In order to address a question posed by the Western SARE Executive Council, on possible rapid response initiatives to mitigate the effects of COVID-19 in the rural communities of the Western US, a survey was deployed among Western SARE State Coordinators and grant recipients. A total of 90 people, including producers, researchers, Extension agents, and agricultural professionals completed this survey during April 7-21, 2020. The survey was sent via e-mail and posted online.

The survey addresses three main questions: 1) How the pandemic is affecting food systems in your community? 2) What is your community doing to mitigate these effects? and 3) What WSARE can do to help mitigate the impact of COVID-19 in your community? A summary of the responses to these questions are included below.

How COVID-19 affects food systems in your community?
• In the Western U.S. COVID-19 negatively or very negatively impacted **food production** as it is reflected by the 62.6% of the responses; yet 30.1% of respondents saw no change.
• In the Western U.S. COVID-19 negatively or very negatively impacted **food distribution** as it is reflected by the 89.2% of the responses; only 3.6% of respondents indicated a positive effect.
• In the Western U.S. COVID-19 negatively or very negatively impacted **food access** as it is reflected by the 89.2% of the responses; 9.6% of respondents saw no change.
• In the Western U.S. COVID-19 negatively or very negatively impacted **producer’s economy** as it is reflected by the 85% of the responses; yet 7.5% of respondents reported a positive or very positive impact.

Overall, COVID-19 had a negative impact of the food system of the Western U.S. With exception of food production, between 7-10% of the respondents indicated that COVID-19 had no impact on food distribution and access, and on producers’ economy.

**How COVID-19 impacts food prices in your community?**

![Food Prices Chart]

The majority (58.8%) of respondents indicated that food prices stayed the same, but 40% noticed an increase in prices.

**What adjustments is your community doing for food production, distribution, and access?**

According to the survey responses, community adjustments to COVID-19 involved changes in four main categories: 1) selling modalities, 2) consumer behavior, 3) community outreach, and 4) food production and processing. Each of these changes encompasses particular actions indicated under each corresponding column. Examples of these activities are also included (non-bold font). The most frequently reported change was in selling modalities (see horizontal arrow), while the
The most frequently reported activity related to changes in selling modalities was non-contact delivery (see vertical arrow).

<table>
<thead>
<tr>
<th>Changes in Selling Modalities</th>
<th>Changes in Consumer Behavior</th>
<th>Changes in Community Outreach</th>
<th>Changes in Food Production/Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-contact delivery</td>
<td>Buying habits</td>
<td>Emergency food funds</td>
<td>Managing food supply</td>
</tr>
<tr>
<td>curbside pick up, farm-to-car, home delivery</td>
<td>limited food variety and quantity, scheduled hours, designated times for people at risk</td>
<td>Money donations, food banks</td>
<td>milk dumping, meat processing plants closing</td>
</tr>
<tr>
<td>Online marketing</td>
<td>Interest in local food</td>
<td>Farmers cooperatives and networks</td>
<td>Pre-packaging food</td>
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<tr>
<td></td>
<td>small agriculture and homegrown gardens</td>
<td>young farmers, minority farmers</td>
<td></td>
</tr>
<tr>
<td>Community Supported Agriculture (CSA)</td>
<td>Social distancing</td>
<td>School meal plans</td>
<td>Reduce planting</td>
</tr>
<tr>
<td>Food hubs</td>
<td>Less demand of food</td>
<td></td>
<td>Alternative food sources</td>
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<tr>
<td></td>
<td></td>
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<td>wild ungulates</td>
</tr>
</tbody>
</table>

What can WSARE do to help mitigate the impact of COVID-19 in your community?

*This survey and data collection are a good start!*

From one respondent, in reference to what WSARE can do.

According to the survey responses, Western SARE activities to mitigate COVID-19 involved: 1) providing education in specific areas, 2) implement programmatic changes, 3) communication about selling and buying modalities, and 4) provide resources for producers. Each of these categories encompasses particular actions indicated under each corresponding column. Examples of these activities are also included (non-bold font). The most frequently reported activity Western SARE can do to mitigate the pandemic was provide education (see horizontal arrow), while the most frequently reported educational area was on food safety (see vertical arrow). Please note that not all suggested activities are suitable for Western SARE.
<table>
<thead>
<tr>
<th>Provide education</th>
<th>Programmatic changes</th>
<th>Communication</th>
<th>Provide resources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food safety</strong></td>
<td>Targeted grants for producers</td>
<td>Promote buying locally</td>
<td>Food production funds for producers</td>
</tr>
<tr>
<td>pre and post harvest</td>
<td>production methods, food delivery, and safety methods</td>
<td>CSA, local farms</td>
<td>producers</td>
</tr>
<tr>
<td><strong>Producer/consumer education</strong></td>
<td>Extend funded projects’ timeline</td>
<td>Online selling</td>
<td>Food processing and delivery funds for producers</td>
</tr>
<tr>
<td>crop production costs</td>
<td>Help producers to sell products online</td>
<td></td>
<td>producers</td>
</tr>
<tr>
<td><strong>New markets</strong></td>
<td>Targeted grants for researchers</td>
<td><strong>Labor and farmer worker’s health</strong></td>
<td></td>
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<tr>
<td>online markets</td>
<td>food systems for &quot;extreme events&quot;</td>
<td>health networks</td>
<td></td>
</tr>
<tr>
<td><strong>Safe social measures</strong></td>
<td>Interdisciplinary discussions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hygiene, social distancing, wearing protective gear</td>
<td>brainstorm pandemic rapid responses</td>
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<tr>
<td><strong>Funding sources</strong></td>
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<td>federal and regional programs</td>
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</tbody>
</table>

**Respondents’ Voices**

Direct farm to consumer sales would be up hugely right now, but most ag producers here are in commodity markets. We live amidst beef, lamb, wheat and pulse crops but direct buying is little done. So, producers are taking a brutal beating on prices for food that is eventually selling at inflated prices. We expect something between 5 and 20% of beginning or retirement age farmers and ranchers will be taken out due to markets.

From one respondent, in reference to food prices.
We are defining community as local and regional food systems ..... All the parts of the local and regional food systems ... are being re-configured. ..... [We are] trying to assist producers with food safety, employee policies, etc. that help them to keep their production in place. For distribution, our Farm to Market team has been working to connect producers with food hubs and other buyers since normal supply chains are disrupted. ...[We] have helped coordinate some work with food banks and helping to coordinate getting food to school meal programs. ... [We] also have a farmer emergency fund that farmers can apply to get funds to help offset costs right now. ..... Consumer price seems to be the same.

From one respondent, in reference to adjustments to COVID-19.

We are practicing social distancing and extreme sanitization measures (gloves, masks, etc.) throughout the harvest post-harvest process. Expensive from a materials standpoint and much slower, due to limiting crew size to two people separated by 6 feet during harvest and postharvest. Using bag-lined pick crates in the field is also adding to costs. We now package all foods for distribution to customers, and so more cost and slower there, too.

From one respondent, in reference to adjustments to COVID-19.

Within the community, sustainable food now also means "clean food". There is increasing reflection over the traceability of food products (i.e. how the food is processed and could products be contaminated along the agri-food chain and if so, how). This is interesting because this need for traceability is leading to a growing interest and attention for how food is produced (i.e. manual or mechanical harvests, number of quality checks). WSARE could support the community by providing material on food post-harvest processing, as it relates to epidemiology.

From one respondent, in reference to what WSARE can do.

Help with messaging the importance of local food systems to resilience in landscapes, communities, and the economy. Shockingly, agriculture and the connection of healthy soils to healthy food and wellness is overlooked in the immediate-term conversations about economic recovery.

From one respondent, in reference to what WSARE can do.