Introduction

The 2010 USDA Vegetable and Melons Yearbook report found that U.S. per capita consumption of fresh vegetables and melons had increased by 67.1% between 1980 and 2010. Demand stimulating factors such as increased promotion of the nutritional benefits of eating fresh fruits and vegetables have contributed to the rise in consumption. On the supply-side, retailers and producers have made their products more appealing by offering greater diversity, convenience in packaging, and increasing the number of market channels through which fresh and specialty produce can be purchased.

Evidence of the trends mentioned above can be found in the significant increase in the number of fresh produce offerings in a typical grocery store and growth in the number of direct to consumer market channels including farmers’ markets. Fresh produce offerings have increased approximately 200% in a typical grocery store from 173 products to over 350 between 1987 and 2000 (Progressive Grocer, 2002). Meanwhile numbers of farmers’ markets have risen; the Agricultural Marketing Service reports number of farmer’s markets nationwide has grown by 59% to 4,385 between 1998 and 2006. Roadside stands, pick-your-own businesses, internet sales, on-farm stores, and community supported agriculture (CSA) programs are also experiencing dramatic growth (USDA-NASS). Data collected in 2007 by the U.S. Department of Agriculture indicates that 12,549 farms in the U.S. reported marketing product through a CSA program (USDA-NASS). In addition, consumers appear to be increasingly willing to not only purchase but also pay a premium for fresh produce that is differentiated by production practice (e.g., organic or locally grown) and cultivar-specific attributes such as enhanced vitamin content (Keeling Bond, Thilmany, and Bond, 2009).

While larger fresh produce operations have surely benefited from an overall increase in demand for fresh fruits and vegetables, small farms (those grossing $50,000-99,999 in sales) are poised to service emerging niche and specialty produce markets. Smaller-scale operations may allow a farmer to be more directly involved in production, to more easily customize planting schemes to suit local and seasonal palates,
and to interact to a greater degree with customers through direct marketing activities. Furthermore, participation in niche and specialty produce markets may assist smaller operations to combat competitive pressures from operations that can capture greater economies of scale in production and marketing. Higher prices received from value-added produce sales, may offset potentially higher production and per-unit marketing costs; allowing a small and relatively higher-cost producer a means of sustaining an agricultural operation in an otherwise competitive marketplace that values volume and low-price.

Differentiation alone—whether through use of a niche market channel, production of a value-added product, or other means, does not insulate the grower from the challenges of transporting a bulky product, gaining market access, and marketing a perishable product. In other words, a focus on the production and delivery of value-added goods does not mean that cost considerations become unimportant. In fact, as the popularity of value-added produce has grown, so has competition in many niche produce markets, making it increasingly important to be mindful of ways to reduce production, marketing, and other transactions costs.

Cooperatives offer a way to reduce both costs and risks associated with agricultural production through coordination among groups of producers. Member farmers may be able to enhance efficiencies through equipment sharing, coordinated harvests, joint transportation, and more. The cooperative business structure has been popular with many commodity crop producers and select niche agricultural product suppliers. There are several examples of successful value-added protein cooperatives: Mountain States Lamb and the North American Bison Cooperative; however, there are relatively few examples of fresh and specialty produce cooperatives.

In light of observed growth in the fresh and specialty produce industry in general and in Colorado, increasing competition, and the potential to enhance profitability through coordinated production and/or marketing, it is somewhat surprising to find only a handful of formal cooperative entities aimed at fresh and specialty growers in the state. Noting this, we ask the following research questions: “Do Colorado fresh and specialty producers believe they are currently operating efficiently and if not, what areas of their operations could benefit from enhanced efficiency through cooperation?”, “Do producers informally cooperate?” and whether producers have or are currently cooperating (formally/informally) “Do producers feel there are potential gains from collaboration?”

Finally, we ask if Colorado fresh produce growers feel there is an inherent bias against joining formal cooperatives that could explain the lack of observed fresh and specialty produce cooperatives.

This fact sheet provides a summary of answers to the above questions based on a producer survey administered in late summer and early fall of 2010 and a series of in-depth interviews with more than 20 fresh and specialty produce operations in Colorado. Based on producer responses, we identify several activities that appear to be most fruitful for current or potential cooperatives to coordinate. Furthermore, as a result of finding that many non-members and opponents of cooperatives actually have little or no direct and personal experience with this business form, we discuss methods of delivering cooperative educational material aimed at potential members and community stakeholders.

Organizational Efficiency

Producers were asked whether they felt their organization was run efficiently and/or in a cost-minimizing way. Fully 46.2% of our sample responded affirmatively with the remainder indicating that their organization was not (23.1%) or only somewhat (30.8%) efficient. Participants were further probed on the sources of potential inefficiencies (Figure 1).

Identifying sources of current inefficiencies in organizations may provide the greatest insight into what activities might be most beneficial for a cooperative to perform for its members. Marketing and planting activities were most frequently cited as sources of inefficiencies followed by growing, harvesting, and sales. While few noted that transportation activities were a source of inefficiency in the survey, in follow-up interviews the problem of driving half-empty trucks to and from markets was mentioned repeatedly.

Further probing on the topic of inefficiencies with interviewees revealed that producers may feel constrained by size: they are not quite large enough to justify large capital outlays in labor-saving equipment but yet they finding that self- or family-supplied labor may a binding constraint on production. To overcome labor constraints, one farmer notes “increasingly, farmers are willing to share equipment, where one buys the bailer and the other buys the stacker and we work together.” Examples of formal equipment sharing...
cooperatives are prevalent in the parts of the Midwest including Kansas and Oklahoma where educators have worked to develop guidelines and case studies. Similar educational efforts in Colorado may also be fruitful.

Educational efforts aimed at clarifying the role cooperatives may take in marketing members products may similarly be beneficial. Interviewed growers frequently mentioned that they lacked time to invest in marketing and experience to be more effective and innovative in their promotion efforts. One current cooperative member stated that “(c)o-ops free the producer to be a producer instead of a truck driver and salesman; the co-op allows you to focus more on what your customers want and be on the farm to put it into practice.”

Cooperative Interest

With evidence that there are indeed areas of production and marketing that could be enhanced, potentially through coordinated activities, respondents were asked about their interest in forming or joining a cooperative (Figure 2).

The majority of individuals indicated that they did not currently have an interest in joining or forming a cooperative. While this may seem like a barrier to
further cooperative formation in the state, few respondents had direct or tangential experience with cooperatives and none had been provided educational material or examples of cooperatives by the research team prior to completing the survey. As such, a lack of exposure and knowledge of cooperative may be influencing the observed negative response.

We further probed respondents on the perceived barriers to forming or joining a production or marketing collaborative (Figure 3). The reasons cited in Figure 3 potentially clarify why fewer than expected numbers of fresh and specialty cooperatives in Colorado are observed. Most often, respondents report they don’t think it will improve their margins to participate and that a simple lack of interest inhibits participation in a collective. Lack of interest, while oft cited, may be a function of many other factors. In particular, if an individual does not know what a co-op is or understand the benefits of working collectively, they may be less interested in participating than a member of a cooperative who has experience with the business form and is familiar with the potential benefits of membership.

Other responses that attempt to drill down on the specific reasons a producer may lack interest provide potentially greater insight into the participation decision. In particular, many respondents indicate a lack of trust in co-participants. Comingled business interests may indeed be concerning for operators who work independently and view other producers as competitors. One producer remarked “I think that it is a true assessment that quite a few growers don’t want to be part of something where they are tied to the guy down the road.” Another grower stated, “(w)e’re sort of independent individuals, all of us in the farming business; if the farmer can’t make it on his own, maybe he shouldn’t be in the farming business.” These comments tend to emphasize the notion that the fresh produce marketplace in Colorado is competitive. Fully 62.5% of the survey sample indicated that the fresh and specialty produce industry in Colorado is more competitive than collaborative, however, cooperatives have thrived in competitive markets (e.g., cattle, lamb, and more) and the perceived level of industry competitiveness should not a priori reduce the suitability of cooperatives to a particular market.

Another frequently cited barrier was “not enough time.” Many interviewed owners were found to be supplying a significant proportion of farm labor themselves, wearing many hats and in several cases working an off-farm job to supplement farm receipts. A small-scale grower in Boulder County stated, “(w)e don’t have the time; the growing season is so short for us that to try to manage other people’s food when

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Fig. 3: What barriers to forming or joining a production or marketing collaborative does your organization currently face? Please mark all that apply.

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
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<tbody>
<tr>
<td>Lack of sufficient supply</td>
<td>15.8%</td>
</tr>
<tr>
<td>Lack of knowledge of other interested co-collaborators</td>
<td>21.1%</td>
</tr>
<tr>
<td>Lack of own interest</td>
<td>40.4%</td>
</tr>
<tr>
<td>Too much work to set up</td>
<td>21.1%</td>
</tr>
<tr>
<td>Lack of interest on behalf of potential co-collaborators</td>
<td>17.5%</td>
</tr>
<tr>
<td>Not enough time</td>
<td>36.8%</td>
</tr>
<tr>
<td>Cultural differences</td>
<td>14.0%</td>
</tr>
<tr>
<td>Already operating efficiently</td>
<td></td>
</tr>
<tr>
<td>Lack of trust in co-participants</td>
<td>21.1%</td>
</tr>
<tr>
<td>Don't think it will improve my margins to participate</td>
<td>42.1%</td>
</tr>
</tbody>
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3 The term collaborative was defined for respondents and used in place of cooperative to allow for a greater range of experience.
we’re just trying to get enough to the table to make a living is just not realistic.” Using the logic of the cited grower, location and the resulting short growing season may indirectly be a significant contributor to the lack of cooperative participation in the state. It should be noted, however, that joining an operating a cooperative could potentially save time following initial investments in organization and recruitment. Educating growers on how cooperative membership may ultimately reduce time spent performing marketing and production activities may be a powerful appeal for growers who are especially time constrained.

An additional factor that is hypothesized to have contributed to a lack of support for cooperative activities is an inherent bias against the business form. Only a small portion of the sample (<22%) indicated that there is any bias. Growers that responded in the affirmative referenced failed cooperatives and/or the perception of lower margins as reasons why a stigma may exist. One respondent further clarified that there may be negative reaction to unknown and unproven cooperative upstarts, however, many farmers have had positive interactions with established cooperatives that are “here to stay.” Cooperatives, thus, may not be viewed as homogeneously less desirable than alternative business models. Further, forming a value-added branch of an established cooperative may overcome some of the indicated uncertainty and stigma associated with a new entity while potentially reducing the upfront member costs in terms of time that would otherwise be necessary to build an organization from the ground up.

### Perceived Benefits

Survey respondents were asked to discuss perceived benefits of collaborating/cooperating with other producers. The cardinal rankings in Figure 4 provide intuition into the relative desirability of various potential benefits though we are unable to substantiate that the perceived benefits will be sufficient to overcome barriers to cooperative participation. The listed benefits, however, do suggest the specific cooperative activities and benefits producers are most likely to respond to when contemplating membership opportunities.

Benefits related to marketing clearly garner the most support. Interestingly, although transportation was not frequently cited as a source of operational inefficiency (mentioned by just ~7% of the sample), it appears that producers feel that the ability to access and attend more markets is a cooperative benefit with credence. Promotion of these benefits in combination with shared transportation may be an effective way to demonstrate means of reducing fuel and vehicle costs while also increasing market attendance and access.

Follow-up discussions with respondents provided additional clarification on perceived benefits; several cited the ability to sell alternative produce as

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
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<tbody>
<tr>
<td>Reduced input costs</td>
<td>34.8%</td>
</tr>
<tr>
<td>Increased production efficiency</td>
<td>17.4%</td>
</tr>
<tr>
<td>Greater ability to specialize</td>
<td>21.7%</td>
</tr>
<tr>
<td>Greater access to markets</td>
<td>43.5%</td>
</tr>
<tr>
<td>More sales resources</td>
<td>46.4%</td>
</tr>
<tr>
<td>Ability to attend more markets</td>
<td>39.1%</td>
</tr>
<tr>
<td>Ability to reach new customers</td>
<td>60.9%</td>
</tr>
<tr>
<td>None-no benefits from cooperating</td>
<td>13.0%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>26.1%</td>
</tr>
</tbody>
</table>

Fig. 4: What do you believe to be the primary benefit from collaborating/cooperating with other fresh produce growers to produce or market your products? Please mark all that apply.
desirable. Existing produce cooperatives, such as High Plains Food Cooperative (HPFC), provide this very benefit by creating a secondary market for produce that was not dedicated for sales at market or other channels. Several growers also mentioned the desire to be able to specialize and focus on farming. One grower states, “I just want to be able to focus on farming well; not trucking, not marketing.” The HPFC provides marketing support to growers as well as coordination of some transportation activities, allowing member growers to focus on mastering production task as opposed to being a jack of all trades.

As part of the development of a series of cooperative case studies, current cooperative members discussed in greater depth the benefits they receive through cooperating. Several members felt passionately that their cooperative had enhanced business margins and provided meaningful financial and non-monetary rewards. The positive experiences are inspiring and lead to the conclusion that the best advocates for new cooperative formation and membership are likely to be current members who are content with their operation. When personal interaction is not feasible, case studies that provide a personalized history of a co-op and how it has benefits specific members are likely to be more useful educational tools for those with little cooperative experience. In addition, testimonials by members and managers that provide insight into what cooperatives can do for members are likely to have more credence than third party advocacy. Approximately 43.8% of survey respondents who expressed disinterest in cooperating or collaborating were not currently nor had never been a member of a cooperative and thus lacked first-hand experience with the business form. It may be that a lack of experience and knowledge that inhibit cooperative participation. As such, there is an opportunity to enhance cooperative support in Colorado through educational programming.

**Cooperative Education**

Challenges exist when informing and educating local food producers regarding cooperatives. Lack of knowledge of cooperative structures and a perceived lack of need create obstacles for cooperative education. Based upon the survey results and previous case studies (Keeling Bond and Bahr), four different avenues should be pursued to educate individuals on cooperatives:

1. Utilize successful cooperative groups to host workshops and seminars,
2. Develop an online database of personal messages, webinars, interviews and resources,
3. Utilize non-cooperative print trade publications and
4. Market and promote the cooperative educational structure through local marketing channels.

The challenge of balancing many different tasks requires producers to find innovative ways of professional development. As previously stated, personal contact with other successful cooperative groups may provide increased knowledge of the cooperative business structure. By utilizing successful cooperative groups as hosts and panel discussants at workshops and seminars, the positive message of how cooperatives can benefit producers would be spread by knowledgeable and credible proponents.

Workshops would best be handled in off-season as attendance would likely be increased relative to similar events held during the production and harvesting seasons. Offering a seminar series focused on specific content areas such as marketing, production, harvesting, equipment sharing, transportation and the like, as well as in general cooperative structures, may increase the likelihood of attendance as there is a greater perceived need for education in these areas. Workshops, seminars and word of mouth from other producers have previously proved to be successful in initiating involvement in a cooperative business structure (Keeling Bond and Bahr). These seminar series would serve as the first-line resource and informational activity for cooperative promotion.

A second resource for cooperative education materials should be an online database. Utilizing personal messages, audio-videos of cooperative producer interviews, case studies, webinars and other educational materials in searchable database that would be accessible at all times of the day would be beneficial for producers. This approach may overcome the general lack of knowledge of cooperatives in the agricultural community. Often this perceived deficiency may inhibit workshop or seminar attendance, yet being able to easily find resources on cooperatives in an internet search may broaden the dissemination of cooperative educational materials and encourage participation in seminars.
Previous studies indicate that agriculture producers tend to use magazines as their primary source of information; therefore, publishing print articles on how to start a cooperative business structure would also be beneficial (Allen, Meyers, Brashears & Burris, 2011). As with other means of dissemination, the lack of knowledge about the cooperative business structure may prevent producers from finding print materials in cooperative magazines. Therefore, finding mainstream magazine outlets in trade publications most utilized by producers would be beneficial.

Finally, cooperative educational material should be marketed to potential producers. Case studies have shown that it requires extensive effort to initiate a cooperative business structure (Keeling Bond and Bahr.). Therefore creating materials showing best practices, advantages and resources available to assist in forming a cooperative business structure would be advantageous. This material could be delivered to markets where fresh and specialty produce is delivered, such as farmers’ markets, and through one-on-one contact with other producers that have utilized collaboration successfully. Making educational materials accessible and marketing their availability will enhance the likelihood that producers benefit from and are influenced by their content and message.

**Summary and Conclusions**

In this fact sheet, we have sought to clarify factors that have contributed to the formation of fresh and specialty cooperatives in the state of Colorado as well as determine what impediments to adoption may exist. Interviewed and surveyed small and medium scale fresh and specialty growers do report inefficiency in their operations, leading to the potential to enhance returns through capture of economies of scale and cooperative membership.

Despite opportunities to work collectively, 66.7% of survey respondents indicated that they did not have an interest in joining a cooperative. When probed about barriers to cooperative membership, lack of interest, trust, and time were found to be significant contributing factors as well as the belief the participation would not enhance margins. Lack of direct experience with cooperatives and environmental factors are also thought to contribute to reduced participation. The hypothesis that an inherent bias against cooperatives in the state exists is not borne out empirically.

Taken as a whole the results of the survey and interviews suggest that there is a role for cooperative education in the state to assist in growing entities and memberships. Current co-op members and managers wishing to expand membership as well as individuals aspiring to catalyze cooperative formation may enhance their recruitment efforts through programming that highlights the personal experiences of members and sharing case studies of other cooperatives. Further, cooperative educators and extension staff are encouraged to follow four educational best practices: utilize successful cooperative groups to host workshops and seminars, develop an online database of personal messages, webinars, interviews and resources; utilize non-cooperative print trade publications, and market and promote the cooperative educational structure through local marketing channels.

**References**


