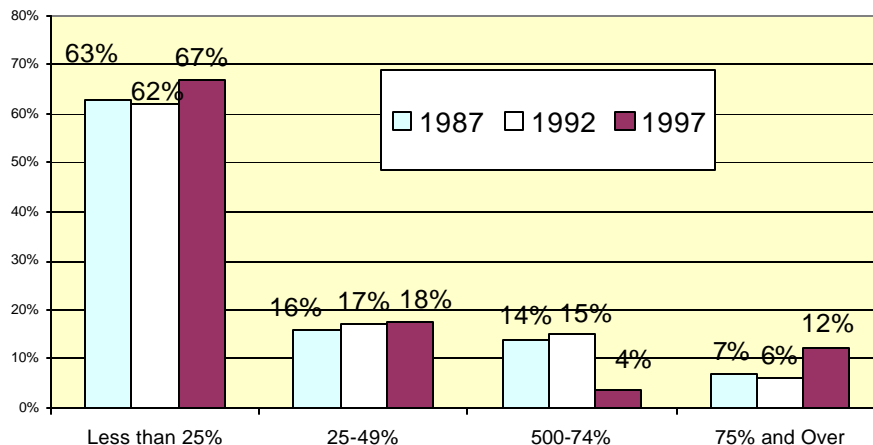
## COUNTY LABOR AND PROPRIETOR INCOME FROM FARMING IN 1997

Overall, farm income was 0.7 percent of all net income in the state. Yuma county ranks number one in the state for receiving the largest share of its county income (43.2%) from farming. Farm income was up an average 6 percent for the state in 1997 compared to 1992 (Table 3) primarily due to rising crop and livestock prices. Crop prices in 1997 were about 25 percent higher compared to those of 1992 and livestock prices were up about 8 percent. However, 51% of the counties had decreases in farm incomes compared to 39% of the counties, which had increases (10% of the counties had no or non-disclosed farm incomes) between 1992 and 1997.

(The Bureau of Economic Analysis revised its income by industry data in 1995, which affected data sets from 1967 to 1995. Therefore, values reported in Table 3 cannot be directly compared to the 1992 edition of this study. However, a column has been included in this table that shows the corrected percentage change in income from 1992 to 1997 for comparative purposes.)

Nearly \$118 million dollars of the total \$733 million net farm income--about 16 percent--came from government sources such as flexibility payments and loan deficiency payments for wheat, corn and other supported crops. Several counties, such as Arapahoe Las Animas, Elbert, Rio Blanco and Routt, would have or did have negative net farm incomes without government payments. In the case of Las Animas and Routt, payments were enough to yield a positive net farm income. The other counties lost money even with the aid of such payments. Even counties with large incomes from the market, such as Chyenne, Dolores, Kiowa, and Moffat, received three-quarters of their income from the government. Some counties such as Weld and Yuma counties had relatively large farm incomes without very much help from the government.

### Net Farm Income from Government 1987-1997



### Percent of County Income from Government Sources

Government payments fell substantially from 1987 to 1992 and remained about the same from 1992 to 1997. However, as a percentage, government payments were slightly less important in 1997 due to relative increases in other sources of income. Farmers and ranchers received about 6 percent less of their income from the government in 1997 than in 1992. Starting in 1996 farm payments should have begun decreasing according to legislation in the 1996 Farm Bill, however, due to crop failures and low crop prices it is estimated that government payments with disaster relief for 1999 were twice as high as the 1992 payments.

**Table 3 Government and Labor and Proprietor Income from Farming by County in 1997 (\$1,000)**

| County          | Govt Payments    | % of Farm Income | Farm Income      | % of Total County Income | Total County Income  | % Change in farm Income 92-97 |
|-----------------|------------------|------------------|------------------|--------------------------|----------------------|-------------------------------|
| Adams           | \$3,746          | 13.1%            | \$28,590         | 0.4%                     | \$6,929,977          | 45.5%                         |
| Alamosa         | 528              | 3.0%             | 17,333           | 6.4%                     | 272,170              | 35.1%                         |
| Arapahoe        | 1,326            | 47.1%            | -1,487           | 0.0%                     | 16,678,306           | -52.3%                        |
| Archuleta       | 44               | 42.4%            | -60              | -0.1%                    | 98,377               | -77.1%                        |
| Baca            | 9,661            | 37.1%            | 26,058           | 33.5%                    | 77,884               | -30.0%                        |
| Bent            | 1,218            | 7.6%             | 15,969           | 15.4%                    | 103,711              | -5.5%                         |
| Boulder         | 410              | 2.9%             | 14,308           | 0.1%                     | 9,989,751            | 40.7%                         |
| Chaffee         | 30               | 4.2%             | -682             | -0.3%                    | 210,374              | 140.3%                        |
| Cheyenne        | 5,438            | 74.4%            | 7,311            | 18.0%                    | 40,517               | 14.3%                         |
| Clear Creek     | 0                |                  | 0                | 0.0%                     | 133,614              |                               |
| Conejos         | 344              | 5.9%             | 5,849            | 8.6%                     | 68,363               | 31.1%                         |
| Costilla        | 210              | 3.3%             | 6,355            | 17.9%                    | 35,431               | 110.5%                        |
| Crowley         | 895              | 8.5%             | 10,518           | 20.7%                    | 50,808               | -0.2%                         |
| Custer          | 85               | 13.2%            | -559             | -2.0%                    | 27,515               | -224.5%                       |
| Delta           | 378              | 7.7%             | 4,878            | 1.7%                     | 284,881              | -42.2%                        |
| Denver          |                  |                  | 942              | 0.0%                     | 27,673,277           | 113.7%                        |
| Dolores         | 998              | 77.5%            | -290             | -1.7%                    | 17,520               | -16.1%                        |
| Douglas         | 131              | 17.4%            | -624             | 0.0%                     | 1,739,692            | -135.9%                       |
| Eagle           | 32               | 3.1%             | -985             | -0.1%                    | 1,137,140            | -366.7%                       |
| Elbert          | 2,317            | 45.7%            | -2,751           | -2.4%                    | 115,488              | -194.3%                       |
| El Paso         | 742              | 131.2%           | 566              | 0.0%                     | 11,532,219           | -79.6%                        |
| Fremont         | 135              | 11.4%            | 1,186            | 0.2%                     | 611,892              | -35.0%                        |
| Garfield        | 267              | 19.4%            | -1,113           | -0.1%                    | 753,219              | -463.3%                       |
| Gilpin          | 0                |                  | 0                | 0.0%                     | 259,087              |                               |
| Grand           | 97               | 10.6%            | -817             | -0.4%                    | 223,566              | -176.4%                       |
| Gunnison        | 84               | 26.0%            | -238             | -0.1%                    | 266,275              | -124.4%                       |
| Hinsdale        | 0                | 0.0%             | 111              | 1.1%                     | 10,295               | -33.1%                        |
| Huerfano        | 195              | 9.9%             | -1,771           | -2.7%                    | 65,896               | -540.9%                       |
| Jackson         | 32               | 0.8%             | 4,112            | 16.2%                    | 25,310               | 47.9%                         |
| Jefferson       | 105              | 1.9%             | 5,670            | 0.0%                     | 12,288,417           | 306.4%                        |
| Kiowa           | 5,854            | 79.1%            | 7,403            | 24.8%                    | 29,849               | 22.3%                         |
| Kit Carson      | 11,810           | 26.9%            | 43,855           | 28.2%                    | 155,622              | -6.5%                         |
| Lake            |                  |                  | 0                | 0.0%                     | 90,119               |                               |
| La Plata        | 564              | 16.8%            | -2,801           | -0.3%                    | 870,633              | 277.7%                        |
| Larimer         | 791              | 4.3%             | 18,186           | 0.3%                     | 5,842,865            | 23.4%                         |
| Las Animas      | 1,135            | 352.1%           | 322              | 0.2%                     | 179,992              | -96.3%                        |
| Lincoln         | 6,247            | 84.9%            | 7,359            | 8.1%                     | 91,219               | -84.0%                        |
| Logan           | 6,015            | 13.4%            | 44,724           | 11.2%                    | 399,564              | 21.2%                         |
| Mesa            | 757              |                  | 0                | 0.0%                     | 1,998,510            | -63.1%                        |
| Mineral         |                  |                  | 70               | 0.5%                     | 14,171               |                               |
| Moffat          | 1,138            | 75.4%            | -370             | -0.1%                    | 264,575              | -173.2%                       |
| Montezuma       | 827              | 27.3%            | -2,197           | -0.6%                    | 341,508              | -88.5%                        |
| Montrose        | 692              | 7.7%             | 9,038            | 1.7%                     | 539,461              | -6.9%                         |
| Morgan          | 4,583            | 9.2%             | 49,988           | 9.2%                     | 541,781              | -1.7%                         |
| Otero           | 849              | 5.6%             | 15,295           | 5.0%                     | 308,288              | -5.2%                         |
| Ouray           | 57               | 4.2%             | -1,296           | -2.8%                    | 45,893               | 320.9%                        |
| Park            |                  |                  | 633              | 0.7%                     | 91,310               | -30.7%                        |
| Phillips        | 5,027            | 17.1%            | 29,379           | 33.3%                    | 88,140               | 40.1%                         |
| Pitkin          | 35               |                  | 0                | 0.0%                     | 773,693              |                               |
| Prowers         | 5,525            | 12.7%            | 43,618           | 16.2%                    | 269,817              | 3.3%                          |
| Pueblo          | 1,917            | 52.1%            | 3,681            | 0.2%                     | 2,317,128            | -43.0%                        |
| Rio Blanco      | 284              | 6.6%             | -4,002           | -2.9%                    | 137,809              | -5666.7%                      |
| Rio Grande      | 941              | 5.7%             | 16,413           | 8.1%                     | 203,669              | 54.3%                         |
| Routt           | 954              | 179.5%           | 531              | 0.1%                     | 496,022              | -48.8%                        |
| Saguache        | 709              | 7.2%             | 9,894            | 16.1%                    | 61,407               | 27.9%                         |
| San Juan        |                  |                  | 0                | 0.0%                     | 10,312               |                               |
| San Miguel      | 235              | 34.7%            | -443             | -0.3%                    | 172,104              | -160.5%                       |
| Sedgwick        | 2,493            | 25.9%            | 9,632            | 23.2%                    | 41,576               | 32.5%                         |
| Summit          | 0                | 0.0%             | -744             | -0.1%                    | 629,135              | 80.3%                         |
| Teller          |                  |                  | -753             | -0.3%                    | 283,189              | 90.0%                         |
| Washington      | 9,494            | 28.5%            | 33,355           | 35.4%                    | 94,266               | 19.1%                         |
| Weld            | 10,441           | 6.1%             | 170,053          | 5.0%                     | 3,372,902            | 30.0%                         |
| Yuma            | 8,876            | 9.4%             | 93,939           | 43.2%                    | 217,503              | -0.3%                         |
| <b>Colorado</b> | <b>\$117,843</b> | <b>16.1%</b>     | <b>\$733,144</b> | <b>0.7%</b>              | <b>\$112,699,276</b> | <b>6.0%</b>                   |

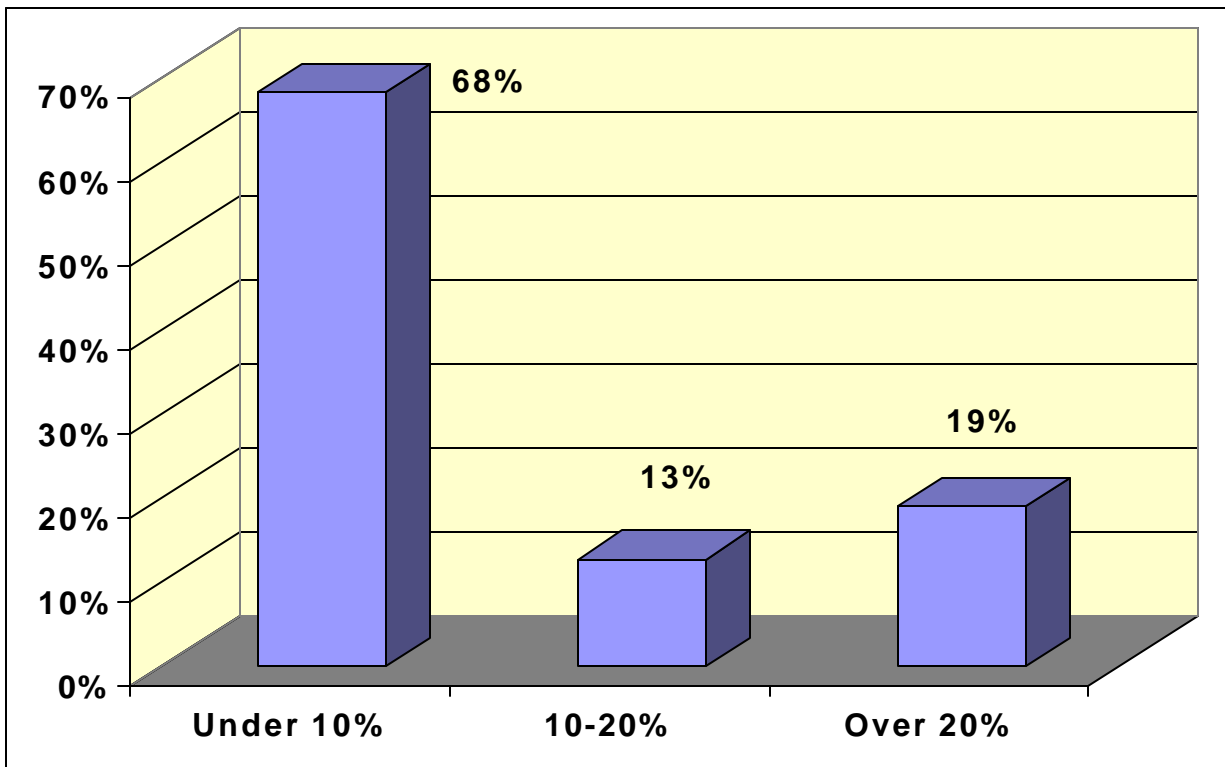
Source: See Appendix 2. % of Farm Income = Gov't Payments/Farm Income, % of Total County Income = Farm Income/Total County Income. Counties do not add to state total due to estimation at the county level.

## INCOME DISTRIBUTION ACROSS COUNTIES

Income for agribusiness (agricultural inputs, farm production, and processing and marketing) is given for each county in Table 4 on the following page. Agribusiness income ranges from a high of 49% of county income in Yuma county to a low of 0% in Teller, Summit, San Juan, San Miguel, Lake, Hinsdale, Gilpin, Adams, Huerfano, Ouray, Rio Blanco, Custer, and Clear Creek Counties. For the state as a whole, agribusiness income is about 2.2% of total income. See Table 1.

(In some cases, the sum of county values does not match the total given for the state in Table 1. County data is less accurate than state data due to disclosure concerns that might reveal private information about businesses in individual counties.)

**County Income From Agribusiness – 1997**  
**Percent of County Income from Agribusiness**



As shown in the bar chart above, 19% of the counties get 20% or more of their income from agribusiness. A total of 68% of the counties get less than 10% of their income from agribusiness system. Since 1992 every county in the state has seen a reduction in the percentage of income earned from agribusiness. Some of the larger reductions have been seen in the following counties:

| <u>County</u> | <u>Decrease</u> | <u>County</u> | <u>Decrease</u> |
|---------------|-----------------|---------------|-----------------|
| Kiowa         | 4.7%            | Phillips      | 6.6%            |
| Yuma          | 5.9%            | Weld          | 5.4%            |
| Cheyenne      | 5.4%            |               |                 |

**Table 4 Colorado Labor and Proprietor Income from Agribusiness by County in 1997 (\$1,000)**

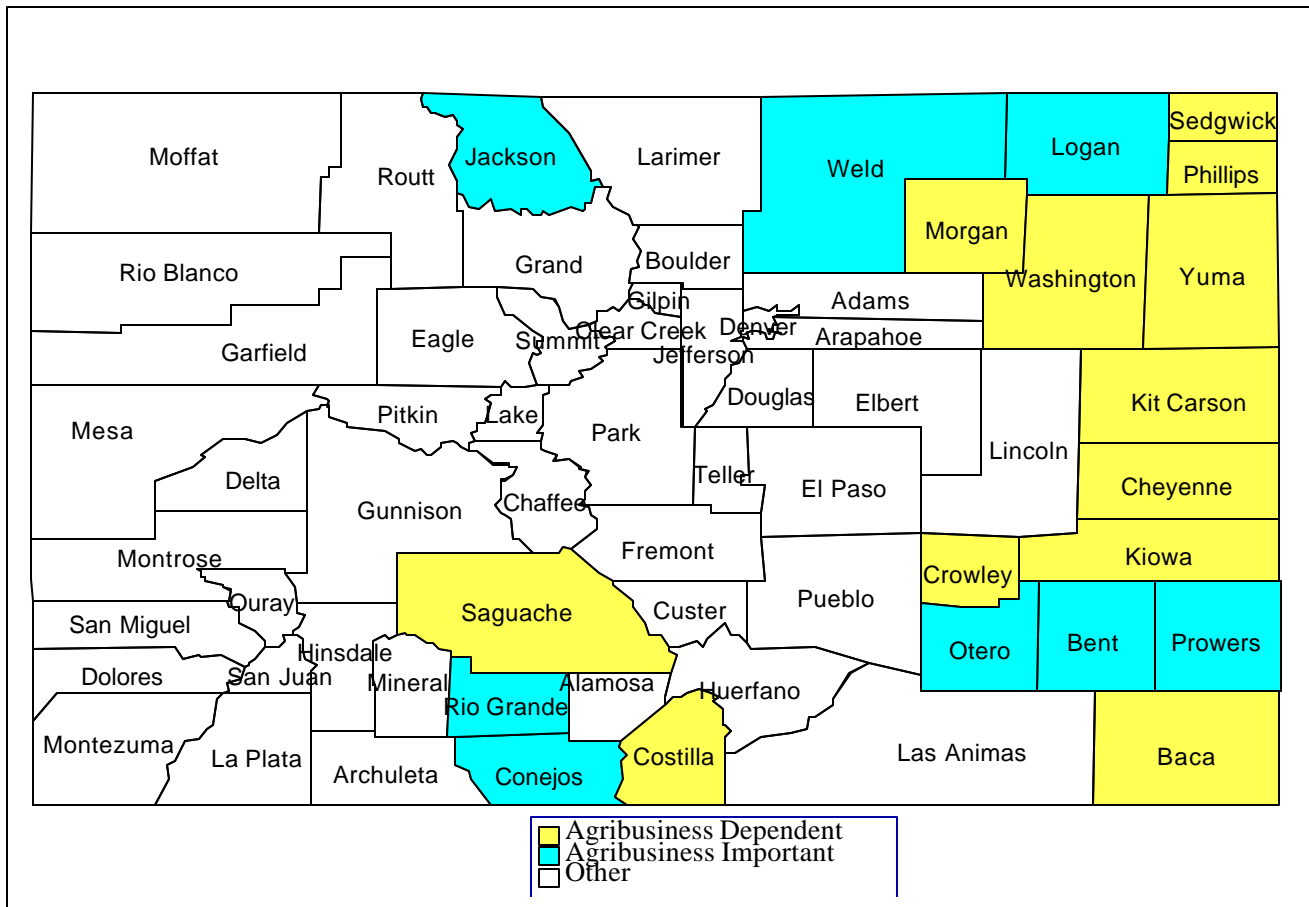
| County          | Ag. Inputs       | Farm Production  | Processing/Marketing | Total Agribusiness | % of Total County Income | Total County Income  |
|-----------------|------------------|------------------|----------------------|--------------------|--------------------------|----------------------|
| Adams           | \$38,444         | \$28,590         | \$78,142             | \$145,176          | 2.09%                    | \$6,929,977          |
| Alamosa         | 4,031            | 17,333           | 159                  | 21,523             | 7.91%                    | 272,170              |
| Arapahoe        | 86,485           | -1,487           | 29,280               | 114,278            | 0.69%                    | 16,678,306           |
| Archuleta       | 758              | -60              | 0                    | 698                | 0.71%                    | 98,377               |
| Baca            | 1,480            | 26,058           | 878                  | 28,417             | 36.49%                   | 77,884               |
| Bent            | 1,345            | 15,969           | 131                  | 17,445             | 16.82%                   | 103,711              |
| Boulder         | 44,204           | 14,308           | 48,582               | 107,094            | 1.07%                    | 9,989,751            |
| Chaffee         | 1,408            | -682             | 20                   | 747                | 0.35%                    | 210,374              |
| Cheyenne        | 2,108            | 7,311            | 166                  | 9,586              | 23.66%                   | 40,517               |
| Clear Creek     | 307              | 0                | 97                   | 404                | 0.30%                    | 133,614              |
| Conejos         | 2,938            | 5,849            | 59                   | 8,847              | 12.94%                   | 68,363               |
| Costilla        | 976              | 6,355            | 0                    | 7,332              | 20.69%                   | 35,431               |
| Crowley         | 668              | 10,518           | 0                    | 11,185             | 22.01%                   | 50,808               |
| Custer          | 235              | -559             | 0                    | -324               | -1.18%                   | 27,515               |
| Delta           | 9,615            | 4,878            | 3,595                | 18,087             | 6.35%                    | 284,881              |
| Denver          | 72,423           | 942              | 243,135              | 316,500            | 1.14%                    | 27,673,277           |
| Dolores         | 412              | -290             | 461                  | 583                | 3.33%                    | 17,520               |
| Douglas         | 30,232           | -624             | 133                  | 29,741             | 1.71%                    | 1,739,692            |
| Eagle           | 9,022            | -985             | 1,120                | 9,157              | 0.81%                    | 1,137,140            |
| Elbert          | 4,709            | -2,751           | 444                  | 2,402              | 2.08%                    | 115,488              |
| El Paso         | 37,466           | 566              | 18,291               | 56,323             | 0.49%                    | 11,532,219           |
| Fremont         | 1,711            | 1,186            | 965                  | 3,862              | 0.63%                    | 611,892              |
| Garfield        | 7,777            | -1,113           | 2,341                | 9,006              | 1.20%                    | 753,219              |
| Gilpin          | 20               | 0                | 0                    | 20                 | 0.01%                    | 259,087              |
| Grand           | 854              | -817             | 0                    | 37                 | 0.02%                    | 223,566              |
| Gunnison        | 1,144            | -238             | 10                   | 916                | 0.34%                    | 266,275              |
| Hinsdale        | 15               | 111              | 0                    | 126                | 1.22%                    | 10,295               |
| Huerfano        | 316              | -1,771           | 0                    | -1,455             | -2.21%                   | 65,896               |
| Jackson         | 284              | 4,112            | 0                    | 4,397              | 17.37%                   | 25,310               |
| Jefferson       | 60,150           | 5,670            | 234,839              | 300,659            | 2.45%                    | 12,288,417           |
| Kiowa           | 505              | 7,403            | 214                  | 8,122              | 27.21%                   | 29,849               |
| Kit Carson      | 5,794            | 43,855           | 4,102                | 53,752             | 34.54%                   | 155,622              |
| Lake            | 116              | 0                | 0                    | 116                | 0.13%                    | 90,119               |
| La Plata        | 7,589            | -2,801           | 4,994                | 9,782              | 1.12%                    | 870,633              |
| Larimer         | 41,525           | 18,186           | 61,292               | 121,004            | 2.07%                    | 5,842,865            |
| Las Animas      | 501              | 322              | 138                  | 961                | 0.53%                    | 179,992              |
| Lincoln         | 1,124            | 7,359            | 392                  | 8,876              | 9.73%                    | 91,219               |
| Logan           | 12,712           | 44,724           | 19,910               | 77,346             | 19.36%                   | 399,564              |
| Mesa            | 11,608           | 0                | 15,417               | 27,024             | 1.35%                    | 1,998,510            |
| Mineral         | 45               | 70               | 0                    | 115                | 0.81%                    | 14,171               |
| Moffat          | 1,750            | -370             | 1,260                | 2,640              | 1.00%                    | 264,575              |
| Montezuma       | 3,546            | -2,197           | 1,601                | 2,950              | 0.86%                    | 341,508              |
| Montrose        | 10,017           | 9,038            | 12,010               | 31,065             | 5.76%                    | 539,461              |
| Morgan          | 12,813           | 49,988           | 66,895               | 129,696            | 23.94%                   | 541,781              |
| Otero           | 5,315            | 15,295           | 10,315               | 30,925             | 10.03%                   | 308,288              |
| Ouray           | 328              | -1,296           | 0                    | -968               | -2.11%                   | 45,893               |
| Park            | 1,092            | 633              | 11                   | 1,737              | 1.90%                    | 91,310               |
| Phillips        | 3,136            | 29,379           | 2,684                | 35,198             | 39.93%                   | 88,140               |
| Pitkin          | 7,114            | 0                | 657                  | 7,770              | 1.00%                    | 773,693              |
| Prowers         | 5,096            | 43,618           | 2,364                | 51,078             | 18.93%                   | 269,817              |
| Pueblo          | 6,784            | 3,681            | 22,750               | 33,215             | 1.43%                    | 2,317,128            |
| Rio Blanco      | 1,623            | -4,002           | 0                    | -2,379             | -1.73%                   | 137,809              |
| Rio Grande      | 17,497           | 16,413           | 1,560                | 35,470             | 17.42%                   | 203,669              |
| Routt           | 3,401            | 531              | 8                    | 3,940              | 0.79%                    | 496,022              |
| Saguache        | 5,670            | 9,894            | 149                  | 15,713             | 25.59%                   | 61,407               |
| San Juan        | 7                | 0                | 0                    | 7                  | 0.07%                    | 10,312               |
| San Miguel      | 2,201            | -443             | 0                    | 1,758              | 1.02%                    | 172,104              |
| Sedgwick        | 1,326            | 9,632            | 919                  | 11,877             | 28.57%                   | 41,576               |
| Summit          | 3,433            | -744             | 1                    | 2,689              | 0.43%                    | 629,135              |
| Teller          | 777              | -753             | 0                    | 24                 | 0.01%                    | 283,189              |
| Washington      | 1,802            | 33,355           | 3,948                | 39,105             | 41.48%                   | 94,266               |
| Weld            | 76,006           | 170,053          | 144,470              | 390,528            | 11.58%                   | 3,372,902            |
| Yuma            | 7,401            | 93,939           | 4,860                | 106,200            | 48.83%                   | 217,503              |
| <b>Colorado</b> | <b>\$685,075</b> | <b>\$733,144</b> | <b>\$1,045,770</b>   | <b>\$2,463,988</b> | <b>2.19%</b>             | <b>\$112,699,276</b> |

Source: See Appendix 2. % of Total County Income = Agribusiness Income/Total County Income. Counties do not add to state total due to estimation at county level.

## COUNTY AGRIBUSINESS DEPENDENCY

The figure below shows the location of Colorado's 63 counties and their degree of dependency on agribusiness. Production agriculture alone does not fully represent the economic importance of farming and ranching to an economy. As is discussed throughout this report, other industries depend on production agriculture such as fertilizer sale, food processing, and farm machinery production.

In order to recognize the degree of contribution of agribusiness to a county, two categories have been developed. *Agribusiness Dependent* counties receive over 20% of total county income from agribusiness industries. *Agribusiness Important* counties receive between 10% and 20% of total county income from agribusiness industries. The Other category represents those counties that receive less than 10% of their total county income from agribusiness. Agribusiness dependent counties are not the only counties with large agribusiness sectors. Some counties are not classified as agribusiness important or dependent because they have relatively large non-agricultural sectors.<sup>4</sup> (See Table 5) Eight of the 63 counties are *agribusiness important* and twelve are *agribusiness dependent*. Therefore, over 31% of Colorado counties continue to be either *agribusiness dependent* or *agribusiness important* in 1997, which does not represent a significant change from 1992. However, there have been some individual changes within the categories. Of particular note is



## COUNTY AGRIBUSINESS DEPENDENCY

**Table 5. Colorado Rankings by Agribusiness Income and Percent of Total County Income**

| <u>Agribusiness Income</u><br><u>(\$000)</u> |           | <u>Agribusiness %</u><br><u>of County Total</u> |       | <u>Agribusiness Income</u><br><u>(\$000)</u> |         | <u>Agribusiness %</u><br><u>of County Total</u> |       |
|--|-----------|---|-------|--|---------|---|-------|
| Weld   | \$390,528 | Yuma  | 48.8% | Lincoln                                      | \$8,876 | Mesa  | 1.4%  |
| Denver                                       | 316,500   | Washington                                      | 41.5% | Conejos                                      | 8,847   | Hinsdale  | 1.2%  |
| Jefferson                                    | 300,659   | Phillips  | 39.9% | Kiowa  | 8,122   | Garfield  | 1.2%  |
| Adams  | 145,176   | Baca  | 36.5% | Pitkin                                       | 7,770   | Denver  | 1.1%  |
| Morgan                                       | 129,696   | Kit Carson                                      | 34.5% | Costilla                                     | 7,332   | La Plata  | 1.1%  |
| Larimer                                      | 121,004   | Sedgwick  | 28.6% | Jackson                                      | 4,397   | Boulder   | 1.1%  |
| Arapahoe                                     | 114,278   | Kiowa   | 27.2% | Routt  | 3,940   | San Miguel                                      | 1.0%  |
| Boulder                                      | 107,094   | Saguache  | 25.6% | Fremont                                      | 3,862   | Pitkin  | 1.0%  |
| Yuma   | 106,200   | Morgan  | 23.9% | Montezuma                                    | 2,950   | Moffat  | 1.0%  |
| Logan  | 77,346    | Cheyenne  | 23.7% | Summit                                       | 2,689   | Montezuma                                       | 0.9%  |
| El Paso                                      | 56,323    | Crowley   | 22.0% | Moffat                                       | 2,640   | Mineral   | 0.8%  |
| Kit Carson                                   | 53,752    | Costilla  | 20.7% | Elbert                                       | 2,402   | Eagle   | 0.8%  |
| Prowers                                      | 51,078    | Logan   | 19.4% | San Miguel                                   | 1,758   | Routt   | 0.8%  |
| Washington                                   | 39,105    | Prowers   | 18.9% | Park   | 1,737   | Archuleta                                       | 0.7%  |
| Rio Grande                                   | 35,470    | Rio Grande                                      | 17.4% | Las Animas                                   | 961     | Arapahoe  | 0.7%  |
| Phillips                                     | 35,198    | Jackson   | 17.4% | Gunnison                                     | 916     | Fremont   | 0.6%  |
| Pueblo                                       | 33,215    | Bent  | 16.8% | Chaffee                                      | 747     | Las Animas                                      | 0.5%  |
| Montrose                                     | 31,065    | Conejos   | 12.9% | Archuleta                                    | 698     | El Paso   | 0.5%  |
| Otero  | 30,925    | Weld  | 11.6% | Dolores                                      | 583     | Summit  | 0.4%  |
| Douglas                                      | 29,741    | Otero   | 10.0% | Clear Creek                                  | 404     | Chaffee   | 0.4%  |
| Baca   | 28,417    | Lincoln   | 9.7%  | Hinsdale                                     | 126     | Gunnison  | 0.3%  |
| Mesa   | 27,024    | Alamosa   | 7.9%  | Lake   | 116     | Clear Creek                                     | 0.3%  |
| Alamosa                                      | 21,523    | Delta   | 6.3%  | Mineral                                      | 115     | Lake  | 0.1%  |
| Delta  | 18,087    | Montrose  | 5.8%  | Grand  | 37      | San Juan  | 0.1%  |
| Bent   | 17,445    | Dolores   | 3.3%  | Teller                                       | 24      | Grand   | 0.0%  |
| Saguache                                     | 15,713    | Jefferson                                       | 2.4%  | Gilpin                                       | 20      | Teller  | 0.0%  |
| Sedgwick                                     | 11,877    | Adams   | 2.1%  | San Juan                                     | 7       | Gilpin  | 0.0%  |
| Crowley                                      | 11,185    | Elbert  | 2.1%  | Custer                                       | -324    | Custer  | -1.2% |
| La Plata                                     | 9,782     | Larimer   | 2.1%  | Ouray  | -968    | Rio Blanco                                      | -1.7% |
| Cheyenne                                     | 9,586     | Park  | 1.9%  | Huerfano                                     | -1,455  | Ouray   | -2.1% |
| Eagle  | 9,157     | Douglas   | 1.7%  | Rio Blanco                                   | -2,379  | Huerfano  | -2.2% |
| Garfield                                     | 9,006     | Pueblo  | 1.4%  |  |         |   |       |

Lincoln County, which had been ranked in 1992 as agricultural dependent but is now at less than 10%. Dolores County, which had been ranked as agricultural important is now less than 5%. Costilla County is now ranked as agricultural dependent at over 20% and Conejos County has increased to agricultural important with over 12%.

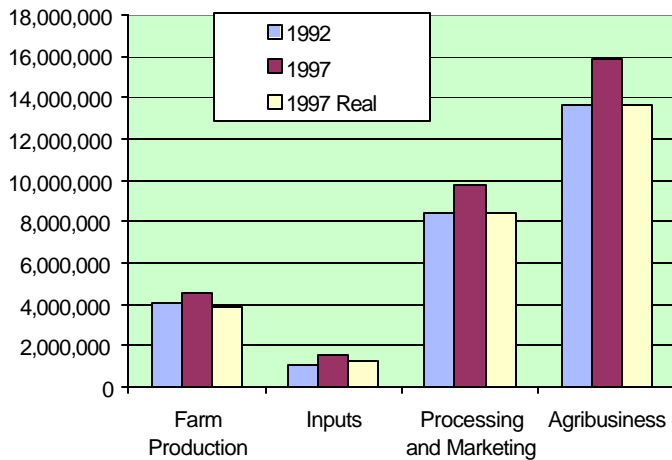
The county rankings of agribusiness importance and dependency are shown in the table on the left. In the first two columns, the counties are ranked according to the total size of agribusiness. The last two columns show the ranking by the percentage of total county income that agribusiness provides in each county. Metro counties rank highest in size while rural sectors rank highest in importance. agricultural acres over the past ten years.



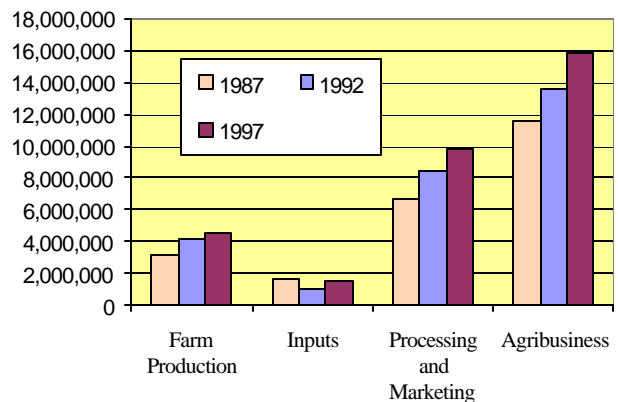
## COLORADO SALES

With the exception of Agricultural inputs, all three sectors of the agribusiness system saw an increase in sales over the past ten years. Farm production saw a 41% increase in sales and the processing/marketing sector increased by 46%. The input sector saw a significant increase over the past five years of 46% but this seemed to offset the sharp decline in the first part of the nineties where input sales sharply dropped by 36% resulting in an overall decrease in sales of 7% for the ten-year period. This drop could in part be attributed to the recession of the early nineties where a decreased demand for agricultural services occurred. This demand picked up again, however, with the expansion in the mid and later nineties. The graph on the left-hand side of the page gives a comparison between nominal 1992 and 1997 dollars as well as 1997 “real” dollars which are adjusted downward for inflation by 16.4%. The CPI was used for this adjustment.

**Colorado Agribusiness Sales**  
(\$1,000s)



**Agribusiness Sales**  
(\$1,000s)



In Table 6 on the following page, county sales data are provided for the three sectors. County-level figures for total sales in agribusiness are not available from published sources, nor do standard methods exist for estimating such figures. The county-level figures for agricultural inputs and agricultural processing/marketing in Table 6 were developed by the Colorado Department of Agriculture and are based upon the following premise: Sales in agricultural inputs and agricultural processing and marketing are directly and strongly related to employment and income. No such premise for the sale of on-farm production is assumed or necessary because published data are available at the county level for on-farm production.

To estimate gross sales of agribusiness at the county level, we first estimate gross sales of agricultural inputs and agricultural marketing/processing as follows: each county's percent shares of the state's total employment and total income for agricultural inputs are first computed from Tables 2 and 4. For each county, these percents are averaged and then multiplied by the state's total sales of ag inputs to estimate each county's total sales for agricultural inputs. This same estimation procedure is used for the agricultural processing and marketing sector.

**Table 6. Colorado Agribusiness Sales by County in 1997 (\$1,000)**

| County          | Farm Gate          | Inputs *           | Processing Marketing* | Agribusiness *      | As % of Total Agribusiness Sales |
|-----------------|--------------------|--------------------|-----------------------|---------------------|----------------------------------|
| Adams           | \$87,739           | \$84,394           | \$769,795             | \$941,927           | 5.94%                            |
| Alamosa         | 57,195             | 8,685              | 2,444                 | 68,323              | 0.43%                            |
| Arapahoe        | 23,612             | 180,136            | 283,494               | 487,242             | 3.07%                            |
| Archuleta       | 6,149              | 2,107              | 0                     | 8,256               | 0.05%                            |
| Baca            | 77,369             | 4,020              | 12,590                | 93,978              | 0.59%                            |
| Bent            | 50,975             | 3,366              | 1,929                 | 56,269              | 0.35%                            |
| Boulder         | 43,671             | 98,496             | 500,075               | 642,242             | 4.05%                            |
| Chaffee         | 5,161              | 3,380              | 1,022                 | 9,563               | 0.06%                            |
| Cheyenne        | 33,645             | 4,367              | 2,496                 | 40,507              | 0.26%                            |
| Clear Creek     | 30                 | 1,070              | 699                   | 1,799               | 0.01%                            |
| Conejos         | 25,488             | 7,302              | 1,846                 | 34,635              | 0.22%                            |
| Costilla        | 15,978             | 4,078              | 0                     | 20,056              | 0.13%                            |
| Crowley         | 73,487             | 1,503              | 0                     | 74,990              | 0.47%                            |
| Custer          | 4,816              | 784                | 0                     | 5,600               | 0.04%                            |
| Delta           | 39,083             | 20,948             | 46,453                | 106,484             | 0.67%                            |
| Denver          | 2,174              | 147,393            | 2,178,838             | 2,328,405           | 14.68%                           |
| Dolores         | 8,601              | 850                | 5,100                 | 14,552              | 0.09%                            |
| Douglas         | 17,119             | 69,141             | 1,398                 | 87,657              | 0.55%                            |
| Eagle           | 7,413              | 22,574             | 6,050                 | 36,037              | 0.23%                            |
| Elbert          | 31,249             | 12,354             | 4,152                 | 47,754              | 0.30%                            |
| El Paso         | 30,330             | 97,223             | 178,791               | 306,344             | 1.93%                            |
| Fremont         | 12,126             | 5,162              | 11,683                | 28,971              | 0.18%                            |
| Garfield        | 22,817             | 16,650             | 29,281                | 68,748              | 0.43%                            |
| Gilpin          |                    | 22                 | 0                     |                     |                                  |
| Grand           | 8,833              | 2,475              | 0                     | 11,308              | 0.07%                            |
| Gunnison        | 8,436              | 2,783              | 270                   | 11,489              | 0.07%                            |
| Hinsdale        | 377                | 76                 | 0                     | 453                 | 0.00%                            |
| Huerfano        | 9,681              | 1,062              | 0                     | 10,743              | 0.07%                            |
| Jackson         | 15,593             | 808                | 0                     | 16,401              | 0.10%                            |
| Jefferson       | 19,474             | 141,405            | 1,853,855             | 2,014,734           | 12.70%                           |
| Kiowa           | 61,724             | 1,565              | 3,665                 | 66,954              | 0.42%                            |
| Kit Carson      | 177,051            | 12,789             | 54,066                | 243,906             | 1.54%                            |
| Lake            | 513                | 366                | 0                     | 879                 | 0.01%                            |
| La Plata        | 15,797             | 18,219             | 59,961                | 93,977              | 0.59%                            |
| Larimer         | 100,483            | 102,207            | 468,413               | 671,103             | 4.23%                            |
| Las Animas      | 20,336             | 1,806              | 2,278                 | 24,420              | 0.15%                            |
| Lincoln         | 44,773             | 3,463              | 6,804                 | 55,040              | 0.35%                            |
| Logan           | 292,740            | 24,050             | 192,473               | 509,264             | 3.21%                            |
| Mesa            | 50,450             | 28,772             | 154,639               | 233,861             | 1.47%                            |
| Mineral         | 146                | 528                | 0                     | 674                 | 0.00%                            |
| Moffat          | 18,938             | 4,358              | 15,700                | 38,996              | 0.25%                            |
| Montezuma       | 21,874             | 8,923              | 17,283                | 48,080              | 0.30%                            |
| Montrose        | 88,274             | 22,942             | 188,739               | 299,954             | 1.89%                            |
| Morgan          | 405,945            | 27,141             | 726,487               | 1,159,574           | 7.31%                            |
| Otero           | 100,214            | 12,283             | 132,031               | 244,527             | 1.54%                            |
| Ouray           | 3,237              | 1,058              | 0                     | 4,295               | 0.03%                            |
| Park            | 3,622              | 2,439              | 898                   | 6,958               | 0.04%                            |
| Phillips        | 117,064            | 6,814              | 28,002                | 151,880             | 0.96%                            |
| Pitkin          | 1,527              | 14,604             | 6,805                 | 22,937              | 0.14%                            |
| Prowers         | 150,677            | 12,632             | 24,591                | 187,900             | 1.18%                            |
| Pueblo          | 33,642             | 18,736             | 234,045               | 286,423             | 1.81%                            |
| Rio Blanco      | 14,086             | 4,144              | 0                     | 18,230              | 0.11%                            |
| Rio Grande      | 72,818             | 36,015             | 20,743                | 129,576             | 0.82%                            |
| Routt           | 22,858             | 7,483              | 151                   | 30,492              | 0.19%                            |
| Saguache        | 50,305             | 11,563             | 10,855                | 72,723              | 0.46%                            |
| San Juan        |                    | 8                  | 0                     |                     |                                  |
| San Miguel      | 2,897              | 4,389              | 0                     | 7,286               | 0.05%                            |
| Sedgwick        | 54,751             | 6,237              | 12,502                | 73,490              | 0.46%                            |
| Summit          | 1,511              | 7,484              | 17                    | 9,011               | 0.06%                            |
| Teller          | 1,277              | 2,887              | 0                     | 4,164               | 0.03%                            |
| Washington      | 97,898             | 5,137              | 49,771                | 152,806             | 0.96%                            |
| Weld            | 1,286,636          | 153,299            | 1,434,189             | 2,874,124           | 18.12%                           |
| Yuma            | 481,374            | 15,938             | 65,319                | 562,631             | 3.55%                            |
| <b>Colorado</b> | <b>\$4,534,213</b> | <b>\$1,531,229</b> | <b>\$9,802,687</b>    | <b>\$15,868,129</b> |                                  |

Source: Procedures for estimating county-level sales for Agricultural Inputs and Agricultural Processing/Marketing provided by the Colorado Department of Agriculture. For complete procedures, see page 19 or Appendix 2.

## ECONOMIC MULTIPLIER EFFECTS FROM AGRIBUSINESS

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The impact of agriculture or any other economic sector is not limited to its own activities. Every dollar generated or person employed has the potential to stimulate more income and more jobs. This increased earnings or employment is referred to by economists as the “multiplier effect.” For example if there is an investment project, workers are paid a salary which in turn they spend on food, living, or entertainment which in turn is spent by individuals in these areas and so on throughout the economy.

The multiplier is broken down into three components: **Direct Effects** are the changes in the industries to which a final demand change was made. The cattle brought to the packinghouse is a direct effect of the producer.

The job created at the packinghouse is an **Indirect Effect** as a result of the increased business activity. Indirect effects are created in the businesses that serve the producer, including those generated by the packinghouse or any other industry serving the producer. Finally, **Induced Effects** include the sales and jobs of unrelated items such as clothing, cars, and homes that increase as a result of the jobs and sales generated by the packinghouse activity or any other industry servicing the producer. This in turn was a result of the direct effects of the producer marketing his cattle.

**Example:** Combining a dairy processor (direct effect) and milk producer (indirect effect):

The combined *employment* multiplier is 2.43 which means:

For every new direct job in dairy processing, an *additional 1.43* (2.43-1 direct) jobs are indirectly created in the production industry.

Combining the induced effects with the direct and indirect effects:

The *inclusive employment* multiplier is 3.6 which means:

For every new direct job in dairy, the combined effects including indirect *and* induced impacts on the labor market are an additional **2.6** jobs.

It would be nice to be able to break down the multiplier effects within individual Colorado counties, but the state information is too generalized. It is safe to say, however, that the overall state employment and sales multipliers with respect to agribusiness range anywhere from 1.43 to 3.8 with an average somewhere around 2 depending upon the processing activity.<sup>3</sup> **Therefore, every new job in agribusiness generates about one more job and every dollar sold generates another dollar sold by some else.**

When applying multipliers, care needs to be used. It is *not* accurate to multiply the value of the agribusiness system by a multiplier to get the total impact on the economy since the multipliers only apply to adding or taking away from the current size. For example, value added in agribusiness for 1997 was \$3.3 billion and employment was 105,140. A multiplier of two (for either employment or sales) does not imply that the impact of agribusiness is 2 times \$3.3 or 2 times 105,140. Rather, it means that expanding agribusiness sales to final demand by \$100,000 would expand the state’s total economy \$200,000 or the creation of 10 new jobs in an industry would result in an overall increase of 20 new jobs to the state’s total economy.

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<sup>3</sup> 1996 IMPLAN State Data Packages, Colorado.

## ECONOMIC MULTIPLIER EFFECTS FROM AGRIBUSINESS

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We can read the information from the chart on this page in a similar fashion as explained on the previous page. For example, the production of a dairy farm product has a combined direct and indirect (Type 1) output or sales multiplier of 1.43. This means that for every \$1.00 of *direct* sale generated by the dairy, an *additional* 0.43 in indirect sales are created.

The inclusive multiplier (Type Sam) includes the entire state's economy—direct, indirect, and induced as explained in the previous page. In this case, the multiplier is 1.73. Thus for every new dollar in *direct* sales generated, ultimately 0.73 in new sales are created for the entire state's economy.

We can read the employment multipliers in the same manner, but change sales for jobs as was done in the dairy example on the previous page.

### Output Multipliers<sup>4</sup>

### Employment Multipliers

|                           | Type I Multiplier | Type SAM Multiplier | Type I Multiplier | Type SAM Multiplier |
|---------------------------|-------------------|---------------------|-------------------|---------------------|
| Dairy Farm Products       | 1.43              | 1.73                | 2.55              | 3.89                |
| Poultry and Eggs          | 1.36              | 1.56                | 3.49              | 4.72                |
| Ranch Fed Cattle          | 1.56              | 1.86                | 1.68              | 2.21                |
| Range Fed Cattle          | 1.77              | 2.09                | 2.05              | 2.79                |
| Cattle Feedlots           | 1.63              | 1.93                | 2.62              | 3.94                |
| Sheep, Lambs and Goats    | 1.62              | 1.92                | 1.32              | 1.44                |
| Hogs, Pigs and Swine      | 1.51              | 1.75                | 1.66              | 2.11                |
| Other Meat Animal Product | 1.67              | 1.94                | 1.99              | 2.63                |
| Miscellaneous Livestock   | 1.40              | 1.63                | 1.35              | 1.65                |
| Cotton                    | 0.00              | 0.00                | 0.00              | 0.00                |
| Food Grains               | 1.49              | 1.77                | 1.29              | 1.54                |
| Feed Grains               | 1.44              | 1.72                | 1.45              | 1.80                |
| Hay and Pasture           | 1.45              | 1.72                | 1.32              | 1.57                |
| Grass Seeds               | 1.46              | 1.70                | 1.11              | 1.21                |
| Tobacco                   | 0.00              | 0.00                | 0.00              | 0.00                |
| Fruits                    | 1.57              | 1.84                | 4.65              | 6.38                |
| Tree Nuts                 | 0.00              | 0.00                | 0.00              | 0.00                |
| Vegetables                | 1.47              | 1.82                | 2.35              | 3.21                |
| Sugar Crops               | 1.46              | 1.71                | 1.51              | 1.85                |
| Miscellaneous Crops       | 1.47              | 1.74                | 1.64              | 1.89                |
| Oil Bearing Crops         | 1.43              | 1.75                | 1.30              | 1.60                |
| Forest Products           | 1.45              | 1.66                | 3.02              | 4.19                |
| Greenhouse and Nursery P  | 1.37              | 1.65                | 1.70              | 2.37                |
| Forestry Products         | 1.35              | 1.61                | 1.96              | 2.37                |
| Commercial Fishing        | 1.09              | 1.54                | 1.02              | 1.11                |

<sup>4</sup> 1996 IMPLAN State Data Packages, Colorado.

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## Appendix 1: Agricultural Sectors and Subsectors

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### Economic Sector Explanation:

The agricultural economic sector is comprised of several smaller industrial classifications. The 1987 Standard Industrial Classifications (SIC) Codes were used in previous editions of this study to identify which industrial sectors made up the larger economic sectors used in this study. Beginning in 2000 the North American Industry Classification System (NAICS) is replacing the U.S. Standard Industrial Classification (SIC). To remain consistent, the same industrial sectors were used as in the 1987 and 1992 editions of this bulletin where ever possible. Below is a table showing correspondence between NAICS and SIC for the industries we use in this study.

| Industry   | SIC Code | NAICS  |
|--|----------|--------|
| <b>Ag. Production</b>                            |          |        |
| <i>Crop production</i>                           | 01       | 111    |
| <i>Livestock production</i>                      | 02       | 112    |
| <b>Agriculture Inputs</b>                        |          |        |
| <i>Ag. Services</i>                              |          |        |
| soil preparation                                 | 07       | 11511  |
| Vet. Services                                    | 07       | 54194  |
| Horticulture cons.                               | 07       | 54169  |
| Landscape Arch.                                  | 07       | 54132  |
| Landscape services                               | 07       | 56173  |
| <i>Man. Ag. Chemical</i>                         | 287      | 3253   |
| <i>Manufacturing of farm machinery</i>           | 352      | 333111 |
|  |          | 332323 |
|  |          | 332212 |
|  |          | 333922 |
|  |          | 333112 |
| <i>Irrigation Systems</i>                        | 497      | 22131  |
| <i>Wholesale farm machinery</i>                  | 5083     | 42182  |
| <i>Wholesale farm supplies</i>                   | 5191     | 42291  |
| <i>Ag. Credit Institutions</i>                   | 6159     | 52222  |
| <i>Commodity Brokers</i>                         | 622      | 52314  |
| <b>Processing and Marketing</b>                  |          |        |
| <i>Manufacturing food products</i>               | 20       | 311    |
| Beverage and tobacco Manufacturing               | 20       | 312    |
| <i>Manufacturing food products machinery</i>     | 3556     | 333294 |
| <i>Wholesale raw farm products</i>               | 515      | 4225   |
| <b>Food Wholesale and Retail</b>                 |          |        |
| <i>Wholesale groceries and related products</i>  | 514      | 4224   |
| <i>Wholesale beer, wine, distilled beverages</i> | 518      | 4228   |
| <i>Wholesale flowers and nursery stock</i>       | 5193     | 42293  |
| <i>Retail food stores</i>                        | 54       | 445    |
| <i>Eating and drinking places</i>                | 58       | 722    |

## Appendix 2: Computation Procedures

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### **Table 1. Agribusiness and the Food and Fiber System Contribution to Colorado's Economy in 1997.**

The methodology and source of data for the 1997 study differ from the 1992 and 1987 studies. However, where ever possible, employment and income estimates were calculated for both 1992 and 1997 to provide a comparison. A detailed copy of methodologies used is available upon request from the authors.

*Employment and Income Figures.* The Demography Section of the Colorado Division of Local Government, *Estimates of Employment and Labor and Proprietor Income by Industry*, Unpublished, 1997, provided data for all of the sectors. Their data set is derived from ES202 data. Farm production employment was supplemented by the *Colorado Census of Agriculture 1997*.

*Value Added.* Value Added, as defined by U.S. Department of Agriculture, are "those costs which are added to the intermediate costs of producing goods and services". Those costs consist of labor wages, proprietor income, and indirect business taxes.

Therefore, to calculate the value added estimates for each sector, indirect business taxes were added to labor and proprietor income. IMPLAN data was used for the indirect business taxes. IMPLAN does not provide detailed wholesale trade sector data. Thus a ratio was calculated between sectors and subsectors (5083/5000) using Economic Census sales data. This number was then used to multiply with the wholesale trade IMPLAN value to estimate indirect business tax for SIC codes 5083, 5191, 515, 514, 518, and 5193.

*Gross Sales.* The Colorado Agriculture Census was used for farm production gross sales. The 1997 Economic Census Geographic Series by industrial sector were used for all other sales values.

**Table 2: Colorado Employment in the Agribusiness System by Colorado County 1997.** The data for this table used the same sources as in Table 1. Due to limitations of disclosure for some industries at the county level, county totals may not equal state totals.

### **Table 3: Government and Labor and Proprietor Income from Farming by Colorado County in 1997.**

**Government payments are from the Colorado Census of Agriculture.** Farm income and total county income come from The Demography Section of the Colorado Division of Local Government as mentioned for Table 1. The change in farm income between 1992 and 1997 is estimated using 1992 and 1997 REIS data. Due to limitations of disclosure for some industries at the county level, county totals may not equal state totals.

### **Table 4: Labor and Proprietor Income from Agribusiness by Colorado County in 1997.**

The data for this table used the same sources as in Table 1 and 2. Due to limitations of disclosure for some industries at the county level, county totals may not equal state totals.



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**Table 5: County Rankings by Agribusiness Income and Percent of Total county Income**

Data from this table comes directly from Table 4.

**Table 6: Colorado Agribusiness Sales by County in 1997.**

The data for farm gate and all state totals came from U.S. Department of Agriculture, National Agricultural Statistics Service. 1997 Census of Agriculture, Colorado State and County Data. AC97-A-6. Washington, D.C. March 1999.

The county-level figures for agricultural inputs and agricultural processing/marketing in Table 6 were developed by the Colorado Department of Agriculture and are based upon the following premise: Sales in agricultural inputs and agricultural processing and marketing are directly and strongly related to employment and income. No such premise for the sale of on-farm production is assumed or necessary because published data are available at the county level for on-farm production.

To estimate gross sales of agribusiness at the county level, we first estimate gross sales of agricultural inputs and agricultural marketing/processing as follows: each county's percent shares of the state's total employment and total income for agricultural inputs are first computed from Tables 2 and 4. For each county, these percents are averaged and then multiplied by the state's total sales of ag inputs to estimate each county's total sales for agricultural inputs. This same estimation procedure is used for the agricultural processing and marketing sector.

In the full report, county-level sales for agricultural inputs and agricultural marketing/processing are given separately. In the executive summary, these sales figures are combined with on-farm production sales figures from the 1997 census of agriculture to give county-level agribusiness sales figures.

**Table 7: Colorado Employment and Labor/Proprietor Income From Food and Beverage Wholesaling and Retailing.**

The data for this table used the same sources as in Table 1.

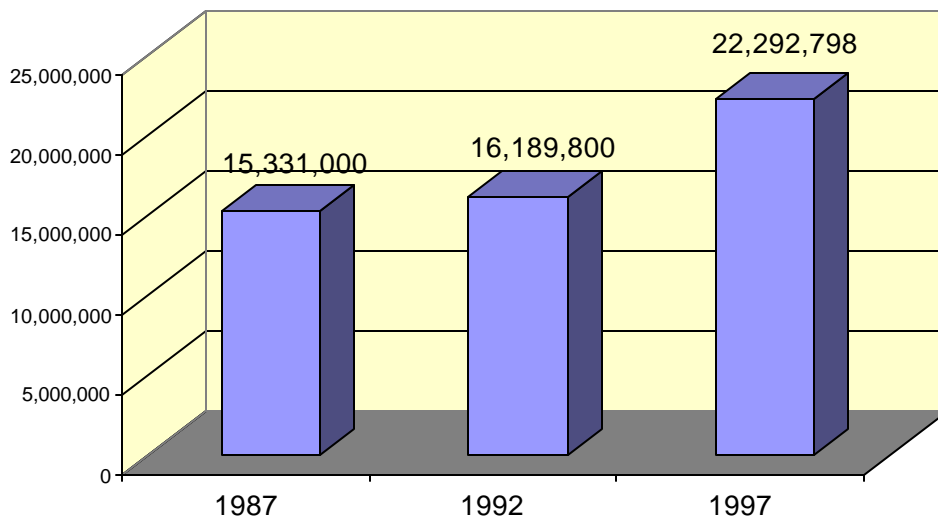
Changes in Employment or Income from 1992 to 1997 discussed in this bulletin come from the *U.S. Department of Commerce Regional Economic Information System (REIS)* and the *1992 and 1997 County Business Patterns*. REIS has data for labor and proprietor income but only to the two digit SIC code level. The CBP only has labor income, not proprietor income, but does have SIC codes to the third and fourth digit. A relationship was developed between the REIS and CBP data to estimate data that included both labor and proprietor income at the third and fourth SIC code level. (further explanation available from the authors). Again, it is important to note that values in the 1992 version of this bulletin cannot be compared to this 1997 version because the Regional Economic Information System revised their 1967 to 1995 data sets in 1995 after the 1992 version was published.

## Appendix 3 Wholesale and Retail Sector

**Table 7 Colorado County Employment and Labor/Proprietor Income from Food and Beverage From Wholesaling and Retailing**

| County      | Employment | Income    | County     | Employment | Income  |
|-------------|------------|-----------|------------|------------|---------|
| Colorado    | 233,938    | 3,818,002 | Kit Carson | 394        | 4,322   |
| Adams       | 15,254     | 307,549   | Lake       | 456        | 5,925   |
| Alamosa     | 1,033      | 13,318    | La Plata   | 3,175      | 42,855  |
| Arapahoe    | 26,460     | 485,545   | Larimer    | 13,718     | 177,951 |
| Archuleta   | 559        | 5,161     | Las Animas | 721        | 9,163   |
| Baca        | 163        | 1,742     | Lincoln    | 349        | 4,145   |
| Bent        | 176        | 1,572     | Logan      | 989        | 11,485  |
| Boulder     | 16,998     | 253,703   | Mesa       | 7,094      | 102,366 |
| Chaffee     | 1,176      | 13,080    | Mineral    | 27         | 360     |
| Cheyenne    | 62         | 601       | Moffat     | 750        | 9,671   |
| Clear Creek | 628        | 10,741    | Montezuma  | 1,138      | 13,458  |
| Conejos     | 156        | 1,879     | Montrose   | 1,520      | 20,448  |
| Costilla    | 89         | 967       | Morgan     | 1,272      | 13,717  |
| Crowley     | 74         | 576       | Otero      | 1,135      | 12,526  |
| Custer      | 152        | 1,227     | Ouray      | 337        | 3,501   |
| Delta       | 1,183      | 13,943    | Park       | 311        | 3,060   |
| Denver      | 42,361     | 873,717   | Phillips   | 160        | 1,172   |
| Dolores     | 70         | 655       | Pitkin     | 2,921      | 53,886  |
| Douglas     | 5,707      | 74,775    | Prowers    | 813        | 7,951   |
| Eagle       | 4,238      | 71,737    | Pueblo     | 6,758      | 88,745  |
| Elbert      | 222        | 1,687     | Rio Blanco | 263        | 2,812   |
| El Paso     | 24,121     | 326,753   | Rio Grande | 802        | 12,845  |
| Fremont     | 1,472      | 16,212    | Routt      | 2,207      | 27,668  |
| Garfield    | 2,592      | 38,378    | Saguache   | 163        | 1,893   |
| Gilpin      | 144        | 1,396     | San Juan   | 98         | 1,267   |
| Grand       | 1,020      | 14,545    | San Miguel | 782        | 10,514  |
| Gunnison    | 1,605      | 16,236    | Sedgwick   | 155        | 1,116   |
| Hinsdale    | 48         | 652       | Summit     | 3,238      | 50,375  |
| Huerfano    | 403        | 3,359     | Teller     | 913        | 9,323   |
| Jackson     | 69         | 545       | Washington | 155        | 1,709   |
| Jefferson   | 25,584     | 439,669   | Weld       | 6,781      | 114,560 |
| Kiowa       | 43         | 368       | Yuma       | 461        | 4,534   |

**Wholesale and Retail Sales (\$1000)  
1987-1997**



## Appendix 4: Net Income for Corporate Farming

**Table 8. Net Income of Corporate Farms (1,000)**

| Countv      | 1987   | 1992    | 1997    |
|-------------|--------|---------|---------|
| Adams       | 1,995  | 1,455   | 2,148   |
| Alamosa     | 936    | 1,523   | 1,351   |
| Arapahoe    | 98     | -95     | 0       |
| Archuleta   | 418    | 229     | 0       |
| Baca        | 3,744  | 1,629   | 1,176   |
| Bent        | 549    | 3,131   | 3,107   |
| Boulder     | 656    | 288     | 312     |
| Chaffee     | 160    | -102    | -64     |
| Chevenne    | 2,242  | 5,009   | 7,156   |
| Clear Creek | 0      | 0       | 0       |
| Conejos     | 165    | 1,322   | 1,943   |
| Costilla    | 3,721  | 0       | 351     |
| Crowley     | 352    | 2,696   | 3,032   |
| Custer      | 92     | 0       | 0       |
| Delta       | 132    | 1,573   | -56     |
| Denver      | 72     | 0       | 0       |
| Dolores     | 0      | 0       | 0       |
| Douglas     | 100    | -233    | -87     |
| Eagle       | 0      | 0       | -90     |
| Elbert      | 598    | 210     | 0       |
| El Paso     | 64     | 113     | -80     |
| Fremont     | 0      | 0       | 0       |
| Garfield    | -186   | -70     | -67     |
| Giloin      | 0      | 0       | 0       |
| Grand       | 0      | 0       | 0       |
| Gunnison    | 220    | 309     | -58     |
| Hinsdale    | 0      | 0       | 0       |
| Huerfano    | 0      | 0       | 0       |
| Jackson     | 152    | 110     | 0       |
| Jefferson   | 79     | -451    | -70     |
| Kiowa       | 1,699  | 2,556   | 3,673   |
| Kit Carson  | 3,758  | 7,132   | 7,285   |
| Lake        | 0      | 0       | 0       |
| La Plata    | 0      | -183    | -139    |
| Larimer     | -357   | 3,115   | 3,492   |
| Las Animas  | 194    | 852     | -57     |
| Lincoln     | 3,035  | 1,822   | 0       |
| Logan       | 15     | 12,288  | 17,625  |
| Mesa        | -1,325 | 658     | -242    |
| Mineral     | 0      | 0       | 0       |
| Moffat      | 90     | 0       | -54     |
| Montezuma   | 0      | 0       | 0       |
| Montrose    | 413    | 263     | 78      |
| Morean      | 3,487  | 12,829  | 12,797  |
| Otero       | 1,609  | 6,887   | 6,666   |
| Ouray       | 0      | -75     | -71     |
| Park        | 0      | 94      | 50      |
| Phillips    | 1,282  | 3,072   | 5,050   |
| Pitkin      | -56    | 0       | 0       |
| Prowers     | 2,386  | 11,001  | 13,376  |
| Pueblo      | 1,165  | 327     | -64     |
| Rio Blanco  | 0      | 0       | -92     |
| Rio Grande  | 2,949  | 1,679   | 3,098   |
| Routt       | 251    | 304     | 0       |
| Saguache    | 6,007  | 4,641   | 5,656   |
| San Juan    | 0      | 0       | 0       |
| San Miguel  | 0      | 0       | 0       |
| Sedwick     | 1,913  | 2,472   | 3,861   |
| Summit      | -68    | 0       | 0       |
| Teller      | 0      | 0       | 0       |
| Washington  | 2,211  | 6,652   | 9,307   |
| Weld        | 5,409  | 29,487  | 45,433  |
| Yuma        | 2,417  | 9,525   | 10,627  |
| Colorado    | 55,607 | 136,040 | 167,201 |

Net Income from corporate farms has increased by over 200% since 1987. This fact is reflected in the concentration of farming that we have witnessed as well over the past ten years. See page 6 in the full report for the graphs of farm concentration in cattle and grains.

