COVID-19 Food Habits:
A change in thinking, a change in eating

Background

We started hearing anecdotal reports of how our local food system was being impacted almost immediately after cases of COVID-19 were first reported in the United States: from product shortages, to changes in shopping habits, to increases in local farm sales, etc. To better understand the changes in consumer thought processes and behaviors underlying these shifts, Ten Rivers Food Web embarked on the creation of a survey.

Our primary reasons for conducting this survey were to:

1. Identify unmet needs arising specifically because of the COVID-19 pandemic.
2. Identify weak links and avenues for improving the overarching resilience of our local food web in times of crisis.
3. Understand the factors driving consumer behavior during this time in order to inform efforts and campaigns promoting local food.
4. Provide input to programming development at TRFW and partner organizations.

In July 2020 the survey was advertised through TRFW, Corvallis-Albany Farmers' Markets, Corvallis Sustainability Coalition, First Alternative Co-op, Mary's River Grange, and OSU Extension Small Farms Program, as well as general Facebook groups in each large city in Benton County, Lincoln County, and Linn County. We offered seven $50 local food rewards as incentives for respondents and over the course of three weeks received a total of 624 responses. (Questions listed in Appendix 1). Of these, 420 (67%) were residents of Benton County, 84 were from Lincoln County, and 85 were from Linn County. Overall, 94% of responses derived from the three-county TRFW mission area, with the remaining responses coming from nearby areas of western Oregon.

We asked respondents about their food habits, food priorities, and how they thought about food pre-pandemic, amidst the pandemic, and their predictions for post-pandemic. Several questions prepared respondents to think about recent changes and also gave insight into who the survey reached. Of note, nearly 70% of respondents estimated more than 20% of their diet was sourced from within 100 miles - well above the community-level estimate of 7% - and only 5% of respondents reported accessing an emergency food pantry in pre-pandemic times, compared to a regional assessment of 16% of families experiencing food insecurity in 2015. Among our respondents, nutrition was ranked the highest priority when deciding what to acquire, followed closely by locally produced, and cost coming in third, leading us to believe our demographic was more local-food-aware and likely higher-income than the population as a whole.

Key findings

Many of the key findings from our three county area followed nationwide trends including:

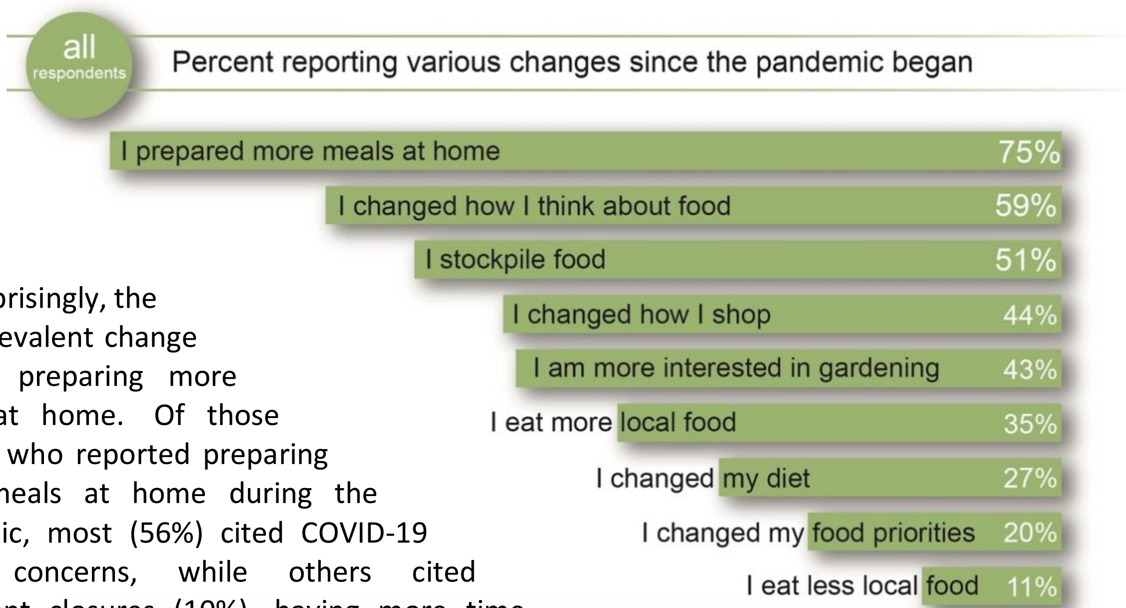
- preparing more meals at home
- assembling emergency food supplies
- shopping at fewer stores and less often

What was interesting was that what constituted a safe shopping experience varied from one respondent to the next: from being inside versus outside, and the range of safety protocols that different stores have established.

What we found encouraging was the shift in how people think about their food because of COVID-19, their deeper understanding of the difference between a global and local food system, and their commitment to supporting our local food economy.

What was inspiring were all the ideas respondents shared about what would have been helpful to have pre-pandemic, giving us insight into how we can improve our resilience and be better prepared for unforeseen disasters and hardships.

Figure 1 shows the proportion of respondents **reporting various changes since the pandemic began**:

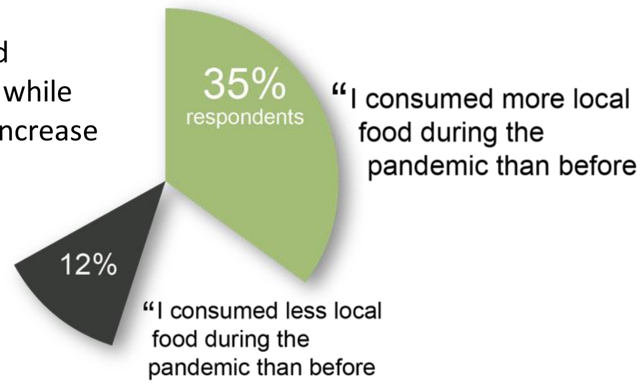


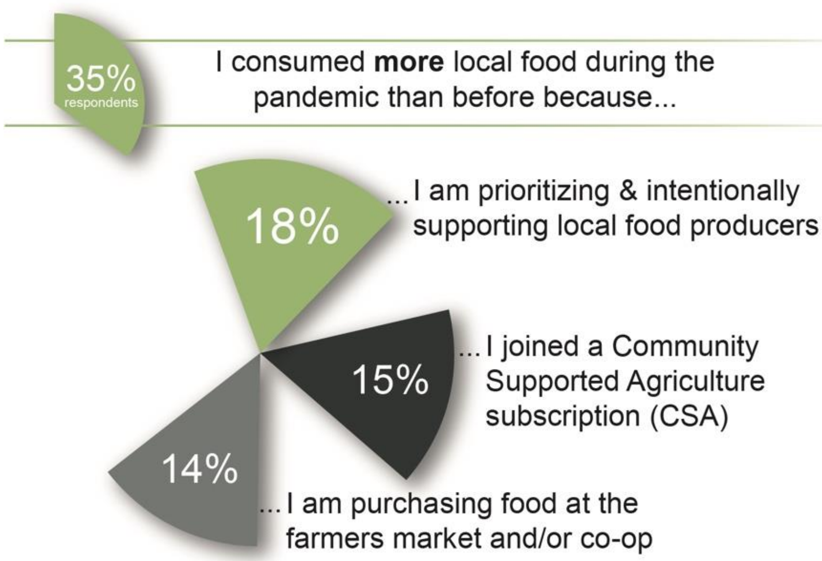
Not surprisingly, the most prevalent change was in preparing more meals at home. Of those (n=466) who reported preparing more meals at home during the pandemic, most (56%) cited COVID-19 safety concerns, while others cited restaurant closures (10%), having more time (4%), or working from home (3%).

A slim majority of respondents reported that they were newly stockpiling food for emergency use, in addition to the 25% who reported that they already had an emergency supply pre-pandemic. That leaves only 24% of respondents who did not report taking precautions in case of supply chain disruptions.

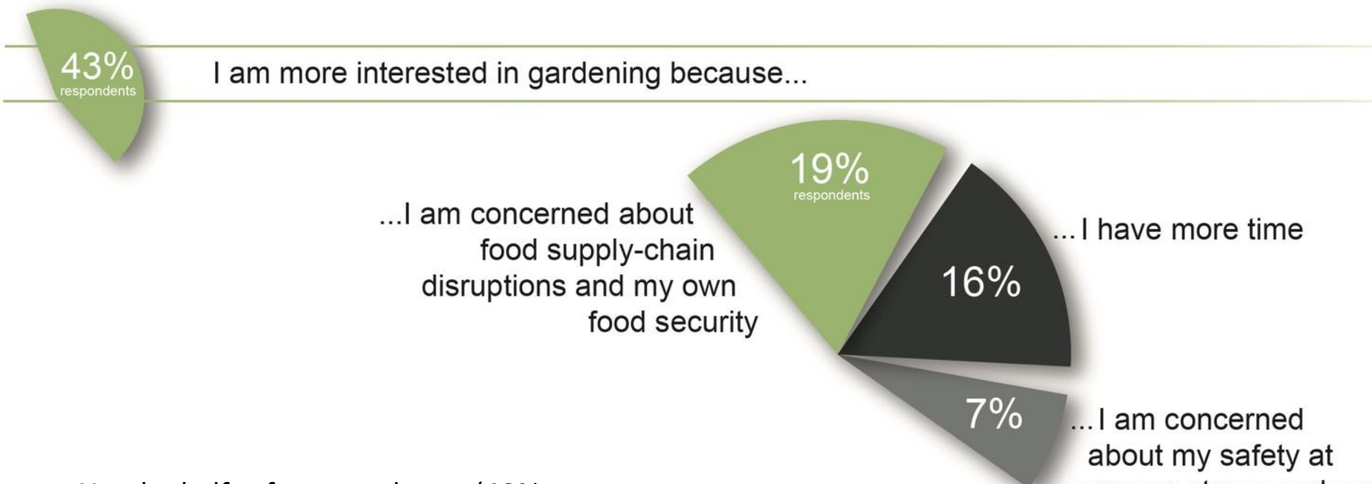
Just under half of respondents reported that their shopping habits had changed during the pandemic, with a wide range of explanations offered. Of those who reported changes (n=275), 28% were avoiding big or crowded stores, 12% were shopping by delivery/curbside pickup only, and 8% were limiting their shopping to one or a few stores. Eight percent (n=23) reported acquiring more food via CSAs or direct from local farms. Individual perceptions of COVID risk at particular locations varied widely; respondents variously reported shopping at a food co-op more (7%) or less (3%), and at the farmers market more (8%) or less (10%).

More than a third of respondents (n=218) reported **consuming more local food during the pandemic**, while 12% (n=73) reported consuming less. Part of this increase can be attributed to seasonality - we were asking respondents to compare July to February, but respondents provided reasons for their change in shopping habits, shown below.

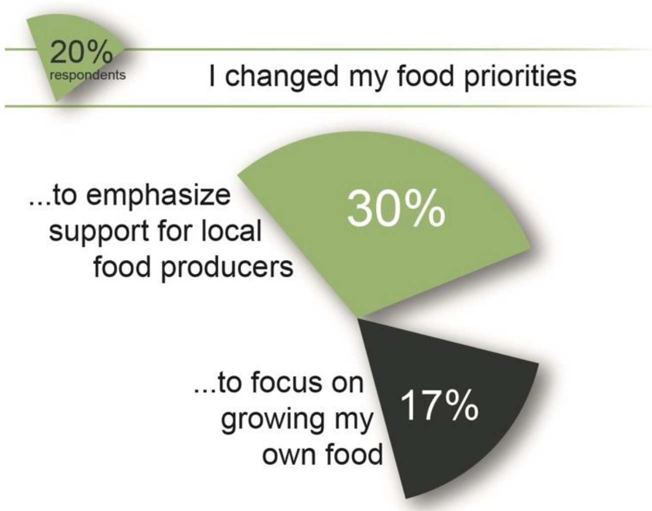




Of those reporting an **increase in local food in their diet**, 18% (n=40) said they were prioritizing local food more and intentionally supporting local food producers, 15% were buying CSAs or direct from farmers, and 14% were buying more from the farmers market or co-op. Of those who reported consuming less local food, 34% (n=25) cited COVID-19 safety, often less shopping at a farmers market, while 19% (n=14) cited local food shortages or increased difficulty in acquiring local food.



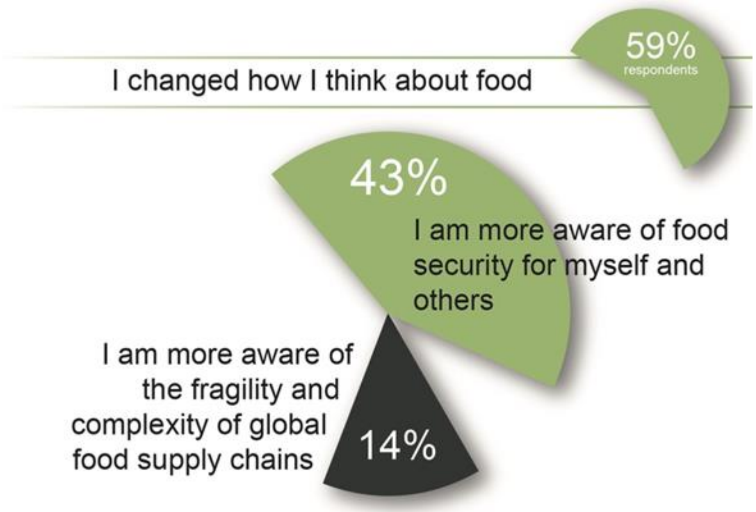
Nearly half of respondents (43%, n=275) reported **increased interest in gardening** or home food production. The most common explanations provided were concern about supply-chain disruptions and food security (19%, n=51), having more time or avoiding travel during the pandemic (16%, n=45), and COVID-19 safety concerns e.g. avoiding going to stores or consuming food that has been handled by others (7%, n=20).

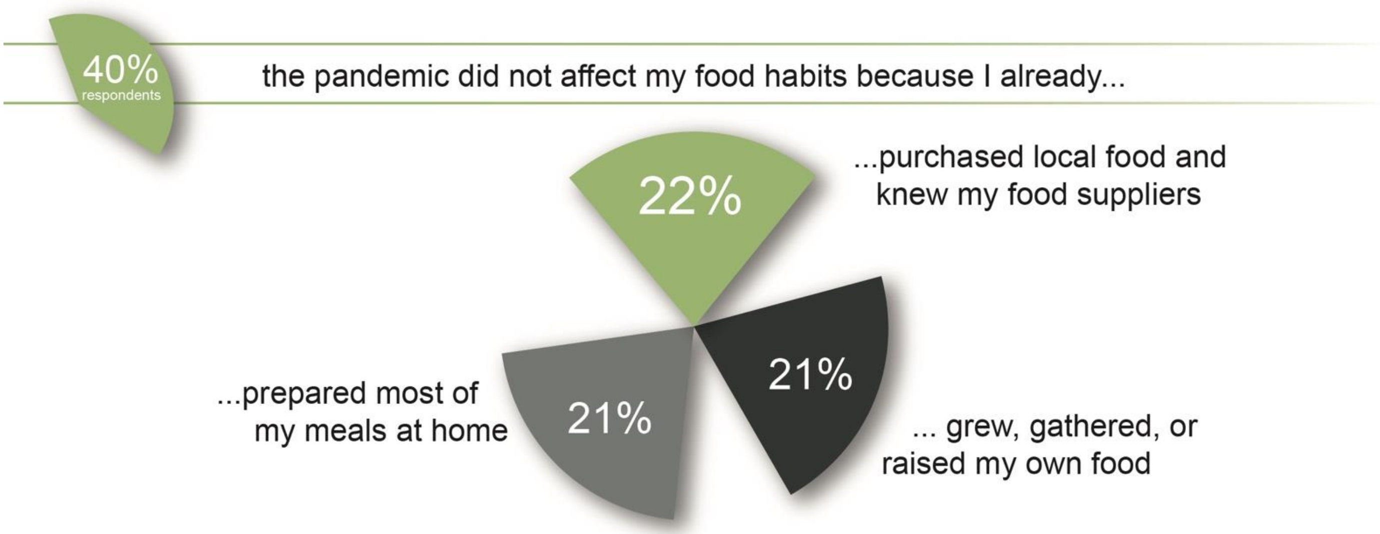


Only one fifth of respondents reported a **change in their food priorities**, but of this number 30% (n=38) expressed a commitment to supporting local food producers and the local economy. Another 17% (n=21) were prioritizing growing their own food. Other priorities mentioned included COVID-safe shopping, nutrition, affordability, convenience, and emergency preparedness.

One quarter of respondents reported an overall change in their diet as a result of the pandemic. Of these, 14% (n=23) reported eating more farm-direct or home garden food, 13% (n=21) reported eating more vegetables or more healthily in general, and 13% (n=20) reported eating more prepackaged food. Other responses included adapting to fewer shopping trips and locations, eating less meat, and eating more simple foods.

We asked survey respondents to reflect if and how the pandemic **changed the way they think about food**. Of 59% (n=361) who said yes, 43% (n=121) indicated an increased awareness of food security concerns and described various approaches (e.g. gardening, supporting local producers, supporting or accessing food pantries) they are taking to address these concerns for themselves and others. Another 14% (n=49) reported that the pandemic has highlighted the fragility and complexity of global food supply chains. Other responses included increased gratitude for local food producers and the bounty around us (n=27) and increased concern for food- and farm-worker wages, health, and safety (n=17).





Just under 40% of respondents indicated that **the pandemic did not significantly affect their food habits**. We grouped answers into 10 categories based on themes discovered in the 252 open-ended responses (Table 1).

About 20% of respondents to this question fell into each of the following three categories, accounting for a total of 64% of responses:

1. Already purchasing local food, being a member of a CSA group, and/or knowing local food suppliers (22%)

   "We already grow much of our produce and shop mainly at the coop looking for organic and local foods"

2. Growing, gathering, or raising food already (21%)

   "Little has changed except insistence on local meats. I garden, I buy organic produce, I work with farmers and buy direct when I can."

3. Cooking and preparing most meals at home (21%)

   "Amount of meals prepared at home did not change because I prefer not to eat at restaurants except on occasion. However, most other things have changed."

Eating healthy or a special diet, like food allergies, keto, or vegan, accounted for another 8% of respondents' reasons why their food habits did not change. About the same number reported they didn't need to change because their normal foods were still available, and again the same amount reported no change needed because their normal food outlets were still open and stocked.

Hindsight is 20/20 is taking on a new meaning this year, but we hoped to capture short-term hindsight while it was fresh in respondents' minds. We asked, "what local food resources would have been helpful to have in place before COVID-19?" in an effort to identify potential actions to increase resiliency moving forward.

Of the 624 total survey respondents, 372 (59%) answered this question. We grouped answers based on common themes into 21 categories, and then grouped those into four general areas (Table 2).

The most-often mentioned local food resources that would have been helpful were *improvements to local food accessibility within existing systems*, mentioned by just under half of respondents (n=173). *More money to buy food and more access to food resources* like access to emergency food options with local food, access to land for personal gardening, and access to space for emergency food storage was mentioned by 16% of respondents to this question (n=60). The third category (n=52) was identified by wanting *information*: where to find existing resources. The final category wrote in suggestions we categorized as *large-scale systemic changes* (n=42).

Improving existing distribution systems

"all things fresh and local deliverable"

The most-requested change across all counties was increasing the ease, convenience, and flexibility of access to local food (n=173). Some specifically mentioned the farmers' market and wanted online ordering, online payment, and delivery, others wanted online ordering direct from farmers, increasing access and flexibility of CSAs, and of course, delivery from local farmers. Another group sought transparency in sourcing at restaurants, online payment options for restaurants, and delivery of restaurant meals. Forty individuals expressed a desire to increase access to specific food items. The most frequently mentioned item (n=11) was access to local meat, closely followed by local beans and grains (n=10), and also dairy, flours, and vegan products.

More money to buy food and more access to food resources

"A food bank stocked with local foods."

Sixteen percent of respondents to this question (n=60) mentioned a shift in personal economics or resource access as helpful to have in place before the pandemic. Of these, nearly half (n=23) mentioned limited personal finances, social safety net programs, and the high cost of local food. Another thirteen respondents named improved access to food production land, either as community garden plots or owned/leased property. Fifteen respondents mentioned strengthening food banks, gleaners, and school lunch programs, citing a desire for more fresh and local food availability and (in some areas) emergency food options without a religious affiliation. Nine respondents focused on food storage concerns: access to food storage space, bulk purchase options for nonperishable foods, and desires for specific storage food items from local producers.

Improving access to local food information

"A hub for information for all of the many vendors I might buy from."

A total of 52 respondents (14%) wished for improved access to local food information and resources. Of these, 37 specifically requested a local food directory or a real-time updated list of available local foods. Thirteen respondents suggested education or skills training that would have been helpful. Classes or skills mentioned included gardening, preserving, and cooking fresh, local food.

Large-scale systemic changes

"A less centralized, efficient supply chain that is resilient."

A varied group of responses (n=42) wished for larger-scale changes in the local food web. Ten respondents cited a need for a stronger, less centralized and more resilient food supply chain. Five respondents wished for more local food options in large chain grocery stores. Nine respondents from rural areas hoped to see an improved selection of local foods for sale nearby. Other requests in this category included a food hub, a community kitchen, neighborhood bulk purchasing collaborations, a USDA certified slaughterhouse for small producers, and a system to track and identify local foods in the restaurant supply chain.

A Call to Action

Responses from this survey are helpful in inspiring next steps for various actors in the food system, and accomplished all of our stated goals.

In our interpretation, responses to this survey primarily highlight three directions for potential immediate action:

1. **Consumers would like more options for obtaining local food.**

Farmers markets, farm stands, and natural food co-ops provide a distributed, decentralized food purchasing experience that facilitates direct interactions between producers and buyers and encourages community building around food. Unfortunately this is at odds with the COVID-19 reality of reducing in-person interactions and shopping less often at fewer places. Depending on the expected length of the pandemic, it could be helpful to develop robust local food aggregation and delivery systems with online pre-ordering and home delivery, while also working to increase the amount of local food available in larger grocery stores and food pantry locations.

2. **Consumers would like more information regarding local food availability and options.**

Benton, Lincoln, and Linn Counties do not currently have a directory of local food producers, distributors, and markets, likely resulting in missed opportunities for local food purchasing. Unprompted, thirty-seven respondents specifically asked for a local food directory or a real-time updated list of local food availability. Buyers would like to be able to identify a product or product area and easily identify which local producers are offering those products and what stores and markets carry those products. This is especially true as interest in local food grows and new people intentionally seek out local food purchasing options.

3. **Concern about supply chain fragility and unsafe working conditions in the global food system has driven a dramatic surge in interest in local food purchasing, home food production, and emergency food storage.**

During times of crisis, local food systems have the ability to be more flexible and responsive than larger-scale systems; it is easier, for example, for small and diverse farms to transition from selling through wholesale or restaurant accounts to selling directly to consumers or through local markets. As the COVID-19 pandemic has highlighted weaknesses in the larger systems (e.g. disease outbreaks at large processing facilities, meat processing bottlenecks, products missing from store shelves), consumers have responded by purchasing CSAs, starting and expanding gardens, and filling their pantries with nonperishable items. This new level of interest presents a window of opportunity to expand the local food web, which TRFW and partner organizations would do well to leverage.

Some specific potential actions include:

- Advertising campaigns championing local food producers as safe, stable sources of sustenance during uncertain times.

- Support for new and expanding gardeners and local food producers through skill- and knowledge-building partnerships (e.g. OSU Extension, Corvallis Garden Resource Guide) and bulk-purchasing options for essential supplies (e.g. Soil Amendment Sale).

- Expanded opportunities for learning about food storage and stocking up on long-lasting, locally-grown foods (e.g. Fill Your Pantry, partnerships with OSU Master Food Preservers).

Overall, this survey brought to light a consistent thread from consumers of shifting to local food, a community-wide desire to strengthen the local food economy, and inspired opportunities for increasing resilience.

Thank you for taking the time to read our COVID-19 Consumer Survey Report. We hope you found it informative. Please reach out to us with any questions or ideas you may have at tenriversfoodweb@trfw.org.

Tables

Table 1

If you reported no changes in your food habits during the stay-at-home orders, please share with us why nothing changed for you:

n = 358

Theme	Example Quote	n / % of question respondents
I already ate local, knew my suppliers, or am already a member of a CSA	"We have long favored homegrown, locally produced foods..." (Benton County) "In general, I was already buying as much from local vendors as I could." (Linn County) "I ate stuff from the garden & my CSA box before & still do" (Benton County)	56 / 22%
I already grew, gathered, or raised my own food	"I have been growing, processing and storing food for a long time. I have been seeing this crisis coming, and preparing for it for a long time. I have been cultivating local food-centered relationships for a long time." (Linn County) "We had very little change because our preferences have always been to produce our own and buy local." (Benton County)	54 / 21%
I already prepared my own food at home	"I've always made most meals, grown most of my food. Preserve, can, dehydrate and freeze dry most food and spices" (Lincoln County) "We already cooked at home almost every night, only went to a restaurant or ordered pizza/takeout about once every 2 months. We are cooking about the same type of food we did before COVID." (Benton County)	54 / 21%
I eat healthy already/I already have a special diet, so my foods did not change (vegan, GF, Celiac's, etc)	"We have always eaten healthy food." (Linn County) "I have food allergies and so my diet and therefore food habits remain fairly constant." (Benton County)	21 / 8%
My normal foods are still available, so I haven't changed my habits	"The foods I enjoy were still available. The only change for me during this virus was sharing VSA boxes bi-weekly with a friend and neighbor. (from Gathering Together Farms)" (Lincoln County)	21 / 8%
My normal grocery stores are open	"The stores where I shop haven't changed their supply of food." (Benton County) "Nothing needed to. The farmers market was still open, the same stores we shopped at were still open. ...so nothing has really changed." (Benton County)	16 / 7%
I was already prepared for an	"Our changes have been slight, because we have always	7 / 3%

emergency, so nothing has changed	believed in self-sufficiency and being prepared." (Benton County)"Already grew a big garden and stockpiled ESSENTIAL foods as earthquake preparedness..no idea I'd need it for a pandemic." (Linn County)	
I already bought in bulk and was prepared with a fully stocked pantry	"I already stockpile necessities and see the wisdom in that" (Benton County) "I already have a small pantry of food stocked up." (Linn County)	7 / 3%
There's no need to change	"Haven't seen a reason to change. Already eating healthy foods prepared at home." (Lincoln County)	6 / 2%
Other	"I have an eating disorder, changing foods really messes with my mental health." "Actually I've been eating more food during the pandemic and need to cut back to reduce weight." "I live alone on a tight budget. I'm an avid food gardener and gatherer already!"	8 / 3%

Table 2

What local food resources would have been helpful to have in place before COVID-19?

n = 372

n / % of question respondents	General Category	Specific Category	n / % of question respondents
173 / 46%	Area 1. Access - Reinforcing Existing System	Ease of Access (online payment options, delivery)	78 / 21%
		Consistent farmer's markets, Expanded CSAs or other Direct Purchasing Options	52 / 14%
		Specialty Food Access	40 / 11%
		Bulk Stock-up Event (fill your pantry)	4 / 1%
60 / 16%	Area 2. More money to buy food and more access to food resources	Economic Food Access	23 / 6%
		Emergency Food Options (More Food Banks, Non-religious Food Banks, It's On Us, Gleaners)	15 / 4%
		Neighborhood/ Personal gardens	13 / 3%
		Personal Provisioning (at home food storage for emergency supplies)	9 / 2%
52 / 14%	Area 3. Information	Local Food Directory	39 / 10%
		Education (gardening, canning, cooking, nutrition)	13 / 3%
44 / 12%	Access is good		
42 / 11%	Area 4. Access - Systemic Change	Co-op Grocery / Fresh Grocery store / Organic Market	11 / 3%
		stronger/less centralized supply chain	10 / 3%
		Geographic access / Rural Access to Healthy Food	9 / 2%
		Local food in large grocery stores	5 / 1%
		Community Resources (Food Hub, Community Kitchen)	4 / 1%
		Restaurants using local food	3 / .8%
17 / 4%	Other		

Appendix 1:

Survey questions

1. Where do you live? (city, county)

Prior to the pandemic (e.g. February 2020):

2. Where did you eat most of your meals? (home, restaurant, other)
3. Where did you acquire the food that you prepared at home? (multiple choice)
4. What was most important to you when acquiring food? (ranked choice)
5. What percentage of your food was produced within 100 miles of your home? (Please include food produced at home, and hunting/fishing/gathering including from the Oregon coast.)
6. What types of foods did you eat that were produced within 100 miles of your home? (multiple choice)
7. What factors impacted the amount of local food in your diet? (multiple choice)

Since the pandemic started:

8. Has the amount of food you prepare at home increased, decreased, or remained the same? If it has increased or decreased, why?
9. Are you shopping at all of the same places? If no, what has changed?
10. Have you acquired extra food to store for future use? (yes, no, already had a supply)
11. Are you eating the same foods? If no, how has your diet changed?
12. Do you have the same food priorities? If no, how have your priorities changed? What is most important to you about your food now?
13. Has the amount of local food (produced within 100 miles of your home) in your diet increased, decreased, or stayed the same? If it has increased or decreased, please explain.
14. Has your interest in growing/raising your own food increased, decreased, or remained the same? If it has increased or decreased, please explain.
15. Which of these changes in your food habits do you expect to continue after the pandemic? (multiple choice) Are there any additional changes you plan to make in the months ahead? If so, please explain.
16. If you reported no changes in your food habits during the stay-at-home orders, please share with us why.
17. Has the pandemic changed the way you think about food? If yes, how has your thinking changed?
18. What local food resources would have been helpful to have in place before COVID-19?
19. Is there anything else you'd like to share?