ABSTRACT

1. Labor management strategies have become critical in determining the profitability and long-term sustainability of farms specializing in the production of fruits and vegetables.

2. Small fruit and vegetable farms face unique labor challenges due to resource constraints and difficulty mechanizing.

3. This study investigates Tennessee fruit and vegetable farms' use of labor, specifically the use of migrant labor through the H-2A guest worker program, the labor challenges faced, and the labor strategies used to address these challenges.

BACKGROUND

• Fruit and vegetable farms depend heavily on labor to produce their crops, with labor costs representing up to 40% of the total variable costs.

• On average, Tennessee (TN) fruit and vegetable farms are smaller than the average U.S. fruit and vegetable farm.

• Alternatives to overcome labor challenges faced by small farms are limited, as access to H-2A workers and mechanization alternatives require a high investment that these farms are unable to afford.

• Previous studies have mainly focused on labor challenges faced and labor management strategies used by large U.S. fruit and vegetable farms located in top fruit and vegetable producing states (e.g. California, Washington, and Florida).

• This study fills a gap in the literature by investigating labor challenges faced and labor strategies used by small fruit and vegetable farms.

METHODOLOGY

Analysis of secondary data: 2017 Ag Census and Dept. of Labor Office of Foreign Labor Certification data

Collection of primary data: survey of fruit and vegetable farmers in west and middle TN

Comparison of primary and secondary data; interpretation of results

Survey characteristics:
• Sent to 464 TN farmers
• 22 questions
• Distributed Feb. 1 - 20, 2020
• 47 complete responses
• 10% response rate
• 52% of respondents reported less than $25,000 in gross on-farm revenue from fruit and vegetable operations

RESULTS

Figure 1. Comparison of farm size of respondents: survey sample and 2017 Ag Census

<table>
<thead>
<tr>
<th>Farm Size</th>
<th>Survey Sample (n=43)</th>
<th>2017 Ag Census (N=1,961)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1 to 4.9</td>
<td>51.16%</td>
<td>81.85%</td>
</tr>
<tr>
<td>5.0 to 24.9</td>
<td>34.88%</td>
<td>34.42%</td>
</tr>
<tr>
<td>25.0 to 99.9</td>
<td>13.92%</td>
<td>4.73%</td>
</tr>
<tr>
<td>100 or more</td>
<td>1.73%</td>
<td>1.12%</td>
</tr>
</tbody>
</table>

Figure 2. Labor challenges faced by survey respondents (n=47)

Table 1. Labor management strategies used by respondents (n=44)

<table>
<thead>
<tr>
<th>LABOR MANAGEMENT STRATEGY</th>
<th>PERCENT OF RESPONDENTS REPORTING USING STRATEGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>I adopted mechanized technologies</td>
<td>34.09%</td>
</tr>
<tr>
<td>I have scaled back my operation</td>
<td>27.27%</td>
</tr>
<tr>
<td>I started using H-2A workers</td>
<td>6.82%</td>
</tr>
<tr>
<td>I raised wages and improve benefits to find new workers</td>
<td>13.64%</td>
</tr>
<tr>
<td>I put expansion plans on hold</td>
<td>38.64%</td>
</tr>
<tr>
<td>I switched to less labor-intensive crops</td>
<td>20.45%</td>
</tr>
<tr>
<td>I stopped producing fruits and vegetables</td>
<td>2.27%</td>
</tr>
<tr>
<td>Other</td>
<td>31.82%</td>
</tr>
</tbody>
</table>

FINDINGS

1. Difficulty finding reliable workers and the inability to generate enough revenue to afford workers are the top labor challenges faced by TN fruit and veg. producers who responded to the survey.

2. The most common solutions to these challenges cited by survey respondents are to forego otherwise-feasible expansion opportunities or adopt mechanical aids to reduce labor dependency.

3. Tennessee fruit and vegetable producers are unlikely to turn to H-2A foreign guest labor. Survey respondents cite unfamiliarity with the program and high costs as the top reasons for this.

4. Survey respondents indicated UT Extension could help overcome labor challenges they face by providing information on apprentices and internships as a source of labor and mechanical aids.

REFERENCES


