

Thesis

Challenges and Opportunities  
For Marketing Fruit From  
The Western Slope of Colorado

Submitted by  
Adrian Bruce Card  
College of Agricultural Sciences

In partial fulfillment of the requirements  
For the Degree of Master of Agriculture  
Colorado State University  
Fort Collins, Colorado  
Summer, 2001

**Colorado State University**

April 30, 2001

WE HEREBY RECOMMEND THAT THE THESIS PREPARED  
UNDER OUR SUPERVISION BY ADRIAN BRUCE CARD  
ENTITLED *CHALLENGES AND OPPORTUNITIES FOR  
MARKETING FRUIT FROM THE WESTERN SLOPE OF  
COLORADO* BE ACCEPTED AS FULFILLING IN PART  
REQUIREMENTS FOR THE DEGREE OF MASTER OF  
AGRICULTURE.

Committee of Graduate Work

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Advisor

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Department Head

## ABSTRACT OF THESIS

### CHALLENGES AND OPPORTUNITIES FOR MARKETING FRUIT FROM THE WESTERN SLOPE OF COLORADO

Colorado fruit producers from Mesa and Delta counties have difficulties marketing their fruit, especially their apples. Late season frost, national and international competition, insufficient promotion of competitive advantages, small profits through supermarket chains and inability to fully exploit their home state market have contributed to loss of market share and decreased profit.

Data from telephone interviews with 32 randomly sampled fruit producers from these counties was coded to create qualitative and quantitative analysis. This analysis and information from a review of literature yielded a picture of the current marketing situation and potential opportunities for direct sales, niche markets and increased market share.

Creating a marketing cooperative for direct sales to public schools was found to be the best opportunity.

Adrian Bruce Card  
College of Agricultural Sciences  
Colorado State University  
Fort Collins, Colorado 80523  
Summer 2001

## Acknowledgements

I would like to give thanks to my parents, Carol Myers and Kerry Card, for their unwavering support, emotionally and financially, throughout my life. Special thanks to Tammy Hinman, Extension Support Specialist in Small Farms and Sustainable Agriculture at Cornell University, for her support and inspiration. Thanks to Nicole Harry and Mike Hanna for helping me create the PowerPoint presentation of this paper. Thank you to Brent Swan for the use of his notebook computer. I would like to acknowledge the principle investigators on the Foodlinks research project, Dr. Garry Auld, Carolyn Benepe, Dr. Dennis Lamm, Dr. Kenneth Smith, Dr. Amory Starr, Dennis Stenson and Dr. Karen Wilken, whose initiative gave me employment and inspiration for this paper. Thanks to my committee members, Dr. Glen Rask, Dr. Amory Starr and Dr. Dennis Lamm for their guidance on this paper.

## Dedication

I would like to dedicate this paper to the fruit producers of Mesa and Delta counties. It is my greatest hope that it may help to better illuminate their situation to others and offer them some viable opportunities for increased market share and greater profits.

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## **Chapter I – INTRODUCTION**

This thesis was born out of a CSU research project formally titled, “Sustainable Agricultural Ecosystems: Cultivating Local Foodlinks.” Here it is informally referred to as “Foodlinks.” Foodlinks explores the opportunities and barriers that exist in three regions of Colorado regarding sales between produce growers and institutional food buyers (restaurants, public schools, prisons, etc.). The regions with associated counties include: the Front Range (Larimer, Boulder, Adams, Weld and Jefferson), the San Luis Valley (Conejos, Costilla, Rio Grande and Alamosa) and the Tri-River Area (Montrose, Garfield, Mesa and Delta). Research associates from the Department of Food Science and Human Nutrition and the College of Agricultural Sciences (with the guidance of CSU principle investigators from the Departments of Food Science and Human Nutrition, Sociology, and Animal Sciences) conducted telephone interviews with institutional food buyers and producers from the three regions in Colorado. The interview scripts sought to solicit information from these buyers and producers regarding opportunities and barriers for engaging in an economic relationship. While these interviews were intent on providing data to describe barriers and opportunities for institutional sales, their responses yielded information valuable for illuminating the market situation of Mesa and Delta County fruit producers.

I worked as the research associate interviewing producers and coordinating other colleagues to do similar producer interviews. Interest in the

fruit industry in Mesa and Delta Counties grew from talking with producers in these counties. Before these interviews, I had taken a field trip to Mesa and Delta Counties with a CSU class in the fall of 1999 to see first hand these orchards, packing sheds, vineyards and tasting rooms.

From the field trip and phone interviews, a picture began to emerge of an industry that has been in existence since the late 1800s and has endured the struggles through the years. This picture included growers passionate about their livelihood yet perplexed as how to compete in a souring marketplace. These growers produce a high quality product yet many struggle to find markets that yield a sufficient profit. This paper seeks to describe their current market situation and highlight some possible solutions to their marketing challenges.

## **Chapter II – Review of Literature**

### **Introduction**

This review of literature offers the reader a starting point for understanding the predicament of fruit growers – namely apple growers – in Mesa and Delta counties. It also offers some possible solutions for securing a greater market share and returning more profit to the orchardists. A historical perspective will first be given to show the reader how the fruit industry in these counties has flourished and declined in the past 100 years. Second, the food distribution and retail system and its effects on the fruit industry will be discussed, showing why the fruit industry in these counties is having difficulty securing a market share in an increasingly narrowing, collusive and monopolistic market place. Next, the current situation is shown, the value of these orchardists and the fruit industry is shown. The current market trends are then described, revealing hopeful demand for fruit. Finally, special markets are offered that could allow the fruit industry to exploit the unique characteristics inherent in its products and marketing cooperatives are suggested as a means of increasing quality control, improving market share and returning more profits to the orchardists. Major topics are underlined followed by subtopics in bold print.

## **Historical Perspective**

Colorado's fruit industry has had its glory days. Although the literature is sparse to non-existent on the history of the fruit industry in Delta County, it was said during a Foodlinks producer interview that at the turn of the century there was "solid orchards" from Cedaredge (Delta County) extending south to Montrose (Montrose County) (Auld et al., 2000). This area approximates the entire north central to south central (Highway 65/550) corridor through Delta County, including the cities of Delta, Austin and Orchard City and surrounding areas. This gives an indication of the former expanse of orchards in Delta County, but is a modest indicator as the area East of this corridor, which includes Rogers Mesa and the cities of Hotchkiss and Paonia, has had and continues to have orchard production.

A paper by Sexton (1987) was found to be the only specific documentation of the fruit industry in Mesa County. Sexton outlines the history of fruit production in the Grand Valley of Mesa County (roughly the cities of Palisade, Orchard Mesa, Grand Junction, Fruita and Loma and areas surrounding the Colorado River) noting that fruit production was important to the social and economic development of that area in the late 1800's. According to Sexton, the Orchard Mesa area is not only one of the most frost-free fruit growing districts in the U.S. it is also one of the most concentrated peach growing districts in the U.S. Colorado Agricultural Statistics Service (2000) data for apple production begins in 1889 when 71,000 bushels (2,982,000 lbs.) were recorded for the season for the entire state (mostly Mesa and Delta counties). In 1895, the Grand Valley hosted a

festival drawing 10,000 people enjoying Mesa county peaches, featuring William Jennings Bryan as guest speaker. Fourteen varieties of Grand Valley apples won sweepstakes in 1908 at Cornell University in New York and in 1909 Grand Junction hosted Peach Day with President Taft as guest speaker, commenting on the wonderful fruit in Mesa county.

Extension experts at that time from Colorado Agricultural College recommended the following apple varieties for rich to medium mesa soils: Ben Davis, Gano\*, Grimes\*, Jonathan\*, Rome\*, White Pearmain, Winesap\* and Winter Banana (\*best for commercial crop). For early crops, they recommended Oldenburg, Haas, Plumb Cider, Utter and Wealthy. For high altitude hardiness they recommended Oldenburg, NW Greening, Wealthy, Whitney #20 and Crab Yellow Transparent (Paddock and Whipple, 1910).

Mesa County's fruit crop topped 1 million pounds in 1911 (Sexton, 1987). Sexton (1987) notes that at that time the net annual income/acre was equal to that of any of the best farmland in the world.

Colorado was number one in apple production until 1923, selling a majority of the apples to Europe (Auld et al., 2000). The year prior to this, apple production was recorded at a historical high that it has never exceeded, 171, 360, 000 pounds in 1922 (Colorado Agricultural Statistics Service, 2000). While this may sound like an enormous figure, the 2000 Washington State apple crop was estimated at over 4.2 billion pounds, more than twice that of their 1980 crop at 2.1 billion pounds (J. Allen, personal communication, November 14, 2000).

Colorado's 1980 crop was only a meager 70 million pounds in comparison (Colorado Agricultural Statistics Service, 2000).

While these figures show some of the past and a glimpse of the present condition, how did the fruit industry of these counties get into the situation that it is in presently?

### **The Decline**

Several factors contributed to the decline of the fruit industry in Mesa and Delta counties. Sexton (1987) attributes the decline in Mesa county to irrigation and soil problems, codling moth, peach mosaic virus, high cost of land from speculation, increased cost of pest control and unorganized marketing. First, over irrigation of orchards led to a high water table and soils in orchards with poor drainage responded by accumulating salts. Both resulted in decreased production and death of trees. Second, codling moth was a major pest in orchards and was controlled with lead arsenate at the time. The codling moth eventually built up resistance to the insecticide. Meanwhile European markets ceased relations with the fruit industry in Mesa and Delta counties due to the use of this insecticide on the fruit (Auld et al., 2000). Orchards were destroyed by the insecticide resistant codling moth and a major international market was lost. For peach orchards not decimated by codling moth infestation, the peach mosaic virus (PMV) became prevalent in peach orchards in the early 1930's. Eradication of infected trees was the only control for PMV. From 1935-1949, 125,100 trees out of 615,196

inspected were removed from orchards (Sexton, 1987). Sexton (1987) does not expand on those factors mentioned previously: high cost of land speculation (although it is assumed that this was due to the oil shale boom described below), increased cost of pest control and unorganized marketing. While the decline of the Delta County industry remains undocumented, it is plausible to assume that many of these same factors affected Mesa County's geographical neighbor.

The oil shale boom of the 1970's, spawned by the OPEC embargo, encouraged the sale of orchard lands in both counties to speculators motivated by hopes of this supposed new, cheaper fuel source. The economy boomed with the investments of oil companies, the Federal government and those riding the wave of this potential fuel source. Rising land values offered an opportunity for many orchardists to sell their land. When OPEC lifted its embargo many were left landless and without promise of the economy associated with this new petroleum fuel source in the area. By 1982 the boom was over and the local economies were in a slump. This caused local and state government officials to revalue the orchard economies as having a stabilizing effect for both counties (Sexton, 1987).

One ongoing challenge to production in both counties is late frosts and freezes, which damage or destroy fruit blossoms. Some year's fruit crops are small to non-existent. This provides difficulties in securing consistent markets for fruit.

Another factor related to production is uniformity. While larger producers like Washington have massive acreages of apples under the same management, Colorado has more smaller producers causing differences in color, blushing, etc.

that lead toward less uniformity from grower to grower. In today's supermarket retail food system, produce buyers want their produce displays to be consistently uniform, unlike those of the smaller independent grocery stores of the past.

**Enter** - *the food system of today.*

### **Influences of the Food System**

Many of these issues and others become intertwined within the context of the food system. Increasingly difficult to determine cause and effect relationships, subsequent factors that have influenced the Mesa and Delta counties' fruit industry's place in the market will be identified but determining causation is beyond the scope of this paper. With no specific studies found, factors inferred from Foodlinks Producer Interviews with fruit growers in Mesa and Delta have provided a basis for this section (see Appendix for sample interview script). It is difficult to link external factors with the Mesa and Delta Counties situation as studies are lacking that would indicate how these factors have specifically influenced the Colorado fruit industry. Yet, this section serves to give a picture of how national trends have impacted Colorado fruit growers in general.

### **Market Share**

When Washington State began intensive marketing of its fruit, it managed to usurp the market standard for size and shape of apples, which before was epitomized by the Colorado apple from Mesa and Delta Counties. Because of

differences in growing seasons, Colorado produces an apple that is smaller (100, 113 or 125 apples per standard 42 pound box) and heart shaped versus Washington's larger (72, 80 or 88 count) and elongated apple with "shoulders" by the stem (M.L. Chapman, personal communication, April 13, 2000). This change in perception of what an apple should look like – in the eyes of supermarket produce buyers and consumers – began Washington's dominance of the apple market share.

Along the same lines of securing a market share, Washington State has specifically targeted the Denver market, pushing Mesa and Delta County apple growers out of their home state market (M.L. Chapman, personal communication, April 13, 2000). There is undocumented evidence as well that Washington marketers have offered perks to Colorado supermarket chain produce buyers that smack of collusion in the eyes of the Colorado fruit industry (J. Allen, personal communication, November 14, 2000). Unable to compete with Washington in their home state market, the Colorado fruit industry struggles for market share in today's food system. Yet supermarkets factor into this insufficient market share as well.

### **The Rise of the Supermarket**

The supermarket chain store is a phenomenon that began in the 1920's that offered convenience, discount pricing and a self-serve model that would soon out compete the independent grocery stores. Hiemstra and DeLoach (as cited in O'Rourke, 1994) note that retail price maintenance, intended to keep price levels

up in the retail food sector, were abandoned in the mid-1950's by small retailers and legislatures, giving supermarket chains "a huge competitive opportunity". From mid-1950 to 1960 small retailers "continued to press for anti-trust enforcement to curb increasing concentration in the supermarket business". By 1960, supermarkets, whether chain or independent, accounted for only 10% of U.S. retail food stores but for 70% of retail food sales (O'Rourke, 1994). One orchardist told of a time in the 1960's and 1970's when trucks would come out to the Western Slope fruit growers to buy fruit and take it back to independent grocery stores in Garden City, Kansas. These truckers would move 100+ bushels of fruit at a time. As big supermarket chains pushed the independents out of business, this ceased. Now big chain stores only want 1000+ bushel loads from Washington State (Auld et al., 2000).

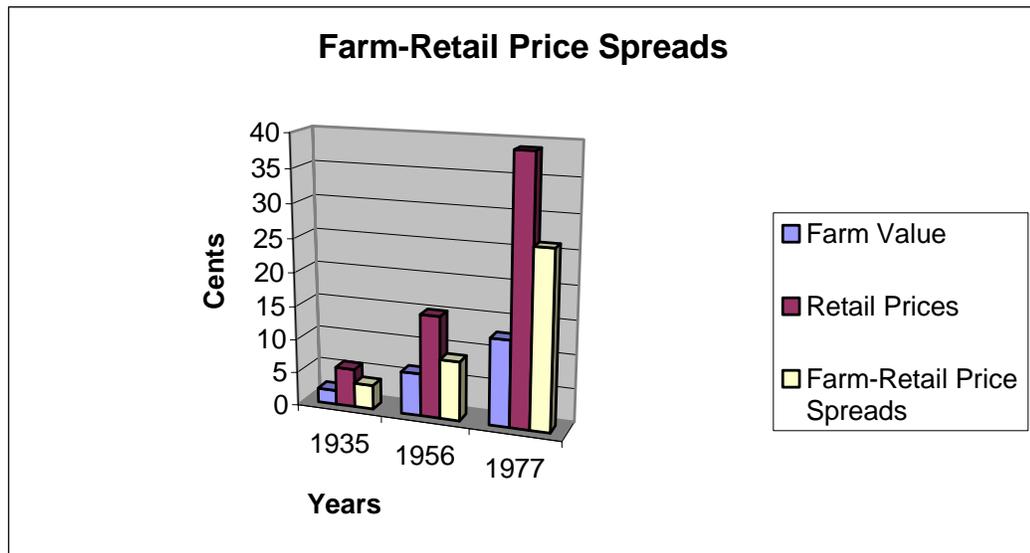
### **The Supermarket's Impacts on Orchardists**

These changes in the food system directly affected growers. "During the period when supermarkets were expanding their dominance of food distribution and extending the services offered to consumers, the farmer's share of fresh apple retail prices was trending downwards" (O'Rourke, 1994). The USDA used to record and publish a report "Farm-Retail Spreads for Food Products". In the period from 1935-1956 retail prices rose from 5.7 cents to 15.1 cents per pound while farm value rose 2.1 cents to 6.3 cent per pound for apples. The farm-retail price spread rose 3.6 cents to 8.8 cents. However, farmer's share of retail rose only from 37-42% (as cited in O'Rourke, 1994). In 1977, the last full calendar

year of data for the report, retail price rose to 39 cents per pound for apples with a farm value of 12.8 cents per pound and a farm-retail spread of 26.2 cents per pound. Figure 2.1 summarizes these data.

Figure 2.1

Farm-Retail Price Spreads for Apples



Farm value approximately doubled in 20 years but farm-retail spread tripled. Farmers' share exceeded 40% in every year between 1941-1957 but never once exceeded 40% in the next two decades and had fallen to 32% by 1977 (as cited in O'Rourke, 1994). In agriculture as a whole, farmers' share of food expenditures (at home and away) fell from 31% in 1980 to 22% in 1993 (Dunham, 1994).

For sure, this trend in the fruit sector is indicative of agriculture in general. The National Commission on Small Farms (USDA, 1998) states, “all sectors of American agriculture are seeing the widening gap between what consumers pay at the supermarket and what farmers receive for their production.” The food distribution system is eating up an ever-increasing amount of the potential farm income. O’Rourke (1994) tells it like this: “Growers are residual price takers, that is, the charges for retailers, wholesalers, etc. are deducted from the consumer price and the grower gets what is left”. According to Hefferman (as cited in USDA, 1998), “the food sector of the economy is second only to the pharmaceutical sector in terms of return on investment. But the economic benefits are not shared equally by all portions of the food sector”. For example, farmers are receiving 13% less for every consumer dollar than in 1979. The 1997 Agriculture Fact Book (as cited in USDA, 1998) stated that in 1980 farmers received 37 cents out of every food dollar, but by 1997 their share had dropped to 23 cents out of every food dollar. The marketing bill can be defined as the portion of consumer food expenditures that does not return to the farmer but goes to the packing, storing, distributing and retailing of food. The 1993 marketing bill of \$382.1 billion dollars is more than triple the farm value of \$109.2 billion from a total of \$491.3 billion for food expenditures (Dunham, 1994). For those western slope fruit growers, this means that their increases of profit margin over the years barely, if at all, covers the costs of producing the crop. Many are disgruntled with this inequity in the fruit business (Auld et al., 2000).

Interestingly enough, while farmers are getting less of food expenditure dollars, consumers are spending less of their disposable income. In 1963, consumers spent about 15% of their disposable income on food. This share continued to fall over time and was at 11.1% in 1993 (Dunham, 1994). “Americans continue to spend a decreasing share of per capita disposable income on food, even though the marketing services provided [by the retail food sector] continue to increase” (O’Rourke, 1994). It would appear that profit margins for smaller orchardists in the western slope fruit industry will continue to be slim through this mainstream food system.

How slim? The average price per pound received by Colorado fruit growers (mostly in Delta and Mesa Counties) for 1987-1998 is 13.9 cents per pound for apples, for peaches 36.1 cents per pound, pears 15 cents per pound and tart cherries 33 cents per pound. These are the top four revenue-generating fruits for Colorado growers (Colorado Agricultural Statistics Service, 1999). However, 13.9 cents per pound is actually below the national average for apples, based on data for the red delicious variety. According to the “Fruit and Tree Nuts Situation and Outlook Yearbook – 2000”, over almost the same period (1989-1999) the national average grower price for red delicious was 22.1 cents per pound, over 8 cents more per pound than Colorado growers received. Colorado peach growers exceed the national average of 25.8 cents per pound, pears were more than 3 cents under the national average of 18.4 cents per pound and tart cherries were 16 cents under the national average of 49 cents per pound (Colorado Agricultural Statistics Service, 1999; Pollack and Perez, 2000). Colorado growers do not receive the

national average returns on their fruit except for peaches. It is interesting to note that apples ranked number one in pounds at 69.7% of the total fruit poundage but accounted for only 43.8% of the commercial value in Colorado. Peaches were less than apples in poundage but more in value, representing 45.9% of the commercial value (Colorado Agricultural Statistics Service, 1999). These figures are based on pounds, value and percent of total value of the 1998 crop of apples, peaches, pears and tart cherries. This disproportionate return is but on justification for focusing on apples in this paper.

How can Colorado growers get more value for their apples? It is not surprising with Washington's hold on the market that apple growers in Colorado struggle to find competitive markets for their apples. Therefore, one goal of this paper is to explore ways orchardists can get an increased market share and better return on their apples in markets other than those with supermarket chains, in which they would be competing with Washington. Indeed, how can they compete with other states when they rank 21<sup>st</sup> nationally in pounds produced (US Apple Association, 2000)? But even if they could compete in the supermarkets with Washington, it is a mixed bag in the retail scene for fruit growers.

So how are growers compromised in the supermarket retail scene?

### **The Retail Scene**

O'Rourke (1994) notes the following complaints of apple growers: 1) retailers don't accurately reflect prices at shipping point so consumers get misleading signals about available supplies, 2) retail margins between purchase

price and selling prices are excessive, and 3) poor handling of fruit in retail distribution centers, store backrooms and display stands causes quality and deterioration, diminished value and reduced revenue which eventually affects grower's returns. In the comments section of the Foodlinks interviews one orchardist asked, "How do grocery stores figure their margins?" (Auld et al., 2000).

Retailers are prone to adopt longer term pricing strategies that mitigate seasonal variations, competing retailers, influences of holidays and weekends, weather disruptions, speeding up and slowing down of sales, etc. The result is pricing rules of thumb or what McLaughlin and Pierson (as cited in O'Rourke, 1994) call "standard operating procedures." Moreover, it seems to work, as retail gross margins have remained constant at about 22% over time. But Putnam and Gerrior (1999) note that fruits and vegetables have led in retail price increases above all other food items from 1982-1997 at a 93% increase. A 1981 Produce Marketing Almanac Study (as cited in O'Rourke, 1994) found that gross margins on fresh apples were 35%, bananas 27.5%, 37.5% for oranges, tomatoes and potatoes and 32.5% for lettuce. True, margins have to be higher for perishable foods, but are these margins justifiable?

Growers tend to attribute complaints of retail margin excess to bargaining power of individual chains but many economists have suggested various forms of collusion among chains leading to price or margin excesses (O'Rourke, 1994). Parker and others (as cited in O'Rourke, 1994) have argued that the increased concentration of retail food sales into the hands of a few retail food chains (since

the advent of the supermarket in the 1920's) has led to higher prices, higher gross margins and higher profits than retail food stores would otherwise obtain. This is not only damaging to the returns for growers it is harmful to the competitive free market of this country.

The setting of prices under near monopoly conditions allows the major processors and retailers of agricultural products to capture an increased price spread, bankrupting farmers while providing the financial ability for these agricultural industries to buy their competition, further concentrating markets and eliminating the free markets on which our society depends (USDA, 1998).

Supermarkets tend to favor larger growers but they are not the only ones.

### **Large Farm Bias**

As mentioned before, supermarket chains are demanding huge volumes of apples from suppliers (1000+ bushels/42,000+ pounds) in one shipment. This can be a tough order for a smaller grower/packing shed on a consistent basis, as is also required by these supermarket chains. These qualities lend themselves to huge scales of production and distribution that the western slope growers do not have. Yet, the market is not solely responsible for this large farm bias.

The National Commission on Small Farms Report – A Time to Act (1998) – tells of bias on the part of Federal farm programs. This is bias against small farms. (It will later be shown that most of the orchards in Mesa and Delta Counties are small farms.) Payments to U.S. farmers are based on the volume of their production, giving greater share of payments to large farms, with which they

can further capitalize and expand their operation. Even Federal tax policy provides disproportionate benefits to large farms through tax incentives for capital purchases to expand operations. To further skew the playing field among producers, large-scale farms are exempt from Federal labor law, allowing them the advantage of low-wage labor costs. Pickers are essential to fruit harvesting. To have to pay more for labor than producers with an already greater market share makes for even more disadvantage in the market place when it comes to turning a profit. Some orchardists interviewed with the Foodlinks study mentioned that it is even difficult to get labor during a low volume fruit year (Auld et al., 2000).

The supermarkets, the Federal farm programs and tax policies make it difficult for the most skilled fruit growers to stay in business. This type of grower must also be (or be associated with) a savvy marketer. But this doesn't come easy.

### **Lack of Marketing Options**

The majority of Colorado's population is on the Front Range – about 3 million of the 4 million people in the state. This is the fruit industry's most logical market to avoid shipping costs for markets out of state. Yet, few growers have been able to tap this market directly.

Fruit must be washed, perhaps waxed, and sorted by size by an elaborate machine and packed at a special facility called a packing shed to meet market standards. These packing sheds have refrigerated storage facilities on-site (some with controlled atmosphere storage) and will market the fruit for the grower.

Currently there are only three large packing sheds on the western slope and one only deals with organic fruit.

Orchardists deliver the fruit to the packing shed and are essentially done with the process. Yet the packing shed charges fees and has its own profit motives to attend to – selling boxes of fruit (S. Max, personal communication, November 20, 2000). Sometimes the quality of fruit that leaves the packing shed for retail markets is less than it should be. In such a competitive market, this can be detrimental for both grower and packing shed marketer.

Many interviewed fruit producers voiced their desire to establish direct market sales to cut out profits lost to the packing sheds and regulate their own quality standards, thus better ensuring their own market share, free from interests of the packing shed marketing. These include farmers' markets, direct sales to restaurants, produce stands, and direct sales to institutions. Nationally, it appears that many have pursued this avenue according to the 1992 U.S. Census of Agriculture (as cited in USDA, 1998), which shows direct sales of agricultural products totaled over \$400 million. However, this takes time and investments that many are not at liberty to make. Many are not sure how to get these economic relationships established (Auld et al., 2000). These motives to find direct markets are not solely generated from the situation in the State of Colorado.

US Secretary of Agriculture, Dan Glickman, is quoted in the National Commission on Small Farms Report – A Time to Act (1998) – commenting on the challenges of small farmers today:

It is no secret out in farm country that things are changing ... and fast. Agriculture, like every other major sector of our economy, is concentrating. From defense to retail stores, to health care, to railroads, to farms and ranches – we're seeing fewer and larger operations, mergers and buyouts, larger market shares and fewer people in those markets (as cited in USDA, 1998).

And we thought "Get big or get out" was the motto of agriculture in the '80's! However, with passage by Congress of the 1996 FAIR Act (Federal Agricultural Improvement and Reform Act) it appears that things have gotten worse for the American farmer. This watershed legislation removes the governmental intervention in commodity markets that serves as a means of providing income and price stability for the farming sector (USDA, 1998). This Act is an effort to push agriculture into the free trade of globalized markets, which equates to certain failure for the small farmer to compete in such a market. Dr. William D. Hefferman (as cited in USDA, 1998) describes this food system as "an hourglass with many producers and millions of consumers but, with only a few firms controlling the processing, these firms are in a position to control the food industry". Do these orchardists even have a chance in an increasingly competitive, low margin, corporate, globalized market? In the words of an industry consultant, "if we try to play the commodity game [apples] with Washington we will get dwarfed" (J. Allen, personal communication, November 14, 2000).

These trends continue to provide an argument for the western slope fruit industry finding niche and direct markets for its growers.

### **Current Situation**

About the same time as the Foodlinks interviews with western slope fruit growers, a consultant for the apple administrative committee, Jonathan Allen, conducted a survey of the Colorado apple industry. Their (Allen, Diaz and Miller, 2000) findings were presented in an Executive Summary entitled “Colorado Apple Industry Review” in March 2000 to the Colorado Apple Administrative Committee. The following is a list of points of that summary relevant here:

- The industry is in a state of serious economic crisis and its long-term viability has been severely impaired, but is salvageable with swift execution of drastic changes
- The competitive advantages of the Colorado apple industry have not been aggressively integrated into strategic planning, nor have they been effectively promoted to buyers and consumers
- The apple production base is heavily weighted toward older, less profitable cultivars and strains in which Colorado producers have few competitive advantages
- Regional retail and wholesale produce managers and executives are notably supportive of the Colorado apple industry, and are willing to continue supporting the industry in spite of growing corporate pressures to purchase produce only from year-round program suppliers.

- The packing and marketing segment of the industry has evolved in recent years into essentially a state of monopoly in which growers have few, if any, alternatives and in which industry innovation and vibrancy due to healthy competition have been lacking.
- The absence of an integrated quality control and quality assurance system within the industry presents a serious threat to the credibility and longevity of the Colorado apple industry.
- The organic segment of the Colorado apple industry has a favorable perception in the marketplace and has developed a broader, nationally recognized reputation and customer base.
- There is an amazing tenacity and collective will within the Colorado apple producers to remain in the apple industry if economic profitability and visionary leadership within the industry can be restored.

- (Allen et al., 2000)

Several of the findings of Allen et al., (2000) will serve as focus for possible solutions based on this review of literature. These possible solutions will be presented later.

### **Arguments for Saving Small Farms**

Why should we be concerned with these orchardists? With so many cards stacked against them, perhaps it would be better to help them transition into other

occupations. Should they sell their land to development like so many farmers have on the Front Range? What value do they really have anyway? We'll always have fruit with or without them. Perhaps.

But perhaps these farmers have value that we don't see. Surely they do from their own viewpoint, but for those who live near them, is there something more than just growing and selling fruit?

The mere fact that the majority of them in Mesa and Delta Counties are small farms gives them value. While the USDA statistical definition of a farm is "any place from which \$1,000 or more of agricultural products were sold or would have been sold during the census year", The National Commission on Small Farms Report – A Time to Act (1998) – defines small farms as farms whose gross sales are less than \$250,000 per year. Most of the farms in Mesa and Delta Counties fit this definition (J. Allen, personal communication, December 5, 2000). While this gross sales figure may seem out of step with public perceptions of small farms, on average these farms have only a net cash income of \$23,159 – over 80% of a farmer's gross sales are absorbed in farming expenses (USDA, 1998). In 1992 Mesa and Delta County farms had \$85 - \$181/acre in sales and 13-23% of the farms had sales grossing greater than \$50,000 [77-87% had gross sales *less* than \$50,000] (Sommer, 1997). The majority of the farms in Mesa and Delta Counties – in fruit production or not – are small farms.

The National Commission on Small Farms Report – A Time to Act – lists the environmental and social goods that many small farms contribute as the "Public Value of Small Farms" and they include:

- Diversity: of ownership, cropping systems, landscapes, biological organization, culture and traditions
- Environmental benefits: approximately 60% of all farms are <180 acres in size – investment in the viability of these small farms creates the potential for sound stewardship of lots of land
- Self-empowerment and community responsibility: owner operated farms offer individual self-empowerment and business management - local land owners are more responsible to local businesses and act as citizens of the community
- Places for families: nurturing places for children to grow up with values of responsibility and hard work – when children don't return to the family farm a generation of knowledge is lost
- Personal Connection to Food: providing a means for consumers to connect and appreciate agriculture and food production for their sustenance from the earth
- Economic Foundations: in some states and regions, dispersed farm operations are key to economic vitality  
- (USDA, 1998)

The prevalent paradigm, even on the campuses of our land grant universities, is that large farms are the way of the future and are the result of efficiencies and economies of scale - that small farms are less productive and inefficient. It is this misunderstanding that continues to plague the popular perception of small farms. There is evidence that debunks the perception that large farms are more efficient than small farms.

According to Peterson (as cited in USDA, 1998) “there is evidence of diseconomies of scale as farm size increases”. Rosset (1999) in his paper The Multiple Functions and Benefits of Small Farm Agriculture shows how *what we* measure skews popular understanding of productivity.

“Yield” as the measurement tool lends itself well to complementing monocultural production typical of green revolution management practices (i.e. – bushels of corn per acre). But it is limiting when attempting to address integrated farming systems, such as Community Supported Agriculture operations that might

incorporate mixed vegetables, tree and small fruits, honey, milk, eggs, meat and flowers into a CSA member's share. Rosset (1999) suggests that "total output" is a more equitable measurement tool for comparing large and small farms. Total output measures everything a farmer produces: "various grains, fruits, vegetables, fodder, animal products, etc." Where yield favors large farms, total output shows the productivity of small farms. In addition, the data challenge our perceptions of the economic value of small farms.

Agricultural economists across the political spectrum agree that there is an "inverse relationship between farm size and output" (Barret, 1993; Ellis, 1993; Tomich et al., 1995; Berry and Cline, 1979; Feder, 1985; Prosterman and Riedinger, 1987; Cornia, 1985; as cited in Rosset, 1999). Leading World Bank development economists "now accept that redistribution of land to small farmers would lead to greater overall productivity" (Deininger, 1999; Binswanger et al., 1995; as cited in Rosset, 1999).

Data from the U.S. Agricultural Census from 1992, "Farm Size versus Output in the United States, 1992", shows that farms of 27 acres or less have more than ten times more dollar output per acre than larger farms.

Addressing the realm of efficiency, Rosset (1999) notes that "small farms make more efficient use of land" while "large farms ... might be considered to be more efficient in labor usage" due to mechanization. Using the most widely accepted definition of efficiency by economists, the "total factor of productivity" which sort of averages the efficiency of use of factors of production (land, labor, inputs, capital, etc.), Tomich et al. (1993, as cited in Rosset, 1999) provide data

from the 1960s, 70s and early 80s which show small farms in Sub-Saharan Africa, Asia, Mexico and Columbia have greater total factor productivity than large farms. In more developed countries, the pattern is less clear.

Strange (1988, as cited in Rosset, 1999) suggests that “peak efficiency is likely achieved on mid-sized farms that have one or two hired laborers ... with the peak more toward mid-size than small.” Yet, these terms “large, mid-size, and small” refer to acreage and not to the gross sales classification used in A Time To Act. How do we extrapolate these findings to Mesa and Delta County fruit growers, whom are primarily composed of small farms using the gross sales definition?

The average acreage for mixed fruit growers (more than one type of tree or small fruit but no vegetables) in Mesa and Delta Counties from the Foodlinks data is 81.4 acres. The mode acreage is 50 and the mean is 54 acres. The largest is 250 and the smallest is 10 acres. So perhaps somewhere between 54 and 81 acres is optimal for efficient use of factors of production for Western Slope fruit growers.

Therefore, we find that these growers are both small farms, likely embodying the social and environmental goods common to small farms, and are in an acreage size range that lends itself well to high total output and peak productivity. They are an asset to their communities, region and state and thus deserve the means to improve their own competitive advantage and market share. Nevertheless, how do they approach this seemingly insurmountable feat of competing on the uneven playing field described previously? The fact remains

that 94% of the 2 million farms in the U.S. are small farms yet they receive only 41% of all farm receipts. Some 122,810 large farms receive the majority of farm receipts (USDA, 1998). How can these Mesa and Delta County growers gain a greater market share?

### **Market Opportunities Documented in the Literature**

“Testimony presented to the Commission asserts that the single most critical component to the survival of small farms is the price received for the product produced” (USDA, 1998). This is obviously the same quandary that fruit growers find. The regional supermarkets are still receptive but returns are not very promising. This paper now turns its attention toward the very focus of the National Commission on Small Farms: “How do farms, of modest investments, owned and operated by families who supply the majority of labor, remain profitable in an agricultural structure that is increasingly bi-polar?” In addressing this, it is necessary to first look at current market trends.

### **Current Market Trends**

Consumers continue to eat more fruit with per capita consumption increasing from 238 pounds to 295 pounds from 1970-1997 (Putnam and Gerrior, 1999). Blaylock and Smallwood (as cited in Senauer, Asp and Kinsey, 1991) project that between 1980 – 2010 food expenditures for fresh fruit will increase

13.8% per capita. Hopeful but probably unrealistic, Young and Kantor (1999) found that fruit consumption would double under an average U.S. diet that met USDA Nutrition Pyramid recommendations – non-citrus/melons/berries consumption would increase 114%. Perhaps not all people will eat their 2-4 fruit servings per day but demographics are changing. The baby boomers are now moving into the age 50-64 group, notably the wealthiest of the U.S. population. Lazer (as cited in Senauer et al., 1991) notes that they tend to spend 14% more on food than the average U.S. household and eat more than average amounts of fresh fruit. This could mean more fruit sales for western slope orchardists if they can figure out how to target these people outside of mainstream markets. These current market trends are promising but the prevalent paradigm in the apple industry and food system is that Colorado's apples are just too small.

### **Does Size Matter?**

One issue that is understood in the industry and stated time and time again in the Foodlinks interviews is that although the apples from the western slope have superior flavor and crispness, their usual size does not meet the current market standards (Auld et al., 2000). However, there seems to be some discrepancy on this point. Yes, 72 or 80 or 88 count apples are what the produce buyers in supermarkets want because consumers are buying more volume and poundage of apples even if they only want one. A big apple simply costs more at the checkout counter. This increases sales for the produce section (H. Broughton, personal communication, November 16, 2000). But some studies done in

Michigan show that these large apples are not necessarily what the customers want.

One study that surveyed 782 consumers (467 in Detroit and 315 in Chicago) between February and April of 1994 found that 90% indicated that flavor was very important (followed closely by 86% unblemished and 80% crisp) and only 20% indicated that size was very important (Beggs, 1996). A 1994 “Fresh Trends” Consumer Survey from The Packer (as cited in Beggs, 1996) found that 39% said they perceive no difference in the taste of smaller or larger fruit. Of those who said size was important, more preferred the taste of smaller apples. In another Michigan study from 1997, 63% of the consumer participants indicated crispness as “extremely important” but only 8% indicated size as extremely important (Jeffers, 1998). So it appears that while produce buyers prefer 72, 80 or 88 count apples the consumers might be just as happy with a 100, 113 or 125 count apple that has superior flavor and crispness – the Colorado apple.

In addition, it would appear for some with small children that the large apples are a waste of money. Researchers Leonard and Wadsworth (as cited in Beggs, 1996) at the University of Connecticut conducted a series of interviews with consumers at supermarkets and other retail stores where fresh apples were sold. A percentage of the sample said that large apples are not eaten by children and are thrown out. Sometimes small children are not even able to bite into a 72-count apple because their mouths cannot fit around the fruit sufficiently to engage their teeth.

Therefore, the size of the Colorado apples could be a competitive advantage if it is marketed to the correct audiences and, as Allen et al. (2000) mentioned, “aggressively integrated into strategic planning.” Another market that would probably desire smaller apples would be school lunch programs for the same reason as less waste but also for another.

### **Apples for Lunch**

The National School Lunch Program (NSLP) operates by the USDA giving cash and some commodities to schools to offset costs of food service. Schools must serve lunches that meet Federal nutritional requirements and offer free or reduced price lunch to needy children. The NSLP serves lunches to over 26 million children per day (Lutz, Hirshman and Smallwood, 1999). In 1998, the NSLP received \$5.8 billion from the USDA. Wellisch et al. (as cited in Levedahl and Oliviera, 1999), using National Evaluations of School Nutrition Programs data and Devaney et al. (ibid) using data from a School Nutrition Dietary Association study in 1992 found that NSLP participants had lower vitamin C consumption than non-participants. Apples on the school lunch tray could help make up for this deficit, having about 12 mg of vitamin C per 3 ounces of fruit (Souci, Fachmann and Kraut, 2000). This brings them closer to a RDA of 60 mg of vitamin C.

New regulations also bode well for potential apples sales to the NSLP. To reduce the fat levels in school lunches, schools had until 1999 to adopt a plan that would bring fat consumption into RDA accepted values. Two of the potential

programs would increase fruit consumption. One would increase school use from 1,097 – 1,815 pounds and up farm revenue \$124 million for fruit and fruit juices. The other, and more promising, would increase school use from 1,097 – 2,234 pounds and increase farm revenues by \$200 million (Lutz et al., 1999).

Apples are also an excellent source of fiber. The FDA recommends 11.5g of fiber per 1000 cal per day. Students in schools were found to be consuming only 7.1 g of fiber per 1000 cal per day (Lin, Guthrie and Frazao, 1999). Apples provide 4.8 g of water-soluble fiber and 15.4 g of water insoluble fiber (Souci, et al., 2000). This could be another sell to the NSLP for western slope apples. The public schools of Colorado could provide an amazing direct market.

But even in the mainstream, health consciousness is improving without governmental mandates. A baseline study by Levebvre from the National Cancer Institute (as cited in Weimer, 1999) in 1991 found that 8% of American adults thought they should eat five or more servings of fruits and vegetables a day. Data from a 1997 omnibus tracking study from the National Cancer Institute (as cited in Weimer, 1999) found that 38% of Americans now believe that they should follow the same five or more as above. With heart disease, cancer and strokes making the headlines as the leading killers in America, healthy eating as preventative medicine is catching on, and not without support. The USDA spent \$333.3 million on nutrition education, evaluation and demonstrations in 1997 (Gallo, 1999). These statistics must have an impact on the current consumption trends that were mentioned previously.

## **Ecolabeling**

But many consumers haven't stopped at the types of foods they include in their diets. Some are now even concerned with the types of production methods used to grow their fruits. Many consumers now rank agrochemical use as the #1 food safety concern (Frazao, 1994). The EPA appeared to concur when Vento (as cited in Senauer et al., 1991) ranked pesticide residues as the third worst environmental cancer risk, after occupational exposure to chemicals and indoor radon. In the 1991 residue monitoring report by the FDA (as cited in Frazao, 1994), <1% of the fruits sampled contained residues in excess of the FDA's tolerance limits, but >40% of the fruits sampled contained detectable pesticide residues. With the rise in sales of "Certified Organic" foods over the past decade it is apparent that consumers are responding to this perceived risk by casting their economic vote with the purchase of these organically labeled foods.

The Allen et al. (2000) report mentioned the viability of the organic segment of apple growers, but some studies show that consumer's wariness of the price of organics might respond to a related type of labeling. A 1997 Food Marketing Institute study (as cited in Blend, 1998) identified consumer segments very interested in buying green goods and paying more for them – 25% of their sample was "very interested" in purchasing green products and 8% "very interested" in paying a 10% premium for them. A 1998 dissertation from Michigan State explored the consumer marginal willingness to buy "ecolabeled" apples. These are not labeled "certified organic". Instead, an ecolabel is "a voluntary claim that a product meets environmental standards. It signals to

consumers that a particular product has caused less environmental impact than others in the same category” (Blend, 1998). Wallace (as cited in Senauer et al., 1991) notes, “Concern is growing that some current agricultural practices are damaging the environment and the resource base on which agriculture depends”. It is arguable that agriculture is destroying some of the resource base upon which humans depend as well – notably water. A 1988 EPA survey by Hileman (as cited in Senauer et al., 1991) found groundwater in 26 states contained detectable amounts of pesticides from agricultural use. Slowly consumers are realizing that their actions support or detract from these sorts of environmental problems - hence the emergence of ecolabeling.

Blend (1998) used a proportional sample of random phone numbers generated from the lower 48 states. Of 1453 eligible phone numbers contacted, 972 interviews were completed (66.9%). Questions regarded apples labeled “ECO” or “IPM” and with each being USDA certified or not. Health and food safety was the reason most frequently given for purchasing ecolabeled apples. Over 56% of respondents would try ecolabeled as either IPM or ECO. USDA certification was unimportant. Seventy-two percent would buy ecolabeled at the same price as unecolabeled, 52% would pay a \$.20/pound premium for ecolabeled and 42% would pay a \$.40/pound premium. The average marginal willingness to pay for ecolabeled apples was \$.32/pound. The top reasons for not purchasing ecolabeled apples were: 1) too expensive (46%), 2) didn’t know enough about them (22%), 3) preferred usual apples (9%) and 4) regular apples just as safe to consume (8%). Blend recommended that “advertising campaigns should be

targeted at educated and older consumers and larger households” based on his findings (Blend, 1998). This study has good implications for the apple industry.

Many of those orchardists on the western slope who are not certified organic are in need of a competitive advantage like organic. However, many of them are using Integrated Pest Management (IPM) practices or are moving in that direction (Auld et al., 2000). Blend’s (1998) study indicates that that could be the competitive advantage that they are looking for. Colorado’s growing season naturally lends itself to IPM practices. Ecolabeling could be the niche that they are best suited to fill. However, this labeling issue need not stop there.

“Food labeling regulations permit foods to be identified as ‘organic’, ‘natural’, ‘not irradiated’, ‘kosher’, ‘dolphin-safe’, or ‘made in Texas’, as long as such claims are truthful and not misleading. This allows the development of niche markets in which consumers can identify products with a characteristic of interest to them” (Ralston, 1999). Colorado used to have a state brand loyalty program for agricultural products called “ABC – Always Buy Colorado” but this was diluted with non-agricultural products using the labeling (H. Davis, personal communication, November 14, 2000). Currently, the Colorado State Department of Agriculture’s Marketing Division is sponsoring a similar labeling program “Colorado Proud”, which has its own identifiable logo. Western slope apple producers have yet to fully implement the use these stickers on their fruit and boxes. With enough promotion from the state, this could also provide a niche with Colorado consumers.

## **Cooperatives**

Based on the findings of Allen et al. (2000), that a state of monopoly exists with the packing and marketing segment of the industry and that an integrated quality control and assurance system is absent, perhaps another marketing opportunity is called for.

The first successful marketing cooperative for fruit growers in the west was the Grand Junction Fruit-growers' Association established in 1891 (Paddock and Whipple, 1910). Several cooperatives have existed in Mesa county: Grand Junction Fruit-growers' Association from 1891-1936, Cooperative Producers Association from 1937-1961, Mountain Lion Fruit from 1961-1971 and United Fruit Growers Association from 1923 to the present (Sexton, 1987). Such cooperatives could provide solutions to the above-mentioned problems.

Cooperatives act as a "competitive yardstick" by providing a choice for farmers in the marketplace in the face of corporate takeovers and increased market concentration. Cooperatives can set quality standards for their products as a competitive advantage. Cooperatives provide community for small and isolated farmers and help them serve as a resource base for one another. "No individual farmer has effective power in the marketplace. Cooperatives give them this power and buffer monopoly control and monopoly pricing from investor-oriented firms" (Rasmussen, 1991). In 1989, there were 2,550 marketing cooperatives in the U.S. With the proper organization and appropriate, knowledgeable leadership,

a cooperative could be an agent of positive change in the western slope fruit industry.

### **Summary**

Economic viability for agriculture in the U.S. is becoming exceedingly more difficult. The Mesa and Delta County fruit industry is no exception. The production challenges of the early 1900's have been replaced with an increasingly competitive market. Monopoly and collusion are present in today's wholesale and retail food sector. Supermarkets reflect and perpetuate the trends of "Get Big or Get Out" that have left a few big players in the food economy. Nevertheless, small farms continue to contribute, albeit on the ropes, to agriculture, ecology and communities.

Fruit growers on the western slope will be met with increasing demand nationally. Their challenge now is to find the best ways to capture that demand with their superior products while reaching markets that will increase net profits.

As stated before, some form of direct marketing, such as to the NSLP, is vital to bring more profits to the fruit growers of Mesa and Delta Counties. In addition, it appears that many have pursued this avenue according to the 1992 U.S. Census of Agriculture (as cited in USDA, 1998), which shows direct sales of agricultural products to have totaled over \$400 million. However, profits could also be increased through greater market share via ecolabeling, "Colorado Proud" labeling, or through cooperatives increasing quality control standards of fresh

fruit. Realistically, it will have to be a combined approach to create a playing field that is unique for Colorado fruit growers.

Special attention was given here to apple marketing since, as the production statistics indicate, many growers are already set up for this production, but peaches, pears, tart cherries, and other tree fruits and small fruits must also be incorporated into the strategy. There are also growers who have and are diversifying into other stone fruits (apricots, plums, etc.) and grapes (Auld et al., 2000). Examining the particularities of these markets could provide insight and new possibilities for apple market analysis. Apple market analysis could provide useful information for these other markets. Based on the trends in the supermarket industry, Western slope orchardists are facing a losing battle trying to compete in this market with their current strategies. It is possible but they must develop and exploit their own unique competitive advantages in a way that has given the organic fruit growers a market edge.

This paper will go on to describe methods used to analyze Foodlinks interview data from fruit growers and see what they think about their market situation and what can be done to improve it. It will then give an analysis of the data, and offer some recommendations base on the data and this review of literature.

## Chapter III – Methods

Data used for analysis in this paper came from phone interviews done for the Foodlinks research project. A master list of producers in each region was assembled from the following sources: Colorado Department of Agriculture Marketing Division “Producer Mailing List”, Colorado Department of Agriculture’s “Farm Fresh Directory – 2000”, Mesa County Farmers’ Market “F.A.R.M. Membership List – 1999”, Cooperative Extension NW Regional Office “1999 Vendors List”, Colorado Organic Producer’s Association “1999 Member List”, Colorado Apple Administrative Committee “1998-1999 Assessment List”, and Marketing Division’s “Colorado Food Directory – 1999”. Lance Fretwell with the Colorado Agricultural Statistics Service was consulted. He verified that, out of the three sampling regions’ total number of producers, the total number of producers for the Tri-River Area represented 34% of the total for the three regions. The Foodlinks sampling worked toward an N=250 for the three regions. The 34% for the Tri-River Area worked out to be 85 producers sampled from the master list. A project employee entered the master list into a database in the Statistical Programs for the Social Sciences software and it generated a random sample from the master list.

Although the questions on the producer phone interview script focused on illuminating the barriers and opportunities for institutional sales (to restaurants, public schools, prisons, etc.) it was possible to view the data from a different perspective to understand the current marketing situation and needs of the western slope fruit growers.

From the entire data sets from Mesa and Delta Counties, those with some form of fruit production were selected for analysis. There were 32 total interviews used. Twenty interviews were from Delta County and 12 from Mesa County. As I was a research associate on the project and coordinated the producer interviews for myself and two other project employees, I did 18 of the 32 total interviews and 14 were done by the two other project employees.

The data set of 32 interviews was broken into four production groups: Apples Only (no other crops), Wineries (with grape production and wine making in the same enterprise), Mixed Fruits (more than one type of tree or small fruit grown), and Fruit and Vegetables (tree and/or small fruit and vegetables). Producers from both counties were mixed in these production groups.

Copies of the original interviews were coded with the following codes under their respective coding categories. Some of the codes are useful in two or more categories.

### **Current Marketing and Farming Realities:**

This category will give data on farmers' perceptions of their profits and how the farming scene looks on the Western Slope.

D/R = Food Distribution and Retail system profits are excessive  
FT = Farming is Threatened

### **Current Sales Types:**

This category will give data on where orchardists are currently selling their products and allow us to see how many are able to make direct sales.

IS = Institutional Sales (to restaurants, public schools, prisons, nursing homes, etc.)\*  
FM = Farmers' Market Sales\*  
D/B = Distributor/Broker Sales  
PS = Produce Stand\*  
FS = Forager Sales\*  
OS = Other Sales\*  
\*May include sub-code DS-1 = Direct Sales – Doing

### **Current Marketing Advantages:**

This category will give data on whether or not growers think certain management practices and some marketing strategies help them market their product or are beneficial to their enterprise in other ways.

OG↑M = Organic Certification has helped market product  
NPU+/- = No Pesticides Used Certification has/has not helped market product  
IPM +/- = Integrated Pest Management Practices has/has not helped market product  
LM = Local Market (using Foodlinks definition) is beneficial  
VA = Value Added helps marketing  
NM = Niche Market helps marketing

### **Market Indicators:**

This category will give data on whether or not growers would expand their markets, if they are satisfied with their current system of marketing and distribution and, if not, what they would do to modify it.

↑/↓ EM = Actively seeking to Expand Markets (Yes/No)

↑/↓ M/D = Satisfied with current system of Marketing/Distribution  
(Yes/No)

### **Present and Future Marketing Needs:**

This category will give data on what farmers need to compete in present and future markets.

GM = Grow More of specific items

EB = An Educated Buyer is needed

EC = An Educated Consumer is needed

MI = Market/Marketing Information is needed

CP = "Colorado Proud" concept is needed to promote CO produce

VA = Need to market Value Added products

NM = Need to exploit Niche Markets

DS-2 = Desire to do new Direct Sales

### **New Market Development:**

This category will give data on whether or not growers are working toward future new market development and what they are working toward.

DM +/- = Developing New Market (Yes/No)

VA = Valued Added products part of development

NM = Niche Market part of development

These categories and codes were used to generate qualitative and quantitative analysis for the following chapter.

## Chapter IV – ANALYSIS

The numbers of producer interviews in each production groups were as follows:

Apples Only: 3 total – all from Delta County

Wineries: 3 total – all from Mesa County

Mixed Fruits: 20 total – 17 from Delta County and 3 from Mesa County

Fruits and Vegetables: 6 total – all from Mesa County

### **Current Market and Farming Realities**

Some of the same themes that were shown in the review of literature were evident in the interview data. Five Mixed Fruits producers commented on the disproportional profits that the distribution and retail system of large chain supermarkets are receiving. Some qualitative comments included: “The producer gets the short end of the stick.” “Supermarkets are not giving a fair deal.” “It is tragic what chain stores charge customers – now 4 times what they pay for fruit from the farmer.” “The distribution system beyond the packer is getting too high of a cut (margin).” “The producer never names his own price.” “We are not getting enough return on our product. This is caused by the consolidation of grocery stores.”

These comments on pricing, farmer profit, and retail margin excess were backed up with figures also, mainly referring to apples: “The supermarket chain buyer buys for \$15/bushel and sells for \$75/bushel.” “Apples retail for \$1.39/pound (\$56/bushel) but the grower gets \$1.39/40 pounds (\$5/bushel).” “We get \$.05/pound for our apples and see them on the shelf for \$1.39/pound.” “Retailers pay \$8/bushel at the packing shed but charge \$40/bushel at the grocery store.” “Farmer gets \$12/bushel (\$.40/pound) but supermarkets sell for \$1.39/pound.” While these figures are not all the same nor do they all work out mathematically, the point is that the distribution and retail portion of the marketing bill continues to outpace proportionally the profits received by farmers. These realities and others are causing the farming way of life to be threatened in Mesa and Delta Counties.

Four producers from the Mixed Fruits category and one from the Fruits and Vegetables category commented on tenuous state of the apple industry and farming in the area: “The apple industry and in Colorado is in terrible economic problems.” “There is a 2-3 year life expectancy of the apple industry on the Western Slope with current trends on the Western Slope.” “Only 3 families now making a living in the fruit industry out of 100 families in the valley.” “Almost very orchard on the borders of my farm is for sale. The industry is hurting.” “Land use planning and subdivisions are threatening the future of farming in this area.” With such dire circumstances, it may be questionable why more did not offer such responses. The interview script did not ask them to comment on such issues as their perception of fairness in the marketplace and the state of the fruit

industry and farming in their county (see Appendix for sample interview script). These issues surfaced during interview probes as the growers offered hints of these issues. It is likely that with specific questions directed to these issues that there would have been many more than 10 such responses to these issues. With this perspective of the situation growers find themselves in, it is imperative that a deft marketing plan and substantial institutional resources (i.e.- USDA, CSU Cooperative Extension, Colorado Department of Agriculture, etc.) must be brought to bear on these issues if these farmers are to flourish in the fruit industry. From this starting point, we can now begin to look at what they are doing currently from a marketing standpoint.

### **Sales Types**

This category describes what producers are doing now to sell their product. They were asked if they had sales in these different sales types and if so, to what entity were they selling. Direct Sales (those sales made directly to the retailer, food preparer or consumer without passing through the distribution chain – i.e. – packer, storage, broker, distributor) are at least 50% in all production groups except for Apples Only. These include Institutional Sales, Farmers' Market Sales, Produce Stand Sales, and most Other Sales. It is interesting to note that Other Sales that were also Direct Sales was 67% for Wineries, 92% for Mixed Fruits and 80% for Fruits and Vegetables. Those efforts made to market

and sell out of the normal sales avenues were toward direct sales – a wise move to reap more profit margins.

The Mixed Fruits category had the greatest variety of sales types, covering all of the possible categories of sales, followed by Fruits and Vegetables (lacking forager sales), Wineries (lacking farmers’ market and produce stand sales) and finally Apples Only (having only distributor/broker sales). Table 4.1 summarizes the sales types for the four production groups. The number under the production group refers to the total interviews for that group. Table 4.2 summarizes direct sales data.

Table 4.1

Numerical Count of Sales Types for the Four Production Groups

<u>Sales Type</u>	<u>Apples Only</u> <u>3</u>	<u>Wineries</u> <u>3</u>	<u>Mixed Fruits</u> <u>20</u>	<u>Fruits &amp; Veg</u> <u>6</u>
Institutional Sales	0	2	5	3
Farmers’ Market	0	0	5	4
Distributor/ Broker	3	3	20	2
Produce Stand	0	0	11	5
Foragers	0	0	1	0
Other Sales	0	3	12	5
Total Number of Sales Types Represented	3	8	54	19

Table 4.2

Summary of Direct Sales Responses

	<u>Apples Only</u>	<u>Wineries</u>	<u>Mixed Fruits</u>	<u>Fruits &amp; Veg</u>
Other Sales also Direct Sales	0	2	11	4
Other Sales also Direct Sales as Percent of Other Sales	0%	67%	92%	80%
Total Direct Sales	0	4	32	16
Direct Sales as Percent of Total Number of Sales Types Represented	0%	50%	59%	84%

The buyers for each production group were as follows. Numbers of buyers (if more than 1) are in parentheses.

For the Apples Only group the entities producers were selling to were as follows:

Distributors/brokers: High Quality, Rogers Mesa, and another undisclosed packing shed.

For the Wineries group buying entities were:

Distributors/brokers: Classic Wines in Denver, retail sales through tasting room (2), undisclosed state and national distributors (2).

For the Mixed Fruits group buying entities were:

Farmers' Markets: undisclosed farmers' market, Boulder market, Aspen market, Paonia market, Crested Butte market (2), Estes Park market, Longmont market, some from packing sheds, Colorado Springs market, Montrose market

Distributors/brokers: High Quality (9), Alfalfa's distribution center, undisclosed distributor/broker (3), undisclosed packing shed, Rogers Mesa (4), United Marketing, Rainbow, Wild Oats, Whole Foods, Don's Foods in Denver, packs own fruit

Produce stands: general, roadside stand (4), retail outlet in town, on site (3), in Lyons

Forager: from Boulder Market

Other Sales: directly to households, small grocery store and food coop in Grand Junction, some direct to small wholesalers, Gerber (2), pack some in field, some to wholesalers at farm, wholesale accounts in state, ship out of state, direct to stores, to truck lot, some websites that sell fruit, some to local peddlers who take fruits to farmers' markets, grapes to Plum Creek winery, fruit stand wholesale, Leroux Creek Foods

For the Fruits and Vegetables Group:

Farmers' Market: undisclosed markets (4)

Distributors/brokers: Robertson Fruit, City Market, big wholesale  
warehouses

Produce stand: general (4)

Other Sales: some walk in sales, some wholesale to local truckers, some  
out of state and in state truckers, direct to local health food store,  
wholesaler, direct to big chains

These sales type data show an emphasis on direct sales for all groups other than apples only. They also give a picture of where producers are currently selling their product. But what gives them a competitive edge in their markets?

### **Current Marketing Advantages**

In the marketplace, any edge can bring more profits. This category describes marketing advantages growers feel that they have. Some are production management strategies that give a competitive advantage when marketing. Others are marketing strategies that create a competitive advantage.

One category deserves mention by itself. The local market (selling product both in a 30 mile radius and within the entire state of Colorado) was perceived to be advantageous by most all growers from all production groups. While the above definition was offered to producers during the interviews before

asking, “How does selling locally benefit you?” the responses favor referring to the market within a 30-mile radius and not the entire state.

One producer from the Apples Only group commented that he was able to move some slightly damaged fruit through local health food stores in small volumes.

Two of the Wineries group producers comments were: they get more return sales with local liquor stores, local restaurant sales provide advertising which brings tours to the winery and educates customers, they don’t have to go through other wholesale channels and can avoid other state taxes.

The Mixed Fruits group had 15 producers offering favorable comments on the local market. Their comments included (followed frequency of comment in parentheses): brings immediate cash (3), involves less transportation (5), keeps money in community (1), moves a few overripe fruit too ripe to ship (1), brings a higher price (7), less damage to the product (1), less cost (3), and eliminates the middle man (4).

All six of the Fruits and Vegetables group producers said that selling locally benefited them. Their comments included (frequency in parentheses): cuts transportation costs (3), able to make retail sales (1), can sell lower grade product – 1s and 2s (2), cuts out packer, broker and advertising costs (1), more profit within the state (1), more profit with sales by the pound than by volume (1), less trucking distance (1).

The reduced transportation costs, greater profit, the ability to move product that is not suitable for distant markets, and the elimination of the costs of

the normal channels of distribution are common themes in these responses. This illuminates the benefits of local sales but what about the management strategies that bring a competitive advantage?

Producers were asked as an interview question if they had specialized production techniques like Certified Organic (COG), No Pesticides Used (NPU), and/or Integrated Pest Management (IPM). If yes, they were asked if this helps them to market their product. Table 4.3 summarizes the responses for the 4 production groups.

Table 4.3

Summary of Marketing Advantages from Specialized Production Techniques

	<u>Apples Only</u> <u>3</u>	<u>Wineries</u> <u>3</u>	<u>Mixed Fruits</u> <u>20</u>	<u>Fruits &amp; Veg</u> <u>6</u>
Number of COG Producers	1	1	7	1
COG Helps Market Product	1	1	7	1
Number of NPU Producers	0	0	3	0
NPU Helps Market Product	0	0	3	0
Number of IPM Producers	2	0	12	1
IPM Helps Market Product	2	0	8	0
IPM Does Not Help Market Product	0	0	3	1
Do Not Know How IPM Helps Market Product	0	0	1	0

Note. Some Mixed Fruits producers have COG, NPU, and IPM management practices.

As stated in the Allen et al. (2000b) report, the COG producers have a definite competitive advantage for marketing their product. This data shows that they agree. Producers with NPU practices feel that they too have a competitive advantage with this management strategy. Both the Apples Only IPM producers felt it was helping marketing their product. There was some disbelief and uncertainty in the Mixed Fruits and Fruits and Vegetables groups that IPM was beneficial in marketing their products. Twenty-five percent of the Mixed Fruits group with IPM practices thought it was not helpful in marketing their product. One was uncertain what effect IPM had on marketing.

The only IPM practitioner in the Fruits and Vegetables group did not find this practice helpful marketing her product.

Other areas noted for marketing advantage were value added products and niche market products. No Apples Only producers commented on either of these. The Wineries group obviously has a value added product that helps them compete in the marketplace. Moreover, to a growing degree Colorado Wine is becoming a niche item. Two wineries commented that they are pursuing a growing Japanese market. No Mixed Fruits growers commented on current value added production or niche market products. One Fruits and Vegetables producer commented that he was able to sell Certified Organic asparagus to City Market as a niche product. They were committed to buying his product even when he could not supply all of their demand.

These current marketing advantages give 100% of COG, 100% of NPU and 70% of IPM producers interviewed in Mesa and Delta Counties an edge in the market. This analysis will look next at their current perceptions of the market and the satisfaction with their marketing and distribution and what, if any, idea they have about how to improve it.

### **Market Goals**

This category looked at two interview questions. The first, “Are you actively seeking to expand your markets or are you at full capacity?” gives a general idea if the producer perceives there to be a potential market to be reached. This question could have been written better in the original script. Some producers answered that they are at capacity but would still like to expand their markets. Some perceive a potential market but do not have the resources to pursue it. Broken into two questions, “Are you actively seeking to expand your markets?” and “Are you at full capacity?” this ambiguity could have been prevented. So here, positive responses (seeking to expand) will be viewed as an indicator of both their interest in expanding their markets and their perception that there are lucrative markets that are accessible. Table 4.4 summarizes these data.

Table 4.4

Summary of Interest in Expanding Markets

	<u>Apples Only</u> <u>3</u>	<u>Wineries</u> <u>3</u>	<u>Mixed Fruits</u> <u>20</u>	<u>Fruits &amp; Veg</u> <u>6</u>
Interested in Expanding Markets	0	3	16	2
Not Interested Expanding Markets	3	0	3	4
Not Sure	0	0	1	0
Percent Interested	0%	100%	80%	33%

These data show an interest in expanding markets from Wineries and Mixed Fruits producers interviewed but not from Apples Only or Fruits and Vegetables.

The other market indicator for this category is responses to the question, “Are you satisfied with your current system of marketing/distribution? If no, how would you modify it?” Table 4.5 summarizes these data.

Table 4.5

Summary of Satisfaction with Marketing/Distribution

	<u>Apples Only</u> <u>3</u>	<u>Wineries</u> <u>3</u>	<u>Mixed Fruits</u> <u>20</u>	<u>Fruits &amp; Veg</u> <u>6</u>
Satisfied	2	2	5	4
Not Satisfied	1	0	14	2
Undecided	0	1	1	0
Percent Not Satisfied	33%	0%	70%	33%

The Apples Only producer that was not satisfied with his system of marketing/distribution, when asked how he would modify it, responded that he would do things “to create a more knowledgeable consumer to what they are buying”.

The Wineries producer commented that she would do more when production is higher.

In the Mixed Fruits group, responses on how to modify the marketing/distribution system included: “adding European countries who will buy smaller fruit”, “more home marketing close to Highway 50, fix up store”, “more direct sales to end consumer, less thru packer/broker”, “downsize with more direct sales”, “more direct sales”, “baffled as how to modify it”, “get into Denver market”, “packer needs to find more niche markets”, “more choices for packing houses”, “hire two people”, “not sure how”.

The Fruits and Vegetables producers not satisfied with their current system of marketing/distribution, when asked how they would modify it, replied: “I need more information on how to modify/market.” “I would like information on how to more effectively advertise/market. We want to limit production to what I and my husband alone can produce and distribute to the local economy.”

The data for this category show that Mixed Fruits producers are the second most interested in expanding their markets and least satisfied with their current system of marketing/distribution. From this, one would consider this group the most receptive and needing assistance in marketing and distribution. Wineries producers have the greatest interest in expanding markets but are all currently

satisfied with their current system of marketing/distribution. This is likely due to the flowering industry there and its current stability marketing a value added product. Here the theme of desiring more direct sales is reiterated while the need for better marketing information emerges.

Next this analysis will examine present and future marketing needs of producers.

### **Present and Future Marketing Needs**

This category looks at 8 different codes to determine what producers want to grow more items, need better educated buyers and consumers, need more marketing information, encourage the prioritization of buying Colorado produce, desire value added markets, desire niche markets, and desire new direct sales. One of the codes comes from the interview question, “Given demand, are there any items that you would like to (and have the capacity to) grow more of?” The others were coded from supplemental responses to the existing questions. One that often yielded this data was, “What kind of customer would you like to sell to?” Table 4.6 summarizes this data.

Table 4.6

Summary of Present and Future Marketing Needs

	<u>Apples Only</u> <u>3</u>	<u>Wineries</u> <u>3</u>	<u>Mixed Fruits</u> <u>20</u>	<u>Fruits &amp; Veg</u> <u>6</u>
Grow More Items	2	1	17	3
Need Educated Buyer	1	0	4	0
Need Educated Consumer	1	2	4	0
Need Marketing Information	0	1	2	3
Prioritization of Buying Colorado Products	1	0	5	1
Desire Value Added	1	0	3	0
Desire Niche Markets	0	0	2	0
Desire New Direct Sales	1	2	13	3
Percent Desiring New Direct Sales	33%	67%	65%	50%

The specific responses from the Apples Only producers regarding what they would grow more of included: grow more apples, switching to peaches. Regarding needing an educated consumer one said, “Need to educate consumer on what they are buying.” Another noted that they would like to sell to “someone who is knowledgeable in the product.” Thirty percent desire new direct sales.

The one response from the Wineries group regarding what they would grow more of was, “If land prices decreased would expand current varieties.”

Two also noted they would like to sell to “people who enjoy wine and are experienced in buying it.” As far as marketing information, one needed to know “how to approach local establishments more.” Sixty-seven percent desire new direct sales.

The Mixed Fruits group had extensive responses to most all of the codes. Regarding what they would grow more of, responses were: “switching over to peaches”, “berries, currants”, “pears (peaches if could control climate)”, “take out unpopular varieties and put in newer ones”, “grapes (not apples), maybe peaches, sweet cherries”, “sweet cherries and peaches”, “more peaches”, “grapes”, “more of everything”, “apples and peaches”, “exotic apple varieties (replace red delicious)”, “peaches”, “peaches”, “prunes”, “grapes”, “peaches and apples”. Obviously, peaches and grapes are a popular idea.

Regarding needing an educated buyer producers commented: “I want buyers interested in quality, flavor, who can recognize better products”, “I want a buyer that values true organic produce”, “one who understands what it takes to put the product on the shelf”, “must talk with buyer of major grocery store chains”.

Regarding needing an educated consumer, Mixed Fruits producers commented: “I want a pamphlet on farmers’ markets and why this is a good idea”, “need to increase consumer awareness of Colorado product”, “somehow must get Colorado people to demand Colorado fruit”, “important to educate public as to what a good apple is”.

On marketing information they commented: “not sure how to modify my current marketing/distribution system”, “how to effectively market a quality product”.

Comments on the prioritization of buying Colorado products included: “Promotion when harvest is going on of product and farmer, no need to buy Washington State product, pursue marketing of Colorado product as ‘mountain fresh’ product”, “want buyers interested in Colorado fruit, promoting Colorado fruit”, “State needs to convince big buyers (Safeway, King Soopers, Albertsons) to buy Colorado, Washington doing under the table deals with Colorado grocery stores”, “restaurants should feature Colorado products”.

Those desiring value added marketing all had ideas of doing gift packs.

One producer emphasized that the packinghouse needed to find more niche markets. Another thought berries and currants were good ideas for niche markets.

Sixty-five percent desire new direct sales.

From the Fruits and Vegetables group, those interesting in growing more items noted they would like to grow artichokes, peaches, flowers, herbs and chili peppers. Those needing marketing information said they “need information on how to market, advertise and determine consumer demand.” One also noted that “farmers have to be proactive not reactive to consumer demand.” Fifty percent desired new direct sales.

New market development will be analyzed next.

## New Market Development

This category shows how producers are preparing to market in the future. It is sourced from the interview question, “What are you doing to develop new markets?” Initially a count of who is and who is not trying to develop new markets themselves will be shown. Later specific responses will be given. Codes that pertain to future marketing from value added products and niche marketing were also included. Table 4.7 summarizes these data.

Table 4.7

### Summary of New Market Development

	<u>Apples Only</u> <u>3</u>	<u>Wineries</u> <u>3</u>	<u>Mixed Fruits</u> <u>20</u>	<u>Fruits &amp; Veg</u> <u>6</u>
Doing New Market Development	0	2	15	2
Not Doing New Market Development	3	1	5	4
Percent Doing New Market Development	0%	67%	75%	33%
Doing Value Added New Market Development	0	0	3	0
Doing Niche Market New Market Development	0	0	0	0

For the two Wineries producers doing new market development, one was working with the Japanese market and the other hired a distributor/broker.

Producer comments in the Mixed Fruits group regarding new market development included: “praying a lot, trying to market in Buena Vista”, “doing it through the packing shed, calling buyers”, “keeping my eyes open”, “working on consistency”, “thinking about going organic”, “internet gift box sales”, “contacting Front Range produce stands”, “calling places, seeing people”, “hiring people to broker fruit at farmers’ market, gift packaging”, “sending out mailing list of newsletter to \$30 plus buyers”, “direct mail solicitations, working with marketer, gift pack idea”, “personal contacts, phone calls”, “word of mouth, mailings, in person to develop direct marketing”, “direct marketing thru fruit market, advertising across 4 counties”, “gift packets”, “organic certification”.

These comments show that direct sales, as indicated under the sales type category, continue to be a marketing interest of Mixed Fruits producers. The value added gift pack idea is another popular one amongst these producers, along with the idea of organic certification.

The two producers in the Fruits and Vegetables group noted advertising in the local newspaper, TV, radio, and putting pamphlets around town and expanding products as their new market development.

## **Summary**

Many of the themes that emerged from this analysis were echoes from those in the review of literature. Here specific examples were given of how the distribution and retail system for supermarket chains is taking a disproportional margin from producers, how farming is threatened in this region, and how many

producers are and would like to create more direct sales in their marketing strategies.

Organic certification and NPU practices are a definite marketing advantage for growers. And as Blend (1998) suggested, marketing IPM products has the potential to be as useful as certified organic labeling to producers.

Overwhelmingly producers commented that the local market was beneficial to them, reducing transportation cost, increasing profit, providing an outlet for product not suitable for distant markets and eliminating the costs of the normal channels of distribution.

Wineries and Mixed Fruits producer were interested in expanding their markets.

Producers would grow more peaches, grapes, and possibly newer, exotic varieties of apples. The value added gift pack for fruits is an upcoming shot at direct sales.

The numbers from the initial producer groups show that, for the producers interviewed for this study, all of the wine (value added industry) and diversified production (fruits and vegetables) were in Mesa County. Certainly Mesa County's growing season is better than Delta County's for certain grapes and vegetables, but it is curious that there were no vegetable producers in Delta County. The Fruits and Vegetables producers tended to be less likely to desire new direct sales, to be unsatisfied with their current system of marketing/distribution, less interested in expanding their markets. They also had the highest percentage of current direct sales. Could these characteristics be

indicative of successful cropping and marketing? The data is not extensive enough to draw this conclusion, but it is plausible that a longer growing season, diversified cropping systems, fruit and vegetable markets and closer proximity to Grand Junction makes them more content with their marketing situation. Sample size is also of issue here. A larger sample may show that there are more dissatisfied producers in Mesa County and a sizable number of fruits and vegetables producers in Delta County.

The educational aspect is important to note as well. Producers need to be better educated on how to best market their product. They need access to timely market information that will help them compete effectively in the marketplace. Conversely, supermarket chain buyers and consumers need to be educated on how to recognize a quality product and appreciate the complexities of growing fruit on the Western Slope of Colorado. Along these same lines, both need to understand why it is important to purchase Colorado fruit and how they can best facilitate this market relationship.

The interest in new direct sales is a strong theme in this analysis, for the obvious reason of increased profit. Mesa and Delta county producers, especially Delta County Mixed Fruits producers, would benefit from marketing assistance in developing new direct sales.

This paper will now move on to its conclusions and recommendations chapter.

## Chapter V - Conclusions and Recommendations

While it is true that Mesa and Delta County fruit producers are faced with many challenges, there are reasons for hope as well. Another level of analysis was done that combined the supply side qualities of the Western Slope fruit industry with the demand side qualities that consumers and markets possess, as demonstrated in the literature review and analysis chapters. Table 5.8 lists the qualities of these two groups.

Table 5.8

### Supply Side and Demand Side Qualities

<b><u>Supply</u></b>	<b><u>Demand</u></b>
Taste of Fruit	Tasty fruit
Size of apples (i.e. – 100, 113, 125 count apples)	Satisfaction with 100, 113, and 125 count apples
COG, IPM and NPU fruit	Chemical Free Fruit
Colorado Product	Interest in Ecolabeled (IPM or ECO)
Slightly Damaged Fruit	Eating 2-4 Plus Servings of Fruit per Day
Desire for Direct Sales	Low Fat Diet
Desire for Niche Market Sales	National School Lunch Program (NSLP) <ul style="list-style-type: none"> <li>• Vitamin C</li> <li>• Low Fat Diets</li> <li>• Additional Fiber in Diets</li> </ul>
Desire for Value Added Sales	Baby Boomers
Easiest through Packing Sheds	European Market

Given the qualities of these two groups, theoretical relationships were explored that could create linkages between supply and demand and thus offer marketing opportunities. These linkages were then evaluated on an individual basis. They are viewed from the perspective of marketing opportunities for Mesa and Delta county fruit producers. The evaluations include the following marketing opportunities:

- “Baby Boomers”
- The European Market
- Ecolabeled Fruit
- Local Markets
- Colorado Product
- The National School Lunch Program (NSLP)

The “Baby Boomer” market seems promising but difficult to access. This group eats more than the average amounts of fresh fruits, spends 14% more on food than the average U.S. household and constitutes the wealthiest portion of the population. “Baby Boomers” are able to afford and willing to spend money on fruit priced for COG, ecolabeled, niche markets and value added markets. With Colorado sought after as place for retirement, they will be an asset to local markets, amplifying the potential for more direct sales. Yet many will continue to shop at supermarkets. Supermarkets, as demonstrated in the literature review, are a difficult market for Mesa and Delta county fruit producers to access. So, unless “Baby Boomers” are targeted through direct marketing approaches (i.e.

– farmers’ markets, produce stands, gift packs, etc.), their wealth may not be part of the profits realized by Mesa and Delta county fruit producers.

The European market shows an appreciation for 100, 113 and 125 count apples. Europeans generally have a greater interest in COG or ecolabeled produce than do Americans. However, shipping cost could offset profit from this demand. This would have to be evaluated by the packing sheds. This marketing opportunity utilizes the current packing shed distribution system that is easiest for fruit producers in getting their product to market.

Marketing ecolabeled fruit could also utilize the current packing shed distribution system. But it, like reaching the “Baby Boomers”, will likely use the supermarkets. It is possible that ecolabeling could increase the profit margins and volume of sales and thus increase profits for Mesa and Delta county fruit producers, but realistically the supermarkets will be an impediment, favoring year round suppliers and offering small profit returns to fruit producers. If there is a way to stimulate direct sales with ecolabeling, it would exploit the IPM practices of many of the Mesa and Delta count fruit producers and bring them greater profits.

Local markets is a broad category for marketing opportunities. This could include Colorado King Soopers, Safeway and Albertson’s supermarket stores. Allen (2000b) noted that these supermarket chains are still interested in supporting the Western Slope fruit industry. Yet, the returns to these fruit producers are not very promising.

Local markets could also include institutional food buyers. The prison system in Colorado could be a huge buyer and bring direct sales returns. The public schools, through the NSLP, could also be a continuous account for the fruit industry. Restaurants on the Front Range are more likely to be interested in these sales than those on the Western Slope. The Foodlinks project, Chefs Collaborative 2000 and others are encouraging sales to restaurants in Colorado.

Other local markets are farmers' markets and produce stands. These are met with continued support throughout the state and offer fruit producers a venue for direct sales. So there is great potential for local markets bringing greater profit for Mesa and Delta county fruit producers. Sales to institutional food buyers and through farmers' markets and produce stands are the best approaches for local sales.

The marketing of a Colorado product could add a competitive advantage and increase market share. Currently the Marketing Division of the Colorado Department of Agriculture is promoting the next generation of the "ABC – Always Buy Colorado" program. "Colorado Proud" replaces "ABC" and seeks to spur Colorado consumers' preference for a food product made in the state. If there is ample funds put into promoting this program to increase consumer recognition of the labeling and understanding of the reasons why to buy Colorado products, then Mesa and Delta county fruit producers may benefit from labeling their fruit "Colorado Proud" for sale in local markets.

These fruit producers would definitely benefit from "branding" their Colorado Western Slope apples for consumer recognition in the market. The

consumer recognition of and demand for “Rocky Ford Melons” and “Olathe Sweet Corn” is phenomenal. Cool nights make these fruits sweet and tasty. The same brix levels increase happens with Mesa and Delta county fruits. When consumers begin to associate the “Western Slope Apple” with superior flavor, recognition and demand will follow. With the same consumer recognition and demand as “Rocky Ford Melons” and “Olathe Sweet Corn” many marketing woes could be overcome. The Apple Administration Committee and the Marketing Division mentioned previously could be of great help with this.

Marketing to the NSLP appears to be very promising. This opportunity utilizes the local market, markets a Colorado Product, potentially an ecolabeled product, and could provide profits associated with direct sales. It does not deal with supermarket difficulties and associated low returns. It could utilize the 100, 113 and 125 count apples that younger students are more likely to eat. Marketing to public schools could create a very stable, large account, provided they would be flexible with some of the inconsistencies of fruit volume experienced on the Western Slope due to late frosts and freezes. It is offered here as the best overall marketing opportunity. Table 5.9 summarizes the ranking of marketing opportunities. They are ranked from greatest potential at the top to least potential at the bottom.

Table 5.9

Ranking of Marketing Opportunities

<u>Marketing Opportunity</u>	<u>Reasons</u>
Colorado Public Schools	<ul style="list-style-type: none"> <li>● Stable, large accounts</li> <li>● Taps Local market</li> <li>● Potential direct sales</li> <li>● Suitable for smaller apples</li> </ul>
Colorado Product	<ul style="list-style-type: none"> <li>● Markets itself</li> <li>● Taps local market</li> <li>● Potential direct sales</li> </ul>
Local Markets (Institutional, Farmers’ Markets, and Produce Stands)	<ul style="list-style-type: none"> <li>● Definite direct sales</li> <li>● Not to supermarkets</li> </ul>
Ecolabled	<ul style="list-style-type: none"> <li>● Growing consumer demand</li> <li>○ Supermarkets necessary</li> </ul>
European Market	<ul style="list-style-type: none"> <li>● Buys smaller apples</li> <li>○ Transportation costs</li> </ul>
“Baby Boomers”	<ul style="list-style-type: none"> <li>● Buy lots of fruit</li> <li>○ Supermarkets necessary</li> </ul>

Note. Solid bullets show positives, circular bullets show negatives.

Mesa and Delta county fruit growers need not pioneer this marketing strategy. Beyond theory, Innovative Marketing Opportunities for Small Farmers: Local Schools as Customers (Schofer, Holmes, Richardson and Connerly, 2000) profiles a marketing cooperative that sells directly to public schools in Jackson County, Florida. This cooperative was set up specifically to market produce to the public schools. It serves four neighboring counties. The publication outlines how the cooperative was set up and shows that students have increased their use of the school lunch program (NSLP) and faculty, staff and school district maintenance employees have increased their use of the cafeteria. The cooperative flourishes because it allows Gadsden County schools “an opportunity to purchase

high-quality, fresh produce items at a lower cost than that charged by larger produce vendors” (Schofer et al., 2000). This gives the cooperative a great competitive edge that Mesa and Delta county fruit producers could also realize.

As shown in the analysis, the desire for new direct sales is widespread.

Direct Marketing Today: Challenges and Opportunities (USDA, 2000) describes the outcomes of five focus groups initiated by the USDA Agricultural Marketing Service’s Farmer Directed Marketing Action Plan. They concluded that consumer interest is not a big problem for direct marketers. They did stress, among other issues, that the USDA should expand their data collection and applied research. The information needs identified by both facilitators and marketers were related to: marketing methods, business decision-making tools, industry data, consumer trend information and data, technical assistance, consumer education and promotion, regulatory clarification (USDA, 2000). Mesa and Delta county producers would undoubtedly benefit from access to this same information, via the USDA or the Marketing Division of the State Department of Agriculture.

Additional research should be focused on the collusion in the supermarket chains, the differences in economic potentials between Mesa and Delta county producers (based on a larger sample size than the one used in this study), how to develop more local markets for new direct sales, how these producers can develop markets for their IPM products, how the branding of “Western Slope Apples” could be developed, and how marketing cooperatives could be established to sell Mesa and Delta county produce to Colorado public schools.

The desire to succeed is strong with Mesa and Delta county fruit producers. They are an asset to the people, communities, ecology and economy of Colorado. They deserve the opportunity to utilize their competitive advantages and develop markets that bring them more profit. Now is the time to act on their behalf.

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# Appendix

## PRODUCER PHONE INTERVIEW DATA

revised 2/23/00

COUNTY: \_\_\_\_\_ DATE: \_\_\_\_\_

**1. What do you produce?**

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**2. What is the size of your operation?**

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**3. How often do you bill your buyers?**

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**4. Is your ag enterprise your total income? If not,  
what other work do you do?**

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**5. What percentage of your income is generated by your ag production? \_\_\_\_\_**

**6. What percentage of your food sales is:  
a) within CO**

\_\_\_\_\_  
**b) within 30 mile radius**

\_\_\_\_\_

**7. How does selling locally benefit you?**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**8. What % of your food sales is direct to restaurants and institutions?**

\_\_\_\_\_  
\_\_\_\_\_

**a) If some, how do you find them?**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**What do you sell?**

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**How does selling to restaurants and institutions benefit you?**

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**b) If none, what prevents you from selling to restaurants and institutions?**

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**9. Do you sell to farmer's markets?**

\_\_\_\_\_  
**Through CSA?**

\_\_\_\_\_  
**Distributors/brokers? (National/local?)**

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**Produce stand?**

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**Foragers?**

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**Other sales?**

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**a) If yes, how do you find them?**

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**What do you sell?**

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**b) If no (only national/international sales), what prevents you from selling locally ?**

**10. What kind of buyers work best for your operation currently?**

**Examples of characteristics:**

- **quantity of produce order – how consistent**
- **size of buyer**
- **exclusive buyer**

**(Note words and priorities)**

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**11. What kind of customer would you *like* to sell to?**

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**12. What do you understand to be your customers' expectations and requirements for your product?**

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**13. Do you have specialized production techniques-  
e.g. “Certified Organic, NPU, IPM, IRM, etc.”?**

**If yes, does this help you market your product?**

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**14. How do you define quality in your products?**

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**15. We’ve heard some buyers won’t buy locally  
because they can’t rely on consistent quality and  
quantity. What are your thoughts on this?**

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**16. How many months per year do you sell produce?**

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**17. Are you actively seeking to expand your markets or are you at full capacity?**

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**18. Given demand, are there any items that you would like to (and have the capacity to) grow more of?**

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**19. What are you doing to develop new markets?**

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**20. Do you use electronic methods to market your products? (Fax, e-mail, website, etc.)**

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**21. Are you satisfied with your current system of marketing/distribution? If no, how would you modify it?**

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**22. I am going to read a list of factors that are important to some producers, please rank them with a number 1 – 5, “1” being not important when making production choices and “5” being extremely important when making production choices. If you don’t know or have no opinion, please say so.**

**Using more environmentally friendly agricultural practices**

1 2 3 4 5 DK

**Reducing transportation costs**

1 2 3 4 5 DK

**Selling foods locally**

1 2 3 4 5 DK

**Paying someone else to market your product**

1 2 3 4 5 DK

- **Thank you for participating in this interview!**
- **(Reiterate purpose of study and what you’ve heard from them.)**
- **(Ask them to comment and/or suggest other issues that should be considered.)**

**Comments:**

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**Any questions for us?**

**Would you like to participate in our project by:**

- 1) talking with us again**
- 2) being on our mailing list to learn what we found in the study and hear about opportunities to develop relationships with local producers**
- 3) meet with local buyers**