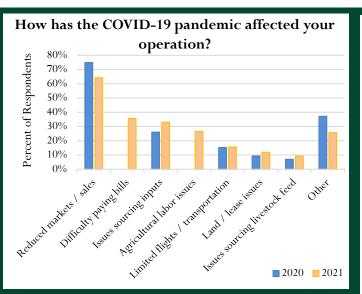
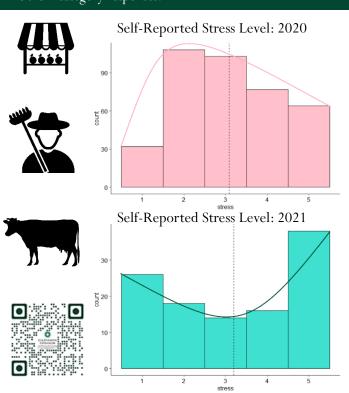
COVID-19

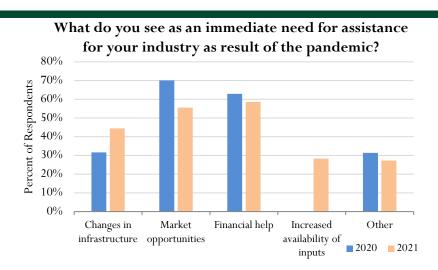
COVID-19 Hawaii Agriculture Survey: Initial and On-going Impacts

The on-going pandemic has brought substantial changes to everyday life and to the agriculture industry in Hawaii. Fluctuating prices, changes in marketing, animal feed shortages, and other issues have contributed to making viability of the agriculture sector more challenging. To address these challenges, CTAHR Cooperative Extension conducted a needs assessment in April $2020 \, (n=393)$ with a follow-up survey in May-August $2021 \, (n=116)$. The respondents represent all counties and industries ranging from floral and nursery to edible crops, livestock, aquaculture, forestry, and others.



Direct economic impacts related to reduced markets and sales were by far the most prevalent impact reported by survey respondents. The two response categories "Difficulty paying bills" and "Agricultural labor issues" were not included in the original 2020 survey, however they were two of the most frequently mentioned pandemic effects specified in the 2020 "Other" category responses.





Approximately 60% of respondents indicated "financial help" as an immediate need in both years. There is a decrease in the need for market opportunities from $2020~(\sim70\%)$ to $2021~(\sim56\%)$, which may be due to the reopening of certain local markets including some farmers markets and restaurants by the time of the follow up survey. "Increased availability of inputs" featured prominently in the "Other" category in 2020 and was added to the 2021 survey for specificity. The results from this graph allude to the continued need for both financial help and market opportunities as well as other help.

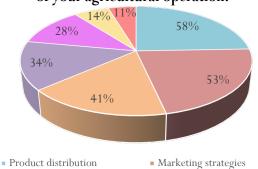
Self-Reported Stress Levels

Respondents were asked to self-report their stress level on a scale of 1 to 5. A report of 1 being "no stress" and a report of 5 being "extremely stressed." Frequency plots to the left demonstrate that at the onset of the pandemic the majority of the respondents reported feeling mild to medium stress levels. One year later the majority of respondents reported feeling either "No Stress" or "Extremely Stressed", with fewer respondents falling within the middle ranges. The 2021 distribution is the inverse of the 2020 data. This polarization in stress level could be interpreted a couple of different ways. One, those that participated in the 2021 survey did so because they experienced extreme stress and required help and assistance, or had more time because they had lower levels of stress or both. Two, the pandemic could have increased the gap between "Haves" and "Have-nots" in the agriculture sector of Hawaii.

Note: While both were a state-wide survey, the number of respondents to the 2020 survey was nearly 3.5x greater.

COVID-19

Did the COVID-19 pandemic result in changes to any of the following aspects of your agricultural operation?



- Labor or workforce
- Adoption of new technology
- Other aspects not listed above

Of the respondents, 56% foresee that the changes made in their agricultural operations due to COVID-19 will be permanent, while 14% indicated that the changes won't be permanent and 30% were unsure.

Changes in product distribution (58%) and marketing strategies (53%) were the most commonly reported changes to agricultural operations because of the COVID-19 pandemic. Product distribution and marketing strategy changes were related to online sales, phone orders, shipping of products, marketing outside of the state, and selling products to food bank projects. Only 14% of respondents reported no changes to their operation.

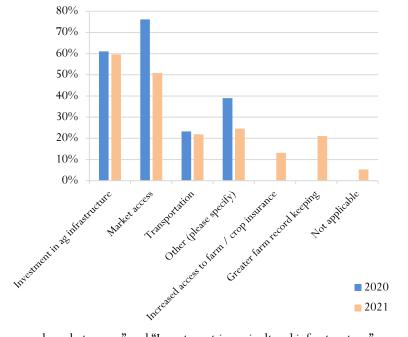
Do you foresee any changes noted in the previous question as permanent changes to your operations?



Once the COVID-19 pandemic is over, what do you believe will be the priority needs for recovery of your operation(s)?

Business diversification

No changes



"Improved market access" and "Investment in agricultural infrastructure" came out as the top two priority needs for recovery after the pandemic in both survey years. These two areas have important potential as actionable policy items at the local and state level to bolster the resilience and viability of agriculture in Hawaii.

Nearly 60% of survey respondents in 2021 indicated they believe new opportunities for Hawaii agriculture have emerged from the pandemic.

Quotes

The ramifications of this outbreak in the long term are unclear given the general fragility of our economy in Hawai'i. (2020)

...there is a renewed focus on sustainable production of our food supply locally, which was a small movement before COVID but is now gaining steam. I really hope this continues!! (2021)

This was a great survey I'd love to see these survey's put in front of more consumers too. Maybe both sides would be able to extract new and important information for the progression of food, land, water, and people rights/ sovereignty. (2020)

There need to be more hands-on opportunities for people to learn how to grow food on their own. (2020)

Advocate for grants, not loans. (2020)

Doing the "Same-Old, Same-Old"... will not improve our Island State...New, Fresh Initiatives and even, Fresh Perspectives on current Initiatives... Something good usually comes out of doing new & fresh... (2021)

Virtual Pau Hana! Networking will help us bounce back. (2020)

Spread the word on how farmers can help each other. (2020)

Mahalo nui to all the survey participants in 2020 and 2021 for providing this important information, and to everyone in our extended agricultural community for showing incredible resilience through these unprecedented times.

Suggested Reading

Eng, S., Khun, T., Esquivel, M., Ooki, N., Bloese, J., Sand, S., & Lincoln, N. (2021). Farmers' Perceived Needs of Extension' Support During Covid-19 in Hawai'i. Journal of Extension, 59(2), Article 15.

https://doi.org/10.34068/joe.59.02.15

