

COVID-19 Impacts & Adaptations Among Washington State Farm Businesses

Research Brief 1



ABOUT THE SURVEY

The Washington State (WA) Farm COVID-19 Impacts & Adaptations Survey was deployed from December 1st, 2020 to January 31st, 2021 to capture an end-of-season snapshot of farmer experiences during the COVID-19 pandemic. A total of 265 responses from farmers and ranchers in 33 of 39 WA counties were received. This brief provides an overview of survey respondent characteristics, impacts on farm businesses, challenges encountered, changes made, and utilization of aid. We also provide a synthesis of anticipated future challenges and needs.

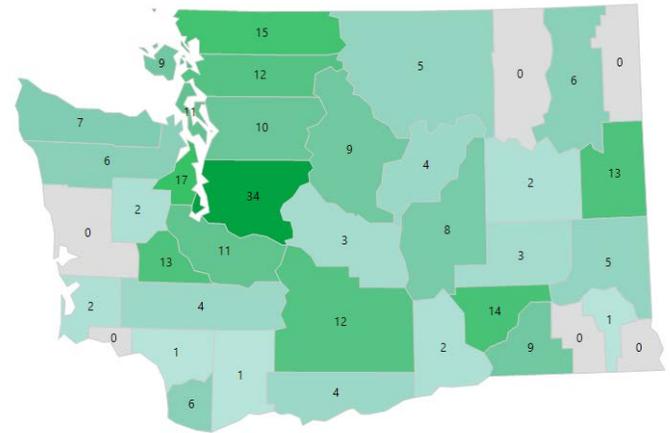


Figure 1. Geographic distribution of survey responses

KEY FINDINGS

1. Different farms and ranches had different experiences depending on size, marketing scale, type of production, and other features.
2. Operation costs increased for nearly $\frac{2}{3}$ of farms.
3. Customer relationships were strengthened for many farms marketing locally and regionally.
4. Many farms expanded their networks.
5. There are many concerns for the future, mixed with cautious optimism.
6. Many farmers reported high levels of stress.

RESPONDENT CHARACTERISTICS

Statewide Coverage

- Responses were received from farmers and ranchers in 33 of 39 counties across the state (Fig. 1).
- Approximately 60% of respondents farmed in Western Washington and approximately 40% of respondents farmed in Eastern Washington.
- The highest density of responses came from King County and other Puget Sound counties as well as Franklin, Spokane, and Yakima Counties.

Diverse Farm Products

- Over three quarters (76%) of farms surveyed produced more than one type of product.
- The highest percentage of respondents produced vegetables other than potatoes or onions (45%), followed by apples (28%), berries (22%), and culinary herbs and spices (20%, Fig. 2).
- Overall, nearly half of respondents (48%) produced at least one type of vegetable, 42% produced at least one type of fruit, 36% produced at least one type of animal product (including aquaculture), and 23% produced at least one type of field crop.

A Mix of Farm Sizes and Types

- About two-thirds of respondents (68%) farmed less than 50 acres, and the remainder farmed at a variety of scales including those actively farming 2,000 acres or more (Fig. 3).
- Of the 254 farms that were in business the year before the pandemic, more than half grossed less than \$50,000 that year, and 70% grossed less than \$250,000. About one-fifth reported gross annual revenue of \$250,000 or more (Fig. 4).

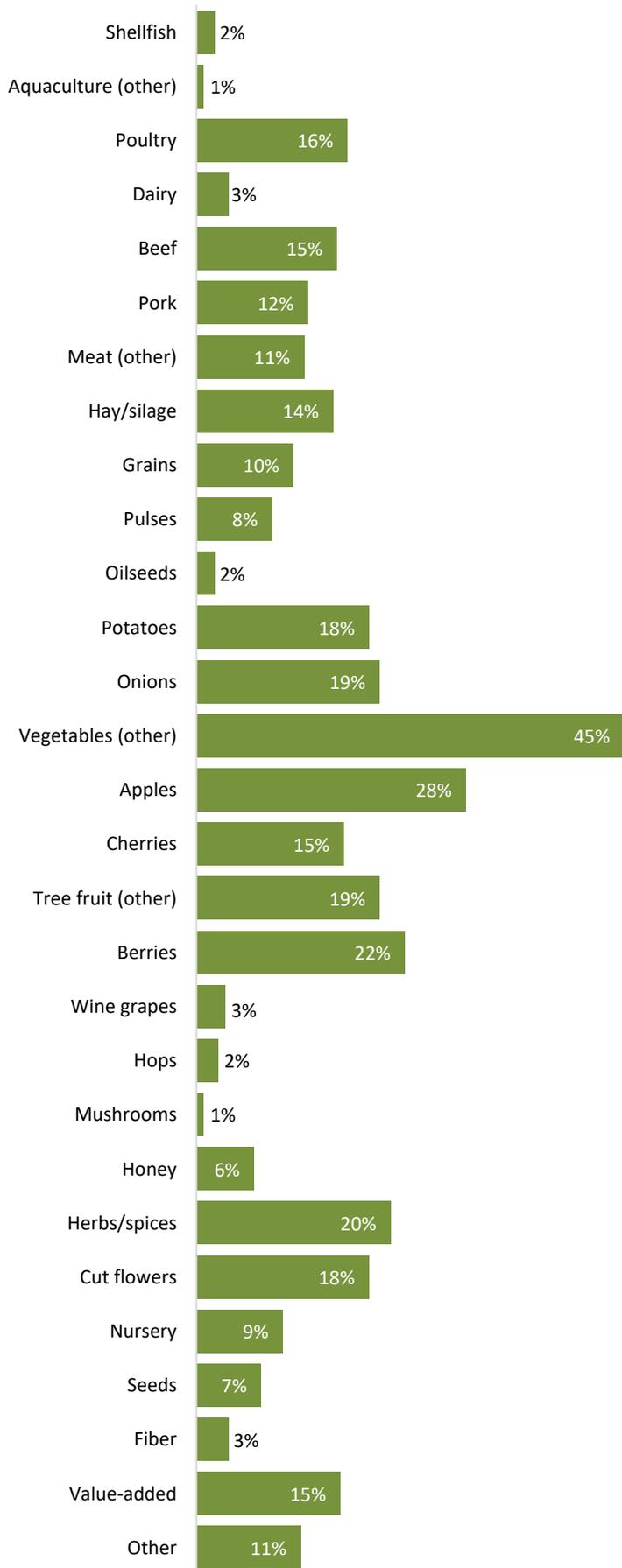


Figure 2. Types of product grown/raised (respondents could select more than one category)

- In 2019, 59% of respondents acquired at least one quarter of their total annual income from farming, while 35% of respondents relied on off-farm sources for three quarters or more of their total annual income.
- While 43% of farm businesses had been in operation for 10 years or less, another 40% had been in operation for 20 years or more (Fig. 5).

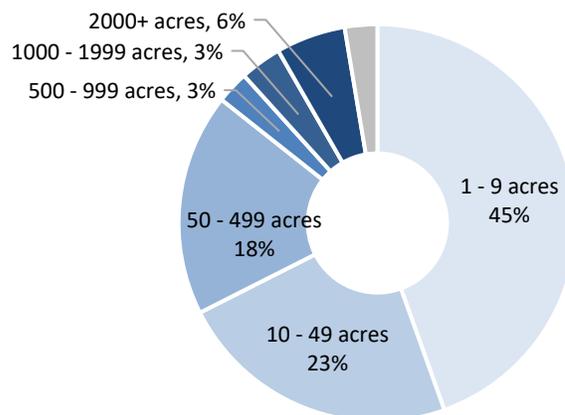


Figure 3. Acres actively farmed

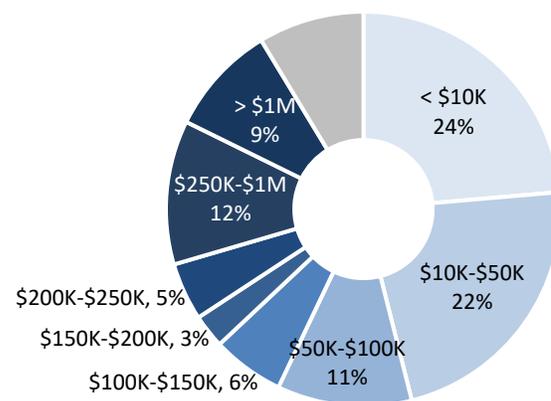


Figure 4. Gross annual revenue, 2019

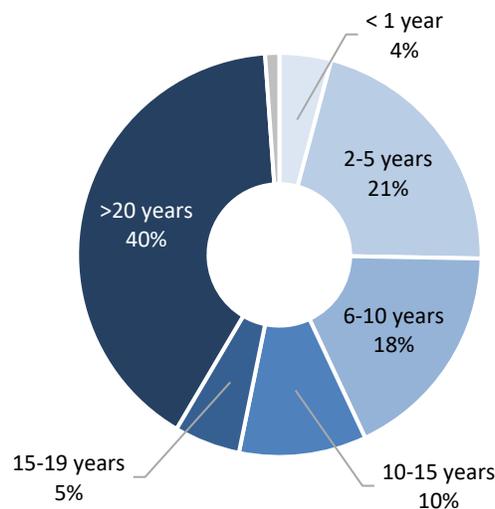


Figure 5. Years in operation at time of survey

Employment

- The majority of farms (77%) had four or fewer year-round full-time equivalent employees (FTE) the year before the pandemic and just 19% of farms had five or more year-round FTE (Fig. 6)
- At peak season, 58% of farms had four or fewer FTE and 33% had five or more FTE.

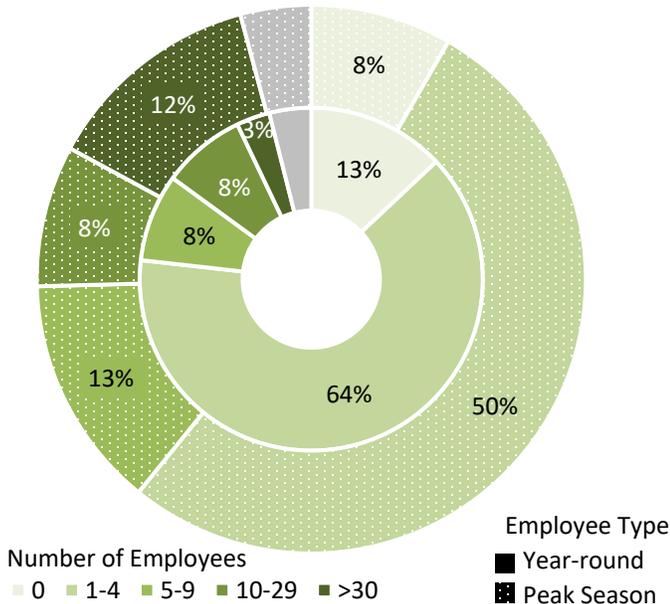


Figure 6. Year-round and peak-season employees, 2019

IMPACTS ON FARM BUSINESSES

Areas of Impact

- Respondents reported the most significant COVID-19 impacts related to closure of direct marketing outlets, closure or reduced capacity of indirect marketing channels, and disruption of distribution systems (Fig. 7).
- When those who reported minor impacts are also considered, other frequent sources of disruption included difficulty retaining or finding workers, reduced availability of farm inputs, and product going to waste.
- While overall fewer respondents reported being affected by international trade issues, lack of access to working capital, or limited access to processing facilities, the proportion of respondents who *were* affected by those issues tended to report impacts that were significant rather than minor (56%, 55%, and 54% significant vs. minor, respectively).
- Sixty percent of respondents said their business had been negatively impacted overall by COVID-19, and 30% said the overall impact had been positive.

“We disked under 250 acres of potatoes due to processors cutting contracts.”

“Our local butcher has been so busy that we can hardly get in which has been our biggest difficulty.”

“Just decided to do less this year because it couldn’t all happen.”

“Receiving the designation of critical, essential infrastructure boosted the urgency and value of local farms and farmers.”

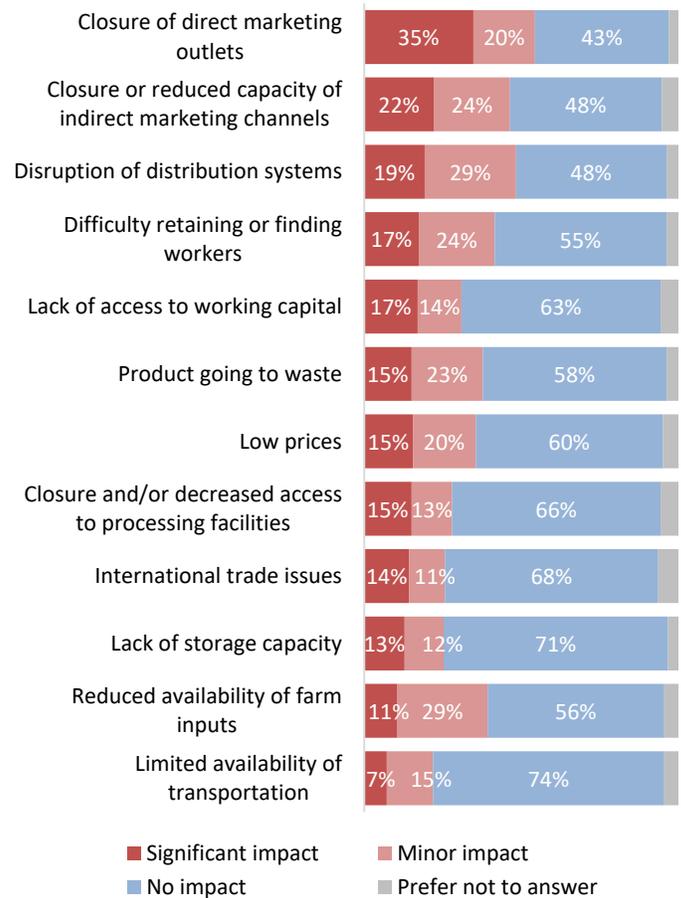


Figure 7. Impact of COVID-19-related issues in 2020

Many Farms Saw Revenue Decreases, Some Saw Increases

- Thirty-nine percent of respondents indicated a decrease in revenue of up to \$50,000 in 2020 compared to 2019. An additional 9% indicated losses of more than \$50,000.
- Overall, nearly half of respondents (48%) experienced revenue loss in 2020 compared to 2019, while 39% saw revenue increases (Fig. 8)

- Revenue changes for smaller farms (those grossing less than \$250,000 annually) were about evenly mixed with 45% experiencing revenue decreases and 43% experiencing revenue increases in 2020 compared to 2019 (Fig. 9).
- The majority (58%) of larger farms (those grossing more than \$250,000 annually) experienced revenue decreases, with just 32% experiencing revenue increases in 2020 compared to 2019 (Fig. 10).
- Almost one third (31%) of respondents experienced a loss of off-farm income in 2020 compared to 2019.

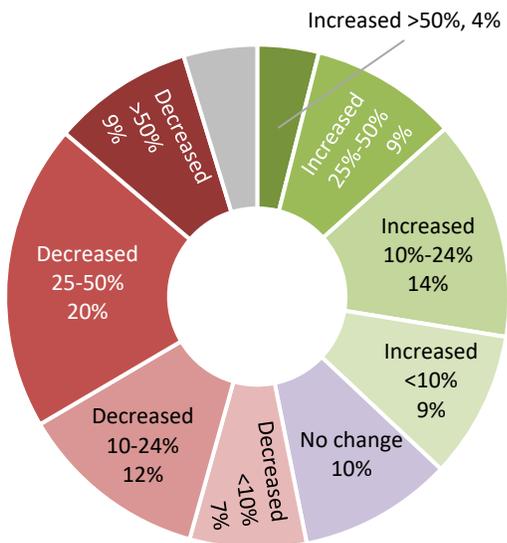


Figure 8. Change in revenue, 2020 compared to 2019

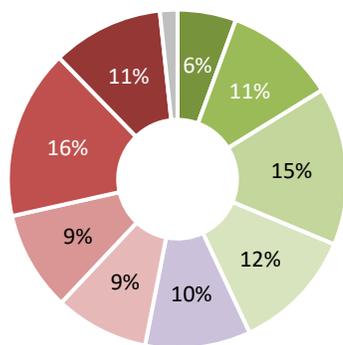


Figure 9. Farms and ranches grossing <\$250K annually, 2020 compared to 2019 (see Fig. 8 categories)

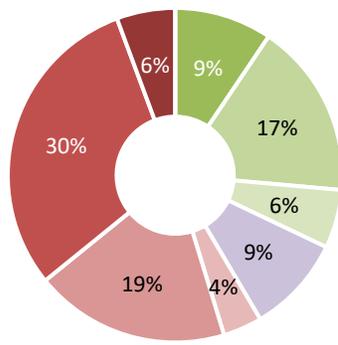


Figure 10. Farms and ranches grossing >\$250K annually, 2020 compared to 2019 (see Fig. 8 categories)

“The USDA meat we sell had significant jump in processing costs. They doubled! We had to raise the prices to cover the costs.”

Increased Costs for Producers and Consumers

- Nearly 2 in 3 producers (65%) experienced increased operation costs as a result of COVID-19, and the same percentage said they increased the sales price of their products as a result of the pandemic.
- Enhanced safety and sanitation measures were a leading cause of increased operation costs. Those with the most significant impacts were increasing cleaning, increasing availability of sanitation centers and cleaning supplies, and providing PPE (Fig. 11).
- Major sources of increased production cost not related to safety and sanitation included increased cost of inputs (feed, seed, etc.) and processing, additional labor expenses, increased packaging, and increased marketing and distribution costs.

“Fear to go to work... enormous costs associated with temping employees and cleaning to make everyone and everything feel safe to work.”

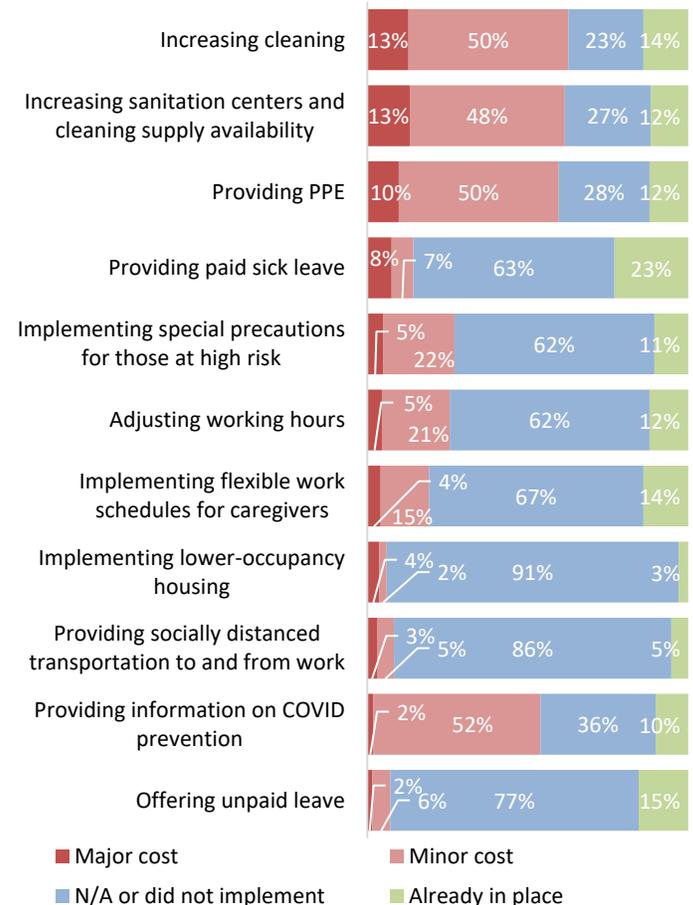


Figure 11. Expense with implementation of safety and sanitation measures

CHANGES AND ADAPTATIONS

Different Farms Made Different Changes to Production, Many Encountered Obstacles to Change

- Forty-four percent of farms increased production and 29% of farms decreased production in 2020 compared to 2019 (Fig. 12).
- More than half of farms (58%) made at least one change in type, amount, or timing of production in response to COVID-19 in 2020.
- The most frequent changes made were increases in production volume (22%), decreases in production volume (16%), increasing the diversity of products produced (14%), and decreasing the diversity of products produced (14%).
- More than one in three farms (35%) said there were production changes they wanted to but were unable to make. Financial and labor issues were among the most frequently cited obstacles to making changes.

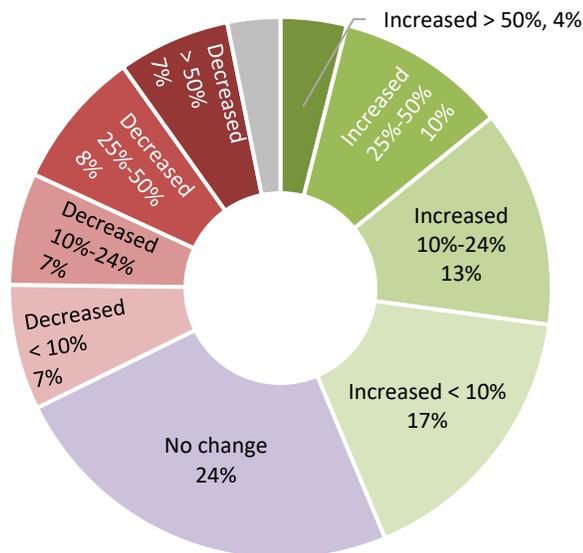


Figure 12. Change in production volume, 2020 compared to 2019

“Because we have a lot of experience, 40+ years and extensive infrastructure, we added several months of sales by adding new products normally not sold. Learned new packaging methods and negotiating skills.”

“[Boosting] production now that food shortages were becoming an issue. Focusing on high demand vegetables.”

“Growing longer storage veggies and getting more freezer space for fruit.”

Sales Shifted Towards Direct to Consumer and Food Hubs, Away from Farmers Markets, Direct to Restaurant, and Direct to International

- Over one quarter of respondents (29%) reported having started at least one new marketing channel in 2020 compared to 2019 (Fig. 13).
- Marketing channels most frequently started in 2020 were direct to consumer and food hub sales, followed by direct to grocery and on-farm sales.
- Marketing channels most frequently stopped in 2020 were direct to restaurant and farmers market.
- In examining the proportion of farm businesses’ total annual revenue coming from various marketing channels in 2020 compared to 2019, the greatest decreases were seen in direct to international, farmers market, and direct to restaurant channels, while the greatest increases were seen in direct to consumer and food hub channels (Fig. 14).

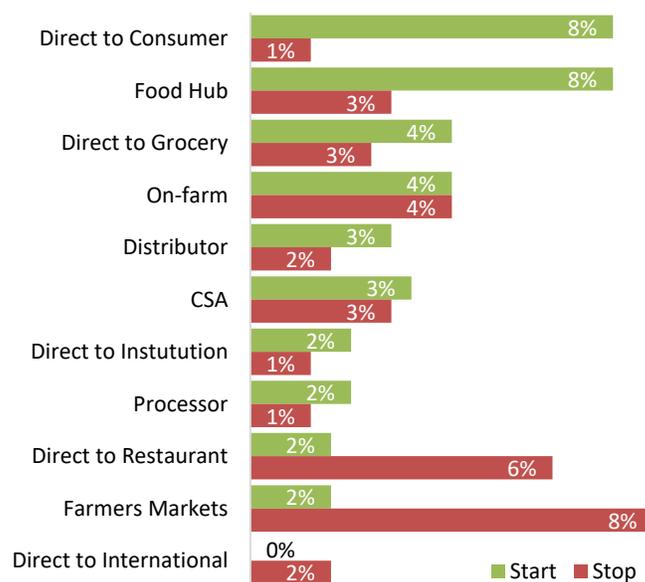


Figure 13. New marketing channels started and existing channels stopped in 2020, compared to 2019 (percent of total respondents)

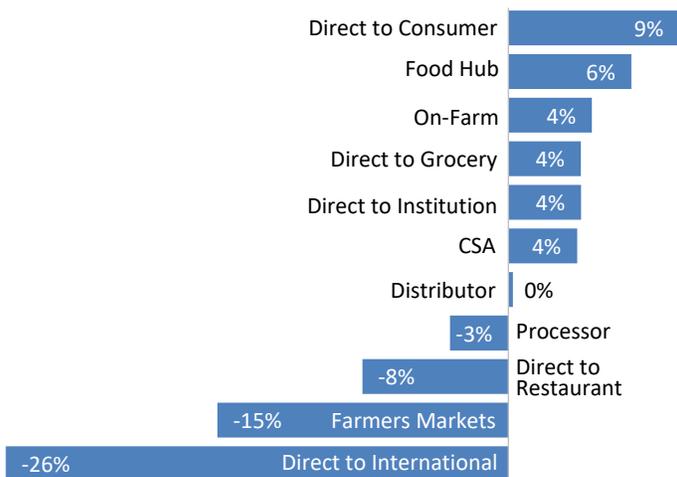


Figure 14. Change in gross annual revenue attributable to specific marketing channels for those farm businesses utilizing a channel in 2019 and/or 2020

“We have started selling in three different online marketplaces. This required significant time to learn and implement.”

Some Farms Reduced Workforce, Some Couldn’t Find Workers

- Of the 196 farms who had employees, 42% made reductions in employee numbers, hours, or hiring plans, while 10% increased employee numbers or hours due to COVID-19.
- The most common types of labor reductions were letting go employees and reducing the number of hours worked by existing employees (Fig. 15).
- Of those who let go or furloughed employees, leading reasons were “reduced demand for products” (40%), “lack of payroll funds” (30%), “inability to support social distancing and/or safe handling practices” (30%), and “lack of available workers” (28%).
- While just over half (53%) of farms with employees reported no days of work lost due to COVID-19 cases, suspected cases, or self-quarantine, another 43% did report days of work lost for these reasons.
- More than one out of every three farms with employees (34%) reported at least some days of work lost from employee reluctance to work due to health concerns related to COVID-19.

“Wanted to increase our produce but couldn’t find helpers.”

“Just didn’t have the people when I needed them to get stuff done on time.”

“Lacking sales, employees were redirected to maintenance tasks for 2 months. Reduced hours has also helped during some particularly slow times.”

“We became lean, worked longer hours with fewer people.”

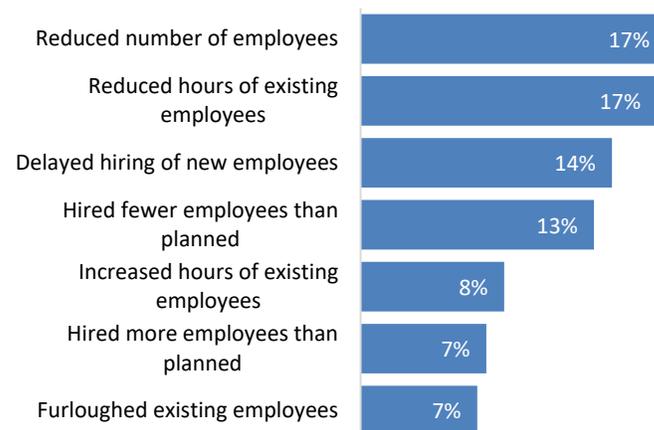


Figure 15. Workforce changes made due to COVID-19 (percent of total respondents)

Many Locally and Regionally Marketing Farms Increased Customer Connections

- Overall, roughly equal numbers of farms saw increases (39%) and decreases (32%) in the size of their customer base (Fig. 16).
- Of farms marketing predominantly (>75%) locally and regionally,* more than half increased the size of their customer base, whereas the majority of farms marketing predominantly (>75%) nationally or internationally either experienced no change or could not tell if there was a change.
- Customer relationships were weakened for some farms (23%) but were strengthened for more (36%).
- Of farms marketing predominantly locally and regionally, 44% reported strengthened relationships with customers, whereas the majority of farms marketing predominantly nationally or internationally either experienced no change or could not tell if there was a change the strength of their customer relationships.

* Locally = within a geographic area e.g., Olympic Peninsula, regionally = WA/OR/ID

Many New Working Relationships and Networks Were Formed

- More than one out of every three respondents (37%) said they had formed new working relationships as a result of COVID-19 (see Box 1).
- Eighteen percent had formed working relationships with other farms, 18% with collaborative networks such as co-ops and food hubs, and 11% with other agribusinesses.

UTILIZATION OF AID PROGRAMS

Many Farmers Applied for Aid, Some Encountered Obstacles

- More than half (54%) of respondents applied for at least one COVID-19 relief program. Overall, 31% of respondents applied for the Coronavirus Food Assistance Program (CFAP), 25% applied for the Payroll Protection Program (PPP), 11% applied for Economic Injury Disaster Loans (EIDL), 3% applied for Pandemic Unemployment Assistance (PUA), and 1% applied for Federal Pandemic Unemployment Compensation (FPUC).
- Forty three percent of respondents did not apply for a relief program. Among those not applying for aid, top-cited reasons included choosing not to apply (19% of all respondents), not being eligible (19%), not having enough information about available programs (9%), confusion about the application process (9%), and the amount of documentation required (5%). Some respondents cited more than one reason for not applying.
- Among those who did apply for aid, 36% had no challenges with the application process. However, more than half of applicants reported having encountered challenges. Top challenges included confusion about the application process (43% of those applying for relief programs), the amount of documentation required (21%), not enough information about programs (16%), and poor internet access (7%).
- Many respondents noted the importance of relief programs for their businesses in 2020, but many also expressed frustration with lack of clear information, burdensome application processes, and programs advantaging larger farms (Box 2).

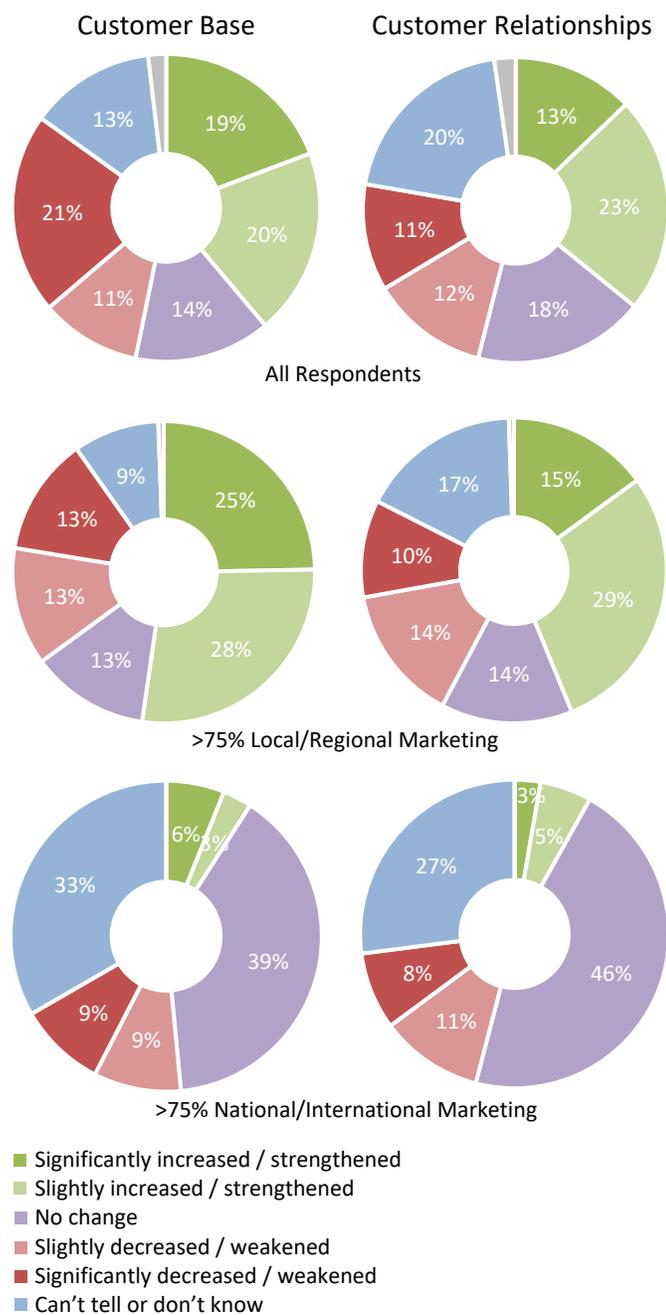


Figure 16. Change in size of customer base and strength of customer relationships due to COVID-19

“Zooming at night brought folks together not just to talk shop but to talk ... generated sharing ideas.”

“Worked with [a] group of local farmers to create a cooperative food hub.”

“[Started] food processing with local restaurants.”

“Switched to online market and opened up sales with other producers. Very challenging and a lot of work to pivot but ended up being very successful.”

Box 1. Respondent comments on network relationships

IMPACT / SUCCESS

“These programs have been really helpful to our business this year!”

“Every little bit helps!!”

“CFAP made the difference between profitable and not.”

“Received help from my HR office from off farm work, and ... from a local nonprofit for CFAP2 or I would not have identified these relief options.”

ELIGIBILITY / APPLICABILITY

“I looked into funding...way too complicated for a farm of my size and the type of farming.”

“Additional funding to conservation districts would be helpful since they have the ability to direct those funds to small and mid-size farms instead of large agri-business for whom the majority of relief programs were scaled. As a family farm there's no point in us trying to access those funds because it's not scaled for us at all.”

“I was never eligible for any of the assistance programs being too small of a farm.”

FRUSTRATIONS / SUGGESTIONS

“Lack of information on PPP forgiveness very frustrating.”

“Would have really helped to be able to apply for the low interest loans, but the time period to apply was too short and it was unclear that we would qualify before the program was gone.”

“Government agencies not provided with additional staff corresponding to increase in paperwork for COVID assistance programs, leading to significant delays in application review.”

“Owner-operators of very small farms were having to compete for grants and loans with large commercial operations. We lost out. Other grant and loan programs were either not open to farmers or we were competing with national chains, restaurants, and all other types of businesses.”

The Majority of Aid Applications Were Approved, Larger Farms Were More Successful Than Smaller Farms

- Overall, 70% of aid applications were approved, with decisions still pending for another 17% at the time the survey was conducted.
- Nearly one in six aid applications by farms grossing less than \$250,000 annually was denied, while applications from farms grossing more than \$250,000 annually were denied much less frequently (Fig. 17).

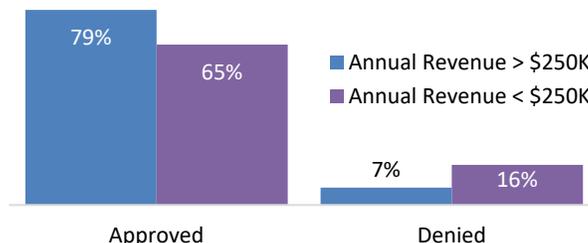


Figure 17. Aid application status by farm revenue

LOOKING TO THE FUTURE

Many Changes Planned for 2021, Especially in Production & Marketing

- More than two thirds of respondents anticipated making significant changes in 2021 in relation to COVID-19.
- Leading areas of anticipated change were production volume, production/planting schedule, and marketing channels (Fig. 18).

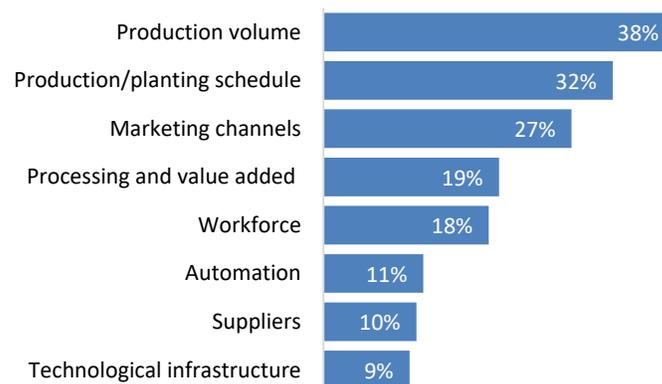


Figure 18. Areas in which respondents anticipated making significant changes in relation to COVID-19 in 2021.

“We hope to double production and automate as much as possible so as to not need to bring in hired help.”

Box 2. Respondent comments on aid programs, eligibility, and application process

“We expect to produce more and to hire more employees. We hope to incorporate software and app technology to more efficiently keep records.”

Unforeseen Expenses, Processor Capacity, and Supply Chain Disruptions Are Top Concerns for 2021

- More than 80% of respondents were concerned about unforeseen expenses in 2021, and 70% were concerned about their ability to adapt to market uncertainty (Fig. 19).
- Nearly three quarters of respondents (72%) were concerned about disruptions to their input supply chains in 2021, and 59% were “very concerned” about the capacity of processors.
- More than one third of respondents also said that they were either very or moderately concerned about their ability to offer competitive wages, the availability of labor, the availability of government aid, disruptions to distribution channels, their ability to adapt to changing consumer preferences, access to medical care, and ability to follow safety guidelines.

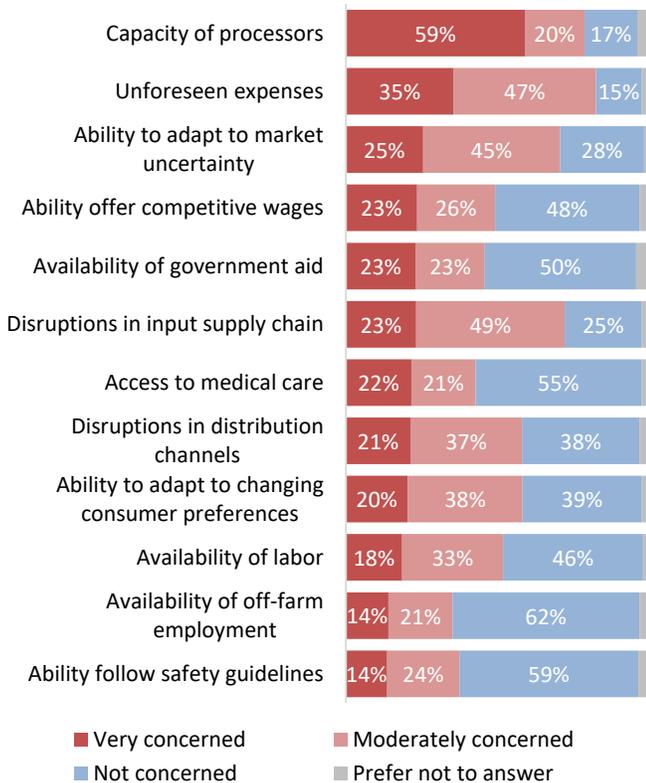


Figure 19. Concerns for 2021

“I don't have a clue where my market is...”

Grant Funding, Help with Distribution Channels, and Help Building Networks are Top Needs for 2021

- More than half of respondents said that increased grant funding would be beneficial to maintaining smooth operations in 2021 (Fig. 20).
- Approximately one third of respondents said that programs to facilitate new distribution channels and collaborative farm networks would be helpful in 2021.
- Between one fifth and one quarter of respondents also said that increased extension support, cost share programs, COVID-19 compliance guidance, and programs promoting infrastructure flexibility would be helpful.

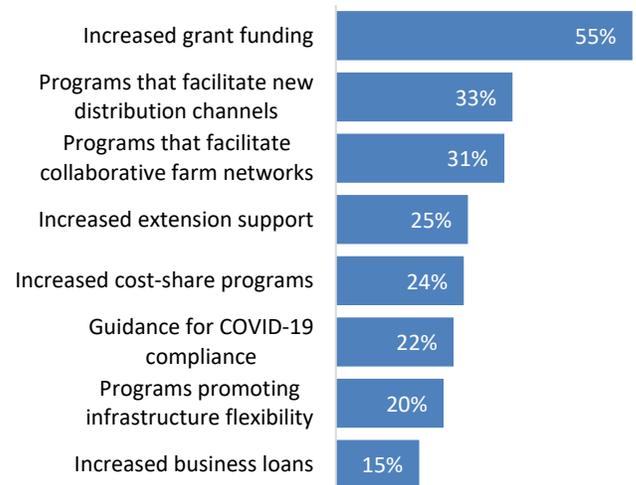


Figure 20. What would be most beneficial for maintaining smooth operations in 2021

“We have reduced or eliminated all planned capital investments into infrastructure upgrades on our farm.”

“We need to plant additional crops, but the reduction in net income during 2020 will limit what we can afford to do in 2021 (both materials and wages).”

Preparedness to Adapt to Future Challenges

- When asked about business support networks and personal and workforce resilience, 83% of respondents said they were at least somewhat confident they could find ways to adapt to challenges that may arise related to COVID-19 in 2021 (Fig. 21).

- When asked about farm business financial health and confidence in being able to afford to make any changes that might be necessary in 2021 related to ongoing COVID-19 impacts, 69% of respondents said that they were very or somewhat confident. More than a quarter of respondents were not confident they could afford to make such changes (Fig. 22).

“Had to spend a lot of time increasing and expanding online presence. Hoping this will help into next year.”

“Stoicism helped the most.”

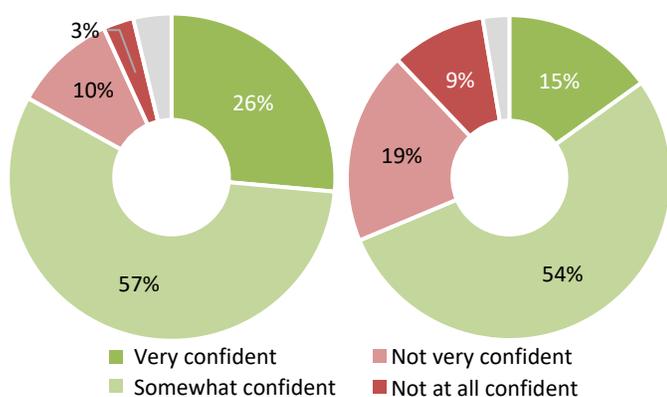


Figure 21. Confidence in adaptability: personal / social / network capacity

Figure 22. Confidence in adaptability: financial capacity

STRESS AND MENTAL HEALTH

Stress is High Among Farmers and Ranchers

- Forty-three percent of respondents reported feeling stressed all or most of the time in the past 30 days (Fig. 23).
- Based on the past 30 days, nearly one quarter of respondents experienced moderate to severe anxiety and depression as determined using the validated Patient Health Questionnaire 4-item (PHQ-4) assessment tool (Fig. 24).

“Stress of keeping the crew healthy.”

“Biggest issue is worry.”

“We need to scale back to be sustainable for ourselves. Avoiding burnout is now a major focus and concern.”

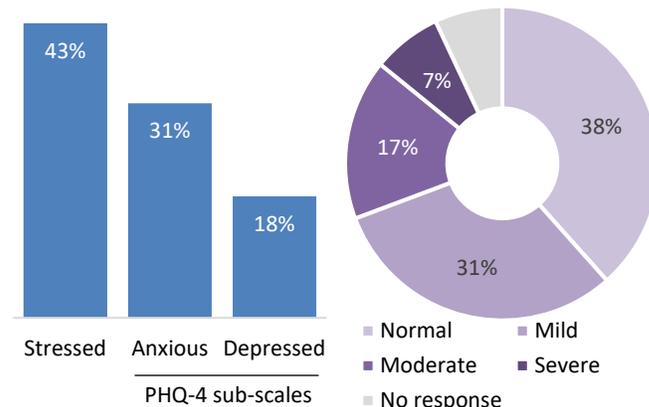


Figure 23. Stress, anxiety, and depression

Figure 24. PHQ-4 anxiety and depression scale

ACKNOWLEDGEMENTS

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ABOUT THE RESEARCH TEAM

The WA Farm COVID-19 Survey was a joint effort between the UW, WSU, and WSDA. Sarah Collier is an Assistant Professor in the Nutritional Sciences Program (NSP) and Department of Environmental Health Sciences (DEOHS) at UW. Anna Fogel is a graduate student in NSP at UW. Madison Moore is an Agricultural Economist at WSDA. Yona Sipos is an Assistant Teaching Professor in NSP and DEOHS at UW. Laura Lewis is the Director of the Food Systems Program and an Associate Professor in Community and Economic Development at WSU. Laura Raymond is the Regional Markets Program Manager at WSDA.

Further Information

URL: <https://nutr.uw.edu/cphn/wafarm>

Email: foodsystems@uw.edu

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