

EXECUTIVE SUMMARY

BUTTE COUNTY BASELINE FOOD ASSESSMENT

February 22, 2022



Photos courtesy of Edible Shasta-Butte

ABSTRACT

The goal of the Butte County Baseline Food Assessment is to understand our current capability to feed ourselves and the potential to create an interconnected network that fairly nourishes us all. A broad analysis of the food system, from seed to consumer, was done during Summer 2021. With a rich agricultural history started with the First Peoples of this area, commercial agriculture has morphed into three primary crops providing 75% of production value, and the county sends 98% of our food out of the area. Yet, 18% of Butte County residents are food insecure—one in five families with children do not have reliable access to affordable, nutritious food. Our food producers, processors, distributors, suppliers, and consumers face many barriers, and this comprehensive report establishes our current situation, as a starting point for a plan to establish food sovereignty. Other regions have used food assessments to spearhead increases in food security, economic growth, jobs, and community connections. Butte County and our neighbors face many challenges and also have the resiliency to engage opportunities and create a food system equitable for all.

We gratefully acknowledge and recognize the original Native American residents of Butte County and are mindful of their special relationship with the Land.

Without the generous support of the North Valley Community Foundation and the Butte Strong Fund, this report would not have been researched and written.



We are grateful for the team that created this Assessment, those who provided information during interviews, and Candace Byrne of *Edible Shasta-Butte* for this presentation.

Butte County Local Food Network is the sponsoring organization.



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The intent of this Baseline Food Assessment is to summarize the current state of our local food system, noting strengths, challenges, and opportunities, with the goal of creating a food system that nourishes all of us, physically, economically, and socially. The assessment is not comprehensive, as we were limited by time and availability of information, and so please send suggestions and comments to Pamm Larry and Maria Giovanni via [BC Food Assessment Feedback](#). The content of this report should be used to inform and inspire future steps to strengthen our regional local food system, as well as serve as a baseline to determine progress towards food sovereignty.

Establishing a steering committee is essential to set goals and organize our effort, secure funding and participation, and to ensure continuity. Working groups will then be formed to establish specific objectives for Action Areas (see Opportunities, p. 10), which should include research on the efforts of food groups in other areas of California and the US. All actions must incorporate the ideas and perspectives of the entire community, especially those directly affected; farmers, small food businesses, people who are food insecure, and others must be part of this effort. This assessment takes a broad view of the food system: seed and cultivation, production, transformation, distribution, access, and consumption of food, plus waste, packaging, and other impacts on our lives and the environment. With our agricultural heritage, producing food and fiber is economically the fourth largest industry for the county. However, 98% of our food is sent out of the area, and we have more hungry neighbors than the state average: one in five families with children do not have reliable access to affordable, nutritious food.

The symbiotic ability of a healthy food system to support local production and consumption has been

demonstrated in other parts of the U.S. More local consumption benefits producers with more income, creates new businesses, provides jobs, and ensures a food supply that is independent of the global supply chain, and it creates community. This baseline food assessment serves to establish the situation in Butte County as of August 2021. We want this report to be a starting point to create a more secure food system, not to sit on a virtual shelf, as has been the outcome of some food assessments. The purpose of doing this work is to inform policy makers, elected officials,



those working in this area, and, most importantly, the public in efforts to ensure a stable food supply. This report can be used to secure funding, assist in decision making, develop best practices, identify gaps, and connect people and groups, the latter being one action we can take immediately; many connections were made in the research for this assessment.

Readers are encouraged to read more information in the full report, found on the Butte County Local Food Network website.

Agriculture and Food Production

Butte County's food landscape has undergone many changes since the First Peoples established their culture and livelihood. When commercial food production started in the mid-1800s, the primary products were grain and livestock. Today, almonds, rice, and walnuts net 75% of production value for the county, which totaled \$625,384,709 in 2020. While the gross value of production continues to increase, the total acreage, diversity of production, number of farms, and net profit have all been decreasing in Butte County.

While most of the farms are family-owned, agriculture is one of the largest employers in the county, providing around 4,000 jobs each year, more than three times the national average for agriculture. The number of farms declined 7% between 2012 and 2017, with both the amount and diversity of food production decreasing. Access to land is also dwindling as prime grazing and farmland is developed, pricing potential new farmers out of farming as a livelihood. One reason for the decline in farms is due to farmers "aging-out", as the average age of farmers in California is 59.6 and continues to increase. Furthermore, the cost to start a farm is prohibitive, not only to buy or lease land, but also to invest in equipment and labor.

Local farmers and ranchers face many challenges.

The most significant challenges faced by agricultural producers are drought, wildfire, difficulty reaching and establishing a local customer base, and burdensome regulations and certification processes. Drought conditions have led to overpumping of groundwater, dried up wells, and leaving some fields/crops fallow. The Camp Fire in November 2018 still impacts the food system in many ways. Sustainable Seed Co, the only seed company in the county, was included among ag-related businesses that were closed. Additionally, several producers were impacted by loss of land and smoke damage, a problem that occurred again during the North Complex and Dixie fires.

Direct-to-consumer sales are reported by 11% of farms in Butte County, an important market channel

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for small farms, with local sales accounting for only 1.8% of total agricultural sales. Drought and fire have severely impacted farms that use this type of market, and they also report challenges in meeting consumer demands. The two primary outlets for

local food sales are farmers' markets and CSAs here. Programs such as Market Match are a successful way to increase participation in local food sales by expanding accessibility of farmers' market goods to lower income families. Urban farming is another way to increase access to fresh local foods in urban and suburban communities; however, efforts can be stifled without supportive government regulations. The City of Chico has recently relaxed some restrictions in response to the interests of its residents.

The value of agriculture beyond raw commodities can be increased by activities such as agritourism and value-added processing. Agritourism is another market channel that is becoming popular, with 200% growth from 2007-2017 and a four-fold increase in agritourism-related income. While several food and beverage processing companies successfully operate in Butte County, the need for prepared food



Photo courtesy of Edible Shasta-Butte

These piglets marked a return to production for Cheetah Tchudi and Samantha Zangrilli, of Turkey Tail Farm in Yankee Hill, after the 2018 Camp Fire ran through the farm.

is far greater than production. One example is the lack of a facility to process milk from the county's two remaining dairies. The Cottage Food Law allows small entrepreneurs to prepare certain foods in the home for sale and has spurred some new businesses. Recent changes in meat regulation may lead to more animal processing, and increased capacity for kitchen "incubators" is needed.

Although Butte County is home to several distribution and retail businesses, the largest grocery stores, which most residents depend on for the majority of their food, are not headquartered within the county. The small stores based in the area feature more locally-produced food than large chain stores. Terminology adds to the confusion about "local" foods, as the large grocers often refer to any food grown or produced in California as "local".

Food service, the preparation and serving of meals outside of the home, includes restaurants, caterers, schools, hospitals, and residential facilities. Prior to the pandemic, more than half of food eaten by

many Americans was "away from home", that is from food service operations. The pandemic sharply decreased food-away-from-home expenditures, impacting all Butte County facilities by eliminating business for many commercial operations and putting more demand on health care facilities as more people were hospitalized. Commercial food service (e.g., restaurants) had increased by 36% over the past ten years and provided jobs to half of the people who work in the food system. However, the COVID-19 pandemic has resulted in a 10% decrease in household food expenditure, resulting in shuttering 4% of these businesses and a loss of 1,575 jobs. The Camp Fire destroyed several restaurants in Paradise, a few of which have reopened. The fire also severely damaged the Feather River Hospital, which will not reopen, resulting in some patients possibly seeking care outside of Butte County. Among Butte County restaurants that serve local foods, the amount of local food varies, with reports of 15-70% coming from local farmers. Challenges include an on-going supply, coordinating delivery, and cost,



Photo courtesy of Redwood Seeds

Photo courtesy of Edible Shasta-Butte



Photo courtesy of Edible Shasta-Butte



Opposite page, clockwise from top left, Kalan Redwood of Redwood Seeds in Tehama County wheels watermelons to break open for seeds; microgreens grow for farmers' markets and restaurants; Ben Nielsen of Lassen Cider, in Durham, juices apples for his brews. This page, a crack in the spillway of Oroville Dam in 2017 caused the evacuation of 188,000 people from Butte County; at this time, the dam held, averting a disaster that would have flooded thousands of acres of farmland.

although many consumers are willing to pay a small premium for local foods. Networking and marketing campaigns that promote restaurants that buy local food is a way to raise consumer awareness and interest in local foods.

Institutional foodservices, particularly health care facilities, have cost, quantity, and quality considerations that limit their ability to use locally grown food. Schools rely largely on processed foods that only need to be heated and served in order to cut down on labor costs. Both institutions require an arduous contract and auditing process, which producers must complete prior to becoming vendors. Sixty percent of Butte County K-12 students qualify for free or reduced lunch based on household income, illustrating the extent of food insecurity among families. In the 2022-23 school year, California will offer free lunch for all students. Although some farm-to-school programs are in action, they serve mostly as educational tools rather than a meaningful supply of food. Nonetheless, Harvest of the Month,

via the Center for Healthy Communities, contributes an estimated \$70,000 in direct sales to local farms. UC Cooperative Extension also conducts tastings at schools, using as much local food as possible. Foodservice at California State University, Chico places value in and prioritizes local food as much as possible, but even with these efforts, local food comprises only a small portion of food served on campus.

Gardens provide food, recreation, and community for people and Butte County needs more space for gardens, as several community gardens have waiting lists. Eight community gardens report following different models from paid to free beds. All include education, and COVID has limited programs and opportunities to recruit needed volunteers. The Camp Fire destroyed the gardens at the Paradise Guilds and several elementary schools, and several new gardens are beginning operation on the Ridge. A number of schools reportedly had gardens, but they are difficult to maintain and staff, although



Photo courtesy of Edible Shasta-Butte

The use of sustainable practices is growing, with a 300% increase in the gross value of organic crops. Butte County has several groups engaged in improving the food system. In agricultural production, Chico State's Center for Regenerative Agriculture and Resilient Systems researches and informs about regenerative agricultural farming practices to improve the sustainability of farms, food and water insecurity, and the environment. Chico is home to an active Traditional Ecological Stewardship Program that introduces Native and non-Native community members to practices that conserve forests, use place-based knowledge, and manage land through adaptive practices. On January 1, 2022, AB 1383 went into effect to reduce greenhouse gas emissions; this law requires organic waste to be diverted away from landfills into compost, energy production, or food rescue.

Food Accessibility and Security

While access to healthy food is a human right, more than one in seven (14.4%) of Butte County residents face chronic food insecurity, with the rate even higher, 18.7%, for families with children, rates that are higher than the California average. Food insecurity can also occur periodically, which is the case for 18% of Butte County residents and 27% of children. Many factors contribute to food insecurity, including income, health, transportation, and living situation, with 28% of residents living in areas considered "food deserts", with no access to food within a reasonable distance, a rate that is also higher than the California average. Other factors that increase the risk of being food insecure include racial/ethnic minority, sexual orientation, and age group. Hunger is a constant for those who are homeless, and homelessness increased at least 16% after the Camp Fire. Food insecurity leads to health problems, with more clinic and emergency room visits, particularly among families and older adults.

Disasters have become all too familiar for Butte County residents, with a forecast for increasing frequency and severity due to climate change. Immediate or urgent disasters, such as cyber, energy, and chemical (biochemical) attacks on our people and systems, are also threats. While the impact of any disaster is felt in all aspects of life, producing and distributing food and water is

some funding is available. Home gardening reportedly increased during COVID-19 but the role of home gardens as a food source is difficult to assess, and groups that support these efforts such as Master Gardeners and "seed swaps" were not able to provide outreach during the pandemic.

As the climate changes, food production must change. The most noticeable impact of climate change in Butte County is on the water available for agriculture. Less noticeable yet important changes are soil productivity and, likely in the near future, crop yield. Farms that operate on a slim profit margin and people who are most vulnerable to food insecurity will be impacted most severely. While an assessment of the specific consequences of the climate crisis on our food supply is beyond the scope of this report, the impact is clear: our water supply is at risk, which will directly impact food production.

severely limited or food and water are simply not available, disproportionately harming people who are disadvantaged and resulting in lost income, illness, homelessness, and instability of our residents. Butte County does not have a Food Disaster Plan to ensure food and water are accessible for all residents if resources from outside the area are unavailable, such as energy and transportation. The plans of the federal, state, and county governments are based on assumptions that resources from outside the disaster area will be available and these plans are also contingent on each agency coordinating efforts among themselves and with other groups, which we have experienced

is not the situation in an emergency. (If you are not aware of our vulnerability and the state of ultimate food disaster in our county and throughout the US, please read Food Disaster Preparedness,

Appendix P in the full [Assessment](#).) As our world is increasingly dependent on technology, which can be attacked, and climate change decreases the amount of water and alters the crops that can be produced in Butte County, adaptation and plans are critical to keep people safe and fed and to provide the structure for critical systems, such as agriculture, water, and energy, to quickly become operational.

Four government nutrition assistance programs are used in Butte County. The participation rate for CalFresh, California's Supplemental Nutrition Assistance Program (SNAP), is 12%, with twice as many households in Oroville receiving benefits as in Chico. Pre-Camp Fire data indicate that 40% of eligible households do not receive CalFresh, a loss of revenue and health for our county. More outreach is also needed for the Women Infant and Children (WIC) program to ensure all eligible families benefit. At farmers' markets, CalFresh recipients are eligible for additional benefits in the form of fruit and vegetable incentives. WIC offers an additional seasonal benefit to purchase fruits and vegetables at the farmers' market incentive program; however,

farmers face several barriers to participate in this program. A similar program is also available for older adults.

Schools, including pre-schools, and child and adult care programs have an important role in providing food. Prior to COVID-19, School Nutrition programs fed 60% of students; with the pandemic, meals were provided to all children without the need to apply, a situation that will continue in California due to the "Free School Meals for All" legislation. Schools have been a reliable source of nutrition for students, and the continuation of this program is critical;

however, supply chain issues are impacting the ability of schools to feed children.

With a very small staff, Butte County Office of Education Nutrition Services provides significant services, including summer meals, support to districts,

and education. Other groups providing information and classes about nutrition, budgeting, and related topics are the Center for Health Communities and UC Cooperative Extension.

Community organizations play a major role in providing food to people in need. The North State Food Bank, with their small staff, provides food to 45,000 people in its six-county area each month via pantries and some direct distribution. Pantries are mostly run by volunteers, so the food supply, hours, and dates may be inconsistent, even more problematic as COVID-19 has increased the need for these pantries and reduced availability of volunteers. Only two groups provide hot meals to people in need, while several transitional housing groups provide meals to their residents. Neighborhood "cupboards" allow people to share extra food, particularly produce from their garden. Efforts to keep excess food from restaurants, caterers, and grocery stores out of the waste stream are underway to increase the amount of food available for those in need or for composting if the food is not edible.

More local consumption benefits producers with more income, creates new businesses, provides jobs, and ensures a food supply independent of the global supply chain, while it creates community.

OPPORTUNITIES

The Executive Summary presents the wide variety of challenges we face in creating an equitable food system. To address these, we have identified five Action Areas that present opportunities for change. The shape and substance of the effort will depend upon those who are willing and able to put the time and energy into the work.

All Action Areas will need the following foundational support (and likely other types of support):

Support current groups with disciplinary expertise, such as UC Cooperative Extension, Center for Healthy Communities, and the Center for Regenerative Agriculture and Resilient Systems, to gain additional staff with expertise in areas such as small farms, local food systems, and food processing.

Cultivate resources to support all efforts, including financial, people, and knowledge.

Increase the awareness and utilization of grants and financial assistance programs such as the USDA programs and low/no-interest loans.

Engage the press in all of our efforts.

Decrease the number of people who are food insecure

Find more resources to support this work, including staff, finances, facilities, community awareness, and opportunities for volunteers.



Photo by Jason Hale, CSUC photographer

Establish a network and database of those working to address barriers to food access and food security to share resources and best practices.

Collaborate with efforts to recover edible food from the waste stream and distribute to partners with storage and distributions capabilities.

Incorporate more healthy food (fruits, vegetables, nuts) into small stores and food deserts.

Share easy and economical food preparation methods for eating healthy.

Increase awareness and participation in nutrition assistance programs and local food distributions.

Enroll more people in Nutrition Assistance programs and expand acceptance and use of EBT and Market Match participation to all farmers' markets.

Understand the specific issues faced by marginalized groups and develop strategies to ensure food security in these groups.

Increase Awareness of and Access to Locally Produced Food

Increase the number of people growing their own food by promotion of gardening and providing more education, support, and supplies for starting and maintaining gardens, including composting; secure more land and assistance for community gardens.



Photo courtesy of BCLFN

Increase the number of and access to community kitchens and small business incubators.

Increase outreach to improve agricultural and food literacy to everyone.

Create more markets for local food, especially in food deserts.

Spur youth to action and food responsibility through food literacy efforts, such as increased access to school gardens, farm-to-school programs, nutrition education, and more.

Increase Local Food in Distribution, Retail, and Food Service

Create a food distribution system that serves producers and providers, including consumers, food service, and food assistance organizations, e.g., a central food hub or smaller food hubs in strategic locations.

Develop strategies for increased institutional and commercial (restaurant) procurement of local food.

Increase alternative income sources for agriculture, such as agritourism, value-added food processing, and cottage food businesses.

Initiate marketing initiatives that promote local food to increase the amount of local food purchased by consumers, using creative ideas, such as point of sale, social media, recognition of restaurants using local food, and having a "Butte Grown" designation.

Expand current and develop new local food distribution streams.

Create a regional food hub or hubs that serve a intermediary between local consumers, producers, retail, and foodservice.

Determine market channels that will bring more locally produced fresh produce to smaller communities and rural areas.



Photo courtesy of Northstate Food Bank

Promote Sustainable Agricultural Production

Create food sovereignty by making available the amounts and types of food needed to provide everyone with a healthy diet, such as converting and/or adding at least 1,000 acres of arable land into vegetable production.

Sustainably manage water and land; conserve and increase essential farmland.

Improve land stewardship through practices such as TEK and regenerative agriculture.

Engage Native Americans in our efforts to learn how to produce food in a way that honors the Earth.

Support remediation of land that has been destroyed through fires, industrialization, and other destructive practices.

Determine barriers and facilitators to increase the number of farms and ranches producing diverse types of food, including fruit and vegetables, grains, dairies, and urban farms.

Educate and assist small and beginning farmers.

Establish financial and social support such as subsidies, grants, low-interest loans, technical support, and education for agricultural producers.

Increase local production of inputs, such as compost and seeds for plants that thrive in the region.

Lobby local governments in designating land for commercial agricultural uses, such as designating land as “farmland of local importance” and urban farming.

Increase numbers of young people entering agriculture careers.

Promote composting with organic waste, which improves soil health and decreases reliance on chemical inputs such as fertilizers.



Photo by Jason Hale, CSUC, photographer

Prepare for Disasters

Create an interagency plan to facilitate water and food distribution during a disaster.

Establish secure sources of water and food for a disaster.

Develop a plan for an immediate and/or extreme food disaster.



Photo courtesy of CA Dept of Water Resources

Our county and bioregion hold a rich capacity to be food sovereign, year round, if needed. We have the talent and the brain trust to develop and co-create opportunities, projects, and programs to get there.

How will you be part of the change? Join us by contacting us [here](#).