

Distribution, Production and Consumption of Fruits and Vegetables in South Dakota



A SURVEY OF PRODUCERS IN SOUTH DAKOTA

SOUTH DAKOTA STATE UNIVERSITY EXTENSION &

SOUTH DAKOTA DEPARTMENT OF HEALTH

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Demographics

Data suggest the ages of growers in the food desert areas were more evenly distributed (from 36 to over 66) compared to those in the non-food desert areas. Food desert locations are defined as having limited access to healthy and affordable food. On the contrary, the majority of the growers in the non-food desert areas were between 46-65 years old. However, about 10.5% of growers in this area were younger, at 26 to 35 years old. The gender distribution showed a noticeable difference between food desert and non-food desert areas. While the majority of the growers in the food desert areas were female (83.3%), the non-food desert areas had shown a fairly even split between males and females. The racial distribution was slightly different between food and non-food desert areas: the majority of the growers were White (66.7% in food deserts and 86.8% in non-food deserts) with a smaller percentage of Native American (33.3% in food deserts and 5.3% in non-food deserts) and Asian (2.3% in non-food deserts) growers. The education level of the growers were as follows: some college (30%), a 4-year degree (25%) or beyond a 4-year degree (34.1%). The education background showed a slight difference between food desert and non-food desert areas as growers in the non-food desert ranged from having a high school degree to more than a 4-year college degree. Food desert growers all had at least some college experience.

In terms of the time involvement in farm management, data indicate the majority of the growers either managed the farm full time or managed the farm while working elsewhere full time. A noticeably higher percent of growers in the food desert areas worked full time at the farm without any off-farm jobs. Compared to the growers themselves, spouses or partners of growers had a more diverse range of involvement with the farm. The food desert areas had more growers' spouses/partners working at the farm full time, while in the non-food desert areas more spouses/partners worked at the farm and elsewhere full time.

Data also shows that 72.7% of the growers hired at least one employee. While only 9.1% of the growers hired full-time employees, 45.4% of the growers hired at least one part-time worker. Data suggest 31.8% of the growers hired at least one unpaid family member to work with them. About 9.1% of the growers hired other types of workers.



Production

Although the majority of growers (56.8%) operated a total of 20 acres or less, data also indicates 4.6% of growers operated farms over 1,000 acres. These larger growers were located in the food desert areas. About 65.9% of growers utilized one to less than five acres of total farmland for fruit and vegetable production. The percentages of growers' fruit and vegetable production acres in relationship to total production acres suggest different land usages between growers in the food desert and growers in the non-food desert areas. In the food desert areas, 50% of the growers who farmed smaller acreages used all their land to produce fruit and vegetables, while the other 50% of growers who owned noticeably large acreages only used 2% or less of their lands for the fruit and vegetable production. In the non-food desert areas, 39.5% of growers used all their land for fruit and vegetable production, while the remaining growers had an even distribution of land usage for fruit and vegetable production. Survey data suggest South Dakota growers were producing a wide variety of products. Production includes vegetables (77.3% of growers), grapes (25% of growers), herbs (25% of growers), berries (22.9% of growers), tree fruits (13.6% of growers), shrub fruits (6.8% of growers) and nuts (2.3% of growers).

The majority of the growers were practicing 'conventional' or 'natural, sustainable, or chemical-free (without certification)' methods of production. Data shows only 3 of the total 44 growers grew certified organic products and they farmed both in the food desert and non-food desert areas. All the growers who were in transitioning to certified organic production were in the non-food desert areas. About 35% of growers both in the food desert and non-food desert areas were utilizing high tunnels to extend the production period, and 44.5% of growers revealed the intention to install a high tunnel during the next year. This technology was expanding the grower's season by 1-20 weeks. The data also shows 36.4% of the growers (in all locations) reported adopting other season extension techniques. These technologies were expanding the production season for 1-10 weeks.

The majority of growers (65.9%) expressed the intention to expand their fruit and vegetable production in the next three years, especially for the food desert areas (83.3% indicated the intention to expand). Data shows the non-food desert areas had a higher percentage of growers who produced value-added products (44.7%), compared to the food-desert areas (33.3%). Currently, the most commonly produced value-added products are jellies, jams, and processed vegetables. Fourteen growers also produced agricultural products other than fruits and vegetables.

General Sales and Profitability

Data indicates 56.8% of growers' income from fruit and vegetable sales contributed to less than 5% of their total family income. Only 9.1% of growers had a contribution of 60% or more. The non-food desert areas had a higher percentage of growers whose income came from the fruit and vegetable production. All six growers (13.7%) who made more than 30.0% of their family income by producing/selling produce were in the non-food desert areas. Data indicates 83.3% of the growers in the food desert areas and 72.2% of the growers in the non-food desert areas had experienced increases in fruit and vegetable sales from the past three years.

The most commonly utilized market outlets were farmer's markets (56.9%) and friends/neighbors (34.1%). However, while farmer's markets were considered to be profitable for 70.6% of growers, selling to friends/neighbors was considered profitable by only 26.7% of growers. Data shows smaller percentages of growers had made contributions to their total sales through other outlets such as on-farm stores/pick-up (20.4%), grocery stores/co-ops/retail (18.2%), winery (13.6%), Community Support Agriculture (CSA) (11.4%), roadside stands (11.4%), restaurants (9.1%), wholesale distribution (7%), nursing homes/hospitals (2.3%), on-farm processing (non-winery) (2.3%) and K-12 (2.3%). No growers were utilizing colleges/universities or off-farm processors. Growers utilizing the markets were asked if they believed these markets were profitable: CSA's (100% of growers), roadside stands (100%), nursing homes/hospitals (100%), restaurants (75%), wineries (66.7%), wholesale distribution (66.7%), grocery/retail/co-op (60%), farm store/on farm pick up (50%), on-farm processing (50%), and K-12 (33.3%).

About one-third of the growers in the food desert areas and one-fourth of the growers in the non-food desert areas accepted Supplemental Nutrition Assistance Program funding (SNAP).

Direct Sales: Opportunities and Limitations

The survey listed sixteen potential market outlets and invited growers to choose the ones that existed in their communities. The results were consistent with growers' reported percentages of sales: farmer's markets and friends/neighbors were the top two available outlets selected by growers. Growers also selected other outlets including K-12, farm stores, grocery stores/retail/co-ops, and restaurants as potential market outlets existing in their communities.

When asked to evaluate the factors that limited their sales, the majority of growers agreed or strongly agreed that the lack of distribution system (58.5%) and processing facilities (57.1%) were the most important factors that hinder their sales. Data suggest a higher percentage of growers in the non-food desert areas were concerned about the capability to produce sufficient quantities to meet consumer demand (50%) and the amount of time involved in selling local (50%) than those in the food desert areas (33.4% and 16.7% respectively). On the other hand, growers expressed varied opinions toward other factors, such as low prices paid to the farmer, low consumer demand, and the difficulty to find, interact, or negotiate with retailers/consumers. However, the majority of growers disagreed or strongly disagreed that little interest was the factor preventing them from selling more fruit and vegetables.

Growers (61.4%) also listed policies that had negative impacts on their fruit and vegetable sales. Five growers suggested regulations regarding food safety, food tasting, and certification had a negative impact on their ability to sell. Four growers believed that rules for what they could sell at the farmer's markets were also a negative factor. Two growers in the non-food desert areas and one grower in the food desert areas listed "costs to get certified" as an obstacle to sell more local produce.



Conclusions and Recommendations

The majority of growers expressed the intention to expand their fruit and vegetable production in the next three years, especially those in the food desert areas. This may be essential if growers expect to make a more positive contribution from fruit and vegetables to their total family income. Full-time careers growing fruit and vegetables seems challenging when data shows 56.8% of growers contributed to less than 5% of their total income by selling produce. To have a more sustainable business without having to work a second full or part-time job, growers will likely need to expand or change their production and markets. On a positive note for the industry, 83.3% of the growers in the food desert areas and 72.2% of the growers in the non-food desert areas had experienced increases in fruit and vegetables sales over the past three years. The demand appears to exist.

Growers in South Dakota are producing a wide variety of products, although some are at very limited levels. As the market expands, knowing how to continue growing the producer base or levels of production is an important subject for the policy makers and stakeholders to consider. Production education for producers, as well as education about season extension and developing value-added products will continue to be critical to expand the fruit and vegetable supply in South Dakota.

Growers indicated farmer's markets were the top outlets available in communities. Additionally, with 70.6% of producers indicating that farmer's markets are profitable outlets, agencies working to develop and enhance farmer's markets should continue their efforts. Friends and neighbors were also an outlet that was readily available; however, continued guidance for producers to develop a way to make this outlet more profitable is needed. Other outlets that are readily available and considered profitable include grocery stores/retail/co-ops and restaurants. Training on marketing to these outlets as well as opportunities for grower-buyer networking will help increase selling and purchasing in these areas. The final outlet that is readily available in communities is the K-12 schools. However, the majority of growers indicated that it was not profitable. Farm-to-school success stories are heard from across the nation, so further investigation into what barriers are keeping producers from being successful with this outlet is recommended. Although mostly under-utilized, other outlets such as CSA's, roadside stands, and nursing home/hospital outlets were considered profitable by growers. Continued education on these outlets could increase grower awareness and utilization of these approaches. An insightful economic study for the outlook of South Dakota's local food market could also be helpful to assist growers in identifying the potential business opportunities from these outlets.

About one-third of the growers in the food desert and one-fourth of the growers in the non-food desert areas accepted SNAP. Assistance from state agencies to identify locations where SNAP usage is high may help growers determine if SNAP implementation could be a benefit. Education on setting up convenient systems for SNAP utilization at farmer's markets or other local food venues could help with the expansion of the program and increase growers' fruit and vegetable sales. Providing information to SNAP users on the location of food vendors could also help expand its use.

The majority of growers agreed or strongly agreed that the lack of distribution system and processing facilities in the state were important factors that hinder their sales. Regional working groups that focus on development of these systems could help increase local produce sales across the state.

Growers' opinion regarding policies that created barriers to selling local suggest clear resource guides that identify agencies and key regulations and resources should be easily and readily accessible to growers. Several barriers may be the result of the fact that growers are not familiar with the regulations or do not have the capability to comply with the rules under their current production and financial limitations. Ensuring that agencies are aware of services that each other offer in the state will help when referring consumers. Additionally, educational trainings to break down perceived barriers related to food safety, regulations and certification should help growers move through these obstacles.



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