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Tools for Community Self-determination



# Farming, Food, & Markets in Adams County

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## **Guiding Values of This Study**

(Adopted by consultants)

Advance Adams County's agricultural heritage. Adams County's history is closely connected to food and farming, and its future is tied to healthy food.

**Protect private property & landowners.** Landowners should be free to use their land for productive purposes, and their rights of ownership will be respected.

**Ensure transparency.** Residents should be involved in shaping decisions for the future of the County, and should know how these decisions were made.

**Protect the rural landscape.** Adams County's rural landscape sets it apart as unique from other metro suburbs. The Special District contains some of the best farmland left in Colorado.



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### **Executive Summary**

If Brighton and Adams County wish to protect farmland in the Special District, it will be necessary to design and build a local food system as well — since without strong support from Brighton area consumers, there will be no constituency to protect this farmland in the future.

There are strong economic reasons for doing so. Residents of the City of Brighton spend about \$83 million each year buying food. The vast majority of this food is sourced from outside of the City, so a conservative estimate is that \$75 million of these payments for food leave the City each year.

Stakes are even higher when it comes to Adams County, where County residents spend about \$1.3 billion each year buying food. Once again, most all of this food is sourced outside the County, so \$1.2 billion leaks out of the County annually.

Reclaiming these dollars would help the Brighton region pay for many refinements to the region's strong quality of life — including future development, city and county services, and further efforts to protect open space.

Moreover, if public agencies do nothing to protect farmland in the Special District, this farmland will go away. Much of it will be lost to development over time. This would be a severe loss, since Brighton's very identity is centered on being a rural community that is located close to a major urban center. Many residents say they moved to Brighton because of the open landscape, the relative quiet, and the rural qualities of life. Without farms and open space, Brighton — at least in the form it has been known to generations of residents — will cease to exist.

The situation is urgent. Interviews with local residents show that current land uses are very vulnerable. One major produce company farms land in the Special District — Petrocco Farms, which leases from several different landowners. Celebrating its 100<sup>th</sup> year of farming in Brighton in 2016, Petrocco Farms is critical to the local economy. The firm supports a family with deep roots in Brighton, but also pays a considerable share of the \$22 million Adams County farmers pay for farm laborers every year. The region can hardly afford to lose this employment, nor this dedication to community.

Yet the head of the Petrocco family also expressed considerable concern about whether their way of farming will continue to be compatible with suburban development on surrounding land. David Petrocco said that the firm does not want to shoulder the costs of buying land in the Special District, since land values have been inflated by development pressure to levels that cannot be covered by farming. Purchasing water rights is even more expensive, with some estimating this to be 1.5 times the sale price of the land alone.

Moreover, the farm relies upon chemical sprays — fertilizers, herbicides, fungicides, and pesticides — to ensure crop quality, but this may pose conflicts when people live nearby. A third concern raised by the Petroccos is that they increasingly have difficulty moving tractors and other field equipment from farm to farm, as more and more suburban drivers occupy the roadway, oblivious to the flow of farm traffic, or traveling at such speed they cannot adjust to the slow pace of farm equipment.

For these and other reasons, as the Petrocco family has seen strip malls and storage facilities encroach on farmland, they have planned for a future that would allow them to move north if need be. The farm leases thousands of acres in Weld County, not only because land is cheaper there, but also as a hedge against localized weather calamities, and also to position themselves favorably if development requires them to leave the Brighton area. They have stated that they could consider moving their entire operation to Weld County if they could sell their established packing houses off Brighton Road for enough money to build new facilities further north.

Similarly, Sakata Farms, which took root after World War II, maintains its packing shed and wholesale operations in Brighton, but no longer farms land in the Special District. Owner Bob Sakata also sees traffic conflicts, and has ordered his farm crews to move their equipment only on larger trucks that can keep pace with faster traffic. He also states that farm chemical use may not be compatible with residential development. Sakata's son, who currently manages the company, has considered moving operations further north, the elder Sakata said.

Both farms say they would prefer to remain where they are, if conditions were right. Retaining both farms appears to be a priority for Brighton, since if either were to leave, the City would lose substantial connection to its heritage, and would lose a significant claim to being an agricultural community. The County would also lose the income earned by farmers and farmworkers.

Losing direct contact with this heritage would, in turn, threaten Brighton's ability to position itself as destination for agritourism. Indeed, if the City wishes to welcome visitors who are interested in experiencing rural culture, Brighton must not only protect its farmland, it must also embrace a culture of food that expresses a sense of place. The reason for this is straightforward. If Brighton residents do not themselves celebrate (and savor eating) food that is produced and processed locally, it is difficult to imagine why any visitor would be attracted to visit Brighton to see farms and food destinations, especially with competing options such as Boulder so close by.

Even a quick glance at the economics of farming in Adams County shows the dangers that are posed to the sustainability of farms and farmland. County farmers earned \$95 million less by farming in 2013 than they had earned in 1969, after adjusting for inflation, even though both the number of farms in Adams County and acres farmed have remained relatively constant [See Charts 6 and 7 on pages 17-18]. Since 1994, there has not been a single year when Adams County farms (as a group) covered their production costs by selling crops and livestock — often one or more family members had to work off the farm to offset farm production losses. In the most recent Census of Agriculture, 2012, 61% of Adams County farms reported a net loss.

Further, this data shows how disconnected farming in Adams County has become from local consumers. Over the past 45 years, county population has increased 150%, while personal income has risen at twice that rate (300%) after adjusting for inflation. Yet farm income has plummeted steadily. The two most important farm commodities, cattle and wheat, have lost ground nationally due to global economic trends. The industries that have survived the best, ornamentals and produce, have been those most connected to Denver markets — but these are also subject to national and international market forces.

This strongly suggests that if agriculture is to have a future in Adams County, farmers must once again connect to local markets, and grow for consumers who are more loyal to spending money for locally produced foods.

Market forces, if left to themselves, will only deepen the patterns noted above. **City and county action will be required to create a thriving local food system, as well as to protect farmland.** Only if Brighton consumers eat food raised on nearby fields will they feel any determination to protect those lands for farming. Creating a culture that celebrates local eating will require public action and investment.

One implication of the conclusions drawn above is that the only real buyers for premium farmland in the Special District who might want to use this land for agricultural purposes would be public bodies — the City and the County — unless some very wealthy individual were to take a strong interest in developing a farm in the District. This places a special responsibility upon the City and County to act deliberately.

Furthermore, no outside party or developer can create a local food culture for the region; it must be built by local residents, businesses, and public bodies.

It also seems clear that despite reluctance on the part of some growers, future farms in and near Brighton must pursue sustainable and organic practices if farming is to be compatible with residential housing and other development.

#### **Strengths of the Special District**

- Contains some of the best land in the state
- Water is available in significant portions of farmland
- Holds a rich heritage of produce farming
- Vegetable farming has been more rewarding financially than raising other products
- Farmworkers in Adams County earn \$20 million per year
- Farms are near to robust consumer markets

#### **Limitations of the Special District**

- Suburban development has encroached
- Prevalent farming practices appear to be incompatible with residential development
- Major produce growers may move north
- Land is too expensive to be paid for through farm production alone
- Water rights are even more expensive
- Few local residents have farming skills
- Farm labor is in short supply

#### **Opportunities for the Special District**

- To serve as a symbol for protecting farmland and rural quality of life
- To raise food for Brighton, Adams County, and Metro Denver markets
- To maintain farming practices that are compatible with residential development
- To serve as the core of a vibrant local food culture in Brighton
- To provide agri-tourism experiences for visitors

#### Potential obstacles for protecting farmland

- Residents may perceive that it is too late to protect the tradition of rural living
- Landowners want to sell land (or water rights) at development prices to fund retirement
- Few landowning families have heirs who want to farm
- The City may be the only buyer of land for agricultural use

We suggest the following specific investments in local food systems for the Special District south of Brighton:

- 1. The City of Brighton must announce a clear priority, and take definitive action steps, to show its commitment to protecting farmland if efforts to protect land are to be credible. This outreach should make the City's long-term strategy clear and show how the City is targeting its resources to achieve its vision.
- 2. The City of Brighton should build (or cause to be built) a washing, packing, aggregation, & distribution facility scaled to small farm production, located near growers who raise produce for local markets. This could be built on a working farm raising food for local markets, or in close proximity to several such farms. The old school site may be a prime location for this. Such an investment would hopefully help attract additional farms to locate nearby over time.
- 3. The City should explore investing in (or facilitating investment by private parties in) **flash-freezing equipment**, most likely at the same site, for local farms to use to extend shelf life of fresh produce items.
- 4. The City already owns enough land to launch an incubator farm for training new farmers, with leasable land (roughly in 5 to 50 acre plots) nearby, so that graduates may remain in the community of farmers, and make use of some of the infrastructure listed above. This might be an excellent use of the Anderson farm, should it be purchased by the City. Local sources state that there are young people in Boulder County who are looking for land; CSU runs a farmer training program in Boulder County, and urban farmer training programs also operate in Denver.
- 5. The City must resell or lease this land to new small-scale growers at price levels that can be paid through farm production (the use-value of the land) rather than at the development value.
- 6. To raise the visibility of local foods, it will be critical to create a prominent connection point that brings together town and rural residents to celebrate local foods and buy from local farms (e.g., at Bromley Farm or Palizzi's farm stand).
- 7. The City and County must actively market local foods, including publicizing the seasonal availability of the foods raised on Brighton area farms, the farmers who raise these foods, where local foods may be purchased, and the chefs and households who use them.
- 8. The City and County should jointly launch (perhaps in collaboration with local health care providers) an "Eat 5, Buy 5" campaign similar to the one devised in

Montezuma County, Colorado. This would call for each county resident to eat five fruits and vegetables each day for health reasons, and buy five dollars of food from an Adams County farm each week. If each county household purchased this much food from county farms per person each week, this would amount to \$122 million of revenue for the County's farms — almost as much as the \$145 million of crops and livestock county farms currently sell each year.

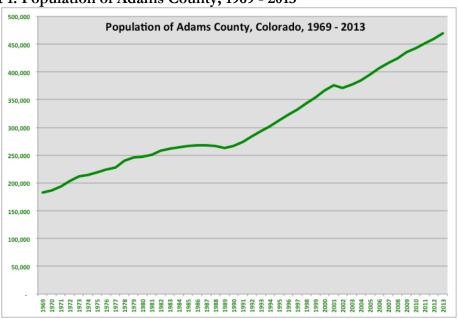
9. In the future, the City and County may wish to raise funds from external sources to purchase additional farmland as it becomes available for sale by current landowners. Private individuals, conservation funds, state, or federal sources could be used to leverage City and County investments.

## **Market Conditions in Adams County**

#### Population & personal income

• As Charts 1 and 2 show, Adams County population increased 150% from 1969 to 2013, while personal income rose 300%, so income gains far overtake population change.

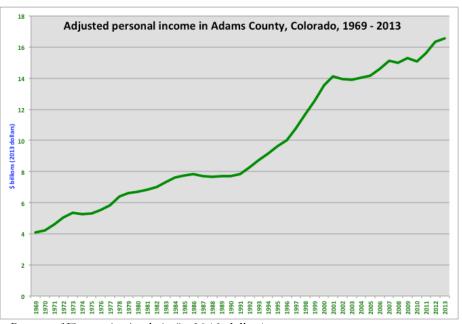
Chart 1: Population of Adams County, 1969 - 2013



150% increase in population

Source: Bureau of Economic Analysis

Chart 2: Personal income earned in Adams County, 1969 – 2013 (adjusted to 2013)

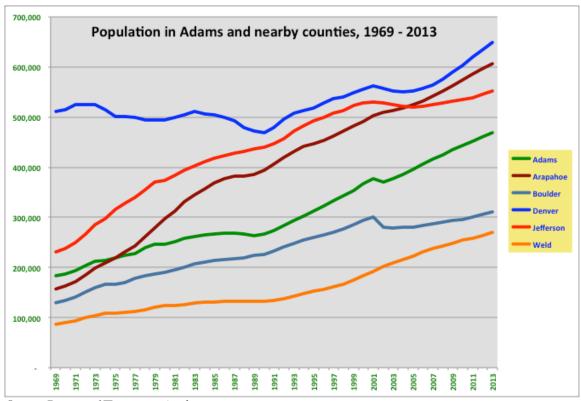


300% increase in personal income

Source: Bureau of Economic Analysis (in 2013 dollars)

• In recent years, Adams County's population has grown more rapidly than for surrounding counties, as Chart 3 shows.

Chart 3: Population in Adams County and nearby counties, 1969 - 2013



Source: Bureau of Economic Analysis

Table 1: Population Growth for Adams and surrounding counties, 1969 – 2013 Source: Bureau of Economic Analysis

Adams	157%
Arapahoe	287%
Boulder	139%
Denver	27%
Jefferson	139%
Weld	213%

• The populations for both Brighton and Adams County are relatively mobile, with one of every seven people moving within the past year, as Table 2 shows.

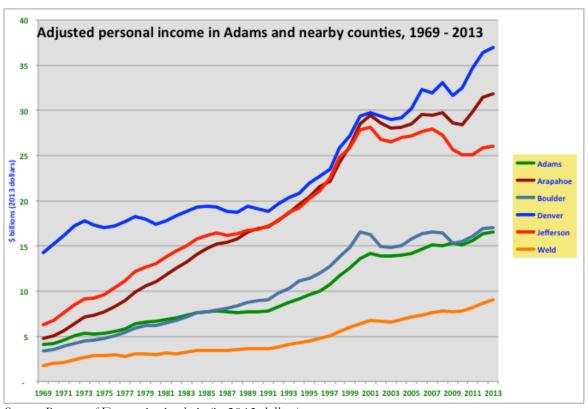
Table 2: Population mobility, averages for the years 2009-2013

Source: Federal Census

Brighton Adams Co
Moved within last year 15% 18%

- Adams County's population is projected by the State Demographer to increase 1% to 1.9% per year from 2015 to 2040. This would mean the population would total an estimated 691,000 by 2040, 1.5 times the current level [State Demographer web site, calculated assuming 1.5% average growth rate per year].
- Personal income earned by Adams County residents resembles income earned in nearby counties, but is not growing as rapidly as in some.

Chart 4: Personal income earned in Adams nearby counties, 1969 – 2013 (adjusted to 2013)



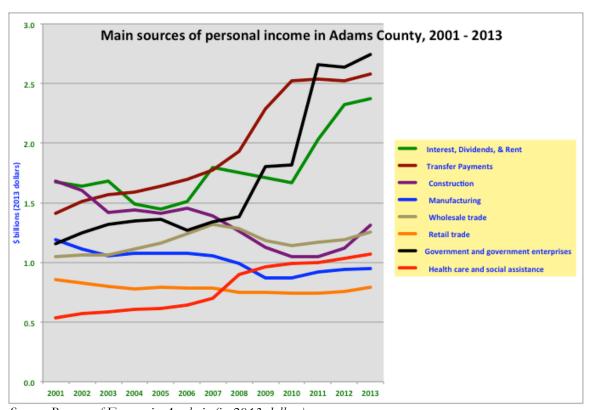
Source: Bureau of Economic Analysis (in 2013 dollars)

Table 3: Growth in personal income for Adams and surrounding counties, 1969 – 2013 Source: Bureau of Economic Analysis. Adjusted for inflation.

Adams	305%
Arapahoe	568%
Boulder	403%
Denver	159%
Jefferson	316%
Weld	416%



Chart 5: Main sources of personal income in Adams County, 1969 - 2013 (adjusted)



Source: Bureau of Economic Analysis (in 2013 dollars)

- County residents receive \$16.6 billion of income per year [Bureau of Economic Analysis]. Sources include:
  - o The largest source of personal income is government jobs (mostly state and local government), accounting for \$2.7 billion of income.
  - O Transfer payments (from government programs such as pensions) rank second, at \$2.6 billion.
  - o Capital income (from interest, rent, or dividends) totals \$2.4 billion.
  - o Construction workers earned \$1.3 billion in 2013.
  - o Wholesale workers earned \$1.2 billion.
  - o Health care professions bring in \$1 billion of personal income.
  - o Manufacturing jobs produce \$951 million of personal income.
  - o Transportation workers earn \$871 million.
  - o Retail workers earned \$790 million of personal income.
- The County's 469,193 residents receive \$10 billion of income from sources other than employment [Bureau of Economic Analysis] and [Federal Census, County Business Patterns, 2013].
- Income from public sources makes up 33% of all income received. This includes government jobs, primarily for state and local government, and public programs such as retirement pensions [Bureau of Economic Analysis].
- Manufacturing income has been declining steadily, when inflation is taken into account [Bureau of Economic Analysis].

#### **Employment in Adams County**

- 8,559 businesses in the County hire 137,849 employees, earning a total payroll of \$6.2 billion [Federal Census, County Business Patterns, 2013].
- At least 14% of the employees (19,700 and perhaps more) holding jobs in the County are involved in the food trade. Adams County hosts at least 991 firms involved in food trade, paying \$474 million in annual payroll. See Table 4. Due to confidentiality concerns, more detailed data is not reported at the County level [Federal Census, County Business Patterns, 2013].

Table 4: Employment and payroll for food-related businesses in Adams County, 2013

NAICS code	Adams County totals	No. Employees 137,849	(\$) Payroll 6,204,748,000	No. Establish- ments 8,559
115	Support of Agriculture	9	214,000	4
311	Food manufacturing	2,288	82,041,000	44
4244	Grocery & Related Wholesale	2,085	105,523,000	53
4245	Farm Product Raw Material	(D)	759,000	4
4248	Beer, Wine, & Alcohol	(D)	(D)	9
42491	Farm Supplies, Wholesale	(D)	(D)	5
445	Food & Beverage Stores	3,339	86,802,000	208
49312	Refrigerated Warehousing	(D)	(D)	1
722	Food Services & Drinking	12,013	198,890,000	663
	Food-related employment	19,734	474,229,000	991
	Percent of county total	14%	8%	12%

Source: Federal Census, County Business Patterns. (D) indicates data that is suppressed to protect confidentiality. Note: this data does not include farms or farm owners.

#### **Market data from Leland Consulting**

- ESRI (Environmental Systems Research Institute, Inc.) projects that household growth rates in the Brighton market region (a larger region than the City of Brighton) will average 4% per year from 2015 to 2025, from 38,234 to an estimated 55,800 households. This would require 17,600 new housing units over 10 years [p. 24-25 of Leland's Market Assessment].
- Leland Consulting estimates that the City of Brighton can capture about 20-30% of this demand, roughly 2,700 single-family units, 760 townhomes and condos, and 1,900 rental units, for a total of 5,455 residential units (projections range from 4,230 to 6,640). This would require between 573 and 859 acres of land [p. 27 of Leland's Market Assessment; note that totals in the final row of Leland's Table 10 are incorrect] and about \$1.2 billion of investment over ten years, assuming an average cost of \$240,000 for single-family homes (the current median sale price, so this is a high estimate) and \$200,000 for each multiple-occupancy unit. This investment would produce an (roughly) estimated \$43 million in mortgage payments and \$38 million in rental income per year, as well as additional property taxes and consumer spending. These housing units would also demand additional costs to service new homes and residents, as the Agricultural Preservation Subcommittee has pointed out using data from American Farmland Trust.

- Most of the growth in housing need is projected to involve buyers aged 20 to 49, earning incomes of \$50,000 to \$150,000, with houses valued at \$250,000 to \$500,000 and perhaps higher [Table 9; p. 26 of Leland's Market Assessment].
- The City of Brighton is also likely to attract a separate demographic, an increasing number of seniors for both ownership and rental housing [Figure 11; p. 14 of Leland's Market Assessment].
- Leland Consulting also projects that the City of Brighton can add about 200,000 square feet of grocery space, and 150,000 square feet of food and drinking establishments, over the next 10 years. [Figure 23; p. 31 of Leland Market Assessment].



- Leland Consulting estimates that job growth in the wider market area will add 12,570 jobs over the next 10 years [Table 11; p. 33 of Leland's Market Assessment]. Since Adams County appears to have about 60% of the jobs counted in the wider market area, this would mean about 7,000 new jobs for Adams County alone over the next 10 years. This would require construction of about 300,000 square feet of office space in Brighton proper, primarily Class B (Class B office space is not in prime condition like Class A space, but still well maintained) [p. 34 of Leland's Market Assessment]. About one-quarter of this is expected to be medical offices.
- Leland Consulting points out that the City of Brighton holds 80% of the wider market area's office space, but with a vacancy rate of 5.6%, Leland considers this a tight market that requires additional construction [p. 32+ of Leland's Market Assessment].

- Leland Consulting estimates that another 1.6 million square feet of industrial/flex space may be needed in Brighton proper over the next ten years, as well. This future is clouded by the fact that a 1.4-million square foot distribution center for K-Mart now stands empty [p. 34+ of Leland's Market Assessment].
- Leland further estimates that Brighton will require from 285 to 356 acres of land to meet demand for commercial property. With 2,500 acres already set aside in the City's comprehensive plan for commercial development, this means the City already holds an oversupply of commercial acreage that should be adequate for as much as 65 years [p. 36 of Leland's Market Assessment].

Table 5. Ranges of cash rent values for irrigated land in three Colorado regions, 2013 (dollars/acre)

	Northern region	Southern region	Western region
Corn & sorghum	150 – 200	185 - 325	200 - 350
Small grains	190 – 250	185 - 325	200 - 350
Alfalfa	190 – 255	200 - 300	225 - 250
Sugar beets	255 - 350	250 - 350	250 - 350

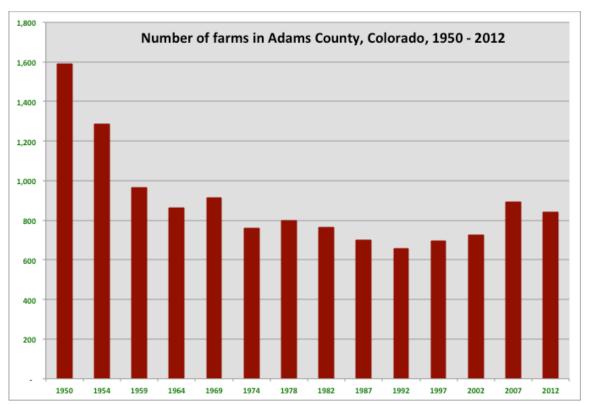
Source: Colorado State University Extension Agriculture and Business Management Notes (ABM). "Custom Rates for Colorado Farms & Ranches in 2013." (www.coopext.colostate.edu/ABM/)



## **Farms in Adams County**

- Adams County had 841 farms in 2012 [Census of Agriculture].
- This is more farms than the County had in recent years, primarily because the Census of Agriculture became more effective at counting smaller farms and farms owned by minorities in 2012.
- While Adams County has only half the number of farms it had in 1950, the number of farms has been relatively constant since 1970. Note that the number of farms decreased dramatically after World War II due to labor-saving mechanization in the farm sector, increased mobility for rural residents as cars became commonplace, and also industrial job development.

Chart 6: Number of farms in Adams County, 1950 - 2012

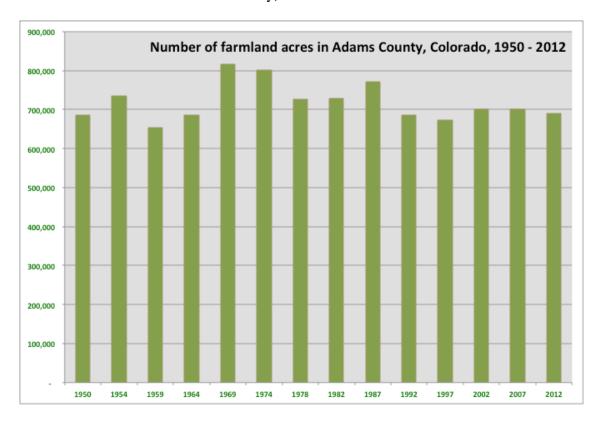


Source: Census of Agriculture. Note that there have been changes in the definition of what constitutes a "farm" during the years this data was collected, and this explains some of the change in farm numbers.

- The number of acres in farmland has held relatively steady over the past 65 years.
- The Special District includes some of the best farmland in Colorado, especially below the Fulton Ditch where rich alluvial topsoil and sufficient irrigation create excellent conditions. Even lands above the ditch are considered prime soils by USDA. These have historically been farmed with grains that tolerate dry conditions, or pastured to livestock.

- 158 Adams County farms reported hiring 1,366 farm workers with a total payroll of \$22 million to the 2012 Census of Agriculture. Most of these workers work on farms hiring 10 or more farmworkers. Nearly 800 of these workers worked less than 150 days during the year. Only 22 of these workers were listed as migrants. Note: The Bureau of Economic Analysis reported farmworker and custom work for hire income for 2014 of \$31 million.
- 378 Adams County farms reported using 877 unpaid farm laborers.
- It should also be noted that the overall trends noted here for Adams County do not necessarily reflect economic conditions within the Special District itself. No data source exists that would show financial conditions within the District proper.
- Arable soils are also available in Weld County. Several farms have relocated there, seeking less developed areas where land prices are less pressured by development. This land is perhaps more suited to larger-scale farming than in the Special District, but also has been subject to considerable wind erosion.

Chart 7: Farmland acres in Adams County, 1950 - 2012



Source: Census of Agriculture. Note that there have changes in the definition of what constitutes a "farm" during the years this data was collected, and this explains some of the changes in acreage recorded.

- Farmers sell an average of \$145 million of crops and livestock each year [Bureau of Economic Analysis].
- Four major commodities are sold by Adams County farmers, as shown in the table below.

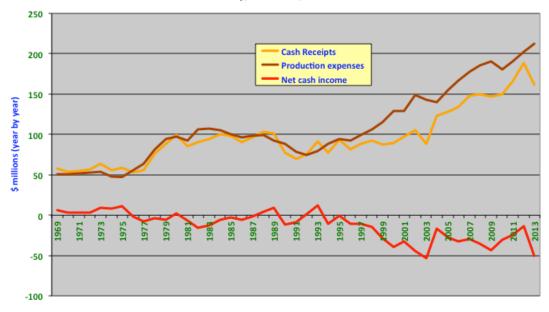
Table 6: Top farm products of Adams County

	\$ millions
Nursery crops and ornamentals	45
Wheat	43
Livestock	14
Corn	7

• Nursery crops and ornamentals are the largest single category of farm production sold by county farms. Yet Adams County farmers earned \$56 million less selling these crops in 2012 than they had earned in 2007 [Census of Agriculture]. This decline appears to be related to the housing finance crisis that started in 2008 — there had been a boom of new housing nationwide, and much of this slowed down when the banking system encountered difficulties. Most likely, with fewer homes and developments being built, there was less need for landscaping. Often, when demand is reduced suddenly, prices also fall because there is surplus supply in the market.

Chart 8: Net cash income for farmers in Adams County, 1969 - 2013

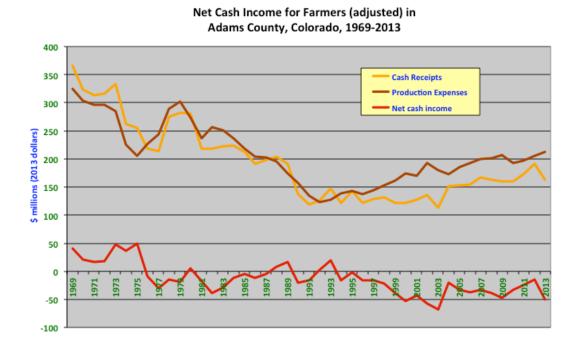
Net Cash Income for Farmers in Adams County, Colorado, 1969-2013



Source: Bureau of Economic Analysis (in dollars at current value for each year)

- This suggests that a combination of reduced demand and falling prices for those who did
  make sales accounts for the large decline. There is also the possibility that one or more major
  farms stopped selling ornamentals, or that there was some very local disruption in the
  ornamentals market.
- Historically, Adams County farms have excelled in producing both cattle and wheat. Yet as we will see later [see sections starting on page 26 and page 42], both industries have declined markedly since World War II. In both cases, farmers became exceptionally efficient at producing these commodities, only to find that global financial trends (a) transformed cattle production from farmsteads to feed lots (many of which are in Weld County), making it uneconomic for smaller farms in the County to produce livestock, and (b) eroded the wheat price so that it became difficult to make money raising one crop that is well-suited to dry land farming.
- Chart 8 above shows that, although cash receipts have steadily increased for Adams County farmers, production expenses have risen even faster.

Chart 9: Net cash income for farmers in Adams County, 1969 – 2013 (adjusted)



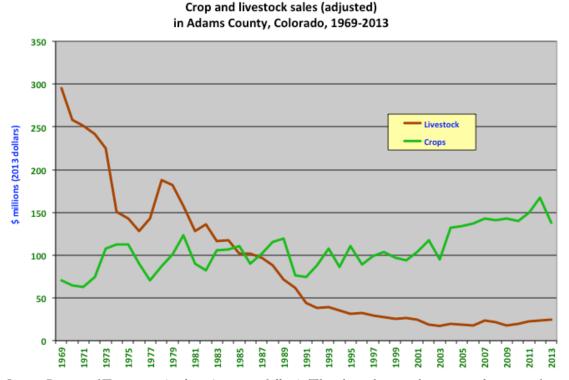
Source: Bureau of Economic Analysis (in 2013 dollars)

Moreover, as Chart 9 shows, once dollars are adjusted for inflation, it is clear that both cash receipts and production expenses are far lower today than they were in 1969. Adams County farmers sold \$95 million less of crops and livestock in 2013 than they had sold in 1969. Production costs were far lower than 1969 levels, but still overran cash receipts. The number of farms remained more or less the same, as did the acreage of land farmed, during this period.

- Although several important farms in the Brighton region are profitable, Bureau of Economic Analysis data show that all county farmers combined spend on average \$26 million more in production expenses than they earn by selling their products. This is an average loss of \$31,200 per farm, and a total loss to the farm sector of \$656 million over the years 1989 2013. [Bureau of Economic Analysis].
- Over the past 25 years, farmers have spent more producing crops in livestock than they earned by selling them for all but three years, and have spent more in production expenses than they earned in cash receipts each year since 1994 [Bureau of Economic Analysis]. 61% of the County's farms reported a net loss in 2012, slightly higher than the Colorado average of 59% [Census of Agriculture].
- Farmers often sell crops, livestock or milk at prices lower than the cost of production, but need to sell at these prices to earn money they can use to pay off production expenses.
- How is it that farmers can sustain such losses? There are several reasons, listed below.
  - When farm families account for their production costs, they would typically list money paid to workers (who may be family members) as costs of production, which would tend to make the finances of the farm less favorable than they actually are. This should not apply to payments made to the owner of each farm, which should be accounted as operator income.
  - O Many farmers hold on to their farms even if farming at a loss because they hope to sell the land for development someday. They would prefer to stay on the land rather than leave, because they enjoy rural living and hold a sense of connection to the land. Selling for development becomes in a very real sense the family retirement plan, and the family does what it needs to do to make ends meet until that time.
  - O Most farm families have one or more members of the family working off the farm in order to have a steadier source of income than farming, and to obtain health benefits
  - O Adams County is also very dependent on wheat production, and the price of wheat has been low and declining for years, except for 2012-2013 when grain prices were artificially high. The trends here also mirror those from other wheat growing areas. 2015 is projected to be a difficult year for grain farmers now that prices have returned to lower levels.
  - When times are good, farmers may take on debt to purchase land, or to buy new equipment, and this may make their farm more effective at producing, but also holding greater debt. Some may purchase land in the hopes of selling it to a developer later, or because they see land as a long-term investment, or because they want to increase their land base for growing cash grains at larger volume. This, however, is unlikely inside the Special District because land prices are so high that most produce farms are renting or leasing land, and few can afford to buy land.
  - O To reduce tax liabilities, farmers may shoulder additional expenses in years when income is high enough to allow this.
  - O As farmland prices are shaped more by the costs of development (i.e., a developer or urban investor may pay far more for the land than the farmer paid for it) any new farm owner either an investor who declares their farm an agricultural operation

- by raising a few cattle, say, or a young farmer starting out, have more interest costs to carry, and this increases farm expenditures.
- O Many landowners rent out their land, because the return is often higher than for farming, which means they gain income from rents, not from farming itself. This shows up as a different income stream. This is especially true in the Special District area, where development pressures have raised land purchase prices.
- Livestock farmers in Adams County sold \$295 million of livestock and related products in 1969 (in 2013 dollars), but sold only \$24.5 million in 2013 [Bureau of Economic Analysis]. These declines also mirror national trends. Nationally, smaller livestock producers have abandoned cattle production due to a combination of pressures: (a) with the advent of larger feedlots (many of which are in Weld County) margins have been reduced, and many livestock (mostly cattle in this case) have been raised to maturity in large feedlots, rather than on smaller farms. (b) These lower margins encourage smaller ranches to decide they cannot make money selling cattle, so many got out of the business. (c) Older farmers have retired with no younger person interested in taking over the operation. (d) Some farms that once grazed livestock have been sold for development. (e) As Adams County has become more suburban and less rural, new residents may try to separate themselves physically from livestock farms due to perceived odors or visual concerns, and this may have placed pressure on farmers to get out of the business, as well. (f) These data also reflect a decline in dairy production (see later charts). Dairy has also shifted to larger farms in other counties.

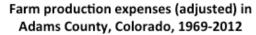
Chart 10: Crop and livestock sales by Adams County farms, 1969 – 2013 (adjusted)

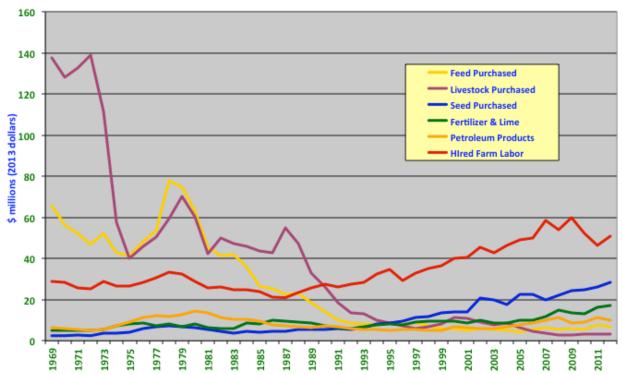


Source: Bureau of Economic Analysis (in 2013 dollars). This chart shows cash receipts only, not production expenses.

• Note that income from crops has increased steadily since 1969, even after inflation is taken into account, despite the fact there are now fewer farms.

Chart 11: Production expenses for Adams County farms, 1969 – 2012 (adjusted)

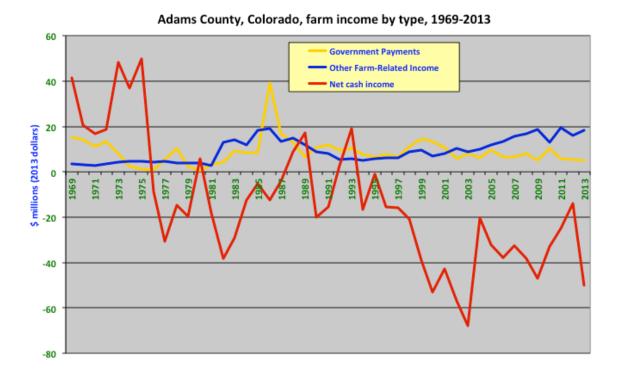




Source: Bureau of Economic Analysis (in 2013 dollars). This chart reflects cash receipts only, not production expenses. Note that detailed data were not made available for 2013 due to budget shortfalls.

- Labor costs are the highest single production expense for Adams County farmers. These have diminished since 2009, presumably as land was taken out of production.
- Note that the decline in livestock purchases and feed purchases also reflect the fact that fewer farmers are raising livestock (primarily cattle and dairy).

Chart 12: Net farm income by type for Adams County farms, 1969 – 2013 (adjusted)



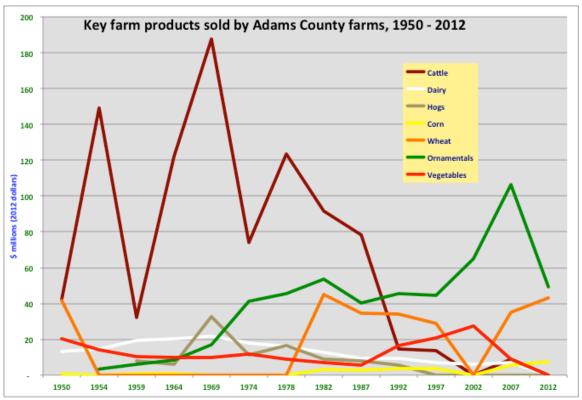
Source: Bureau of Economic Analysis (in 2013 dollars).

- The steadiest source of net income for Adams County farmers has been renting out land.
- The second most important source of net income has been federal payments, although these only accrue to farmers that raise corn, wheat, or soybeans that are covered under crop programs.
- Actual production has been one of the least reliable ways of gaining net income for farmers in Adams County.

## **Specific Farming Sectors in Adams County**

#### Overall trends in farm product sales

Chart 13: Key farm products sold by Adams County farms, 1950 – 2012 (adjusted)

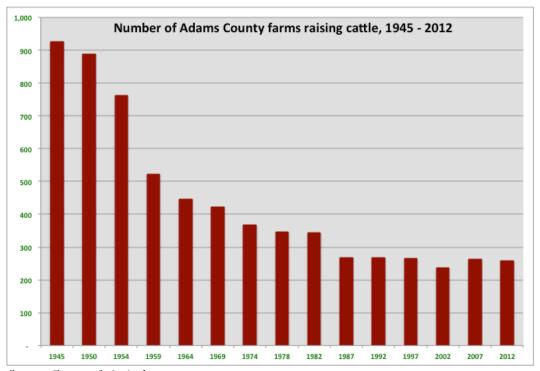


Source: Census of Agriculture, various years

- Note that a once-thriving cattle market for farms in Adams County has dwindled to very small sales figures.
- The main product sold by Adams County farms since 1992 has been nursery crops, ornamentals, and other landscaping products, which are strongly related to suburban development. The global housing finance crisis of 2008 took a severe toll on ornamental sales, since housing starts declined precipitously.
- Note that wheat sales data are missing for several years, but overall sales of wheat have remained fairly steady over the past 65 years.
- Sales of milk and dairy products by Adams County farms have fallen to about half of their 1950 levels.

#### **Cattle**

Chart 14: Number of Adams County farms raising cattle, 1945 – 2012



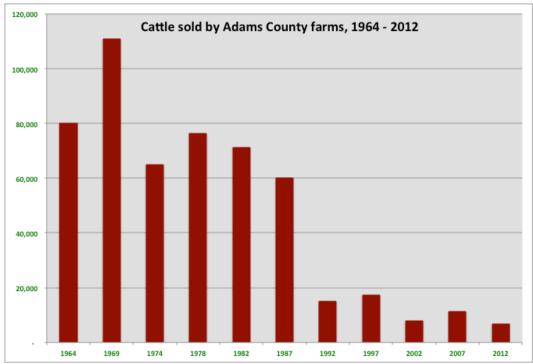
- More than 900 farms in the County raised cattle in 1945.
- Cattle production on Adams County farms remained high during World War II when demand for beef was high to feed troops. County farmers enjoyed considerable prosperity after the war as well, but many farm youth, or returning soldiers, opted to move away from farms.
- Farms also consolidated into larger units as increased mechanization allowed farmers to work more land and tend more animals.
- The number of Adams County farms raising cattle has held relatively steady since 1987. Yet as Chart 15 (next page) shows, the number of cattle fell steadily. This likely reflects the growth of feed lots such as those near Greeley, general decline of margins in the cattle industry as a result of greater concentration of production, and an aging farm population.

80,000 Cattle inventory on Adams County farms, 1945 - 2012 70,000 60,000 50,000 40,000 30,000 20,000 10,000 1950 1954 1959 1964 1969 1974 1978 1997

Chart 15: Cattle inventory on Adams County farms, 1945 – 2012

- The number of cattle held by Adams County farms peaked at 72,000 in 1969, despite the decline in the number of farms raising cattle.
- Many farmers sold off their herds due to rising grain prices during the OPEC energy crisis of 1973-1974, when grain prices were artificially high.
- The advent of concentrated feedlots also contributed to a shift away from Adams County farms.

Chart 16: Cattle sold by Adams County farms, 1964 – 2012



- The number of cattle sold by Adams County farms also peaked in 1969 at 110,000.
- There was a dramatic decline in the number of cattle after 1987. Sales in 1992 were less than one-third the level recorded five years earlier.

45,000,000 Value of cattle sold by Adams County farms, 1950 - 2012 40.000.000 35,000,000 30.000.000 25,000,000 20,000,000 15,000,000 10,000,000 5,000,000 1959 1964 1969 1978 1982 1987 2012 1992 1997 2002 2007

Chart 17: Value of cattle sold by Adams County farms, 1950 – 2012

Source: Census of Agriculture (value year by year).

- The value of cattle sold peaked in 1987, when county farms sold \$39 million in a single year.
- Yet sales fell to one-quarter of that level five years later, in 1992.
- Data on sales for Adams County cattle farmers was not reported for 2002 or 2012. This appears to be an effort to protect confidentiality since so few farmers were selling livestock.
- Note than when many cattle were sold off in 1974, the price per animal also fell, so total sales plummeted by 50%.

Adjusted value of cattle sold by Adams County farms, 1950 - 2012 \$ millions (2012 dollars) 

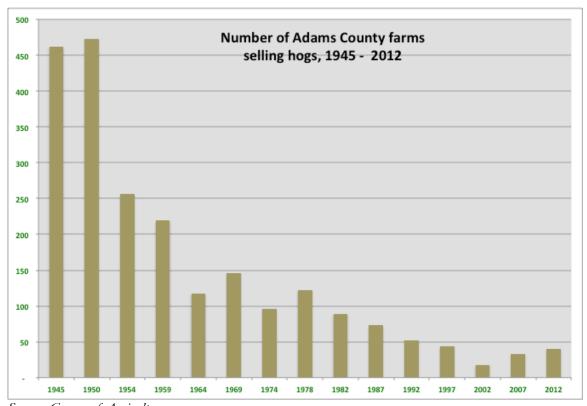
Chart 18: Cattle sold by Adams County farms, 1950 – 2012 (adjusted)

Source: Census of Agriculture (Adjusted for inflation)

- Once adjusted for inflation, however, it becomes clear that the peak year for cattle sales was 1969, reflecting the large number of animals sold.
- In 1969, Adams County farmers sold \$185 million of cattle, in 2013 dollars.
- 1954 was also a strong year for cattle sales, since the overall farm economy was quite prosperous.
- Each year since 1992, Adams County farmers have earned less selling cattle than they had in 1950. Current sales of less than \$10 million are now only one-quarter of their 1950 levels, and only one twentieth of 1969 levels.

#### **Hogs & Pigs**

Chart 19: Number of Adams County farms selling hogs & pigs, 1945 – 2012



- The number of farms selling hogs and pigs peaked at 470 in 1954, and reached its lowest levels in 2002.
- Many of the same trends during the World War II era, noted above for cattle, also affected hog farmers.
- As Chart 20 shows, the number of pigs raised on Adams County farms remained fairly steady despite the decline in the number of farms, which means more pigs were raised on each farm.

35,000 Inventory of hogs and pigs on Adams County farms, 1945 - 2012 30,000 25,000 20,000 15,000 10,000 5,000 1945 1950 1954 1959 1964 1969 1974 1978 1982 1987 1992 1997 2002 2007 2012

Chart 20: Inventory of hogs & pigs on Adams County farms, 1945 – 2012

- Inventory of hogs and pigs on Adams County farms peaked in 1978 at nearly 30,000 animals.
- The number of hogs and pigs held on Adams County farms fell considerably after 1992, most likely because of increased housing density, resident concerns about odors, and declining margins for pig production.
- Data were not made available covering inventory of hogs and pigs for 1997, 2002, or 2012.
- 2007 inventory was one-tenth of the peak year.

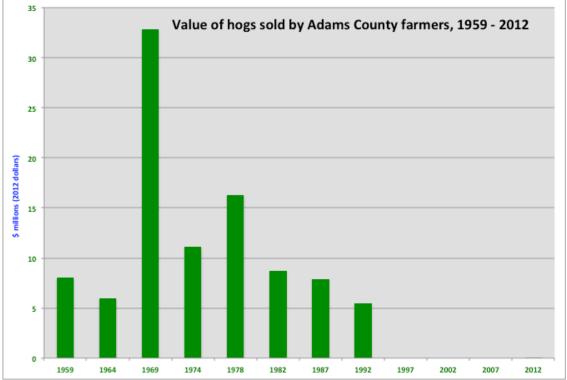
50,000 Number of hogs sold 45,000 by Adams County farms, 1945 - 2012 40,000 35,000 30,000 25,000 20,000 15,000 10,000 5,000 1964 1978 1982 1987 1992 1997 2007 2012

Chart 21: Number of hogs & pigs sold by Adams County farms, 1945 – 2012

- Hog and pig sales peaked in 1978, when more than 47,000 were sold by Adams County farmers.
- Data on hog and pig sales have seldom been recorded since 1997, but the sales recorded in 2012, of several hundred animals, were exceptionally low compared to previous years.

Chart 22: Value of hogs & pigs sold by Adams County farms, 1959 – 2012 (adjusted)

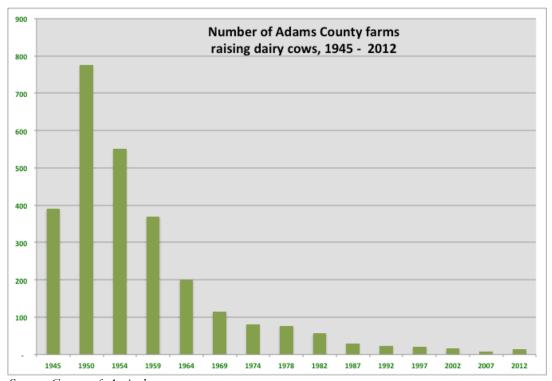
Value of hogs sold by Adams County farmers, 1959 - 2012



- Value of hogs sold by Adams County farms peaked in 1969 at \$33 million.
- Sales plummeted to far less than half these figures only five years later, despite rising inventories and sales.
- Data covering hog and pig sales have seldom been reported since 1997, but total sales of \$71,000 recorded in 2012 were exceptionally low compared to previous years.

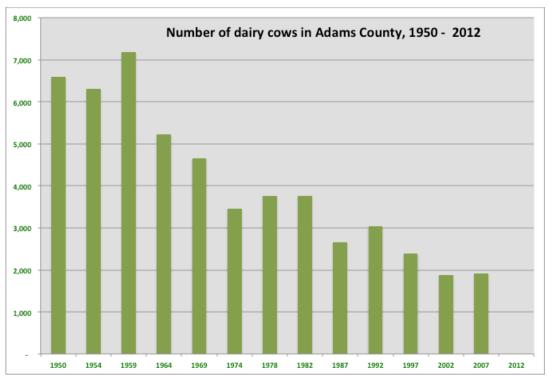
#### **Dairy**

Chart 23: Number of Adams County farms raising dairy cows, 1945 – 2012



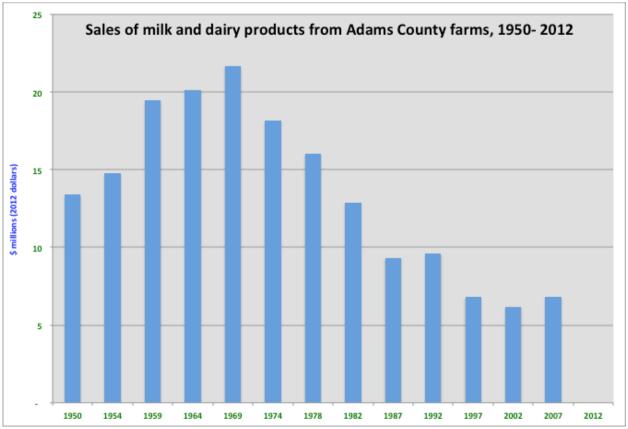
- The number of dairy farms peaked at 780 in 1950.
- At this point, almost half of the County's farms raised dairy cows.
- Farms with dairy herds diminished rapidly until 1969, then trailed off more slowly until reaching their lowest level in 2007.
- Currently, the Census of Agriculture reports 14 farms in the County raising dairy cows.

Chart 24: Inventory of dairy cows on Adams County farms, 1945 – 2012



- The inventory of dairy cows peaked in 1959, when more than 7,000 cows were raised in Adams County. The population fell dramatically in 1964, and decreased steadily.
- By 2012, the Census of Agriculture suppressed data on the number of dairy cows to protect confidentiality of the remaining farms.
- The population appears to be less than 2,000, apportioned on 14 farms.

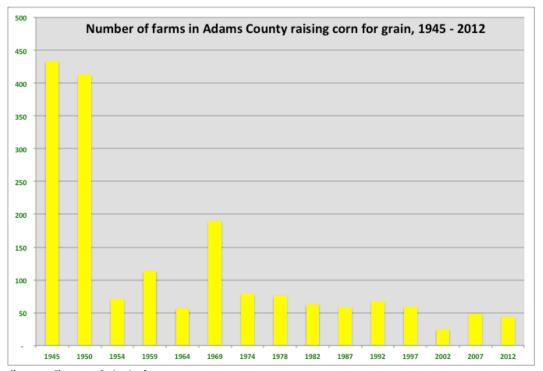
Chart 25: Sales of milk and dairy products by Adams County farms, 1950 – 2012



- Sales of milk, cheese, and other dairy products peaked at \$22 million in 1969.
- From then on, sales declined steadily.
- By 2012, the Census of Agriculture suppressed data dairy sales to protect confidentiality of the remaining farms.

## **Corn for grain**

Chart 26: Number of Adams County farms selling corn for grain, 1945 – 2012



- Reflecting similar trends noted above in the livestock industry, the number of farms raising field corn was at its highest level in 1945, when more than 430 farms raised corn for grain.
- The number of farms raising corn fell precipitously from 1950 to 1954, when only 70 farms raised corn.
- Corn farming experienced a small peak in 1969, when nearly 200 farms raised field corn.
- From 1974 to 2012, however, the number of farms raising field corn held fairly steady, only declining a small amount to less than 50 farms.

30,000 Acres of corn for grain in Adams County, 1945 - 2012
25,000
15,000
5,000

1969

1974

1978

Chart 27: Number of acres of corn raised by Adams County farms, 1945 – 2012

Source: Census of Agriculture

• After reaching a low point in 1954, field corn acreage has risen steadily, despite the decline in the number of farms.

1982

1987

1992

1997

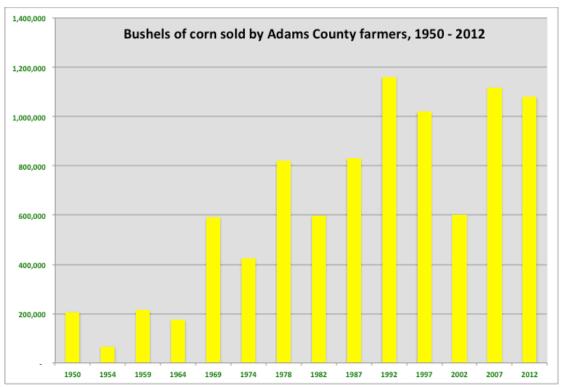
2002

2007

2012

- In 2012, Adams County farmers reported 25,000 acres of corn production an all time high for the post-war period.
- However, acreage planted in corn fell to low levels of less than 5,000 acres in 2002.

Chart 28: Bushels of corn harvested by Adams County farms, 1950 – 2012



- Production of corn increased dramatically from 1964 to 1987, as new production technology was adopted by Adams County farms.
- Since 1992, county farms have produced more than 1 million bushels most every year.

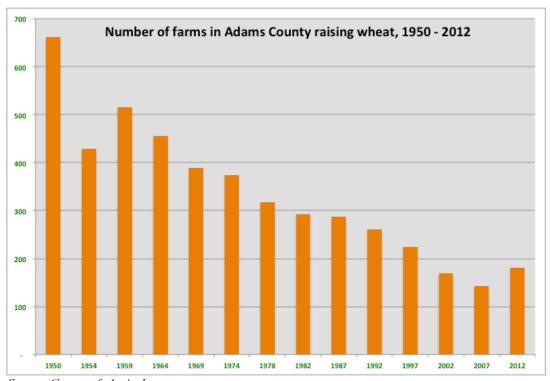
Chart 29: Value of corn sold by Adams County farms, 1950 – 2012 (adjusted)

Source: Census of Agriculture (Adjusted for inflation to 2012 dollars)

- Corn sales reached high levels in 2012, when Adams County farmers sold more than \$7 million of corn.
- However, 1974 was probably also a very strong year for corn sales, based on state and national trends. Data for corn sales were not reported for the County in 1969, 1974, 1978, or 2002.

## Wheat

Chart 30: Number of Adams County farms raising wheat, 1950 – 2012



- The number of Adams County farms raising wheat has generally fallen steadily since 1950, when more than 650 farms grew wheat.
- Now, however, fewer than 200 farms raise wheat.

250,000 Wheat acres in Adams County, 1950 - 2012

200,000

100,000

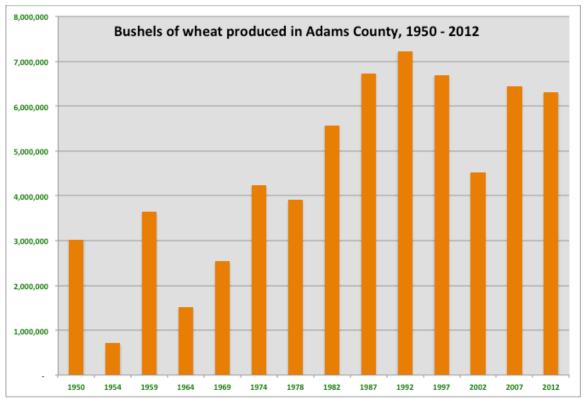
50,000

Chart 31: Acres of wheat grown by Adams County farms, 1950 - 2012

• Even as the number of wheat farmers declined, acreage generally increased, reaching a peak in 2002 with 210,000 acres under cultivation.

• Acreage has declined by roughly 30,000 acres since that peak.

Chart 32: Bushels of wheat produced by Adams County farms, 1950 – 2012



• Even though acreage of wheat rose fairly steadily, production began to fall in 1997 after reaching a peak of over 7 million bushels.

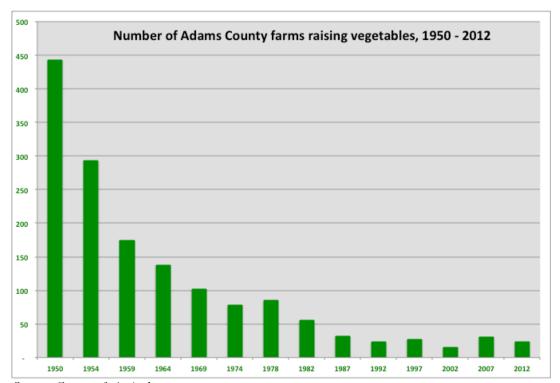
Value of wheat sold by Adams County farms, 1950 - 2012 

Chart 33: Value of wheat produced by Adams County farms, 1950 – 2012

- Considerable data regarding value of the wheat crop is missing from Census of Agriculture reports covering Adams County.
- One period in which considerable wheat was probably sold was 1973-1974, when U.S. farmers shipped large amounts of wheat and corn to the Soviet Union during the OPEC energy crisis.
- Lacking data from the period 1954 to 1978, it is notable that sales of wheat (in inflation-adjusted dollars) are about the same today as they were in 1950. Loss of wheat acreage and declining prices have contributed to an erosion of the wheat industry in Adams County that has offset gains in productivity per acre.

## **Vegetables**

Chart 34: Number of Adams County farms raising vegetables, 1950 – 2012



- In 1950, one of every four farms in Adams County raised vegetables.
- However, vegetable production fell steadily until 1974, when farm families began to depend on grocery stores for their food.
- Today only 24 farms raise vegetables, but some of these farms are quite large, and many of these larger farms lease acreage from nearby landowners, as in the Special District.

Data for LS fact sheet on farms, food, and business in Adams County — Ken Meter, October 13, 2015



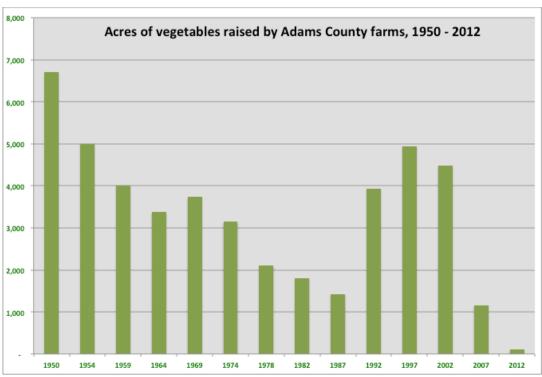


Chart 35: Acres of vegetables raised by Adams County farms, 1950 – 2012

- Acreage of vegetables have not fallen as fast as the number of farms, showing that some farms became larger.
- From 1992 to 2002, between 4,000 and 5,000 acres of vegetables were raised in Adams County each year, after reaching a low point in 1987 following the farm credit crisis.
- Currently, the Census of Agriculture shows only 108 acres planted to vegetables in Adams County. Some of this may also be an undercount due to leased land not being reported in Adams County.
- Vegetable production in Weld County is far more prevalent, with 9,955 acres yet even in Weld County, acres of vegetables decreased, from 13,085 acres in 2007.
- For the state of Colorado, vegetable acreage also decreased, from 97,251 acres in 2007 to 83,266 acres in 2012. Only 39,526 acres of vegetables were reported for Colorado farms in 2002, so there have been dramatic shifts in recent years.

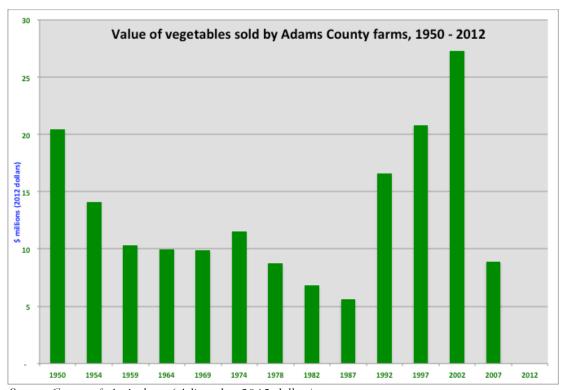


Chart 36: Sales of vegetables raised by Adams County farms, 1950 – 2012 (adjusted)

Source: Census of Agriculture (Adjusted to 2012 dollars)

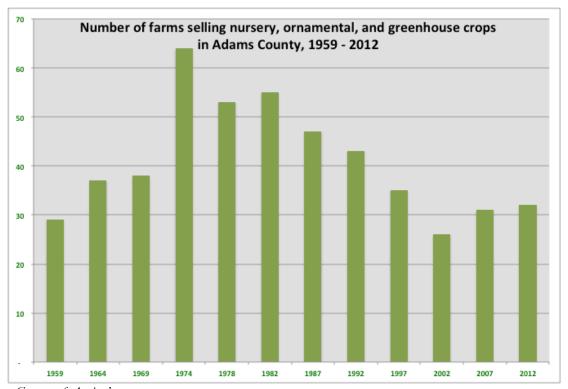
- Vegetable sales peaked at \$27.5 million in 2002, but fell by more than two-thirds over the next five years, to \$8 million.
- Adams County vegetable sales were not reported by the Census of Agriculture in 2012, in an effort to protect the confidentiality of growers.
- Note than in 2007, vegetable sales were less than half the value sold in 1950.
- In Weld County, sales of vegetables peaked in 2007, rising from \$51 million in 2002 to \$55 million in 2007, and then falling to \$44 million in 2012 (all in 2012 dollars).





# **Ornamentals & Nursery Crops**

Chart 37: Number of Adams County farms selling ornamentals, 1959 – 2012



- The number of farms selling ornamental, nursery, and greenhouse crops peaked in 1974 with 60 farms.
- Current levels are half this at just over 30 farms in Adams County.

Value of nursery, ornamental, and greenhouse crops sold by Adams County farms, 1954 - 2012 \$ millions (2012 dollars) 

Chart 38: Value of ornamental sales by Adams County farms, 1954 – 2012 (adjusted)

- Despite declining numbers of farms selling ornamentals, sales increased fairly steadily until 2007, when more than \$106 million were sold.
- This number was high due to intense construction of new homes in the Denver Metro area.
- After the global housing finance crisis was over, and housing starts stalled, sales plummeted to \$45 million.
- This is nevertheless still the largest single farm product sold in Adams County today.

# **Local Foods Opportunities**

This section by Megan Phillips Goldenberg & Ken Meter

### Consumers Build the Communities They Want With Purchasing Decisions

Shifting consumer preferences for purchasing consumer goods from local purveyors and manufacturers has created a sea change in most marketplaces, from US-based automotive manufacturers to hand crafted gifts to foods grown on a nearby farm to craft microbrews. Spending money locally isn't just about a preference for certain inherit product qualities, its also a preference for community, fair pay, good jobs, resilient businesses, connection, environmental stewardship, etc. Food is the most widely available local good and increasingly people are choosing to build the communities they want by purchasing local foods.

### What is Local Food Really About?

But local food isn't just about the approximate distance between producer and consumer (Meter & Goldenberg, 2014). It is much more than that. Research reveals that food purchasing decisions do not depend primarily on the distances foods travel. A preference for "local" food is often overlaid with several deeply held values, and "local" is only the catch phrase used to capture these values (Meter, 2011; Born & Purcell, 2006). Not all of these values can be expressed in the selection of any one "local" product. For example, a given consumer who seeks to buy a locally raised chicken may choose not to purchase from a nearby farm if they are persuaded that management or labor practices are more sustainable on a farm 200 miles down the road.

"Local" is largely in the eye of the consumer, contingent on individual values. A basic industry trends report examined various motives for purchasing local, and yielded the following survey results (DaSilva, 2014):

- 64% of surveyed consumers state a desire to support local businesses
- 39% believes the taste and quality of a local product is better
- 31% has more trust in the standards for locally produced foods than those of other regions or countries
- 28% believes that local products are healthier
- 26% thinks it is better for the environment when food doesn't travel as far

## So What Do Consumers Actually Want?

Above all, consumers are concerned about quality, freshness, nutrition, and food safety. A food trends survey shows 97% of consumers are primarily concerned with family satisfaction, 93% of survey respondents are concerned about nutritional quality and 92% are concerned about food safety, followed by 77% being concerned about sustainability. When forced to choose just one concern, family satisfaction (54%) and nutritional quality (41%) split the vote, with sustainability receiving only 5% (DaSilva, 2014). An interesting survey comparing producer and consumer perspectives found that *consumers* were far more likely to describe local food with words such as a "freshness," "taste" and "quality" than *producers*, who defaulted to "miles traveled" or other geographic descriptors (Selfa & Qazi, 2005).

## Local Versus Organic

Although local food does not directly correlate to any one set of production practices, consumers often consider local products to be more natural or humanely raised, especially when they are grown on a smaller farm. One study found that 20% of survey respondents thought local produce carried less pesticide residue; 22% thought local produce was non-GMO; and 23% perceived local produce to also be organic (Campbell, Khachatryan, Behe, Dennis, & Hall, 2014). Despite such assumptions, studies reveal that "local" and "organic" are not jointly demanded. Some consumers will chose an imported organic product over a local conventional product, and vice versa. Willingness-to-pay studies find that consumers will pay more for a local product than an organic product (Thilmany, Bond, & Bond, 2008) and are more likely to purchase local products over organic products (Campbell, Khachatryan, Behe, Dennis, & Hall, 2014). Strict locavores and a strict organic consumers may share similar primary and secondary values and motivations, but prioritize such values differently.

### **Building Community Through Local Production and Purchasing**

Community interaction is the essential and defining element of local food, and indeed to building consumer loyalty to a farm, a label, or a brand. The greatest indicator of the magnitude of consumers' preference for community interaction may be the widespread growth of farmers markets and CSAs. Research suggests that at least in the eyes of some, direct interaction between producer and consumer is just as important as geographic distinctions and public good factors (Eriksen, 2013; Meter, 2003, 2011). A regression analysis of consumer traits, market atmosphere, and consumer spending found that consumer interaction with the farmer was a greater predictor of spending than product attributes (freshness, quality) or household income (Hunt, 2007). This is supported by a general belief among farmers that they make more money at market when they go themselves instead of sending staff.

#### References for local branding section

Born, B., & Purcell, M. (2006). Avoiding the Local Trap: Scale and Food Systems in Planning Research . *Journal of Planning Education and Research* , 26, 195-207.

Campbell, B., Khachatryan, H., Behe, B. K., Dennis, J., & Hall, C. (2014). U.S. and Canadian Consumer Perception of Local and Organic Terminology. *International Food and Agribusiness Management Review*, 17 (2).

Dasilva, A. (2014). Three-Quarters of Americans Say Sustainability is a Priority When Making Food Purchasing Decisions, According to New Cone Communications Research. Boston, MA: Cone Communications.

Eriksen, S. N. (2013). Defining local food: constructing a new taxonomy- three domains of proximity. *Acta Agriculturea Scandinavica, Section B- Soil & Plant Science*, 63, 47-55.

Glassman, M. (2015). Hungry for Information: Polling Amercians on Their Trust in the Food System. Chicago, IL: The Chicago Council on Global Affairs.

Hunt, A. (2007). Consumers interactions and influences on farmers' market vendors. *Renewable Agriculture and Food Systems*, 21 (1), 54-66.

Meter, K. & Goldenberg, M.P. (2014) *The Real Deal: How do we define "local" in a meaningful and measureable way?* Pennsylvania Association for Sustainable Agriculture, with the Farmers Market Coalition, Crossroads Resource Center, and FoodRoutes Network, LL. June 30. Available at http://llocal.org/resources/

Meter, K. (2012). "Local" foods are key to economic recovery. In S. Amin, E. Holt-Gimenez, R. Patel, O. De Schutter, & J. P. Stedile, *Food Movements Unitel: Strategies to Transform Our Food System* (pp. 201-220). Food First Books.

Meter, K. (2011). Breaking Our Chains. *Journal of Agriculture, Food Systems, and Community Development*, 1 (4), 23-25.

Selfa, T., & Qazi, J. (2005). Place, taste, or face-to-face? Understanding producer–consumer networks in "local" food systems in Washington State. *Agriculture and Human Values*, 22, 451–64.

Thilmany, D., Bond, C., & Bond, J. (2008). Going Local: Exploring Consumer Behavior and Motivations for Direct Food Purchases. *American Journal of Agricultural Economics*, 90 (5), 1303-09.

Figure 1: Consumer Values (Glassman, 2015)

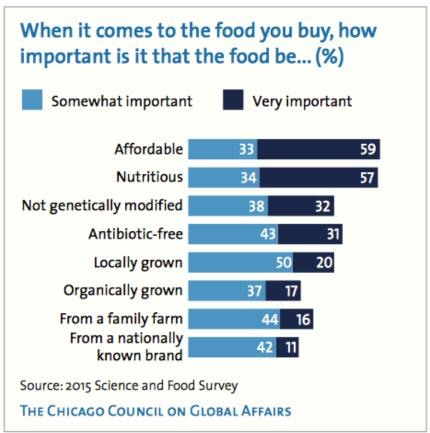
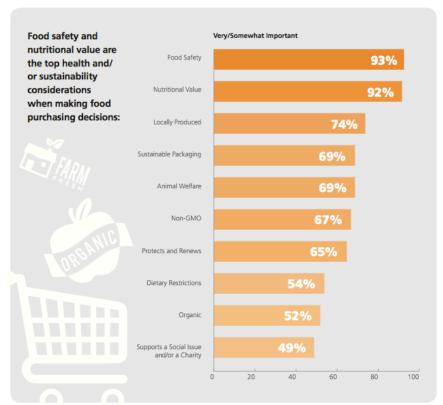


Figure 2: Consumer Values



# Farms or value-added businesses selling local food

in the Denver Metro and Northeast Colorado regions

Wholesale distribution to local accounts

## LoCo Distribution

Fort Collins, Colorado

Picks up produce at Petrocco Farms, Brighton, and many other farms in the Front Range.

## Delivers to:

- Boulder
- Colorado Springs
- Denver
- Estes Park
- Fort Collins

Grocery Delivery Services

# **Door-to-Door Organics**

Lafayette, Colorado



## Farms selling to local consumers

(not necessarily a complete list)

**Ambrosia Farms** 

Bennett, Colorado Free-range turkeys

**Bartels Land and Livestock** 

Fort Collins, Colorado
Organic vegetables; U-pick

**Becker's Produce** 

6888 CR 18 Merino, Colorado Vegetables & apples

**Berry Patch Farms** 

Brighton, Colorado

Organic vegetables & berries

Big Willy's Farm

Longmont, Colorado

Organic vegetables (year-round)

**Boulder Organic Foods LLC** 

Niwot, Colorado Prepared soups

**Boulder Lamb LLC** 

Longmont, Colorado Pastured lamb

**Colorful Ranch** 

Matheson, Colorado Grass-fed beef

**Cure Organic Farm** 

Boulder, Colorado
Organic vegetables, fruits, & pastured meats

**Ela Family Farms** 

Hotchkiss, Colorado

Organic tree fruits & berries

**Fossil Creek Farms** 

Fort Collins, Colorado Organic vegetables **Fresh Start Family Farms** 

Aurora, Colorado

Eggs

**Fritzler Farms** 

Lasalle, Colorado Vegetables & fruits

**Full Circle Organic Farms** 

Longmont, Colorado
Organic vegetables & small grains

**Garden Sweet Farm** 

Fort Collins, Colorado Sustainably grown vegetables, berries, herbs, & flowers; U-pick strawberries

**Golden Prairie** 

Nunn, Colorado

Organic wheat & millet

**Harvest Farm** 

4240 East County Road 66 Wellington, Colorado Beef, honey

**Hazel Dell Mushrooms** 

Loveland, Colorado Mushrooms

**Hoot 'n' Howl Farm** 

Boulder, Colorado Sustainably raised berries, veggies, honey bees, beef, & chickens; U-pick berries

**Inglorious Monk Bakery** 

Longmont, Colorado Gluten-free baked goods

**Isabelle Farms** 

Lafayette, Colorado Organic produce

#### Johnson's Acres

Brighton, Colorado Unpasteurized cow's milk, cream, yogurt, whey, eggs, & honey

#### **Just What Grows Gardens**

Brush, Colorado Salad greens, herbs, flowers, lavender, & native plants

#### **Kiowa Valley Organics**

Roggen, Colorado

Organic produce, grass-fed beef, naturally raised beef & free-range chickens

#### **Kovach Family Farms**

Fort Lupton, Colorado Vegetables & berries; U-pick

#### **Leffler Family Farms**

Eaton, Colorado

Transitional potatoes & sugar beets

#### **Lukens Farms**

Fort Collins, Colorado

Apples, pumpkins, flowers, & turkeys

#### **Miller Farms**

Platteville, Colorado Vegetables, U-pick; agri-tourism

#### **MMLocal**

Boulder, Colorado Canned Colorado vegetables & fruits

## **Monroe Organic Farm**

Kersey, Colorado

Organic vegetables & meats

#### **Nelms Farm**

Golden, Colorado
Organic apples; U-pick

#### On The Vine at Richmond Farm

Fort Collins, Colorado
Sustainably raised/transitional vegetables,
fruits, & herbs

#### Ozuké

Lafayette, Colorado
Organic fermented foods

#### **Quixotic Farming**

Cañon City, Colorado Tilapia

#### **Petrocco Farms**

Brighton, Colorado

Conventionally grown vegetables

#### **Plowshares Community Farm**

Longmont, Colorado
Organic vegetables & heritage pork

#### **Ray Domenico Farms**

Platteville, Colorado Organic beets, jalapenos, chard, green beans, kale, & other vegetables

#### **Red Wagon Farm**

Niwot, Colorado

Organic vegetables

#### **Scarecrow Gardens**

Greeley, Colorado
Sustainably grown vegetables & fruits

#### **Schnorr Organics**

Fort Collins, Colorado Organic vegetables

#### Simply Natural at Desiderata Ranch

Berthoud, Colorado Grass-fed beef, free-range poultry, eggs, unpasteurized cow's milk, & yogurt

#### Skål Farm

Golden, Colorado Permaculture farm raising goats and chickens; also sell raw milk, yogurt, kombucha starters, & kefir grains

#### **Strohauer Farms**

La Salle, Colorado

Organic and conventional vegetables, corn, & wheat

# Vert Kitchen

Denver, Colorado Prepared soups & salads

# Winking Girl Salsa

Louisville, Colorado Salsas

# Ya Ya Farm & Orchard

Longmont, Colorado Apples, U-pick, & agri-tourism



#### **Farmers Markets**

(not necessarily a complete list – check local listings for days and hours of operation)

Arvada

57th & Olde Wadsworth

Aurora

6626 S. Parker Rd.

(Arapahoe Crossing in Big Lots parking lot)

Aurora

**Southlands Shopping Center** 

**Bennett** 

401 S. 1st St.

**Boulder** 

13th & Canyon

**Broomfield** 

1700 W. 10th Ave.

Centennial

6400 S. University

Centennial

13050 E. Peakview Ave.

Denver

200 Santa Fe Dr.

Denver

1st & University (Cherry Creek Shopping Center)

**Denver** 

1500 block of Boulder St.

(between 15th and 16th Streets)

Denver

44th Ave. & Vallejo Street

Denver

1420 Larimer St.

(Larimer Square, Bistro Vendome Courtyard)

**Denver** 

E. 29th Ave. & Roslyn St. (Stapleton Founder's Green)

Denver

E. Colfax Ave. & Columbine St.

(Sullivan Fountain, across from the Tattered

Cover)

Denver

32<sup>nd</sup> & Lowell

Denver

970 S. Pearl St.

(1500 block of S. Pearl St. between Florida and

Iowa)

**Edgewater** 

2401 Sheridan Blvd.

Erie

Wells St. between Piece and Biggs

**Estes Park** 

**Bond Park** 

(Main St., next to the public library)

**Fort Collins** 

200 West Oak St.

**Fort Collins** 

Harmony & Lemay

**Fort Collins** 

810 Harmony Rd.

(in front of Ace Hardware parking lot)

**Fort Collins** 

802 West Drake Road

**Frederick** 

105 5th St.

(5th St. between Main St. and Elm St.)

Greeley

902 Seventh Ave.

**Greenwood Village** 

7600 Landmark Way

**Highlands Ranch** 

9288 Dorchester St.

(Highlands Ranch Town Center Square)

Lafayette

400 W. South Boulder Rd.

(Behind the Laayette Marketplace)

Lakewood

Denver Federal Center (6th Ave. & Kipling St.)

Lakewood

6501 W. Colfax

(Lamar Station Plaza)

Lakewood

9077 W Alameda Ave

Alameda & Garrison (Mile Hi Church)

Littleton

7301 S. Santa Fe

Littleton

8501 W. Bowles

(W. Bowles & S. Wadsworth)

Longmont

9595 Nelson Road

Louisville

824 Front Street

Loveland

700 S. Railroad

(Fairgrounds Park)

Loveland

3133 N. Garfield

(Garfield St. & Orchards Rd., in parking lot in

front of Hobby Lobby)

Lowry

7581 E. Academy Blvd.

**Parker** 

East Main Street

Wellington

3815 Harrison Ave.

Westminster

Sheridan & 72<sup>nd</sup>

**Wheat Ridge** 

4252 Wadsworth Blvd.

### Farm Stands & Roadside Stands

(not necessarily a complete list)

**Becker's Produce** 

6888 CR 18

Merino, Colorado

Vegetables & apples; peaches from other farms

**Berry Patch Farms** 

13785 Potomac St. Brighton, Colorado

Organic vegetables & berries

**Boulder Family Farms** 

1005 Cherryvale Rd.

Boulder, Colorado

Produce (some organic), eggs, artisanal

products, & crafts

**Cure Organic Farm** 

7416 Valmont Rd.

Boulder, Colorado

Organic vegetables & fruits, honey, & eggs

#### **Everitt Farms**

9300 W Alameda Ave. Lakewood, Colorado Vegetables & fruits, artisanal foods

#### **Fritzler Farms**

20861 County Road 33 Lasalle, Colorado Vegetables & fruits

#### **Garden Sweet**

719 W. Willox Lane Fort Collins, Colorado Vegetables, U-pick strawberries

#### **Just What Grows Gardens**

County Road T.9 Brush, Colorado Salad greens, herbs, flowers, lavender, & native plants

#### **Heinie's Market**

11801 W 44th Ave. Wheat Ridge, Colorado (not located at farm) Vegetables, fruits, eggs, fresh-pressed cider, honey, & baked goods

#### Hoot 'n' Howl Farm

6033 Jay Road Boulder, Colorado Vegetables, fruits, beef, & fresh eggs

#### **Kovach Family Farms**

754 South Denver Avenue Fort Lupton, Colorado Vegetables & berries; U-pick

#### **Lukens Farms**

9320 East State Highway 14 Fort Collins, Colorado Apples, pumpkins, flowers, & turkeys

#### Lulu's Farm

13201 E. 144th Ave.
Brighton, Colorado
Vegetables, fruits, & specialty foods

#### **Palombo Farms Market**

11500 Havana St. Henderson, Colorado Vegetables, fruits, & honey

#### Palizzi's Farm

15380 E Bromley Lane Brighton, Colorado Vegetables & fruits

#### **Plowshares Community Farm**

8040 Oxford Rd Longmont, Colorado Vegetables, fruits, & eggs

#### **Rocky Mountain Green Market**

Rainbow Plaza — 4229 West Eisenhower Loveland, Colorado Vegetables & fruits, other Colorado food items

#### **Scarecrow Gardens**

2235 North 47th Avenue Greeley, Colorado Sustainably grown vegetables & fruits

#### **Veggiescapes**

7777 Oxford Road — Yarmouth & North 26th Ave.
Boulder, Colorado
Vegetables & fruits; U-pick

#### Zweck's Fresh

10901 Airport Road Longmont, Colorado Vegetables & fruits

# Other Agri-tourism farms

(not necessarily a complete list)

## **Aspen Lodge at Estes Park**

6120 State Highway 7 Estes Park, Colorado Horse rentals, lessons, bed & breakfast

#### **Harvest Farm**

4240 East County Road 66 Wellington, Colorado Petting zoo; beef, honey

#### **Kiowa Creek Coaches**

14200 W. County Road 7 Mead, Colorado Horse ranch, boarding stables, rising, hosts events

## **Tigges Farm Produce and Pumpkin Patch**

12404 Weld County Road 64 ½ Greeley, Colorado Vegetables & fruits; U-pick



## All of the following crops have been grown commercially in Adams County

Source: Census of Agriculture, various years

Beans, Snap Onions, green **Beets** Peas, green Broccoli Peppers, bell **Brussels Sprouts** Peppers, Chili Cabbage, Head Potatoes Cantaloupes & Muskmelons **Pumpkins** Carrots Radishes Cucumbers Rhubarb Eggplant Spinach

Herbs, Fresh Cut

Kale

Squash, summer

Squash, winter

Lettuce, leaf

Lettuce, romaine

Okra

Okra

Onions, dry

Squash, summer

Squash, summer

Sweet corn

Sweet potatoes

Tomatoes

Watermelons

# **Food Consumption**

- Brighton residents purchase \$83 million of food each year [Calculated using Bureau of Labor Statistics using regional averages for Western states].
- County residents purchase \$1.3 billion of food each year [Calculated using Bureau of Labor Statistics using regional averages for Western states].
- Metro Denver residents purchase more than \$7 billion of food each year [Calculated using Bureau of Labor Statistics using regional averages for Western states].
- If every Adams County residents purchased \$5 of food each week from some farm in the County, farmers would earn \$122 million over a year almost as much as they earn now selling all crops and livestock /Calculation: population x \$5 x 52 weeks/.



Table 6: Food markets in Brighton and Adams County

	Brighton \$ millions	Adams Co \$ millions
Total food consumed by households	83.3	1,279
Food for home consumption	49.8	766
Cereals and cereal products	2.2	33
Bakery products	4.2	64
Beef	2.4	37
Pork	1.9	29
Other meats	1.3	20
Poultry	2	30
Fish and seafood	1.7	26
Eggs	0.7	11
Fresh milk and cream	1.8	27
Other dairy products	3.6	56
Fresh fruits	4.2	64
Fresh vegetables	3.4	52
Processed fruits	1.4	22
Processed vegetables	1.3	20
Sugar and other sweets	1.9	29
Fats and oils	1.5	23
Miscellaneous foods	9.2	141
Alcoholic beverages	6.2	531
Nonalcoholic beverages	4.4	68
Food eaten away from home	33.4	514

# **Consumer Markets for Food in Brighton and Adams County**

(Assuming consumption is typical of rest of U.S.) Source: Economic Research Service

Table 7: Estimated food consumption in pounds by local consumers

If Brighton or Adams County wanted to feed itself all the foods it currently consumes, these are the approximate amounts local farms would have to produce.

## **Vegetables**

	Brighton	Adams Co.
	pounds	pounds
Artichokes	47,146	601,675
Asparagus	59,975	765,397
Dry Beans	212,304	2,709,407
Dry Peas	40,713	519,580
Beans, Lima	13,055	166,612
Beans, Snap	242,031	3,088,786
Beets	21,023	268,300
Broccoli	345,856	4,413,798
Brussels Sprouts	15,843	202,184
Cabbages	291,085	3,714,814
Carrots	384,545	4,907,547
Cauliflower	61,247	781,625
Celery	201,343	2,569,534
Greens, Collard	46,727	596,324
Corn, Sweet	795,938	10,157,720
Cucumbers	387,337	4,943,180
Eggplant	31,175	397,859
Escarole	7,159	91,364
Garlic	73,759	941,305
Kale	20,502	261,639
Lettuce, Head	517,941	6,609,935
Lettuce, Romaine	419,801	5,357,479
Mushrooms	139,499	1,780,283
Greens, Mustard	8,152	104,030
Okra	11,318	144,438
Onions	718,969	9,175,445
Peas, Green	87,631	1,118,341
Pepper, Bell	368,550	4,703,411
Peppers, Chili	256,401	3,272,182
Potatoes	4,251,795	54,261,186
Pumpkins	172,034	2,195,490
Radishes	17,032	217,357
Spinach	90,239	1,151,630
Squash	163,019	2,080,437
Sweet Potatoes	245,772	3,136,530
Tomatoes	3,167,079	40,418,097
Greens, Turnip	8,495	108,414

## Meat

	Brighton	Adams Co.
	pounds	pounds
Beef	2,060,166	26,291,733
Veal	11,451	146,132
Lamb	33,400	426,243
Pork	1,700,246	21,698,450

Source: Economic Research Service

# **Poultry**

Brighton	Adams Co.
pounds	pounds
2,992,671	38,192,310
3,025,760	38,614,584
584,564	7,460,169
	pounds 2,992,671 3,025,760

Source: Economic Research Service

# **Dairy**

	Brighton	Adams Co.
	pounds	pounds
Fluid milk & cream	7,000,202	89,336,209
Butter	201,088	2,566,268
Cheese	1,228,808	15,681,979
Cottage cheese	75,401	962,265
Frozen dairy products	850,139	10,849,426
Evaporated or condensed milk	264,235	3,372,152
Dried milk	127,413	1,626,035
All dairy (milk equivalent)	22,273,473	284,252,888

Source: Economic Research Service

# **Eggs**

	Brighton	Adams Co.
	number	number
Eggs	9,367,722	119,550,376

Source: Economic Research Service

# Fish & Shellfish

	Brighton	Adams Co.	
	pounds	pounds	
Fish	202,208	2,580,562	
Shellfish	180,149	2,299,046	

Source: Economic Research Service

# **Grains**

	Brighton	Adams Co.
	pounds	pounds
Wheat flour	4,954,348	63,227,134
Rye flour	17,910	228,573
Rice	750,006	9,571,537
Corn	1,247,808	15,924,458
Oats	193,856	2,473,983
Barley	26,301	335,654
Total grains & cereals	6,440,224	82,189,801

Source: Economic Research Service

# **Apples**

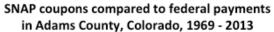
	Brighton	Adams Co.
	pounds	pounds
Apples	1,684,436	21,496,684

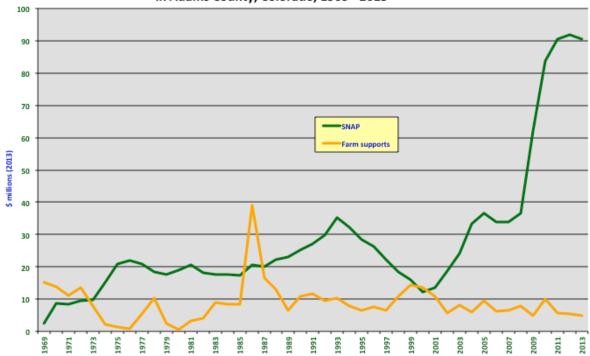
Source: Economic Research Service

## Issues affecting low-income residents in Adams County

- 5% percent of the County's households (over 23,000 residents) earn less than \$10,000 per year. [Source: Federal Census of 2009-2013].
- Over 144,000 county residents (32%) earn less than 185% of federal poverty guidelines. At this level of income, children qualify for free or reduced-price lunch at school.
- These lower-income residents spend an estimated \$300 million each year buying food, including an average of \$30 million of SNAP benefits (formerly known as food stamps) for the years 1989 to 2013, as well as additional WIC coupons.
- However, since 2008 there has been a dramatic increase in SNAP collections, from \$36 million in 2008 to \$90 million for each year 2011 to 2013.
- The County's 841 farmers receive an annual combined total of \$8 million in subsidies (25-year average, 1989-2013), mostly to raise crops such as wheat or corn that are sold as commodities, not to feed local residents [Sources: Federal Census of 2009-2013, Bureau of Labor Statistics, & Bureau of Economic Analysis].
- More than \$80 million of SNAP coupons were received by Adams County residents each
  year since 2011, while farmers receive on average less than \$10 million in federal payments
  per year.

Chart 39: SNAP coupons (formerly known as food stamps) compared to federal payments to Adams County farms, 1969 – 2013 (adjusted)





Source: Bureau of Economic Analysis (in 2013 dollars).

## **Farming & Food in the Special District**

#### The predominant land use is raising produce on rented land

- Most of the farmland in the District is rented or leased to larger produce farms.
- Petrocco Farms is leasing a large portion of the land in the District.
- Sakata Farms is not currently leasing land within the District for growing vegetables.
- Both Petrocco and Sakata sell produce nationally or internationally, but also sell to stores in Brighton and Denver. Among their customers are WalMart, Safeway, and King Soopers.
- Even when produce raised by Petrocco crews is sold in Brighton stores (for example, King Soopers has a display featuring local farms and Safeway features local produce) it is primarily channeled through warehouses in Denver.
- Sakata reports that some vendors purchase produce from their farm to re-sell at roadside stands or farmers markets.



#### Vegetable farming may be more profitable than other types in District

- While financial information is not readily available for individual farms in the District, some conclusions may be drawn from data covering both Adams County and the state of Colorado. First, despite lower overall sales for vegetables by Adams County farms compared to other products (\$9 million sales in 2002; no data reported for 2012), on smaller plots of land (a total of 1,100 acres planted in vegetables in Adams County in 2007; only 100 acres reported for the entire county in 2012), several prominent produce farms have attained considerable financial presence in the region, while cattle (\$39 million in sales in 1987; \$8 million in 2012) and wheat production (\$43 million in sales from 200,000 acres in 2012) have declined. Data from the 2012 Census of Agriculture show that Colorado had 763 farms that raised vegetables on 83,266 acres, selling a total of \$280 million of vegetables. This means the average vegetable farm was 109 acres in size, selling \$3,370 of vegetables per acre for an average total of \$367,747 per farm. On the other hand, the 3,653 Colorado farmers who raised wheat planted an average of 597 acres of wheat, which sold for \$477 million, or \$219 per acre and an average total of \$130,685 per farm. This means that even though the average wheat acreage per farm was almost six times the average vegetable acreage, sales per farm were nearly three times higher, and sales per acre were more than fifteen times higher for the vegetable farms. While this data does not include the costs of production, so cannot address profitability, the fact remains that produce farms have expanded while cattle and wheat production have declined.
- Augmenting these broader statistics are two dynamics that clearly apply in the Special District: (a) farmers have recognized the special nature of the alluvial soil and irrigation available in the Platte Valley, and its high quality for raising produce; and (b) vegetable growers have a somewhat closer connection to local buyers and wholesalers than if they sold to a global commodity industry.
- Both Sakata and Petrocco are important to the local economy and for keeping District land in farm production. Both remain committed to Brighton, but nonetheless appear to be positioning themselves to withdraw from farming within the District if conditions change. Both firms have packing sheds in the District, yet both lease land in locations further north in Weld County or Platte County, where there is more open land, less development pressure, lower lease and rental rates, and fewer land use and transportation conflicts.
- Petrocco Farms maintains an office in Weld County already; Sakata says it has considered moving its distribution center and offices further north as well.

### Farming practices may not be compatible with residential development

- Both Sakata and Petrocco note that they increasingly see conflicts between farm equipment and suburban traffic on local roads. Sakata has adopted a policy that none of its tractors should be driven on highways from field to field, but rather should be transported on trailers, which can fit better into the flow of traffic because they can drive at higher speed.
- Both Petrocco and Sakata Farms say they see conflicts between suburban development and farms because of their need to spray fungicides, pesticides, and farm chemicals on their fields. People are not likely to want to live near these chemical applications.

- Organic farming is a rising force in food markets nationally, growing faster than overall grocery sales. Organic Trade Association (OTA) data released earlier this year show that organic food sales nationally rose 11 percent in 2014 to reach \$35.9 billion.<sup>1</sup>
- OTA further concluded that organic fruits and vegetables led organic sales, growing 12% from 2013 to \$13 billion in 2014. Fruits and vegetables accounted for more than 36 percent of all organic food sales. Organic dairy product sales rose 11% to \$5.5 billion.
- OTA has tracked organic food sales since 1997, when total sales across the U.S. were \$3.4 billion, making up less than 1 percent of total food sales. "In 2014, organic food claimed almost 5 percent of the total food sales in the United States, and has consistently far exceeded the 3-percent growth pace for the total food industry," Food Product Design concluded in reporting on the OTA data.
- According to the newly released 2014 Organic Survey of farmers conducted by USDA, Colorado is the eighth-largest state in the U.S. for organic sales by farmers, with 157 certified organic farmers selling \$147 million of organic products in 2014 — nearly \$1 million in average sales per farm.<sup>2</sup>
- Looking at vegetable production only, 46 Colorado farms raised 4,233 acres of organic vegetables in 2014, selling these for \$18.8 million. These farms, then, averaged 92 acres per farm, and sold \$409,000 of products per farm, or \$4,441 per acre — considerably higher than the Colorado average sales of \$3,370 per acre for all vegetable farms in 2012.
- Nationally, sales of organic farm products increased 72% from 2008 to 2014.

#### Land & water prices are higher than farming can support

- Dave Petrocco, Sr. says that the cost of land is prohibitive today; due to pressures from development, it is impossible to purchase land at a price that farming can cover, so the firm relies upon leasing land for vegetable production.
- Purchasing water rights is even more expensive, with some estimating this to be 1.5 times the sale price of the land alone.
- Sakata Farms says it has successfully produced higher quantities per acre to help offset these rising land costs.

<sup>&</sup>lt;sup>1</sup> Bizzozero, J. (2015). "U.S. Organic Food Sales Grow to \$36 Billion." Food Product Design (blog) http://www.foodproductdesign.com/blogs/trending-foods/2015/04/u-s-organic-food-sales-grow-to-36billion.aspx. See also https://www.ota.com/resources/market-analysis

<sup>&</sup>lt;sup>2</sup> USDA NASS 2014 Organic Survey

http://www.agcensus.usda.gov/Publications/2012/Online\_Resources/Organics/

- Critical to the presence of both Sakata and Petrocco in the District is the fact that both
  farms were started long ago when land was cheaper, and were able to build strong businesses
  free from development pressure. It is unlikely that either firm could be launched with the
  same success today given higher overall costs of production, greater competition for land,
  and less supportive infrastructure. This also means that should they leave, new farm
  businesses are unlikely to replace them.
- As one farmer put it, "Farm production will never repay the investment in the land." This means that if family farming is to continue in the District, public agencies (or some wealthy private entity) will have to make land available for lease or repurchase at rates commensurate with what can be earned by farming the land.

#### The primary buyer for farmland for agricultural use is the City

- This suggests that the primary buyer for farmland in the District (for agricultural uses) would be the City of Brighton. The City's choice of parcels to buy, their locations, and which supportive infrastructure are created, is likely to determine whether there is farming in the District, and what types of farming it might be. If the City and County do not develop a proactive policy for protecting this prime farmland, it is likely to be lost forever.
- Further, it seems that developers, very wealthy individuals, conservation-minded funds, or public entities are some of the few parties able to consider purchasing land in the District, but few would have economic reasons to retain farmland uses.
- Therefore, if farming is to survive in the District, its survival will depend on public investment. Smaller farms, in particular, would require supportive infrastructure that helps create local efficiencies in food trade.

#### Investment is critical for both economic and noneconomic reasons

- Although it would be easy to consider public investments in farming and food to be questionable economically, the costs of a proactive land protection strategy should also be balanced against the costs of doing nothing. For example, the state of Colorado pays more than \$2 billion per year to cover the medical costs of diabetes and related health conditions
   — all connected to the food Coloradans currently eat, and perhaps preventable with a healthier diet and more consistent exercise.
- There are less tangible, but nonetheless critical reasons to protect working farms: farms are training grounds for youth learning work skills, offer starting job opportunities for Brighton youth, and knowing food production processes appears to be central to making healthier eating choices as a consumer. Farm involvement cultivates a sense of connection to nature and open space. If farmed properly, property values for nearby homes may rise. Engagement in growing food through gardens and farms is often a strong inspiration for learning about science and technology. The community of Brighton appears to depend on farming as a central core of its unique identity, and there would be economic consequences if this were lost.

## Local markets for food are robust

• Since residents of the City of Brighton spend an estimated \$83 million per year buying food, there is considerable economic opportunity to be tapped by focusing local farm production on feeding local residents. Since Adams County residents purchase \$1.3 billion of food each year, and the Denver Metro area residents purchase \$7.3 billion of food each year, there are considerable markets in nearby communities as well.

#### **Berry Patch Farm focuses on Brighton markets**

Note: Berry Patch owner Tim Ferrell is a leader in the Agricultural Land Preservation Subcommittee.

- Claudia Ferrell considers the 40-acre farm she works with her husband Tim to be the "best soil in the state." She adds that it is the "best soil for organic agriculture anywhere." Sited largely in the Platte River floodplain, it draws benefit from centuries of alluvial deposits.
- Like other farms in the District, the farm relies upon irrigation water from the Fulton ditch and its system of waterways.
- The owners of Berry Patch have farmed since 1991. The couple hired nine part-time workers this year; some of these want to go into farming for themselves. The Ferrells have arranged for a conservation easement on the land, hoping to protect it for agricultural purposes. They say they have no descendants who would wish to take over their farm.
- The farm grows a wide variety of vegetables, for sale at their on-farm store, which is open year-round. Hardy crops such as kale are grown indoors in high tunnels. The Ferrells view season extension as critical if Brighton is to be viewed as a food destination.
- One crop the Ferrells have found to be too difficult to grow is sweet peas, since the coolweather season is so short.
- Berry Patch also offers pick-your-own from May through September, including strawberries, raspberries, currants, pie cherries, plums, apples, basil, flowers, and pickling cucumbers.
- The couple also has tapped a variety of other markets; for example working with one local baker to use their farm's zucchini for baking bread. By offering recipes to their customers, they have generated new interest in less-known vegetables such as leeks, rutabagas, and celeriac. These lesser-known crops that are easy to grow in the District would likely assume more importance in our diet as consumers become more attuned to healthy eating, eating within season, and purchasing locally raised produce.
- Hosting farm-to-table events at the Berry Patch maintain the farm's visibility with local consumers; hosting parties or other special events brings in additional income.
- The Ferrells would like to offer value-added products such as frozen and dehydrated vegetables, but lack the equipment to produce these. Additional storage would also help, they said.

• Joe Petrocco and Tim Ferrell are starting organic production on a field owned by the City of Brighton, located north of the old school house at the north end of Potomac Street.



#### Other land parcels in the District

- Few other landowners in the District appear to be engaged in farming as a way of making a living, though several farms maintain livestock herds and gardens.
- Few of the landowners who rent to Petrocco appear to have descendants who would be interested in farming on their land in the District.
- Land above the Fulton ditch (with limited irrigation potential) has historically been planted to grains or pasture for livestock, and should not be overlooked as the site of future agricultural production, since much of it is prime farmland. Maintaining pastures for raising small livestock, for example, would help add fertility to the soil, and could provide agritourism opportunities, as well as increase the diversity of District agriculture and food systems.
- One farm near the District raises food to donate to the less privileged.

• The County has already negotiated conservation easements for about 3,000 acres of land, primarily west of the Platte or east of Brighton.

#### Labor is a critical issue

- Several farmers (both large and small) said that one of the largest obstacles to sustaining their farm is the lack of youth with the skills or interest in doing farm work.
- Lack of labor is one more reason that the current forms of agriculture do not regenerate themselves over time. If Brighton wishes to save farm land and fashion itself into a tourist destination, it would be important for local schools to teach skills in gardening and farming as part of generating a new identity as a contemporary agricultural community.
- Laboring on farms is currently an important income source for Adams County residents, who earn \$22 million per year through farm labor.



#### The District holds strong potential for agri-tourism

- Brighton has strong potential for creating a regional destination around the District's heritage of food and farming. With its proximity to Denver, excellent highway access, and future bike and light rail access, Adams County could serve as a destination for those who want to enjoy visiting a productive rural landscape, and savor its unique foods and culture.
- However, it will be difficult to attract tourists to visit farms in Brighton unless Brighton itself embraces local farms and local foods in a wholehearted manner. This would mean: having more working farms that produce food for local residents; creating closer connections among local farms and local consumers; running consistent and frequent marketing campaigns to encourage Brighton residents to buy food from local farms; encouraging restaurants to feature local food items on their menus; featuring local foods in local school nutrition programs; and other steps.
- A distribution firm focused on local markets, LoCo Distribution (based in Fort Collins), already picks up food from Brighton area farms for distribution to Front Range outlets, so increasing local distribution points should be relatively straightforward if local consumers ask for local food deliveries.
- The Sakata and Petrocco distribution facilities are tangible expressions of Brighton's rich agricultural heritage, and their heritage could potentially be a strong part of a tourist draw for the District, for example through a Brighton food heritage center. Yet these facilities would not seem to be significant attractions as working farm operations, nor are they likely to welcome visitors, for either food safety or liability reasons, during production seasons.
- Expansive vegetable fields are excellent stretches of open space, and worth protecting for that reason. These would be attractive fields to bike past, for example. They are critical as income sources for farmworkers and owners, and as a source of produce. Yet these also do not create agri-tourism destinations by themselves, without accompanying activities and locations: for example, signboards showing the history of produce production or displays at a Brighton food heritage center.
- Culinary destinations such as food processors, gourmet restaurants, breweries, wineries, beds
  and breakfasts, and the like, could be developed without having agricultural land nearby, but
  will have greater tourist appeal if they express a unique sense of place for, and a commitment
  to protecting farmland, by Brighton. Fostering these qualities would likely center around
  locally produced foods.
- These commercial destinations are likely to prove more profitable than the farms themselves, because they face fewer difficulties than farmers, who have to farm in uncertain weather conditions, and sell products that have lower value to begin with. They might therefore be asked to help support local farm and food activity financially.
- The predominant cuisine in Brighton today is Latino; this might become central to the town's sense of place and appeal to tourists.

#### **Overall summary**

#### **Strengths of the Special District**

- Contains some of the best land in the state
- Water is available in significant portions of farmland
- Holds a rich heritage of produce farming
- Vegetable farming has been more rewarding financially than raising other products
- Farmworkers in Adams County earn \$20 million per year
- Farms are near to robust consumer markets

#### **Limitations of the Special District**

- Suburban development has encroached
- Prevalent farming practices appear to be incompatible with residential development
- Major produce growers may move north
- Land is too expensive to be paid for through farm production alone
- Water rights are even more expensive
- Few local residents have farming skills
- Farm labor is in short supply

#### **Opportunities for the Special District**

- To serve as a symbol for protecting farmland and rural quality of life
- To raise food for Brighton, Adams County, and Metro Denver markets
- To maintain farming practices that are compatible with residential development
- To serve as the core of a vibrant local food culture in Brighton
- To provide agri-tourism experiences for visitors

#### Potential obstacles for protecting farmland

- Residents may perceive that it is too late to protect the tradition of rural living
- Landowners want to sell land (or water rights) at development prices to fund retirement
- Few landowning families have heirs who want to farm
- The City may be the only buyer of land for agricultural use

## Farmland protection strategy: Develop nodes of activity that support local foods

If Brighton and Adams County wish to support a vibrant agriculture and cluster of food businesses as part of its future identity, here are some suggestions for how that might be accomplished:

• To preserve farms as open space over the long term, they must be productive and sustainable businesses. It will be difficult to protect farmland, or to protect agriculture, by themselves; these must be part of a local **food** system that sustains working family farms and engages consumers in supporting these local farms. City and County policy should focus on food and farming, not simply on protecting agricultural lands — although of course protecting farmlands is critical if Brighton wishes to preserve open space and farms.



- No external developer will construct a local food system for the District; if the City and County wish this to happen it will take concerted proactive effort on the part of both public bodies. These must be grown from the inside, starting with what is already in place and emerging, rather than by importing businesses from elsewhere.
- Local foods planning should embrace what is already emerging in local foods trade, and make strategic investments that strengthen and leverage this activity to help create a coordinated and sustainable local food system.
- Just as the City and County have considerable control over the location of housing development by decisions they make with regard to zoning, and where water and sewer infrastructure are installed, these public bodies can play an active role in creating more

profitable small farms by investing in supportive infrastructure (see specific suggestions below) that creates new efficiencies in local food trade.

- It seems clear that despite reluctance on the part of some growers, future farms in and near Brighton must pursue sustainable and organic practices, if farming is to be compatible with residential housing and other development.
- For organic farming to flourish, livestock must be raised on farms in and near the District in such a way that is compatible with housing. Crops should be rotated with pastures, to balance nutrients, increase diversity, build healthier soil, and maintain high productivity.

#### **Specific investments**

We suggest the following specific investments in local food systems for the Special District south of Brighton:

1. The City of Brighton must announce a clear priority, and take definitive action steps, to show its commitment to protecting farmland if efforts to protect land are to be credible. This outreach should make the City's long-term strategy clear and show how the City is targeting its resources to achieve its vision.

Timeline: Assuming the City and County decide to preserve farmland in the Special District, this action should be taken immediately. Since some parcels of farmland in Brighton have already been sold for development, several residents seem persuaded that nothing can be done to curtail development; others wish to be free to sell their land to developers and hope further development will make this possible. The City and County should publish detailed information showing how much land has already been dedicated to development, and how much farmland could be purchased with available resources, along with longer-term projections showing how much farmland could be protected in the future.

2. The City of Brighton should build (or cause to be built) a washing, packing, aggregation, & distribution facility scaled to small farm production, located near growers who raise produce for local markets. This could be built on a working farm raising food for local markets, or in close proximity to several such farms. The old school site may be a prime location for this. Such an investment would hopefully help attract additional farms to locate nearby over time.

Timeline: This action should be taken at whatever point a grower or group of growers who grow for local markets, or a firm or organization working closely with growers, presents a detailed business plan for building and operating such a facility for at least five years. If this plan were to show that several growers will share use of the facility, that would likely have more positive impact in building a local food system over time.

3. The City should explore investing in (or facilitating investment by private parties in) **flash-freezing equipment**, most likely at the same site, for local farms to use to extend shelf life of fresh produce items.

*Timeline:* As above, this step should be taken when a grower or group of growers offers a credible plan for building and operating such a facility.

4. The City already owns enough land to launch an incubator farm for training new farmers, with leasable land (roughly in 5 to 50 acre plots) nearby, so that graduates may remain in the community of farmers, and make use of some of the infrastructure listed above. This might be an excellent use of the Anderson farm, should it be purchased by the City. Local sources state that there are young people in Boulder County who are looking for land; CSU runs a farmer training program in Boulder County, and urban farmer training programs also operate in Denver.

Timeline: Planning for this training farm should be initiated immediately under the City's initiative; it is unlikely that an outside vendor would conform to the City's vision unless such a vision is spelled out and held by the City itself. For more information on incubator farms, see Meter & Goldenberg (2013), "Making Small Farms into Big Business," http://www.crcworks.org/scfood.pdf). The most difficult element of this is likely to be locating an expert farmer who is also an expert instructor. Actual creation of an incubator farm should be undertaken when a firm or organization has been identified (perhaps in response to an RFP from the City) that can develop and implement an effective farmer training program with sufficient resources to ensure the project's sustainability. A softer start might be launched once emerging farmers (perhaps graduates of other programs) apply to the City for access to land with water rights so they can grow food for local markets. Investments in infrastructure noted above could encourage such farmers to relocate to these farms.

5. The City must resell or lease this land to new small-scale growers at price levels that can be paid through farm production (the use-value of the land) rather than at the development value.

*Timeline:* Considerable preparation work may be required to establish clear policies, procedures, and pragmatic regulations that would allow the City to formally lease or re-sell land to small-scale farmers growing for local markets at the use-rate of the land (and water) for farming. Creation of these legal frameworks could begin immediately.

6. To raise the visibility of local foods, it will be critical to create a prominent connection point that brings together town and rural residents to celebrate local foods and buy from local farms (e.g., at Bromley Farm or Palizzi's farm stand).

Timeline: This is a longer-term priority that should be considered early in planning for agritourism, and local foods marketing, but could be developed at a later date. Such a connection point will also serve as a focal point for agritourism and other visitors.

7. **The City and County must actively market local foods**, including publicizing the seasonal availability of the foods raised on Brighton area farms, the farmers who raise these foods, where local foods may be purchased, and the chefs and households who use them.

*Timeline:* This should commence immediately, since it will be important to increase consumer awareness of the availability of locally grown food, if farmers are to be profitable in selling food to local consumers.

8. The City and County should jointly launch (perhaps in collaboration with local health care providers) an "Eat 5, Buy 5" campaign similar to the one devised in Montezuma County, Colorado. This would call for each county resident to eat five fruits and vegetables each day for health reasons, and buy five dollars of food from an Adams County farm each week. If each county household purchased this much food from county farms per person each week, this would amount to \$122 million of revenue for the County's farms — almost as much as the \$145 million of crops and livestock county farms currently sell each year.

*Timeline:* This should commence immediately. Such a campaign could be launched with minimal cost, and expanded over time. The initial campaign in Southwest Colorado was launched with \$500.

9. In the future, the City and County may wish to raise funds from external sources to purchase additional farmland as it becomes available for sale by current landowners. Private individuals, conservation funds, state, or federal sources could be used to leverage City and County investments.

Timeline: This is a long-term strategy.

## **Appendix: Quantitative Data**

#### Adams County (Bureau of Economic Analysis, 2013)

469,193 Adams County residents receive \$16.6 billion of income annually. Aggregate personal income for county residents increased 300% from 1969 to 2013, after dollars were adjusted for inflation. Adams County population has increased more than 150% since 1969.

The largest source of personal income is government jobs, accounting for \$2.7 billion of income. Transfer payments (from government programs such as pensions) rank second, at \$2.6 billion [see below]. Capital income (from interest, rent, or dividends) totals \$2.4 billion. Construction workers earned \$1.3 billion in 2013, while wholesale workers earned \$1.2 billion. Health care professions bring in \$1 billion of personal income. Manufacturing jobs produce \$951 million of personal income, and transportation workers earn \$871 million. Retail workers accounted for \$790 million of personal income.

Note that income from public sources makes up 33% of all personal income in the County.

During the years 2003 and 2004, construction workers in Adams County earned an aggregate total of \$8 billion of personal income each year. These income levels returned to about \$1 billion per year from 2005 to 2013.

Income earned from transfer payments includes \$834 million of retirement and disability insurance benefits; \$1.1 billion of medical benefits; \$307 million of income maintenance benefits; \$88 million of unemployment insurance; and \$97 million of veterans' benefits.

Government income includes \$137 million of income earned by federal workers and \$2.5 billion earned by state and local government workers. Military personnel earn \$71 million of personal income.

#### Issues affecting low-income residents of Adams County:

Over 144,000 residents (32%) earn less than 185% of federal poverty guidelines. At this level of income, children qualify for free or reduced-price lunch at school. These lower-income residents spend an estimated \$300 million each year buying food, including an average of \$30 million of SNAP benefits (formerly known as food stamps) for the years 1989 to 2013, as well as additional WIC coupons. However, since 2008 there has been a dramatic increase in SNAP collections, from \$36 million in 2008 to \$90 million for each year 2011 to 2013. The County's 841 farmers receive an annual combined total of \$8 million in subsidies (25-year average, 1989-2013), mostly to raise crops such as wheat or corn that are sold as commodities, not to feed local residents. *Data from Federal Census of 2009-2013, Bureau of Labor Statistics, & Bureau of Economic Analysis.* 

5% percent of the County's households (over 23,000 residents) earn less than \$10,000 per year. *Source: Federal Census of 2009-2013.* 

15% of all adults aged 18-64 in Colorado carried no health care coverage in 2014. *Source: Centers for Disease Control.* 

#### Food-related health conditions in Colorado:

36% of the state's residents reported in 2013 that they eat less than one serving of fruit per day. 19% eat less than one serving of vegetables. This is a key indicator of health, since proper fruit and vegetable consumption has been connected to better health outcomes. Many providers recommend consumption of at least five servings of fruit and vegetables each day, while others suggest even higher rates. Source: Centers for Disease Control.

84% of Colorado adults report they get sufficient exercise each week to meet recommended guidelines. *Source: Centers for Disease Control.* 

7% of Colorado residents have been diagnosed with diabetes as of 2014. *Source: Centers for Disease Control.* Medical costs for treating diabetes and related conditions in the state are estimated at \$2.5 billion. *Source: American Diabetes Association.* 

56% of residents in Colorado were overweight (35%) or obese (21%) in 2014. Source: Centers for Disease Control.

#### Adams County's farms (Census of Agriculture, 2012)

Agriculture Census data for 2012 were released May 2, 2014

The Census of Agriculture defines a "farm" as "an operation that produces, or would normally produce and sell, \$1,000 or more of agricultural products per year."

#### Land:

- 841 farms in 2012. This is a 6% decrease in farms since 2007.
- Adams County has 2.3% of Colorado's farms.
- 122 (15%) of these are 1,000 acres or more.
- 424 (50%) farms are less than 50 acres.
- The most prevalent farm size is 10-49 acres, with a total of 331 farms (39% of farms).
- Average farm size is 821 acres, slightly less than Colorado's average of 881.
- The County has 690,528 acres of land in farms, a decrease of 2% since 2007.
- This amounts to 2.2% of the state's farmland.
- 80% of farmland is cropland, and 2% is pasture.
- Adams County farms have 249,000 acres of harvested cropland.
- 178 (21%) farms have a total of 17,649 acres of irrigated land.
- Average value of land and buildings per farm is \$1.2 million. This is just above the state average of \$1.1 million.

#### Sales:

With the exception of foods sold directly to consumers (see below), farmers typically sell commodities to wholesalers, brokers or manufacturers that require further processing or handling to become consumer items. The word "commodities" is used in this report to mean the crops and livestock sold by farmers through these wholesale channels. The term "products" encompasses commodity sales, direct sales, and any other sales.

• \$116 million of crops and livestock were sold in 2012, 1.5% of state ag sales.

- \$102 million of these sales were crops.
- \$14 million of these sales were livestock and products.
- This was a decline of 24% from 2007 sales of \$153 million.
- 575 (68%) of the County's farms sold less than \$10,000 of products in 2012. Their aggregate sales of \$1 million amounted to 1% of the County's farm product sales.
- 128 farms (15%) sold more than \$100,000 of products, an aggregate total of \$111 million, 95% of county farm product sales.
- 342 (41%) farms received \$5.5 million of federal payments in 2012. Federal crop subsidies accrue only to farmers who raise specific crops such as wheat or corn. [Note that Agriculture Census data differ from Bureau of Economic Analysis data; see below.]
- 61% (511) of the County's farms reported net losses in 2012 even after subsidies are taken into account. This just above the Colorado rate of 59%.

#### Top farm products in Adams County, 2012

	\$ millions
Ornamentals & nursery crops	44.7
Wheat	42.9
Livestock & milk	13.9
Corn	7.3

## Production Expenses:

- Total farm production expenses were \$99 million, down from \$130 million in 2007.
- Hired farm labor expenses were \$22 million (22%).
- Supplies, repairs, and maintenance cost farmers \$8.2 million (8%).
- Costs for seeds, plants, and vines ranked third at \$8.2 million (8%).
- Farmers charged \$7.9 million to depreciation (8%).
- Chemical purchases totaled \$7.7 million (8%).
- Gasoline, oil, and fuels cost \$7.6 million (85).
- Fertilizer, lime, and soil conditioners ranked seventh, at \$7 million (7%).
- Feed purchases totaled \$6 million (6% of production expenses).

## Grains, Dry Edible Beans, Oil Crops, and others:

- Adams County farms sold \$53 million of grains, oil crops, and edible beans, more than the \$40 million sold in 2007.
- 181 county farms sold 6.3 million bushels of winter wheat from 186,439 acres.
- The County's wheat crop brought a total of \$43 million, an increase from 2007 sales of \$31 million.
- 42 Adams County farms raised \$7.2 million (1 million bushels) of corn on 24,638 acres in 2012.

• This was an average price of \$7.20 per bushel. Note that this price is an approximation, and does not necessarily represent an actual price at which corn was sold.

#### Cattle & Dairy:

- Livestock and livestock products worth \$14 million were sold from 354 Adams County in 2012, but sales figures for specific livestock items were suppressed by USDA in an effort to protect confidentiality.
- 259 farms hold an inventory of 14,433 cattle and calves.
- 6,770 cattle were sold from 198 farms in 2012.
- 14 farms were reported as selling milk or dairy products, but *neither the number of dairy animals* nor sales were disclosed by USDA in an effort to protect confidentiality.
- 165 farms produced 19,481 dry tons of forage crops (hay, etc.) on 13,361 acres of cropland. Forage sales figures were suppressed by USDA in an effort to protect confidentiality.

#### Other livestock & animal products:

- 48 farms sold hogs and pigs worth a total of \$71,000.
- 45 farms hold an inventory of 345 hogs and pigs.
- 67 farms sold a total of \$704,000 of horses.
- 69 farms raise sheep or goats, selling \$294,000 worth.
- 42 county farms hold an inventory of 863 sheep and lambs.
- 138 farms hold an inventory of 3,600 laying hens.
- 79 farms sold \$61,000 of poultry and eggs in 2012.
- Adams County has 11 broiler chicken producers, with a total inventory of 623 birds.

#### Nursery, Landscape and Ornamental Crops:

- 32 farms sold \$45 million of ornamental and nursery crops. This was a substantial decline from the \$83 million that was sold by county farms in 2007.
- 2 county farms sold Christmas trees.

V egetables  $\dot{\mathcal{C}}$  Melons (some farmers state that Ag Census data does not fully represent vegetable production):

- Vegetable and potato sales figures for farms in Adams County were withheld by the Census of Agriculture in 2012. In 2007, county vegetable sales totaled \$8 million.
- 24 farms produced these vegetables on 108 acres of land.
- 3 farms raise potatoes.

Fruits (some farmers state that Census of Agriculture data does not fully represent fruit production):

• The County has 11 farms with a total of 15 acres of orchards.

#### Direct & organic sales and related practices:

- 96 (11%) farms sold \$502,000 of food directly to household consumers. This is a four-farm decrease in the number of farms selling direct (100 in 2007), and a 78% decrease in direct sales from \$2.2 million in 2007. Direct sales account for 0.4% of county farm sales, higher than the national average of 0.3%.
- 3 county farms reported selling \$500,000 of organic foods.
- 4 county farms reported to the Census of Agriculture that they market through community-supported agriculture (CSA).
- 17 farms sell directly to retail customers.
- 3 farms reported having on-farm packing facilities.
- 11 county farms reported earning \$422,000 from agri-tourism.
- 48 farms produce added-value products on the farm.

#### Conservation practices:

• 134 farms use rotational management or intensive grazing.

# Sources of farm-related income for Adams County farmers in 2012 (Census of Agriculture) (other than sales of crops or livestock)

	dollars
Insurance payments	3,790,000
Custom work	3,640,000
Other	2,750,000
Cash rents	2,110,000
Agri-tourism	420,000
Patronage dividends	180,000
State & local governments	90,000

#### Adams County highlights (Census of Agriculture, 2012):

- Ranks 1<sup>st</sup> of 18 counties in Colorado for inventory of pheasants.
- The County ranks 2<sup>nd</sup> in state for sales of nursery, greenhouse, and floriculture crops.
- Ranks 4<sup>th</sup> in Colorado for acreage devoted to wheat.
- Adams County ranks 6<sup>th</sup> in state for inventory of goats, with 1,441.
- Ranks 7<sup>th</sup> in Colorado for value of crops sold, with \$102 million.
- Ranks 8<sup>th</sup> in state for dairy sales.
- Ranks 10<sup>th</sup> in state for sales of grains, oilseeds, and dry peas, with \$53 million.
- Ranks 11<sup>th</sup> in Colorado for sales of fruit and nuts.

#### Colorado highlights (Census of Agriculture, 2012):

- Colorado has 36,180 farms, down 2% from 37,054 farms in 2007.
- The state has 31.6 million acres in farms, up one percent from 2007.
- Colorado farmers sold \$7.8 billion of farm products in 2012, 28% higher than five years earlier.
- Crop sales totaled \$2.4 billion, 31% higher than in 2007.
- Livestock sales totaled \$5.3 billion, up 69% from 2007.
- Federal payments to Colorado farmers totaled \$165 million, up 6% from 2007.
- Average payment per farm receiving federal payments was \$14,897.
- The most prevalent farm size was 10-49 acres, with 10,008 farms at this scale.
- Colorado is the 10<sup>th</sup>-most important state for livestock sales, with \$5.4 billion.
- The state ranks 20<sup>th</sup> in overall farm product sales.
- Colorado is the third-most important state in the U.S. for both inventory of sheep and lambs, with 401,376, and in sales of sheep, lambs, and goats at \$87 million.
- The state ranks 5<sup>th</sup> in the U.S. for sales of cattle, with \$4.3 billion.
- Colorado is the 5<sup>th</sup>-most important winter wheat producing state, with 2.2 million acres.
- 2,896 Colorado farms sold \$19 million of food products directly to household consumers in 2012.
- This was a 4% increase in the number of farms selling direct, from 2,777, but overall direct sales fell 15% from 2007 level of \$22.6 million.
- The value of direct sales from Colorado farms was just less than the value of the 12th-ranked product, oil crops.
- 234 farms reported to the Census of Agriculture that they operated community-supported agriculture (CSA) farms.
- 407 farms have on-farm packing facilities.
- 848 farms marketed directly to retail outlets such as grocery stores.
- 1,798 farms produced value-added products on the farm.
- 176 farms sold \$68 million of organic products in 2012.
- 6,712 farms practiced rotational or management-intensive grazing.
- 3,897 farms received water from the Bureau of Land Reclamation.
- 22 farms practiced alley cropping or silvopasture.
- 247 farms harvested biomass for renewable energy use.

Table 8: Colorado's top farm products in 2014 (Economic Research Service)

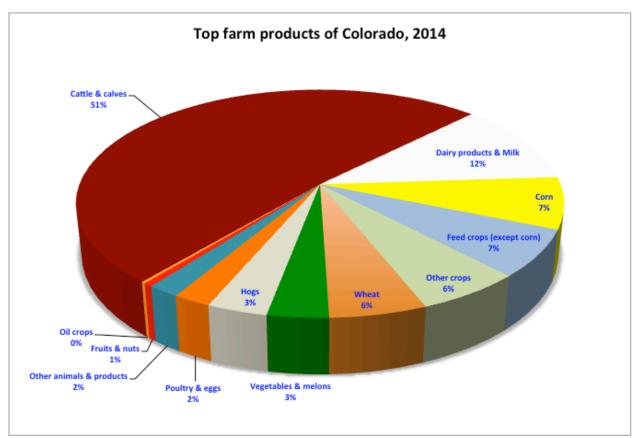
The data in the table below and Chart 40 on the following page cover Colorado as a whole.

	\$ millions
Cattle & calves	3,832
Dairy products & milk	857
Corn	546
Feed crops (except corn)	496
Other crops	452
Wheat	412
Vegetables & melons	259
Hogs	256
Poultry & eggs	161
Other animals & products	136
Fruits & nuts	38
Oil crops	17

Note also that at \$19 million, direct sales from farmers to household consumers are valued at just less than the 12<sup>th</sup>-ranking product, oil crops.



Chart 40: Colorado's top farm products in 2014 (Economic Research Service) See Table 8 on previous page



Source: USDA Economic Research Service

#### Balance of Cash Receipts and Production Costs (BEA):

Adams County farmers sell \$145 million of food commodities per year (1989-2013 average), spending \$171 million to raise them, for an average loss of \$26 million each year. This is an average net cash income of \$30,916 per farm. Note that these sales figures compiled by the BEA may differ from cash receipts recorded by the USDA Census of Agriculture (above).

Overall, farmers spent \$656 million more to produce crops and livestock over the years 1989 to 2013 than they earned by selling these products. Farm production costs exceeded cash receipts for all but three years of that 25-year period. Moreover, 61% of the County's farms reported that they lost money in 2012 (Census of Agriculture), and Adams County farmers and ranchers earned \$91 million less by selling commodities in 2013 than they earned in 1969 (in 2013 dollars).

Farmers and ranchers earn another \$11 million per year of farm-related income — primarily custom work, and rental income (25-year average for 1989-2013). Federal farm support payments are a more important source of net income than commodity production, averaging \$8 million per year for the County for the same years. These do not fully compensate for production losses, meaning Adams County farmers rely upon off-farm sources of income to make ends meet.

These are aggregate figures for all farmers in the County, and do not reflect the financial situation of any individual farm. Many farms in the study area report they have lucrative markets. Some farmers who inherited land or who purchased land at lower prices years ago have more favorable financial returns.

#### The County's consumers:

See also information covering low-income food consumption and food-related health conditions, page 1-2 above. Adams County consumers spend \$1.3 billion buying food each year, including \$766 million for home use. Most of this food is sourced outside the County, so the Adams County consumers spend about \$1.1 billion per year buying food sourced outside. Only \$502,000 of food products (0.4% of farm cash receipts and 0.04% of the County's consumer market) are sold by farmers directly to household consumers.

#### Farm and food economy summary:

Farmers lose \$26 million each year producing food commodities, which is only partially compensated by \$8 million of federal payments (and these payments only go to farmers producing certain crops). Moreover, farmers spend an estimated \$60 million buying inputs sourced outside of the County.

Meanwhile, consumers spend \$1.1 billion buying food from outside. Thus, total loss to the County is \$1.1 billion of potential wealth *each year*. This loss amounts to more than seven times the value of all food commodities raised in the County.

#### Metro Denver: markets for food eaten at home (2013):

Metro Denver residents purchase \$7.3 billion of food each year, including \$4.4 billion to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	\$ 886
Fruits & vegetables	908
Cereals and bakery products	562
Dairy products	477
"Other," incl. sweets, fats, & oils	1,569

If Metro Denver residents purchased \$5 of food each week directly from farmers in the region, this would generate \$701 million of farm income for the region.

#### Adams County: markets for food eaten at home (2013):

Adams County residents purchase \$1.3 billion of food each year, including \$766 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	\$ 154
Fruits & vegetables	158
Cereals and bakery products	98
Dairy products	83
"Other," incl. sweets, fats, & oils	273

If Adams County residents purchased \$5 of food each week directly from farmers in the County, this would generate \$122 million of farm income for the County — nearly as much as farmers now sell in an average year.

#### Arapahoe County: markets for food eaten at home (2013):

Arapahoe County residents purchase \$1.7 billion of food each year, including \$991 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	\$ 199
Fruits & vegetables	204
Cereals and bakery products	127
Dairy products	107
"Other," incl. sweets, fats, & oils	353

#### Broomfield County: markets for food eaten at home (2013):

Broomfield County residents purchase \$162 million of food each year, including \$97 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	\$ 20
Fruits & vegetables	20
Cereals and bakery products	12
Dairy products	11
"Other," incl. sweets, fats, & oils	35

## Clear Creek County: markets for food eaten at home (2013):

Clear Creek County residents purchase \$25 million of food each year, including \$15 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	\$ 3
Fruits & vegetables	3
Cereals and bakery products	2
Dairy products	2
"Other," incl. sweets, fats, & oils	5

#### Denver County: markets for food eaten at home (2013):

Denver County residents purchase \$1.7 billion of food each year, including \$1 billion to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	\$ 213
Fruits & vegetables	219
Cereals and bakery products	135
Dairy products	115
"Other," incl. sweets, fats, & oils	378

#### Douglas County: markets for food eaten at home (2013):

Douglas County residents purchase \$834 million of food each year, including \$500 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	\$ 100
Fruits & vegetables	103
Cereals and bakery products	64
Dairy products	54
"Other," incl. sweets, fats, & oils	178

## Elbert County: markets for food eaten at home (2013):

Elbert County residents purchase \$65 million of food each year, including \$39 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	\$8
Fruits & vegetables	8
Cereals and bakery products	5
Dairy products	4
"Other," incl. sweets, fats, & oils	14

#### Gilpin County: markets for food eaten at home (2013):

Gilpin County residents purchase \$15 million of food each year, including \$9 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	\$ 2
Fruits & vegetables	2
Cereals and bakery products	1
Dairy products	1
"Other," incl. sweets, fats, & oils	3

#### Jefferson County: markets for food eaten at home (2013):

Jefferson County residents purchase \$1.5 billion of food each year, including \$900 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	\$ 181
Fruits & vegetables	186
Cereals and bakery products	115
Dairy products	98
"Other," incl. sweets, fats, & oils	321

#### Park County: markets for food eaten at home (2013):

Park County residents purchase \$44 million of food each year, including \$26 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	\$ 5
Fruits & vegetables	5
Cereals and bakery products	3
Dairy products	3
"Other," incl. sweets, fats, & oils	9

#### Colorado: markets for food eaten at home (2013):

Colorado residents purchase \$14 billion of food each year, including \$9 billion to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	\$ 1,730
Fruits & vegetables	1,773
Cereals and bakery products	1,098
Dairy products	932
"Other," incl. sweets, fats, & oils	3,064

#### Key public data sources:

#### Bureau of Economic Analysis data

http://www.bea.doc.gov/bea/regional/reis/

## Food consumption estimates from Bureau of Labor Statistics Consumer Expenditure Survey

http://www.bls.gov/cex/home.htm

## U.S. Census of Agriculture

http://www.nass.usda.gov/census/

#### USDA/Economic Research Service food consumption data:

http://www.ers.usda.gov/data/foodconsumption/

#### USDA/ Economic Research Service farm income data:

http://ers.usda.gov/Data/FarmIncome/finfidmu.htm

#### For more information:

To see results from *Finding Food in Farm Country* studies in other regions of the U.S.: http://www.crcworks.org/?submit=fffc

To read the original *Finding Food in Farm Country* study from Southeast Minnesota (written for the Experiment in Rural Cooperation): http://www.crcworks.org/ff.pdf

For further information: http://www.crcworks.org/

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