



NY *farm viability*  
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*Fridays with Farm Viability*

## **Survey Highlights: NY Apple Grower's Research and Education Needs**

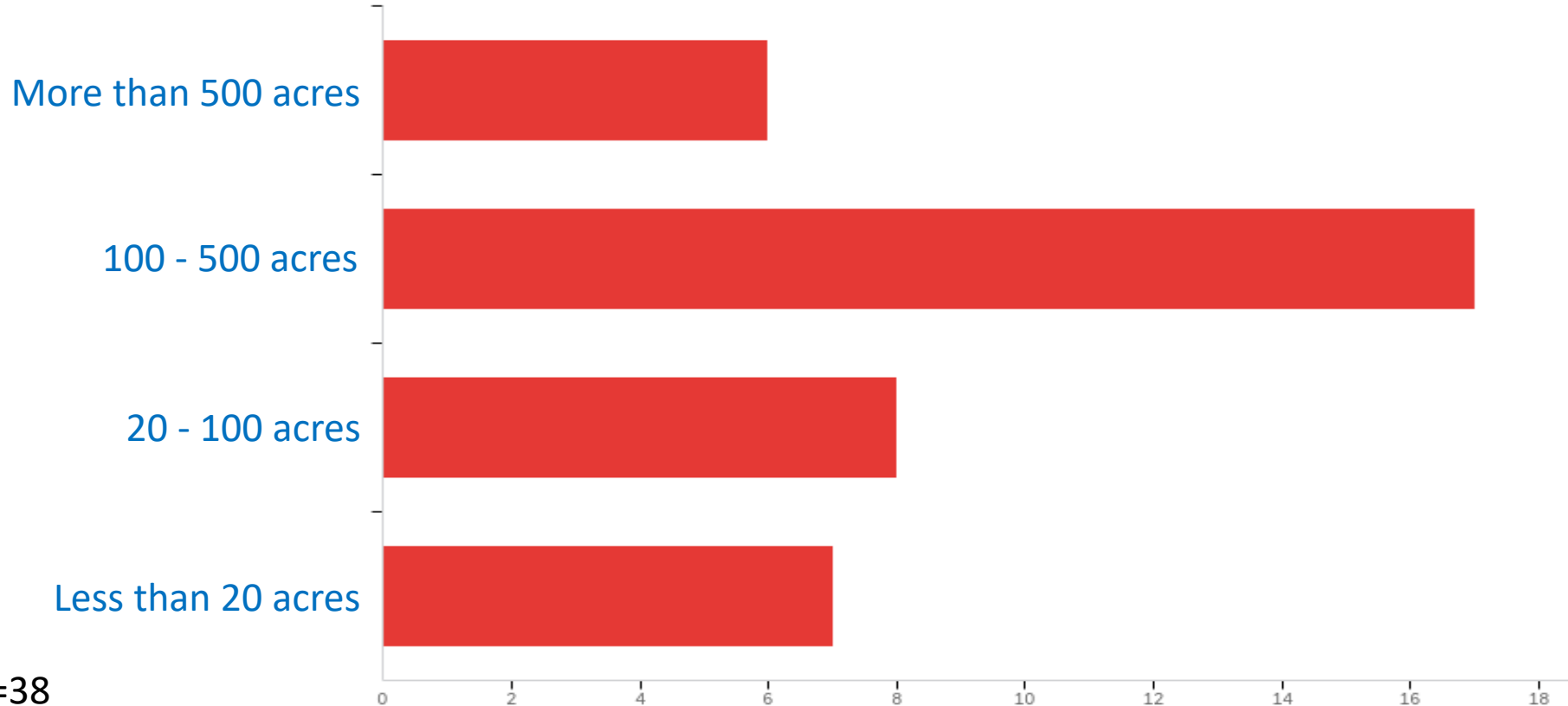


## Background

- **Developed with input from NYFVI board member Jill MacKenzie. Reviewed by ARDP committee chair as well.**
- **Conducted summer of 2020 with the support of New York State Apple Growers Association**
- **Focused on needs of commercial apple growers**



## Who Answered? Survey respondents by number of acres operated.



N=38

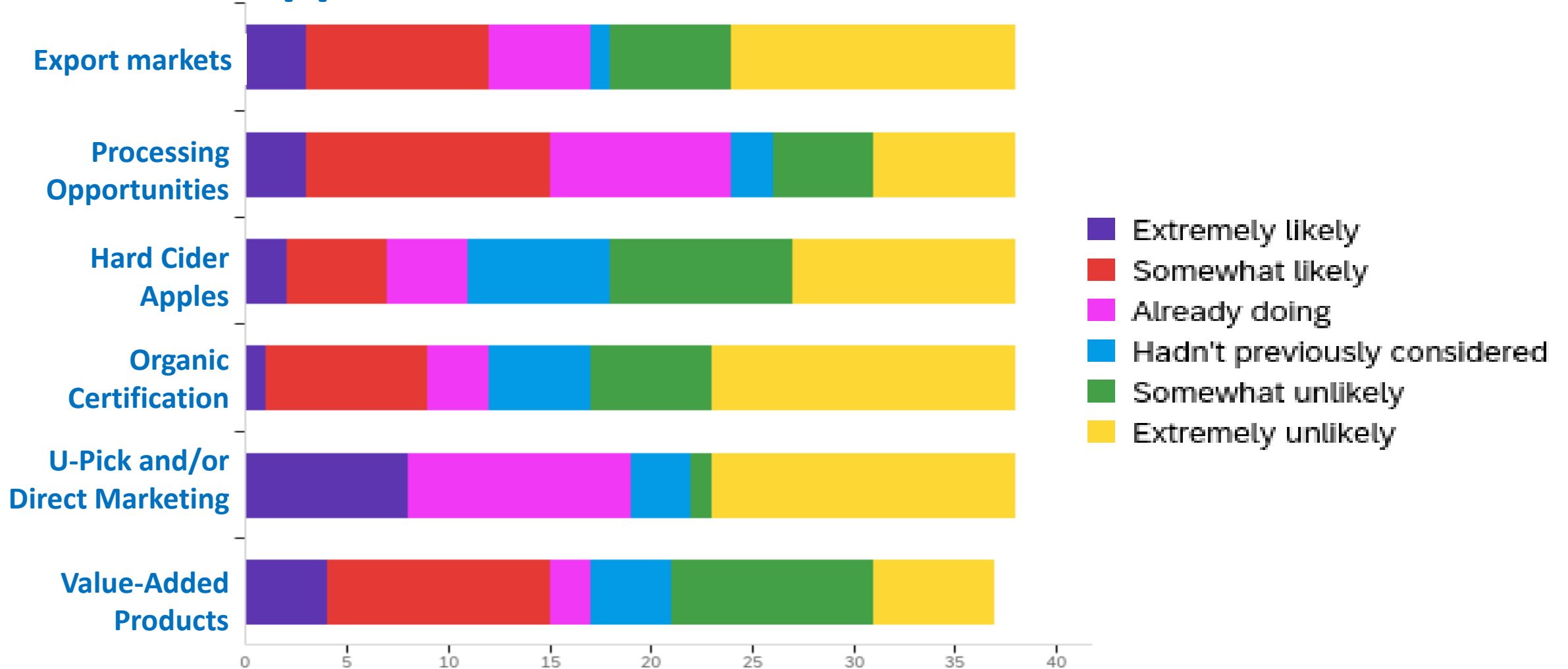


## Other Characteristics:

- Respondents are a mix of apple-only, and diversified operations. By acreage, 50% of the respondents utilize 80% or more of their acreage to grow apples.
- 74% of the respondents have worked with a professional crop advisor in the last 12 months.
- 92% had participated in a CCE program, or utilized their guidance in the last 12 months.

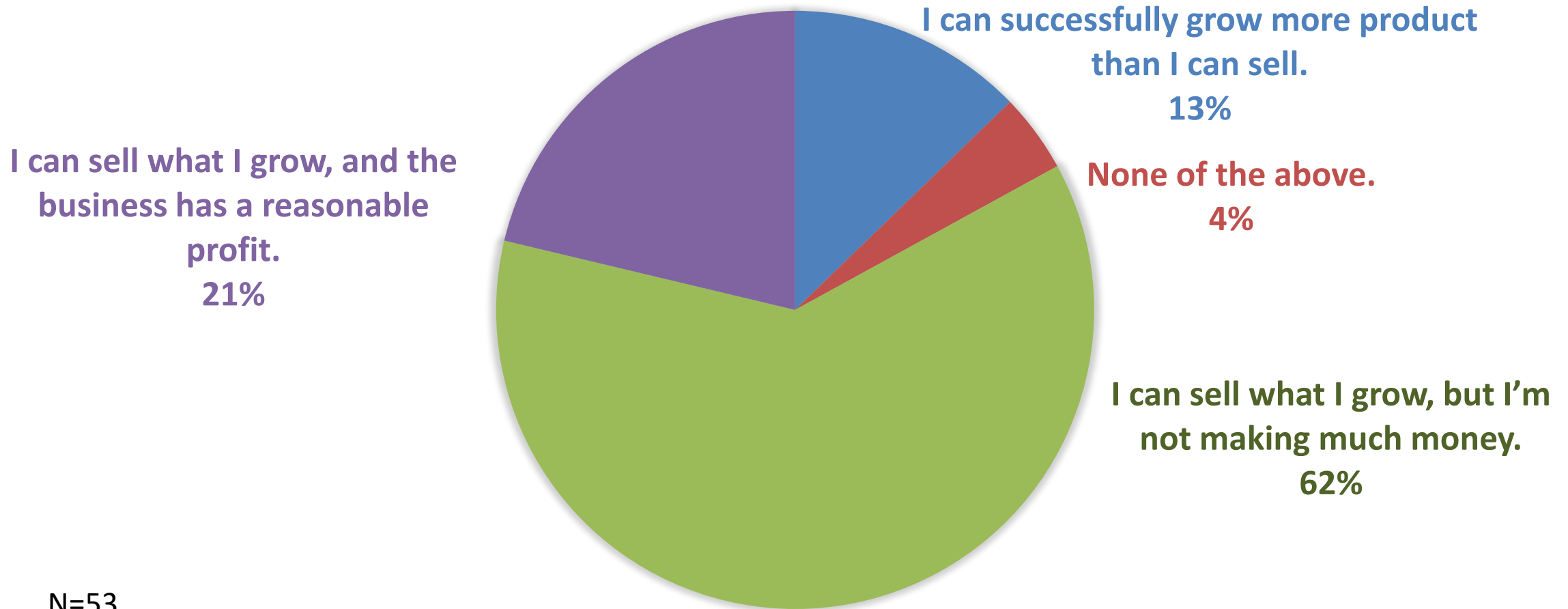


# Market Opportunities





**Q1 - Every farm is different. Which of the following statements most closely reflects how you feel about your farm's situation:**



N=53

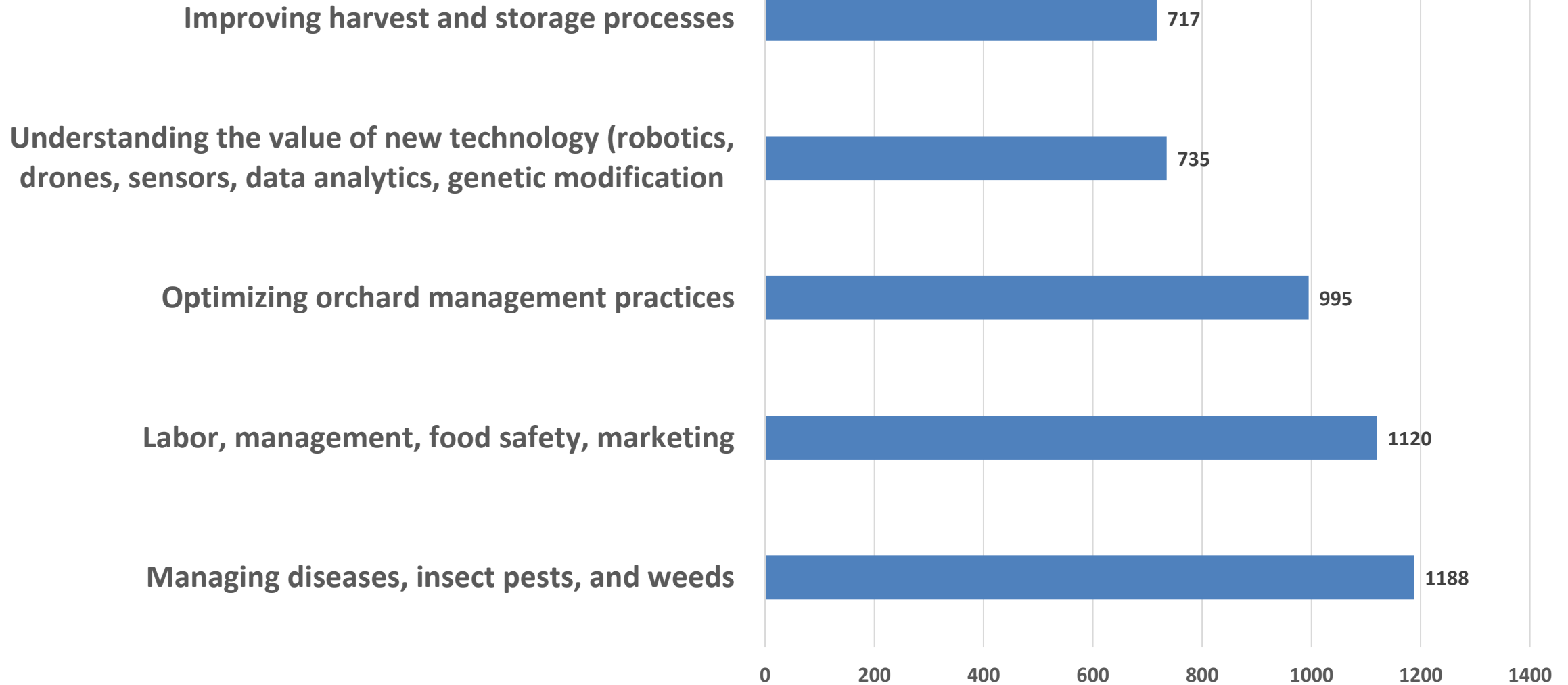


## What do you think is limiting your profits?

- “High labor costs, mediocre apple returns, states that have a lower cost of production”
- “Decreasing returns for older varieties and increasing costs of production”
- “Over production” and “too many club varieties”
- “Supply, larger companies dumping product and dropping prices”
- “Changes in buying habits of consumers”



## Categories: Production Research Priorities







Disease and Pest Challenges	Three MOST important	Three LEAST important
<b>Fireblight</b>	<b>76%</b>	<b>0%</b>
<b>Bitter Pit and other physiological disorders</b>	<b>68%</b>	<b>3%</b>
<b>Apple Scab</b>	<b>42%</b>	<b>11%</b>
<b>Rapid Apple (or Orchard) Decline</b>	<b>34%</b>	<b>29%</b>
<b>Bitter Rot and other fruit rots</b>	<b>24%</b>	<b>8%</b>
<b>Ambrosia Beetles, including Black Stem Borer</b>	<b>18%</b>	<b>37%</b>
<b>Coddling Moth and other leps</b>	<b>13%</b>	<b>61%</b>
<b>Brown Marmorated Stink Bug (BMSB)</b>	<b>8%</b>	<b>42%</b>
<b>Powdery mildew</b>	<b>5%</b>	<b>21%</b>
<b>Plum Curculio</b>	<b>5%</b>	<b>21%</b>
<b>Apple Maggot</b>	<b>5%</b>	<b>68%</b>

N=38



<b>Management, Labor and Food safety practices</b>	<b>2 MOST Important</b>	<b>2 LEAST Important</b>
<b>Understanding the economics of in-field decisions at harvest</b>	<b>60%</b>	<b>11%</b>
<b>Understanding the economics of other in-field decisions</b>	<b>49%</b>	<b>17%</b>
<b>Possible models for collaborative arrangements to optimize labor</b>	<b>31%</b>	<b>34%</b>
<b>Improving your people management skills and processes</b>	<b>26%</b>	<b>17%</b>
<b>Understanding and implementing the federal Good Agricultural Practices (GAP) standards</b>	<b>17%</b>	<b>66%</b>
<b>Understanding and implementing changes to comply with NYS labor regulations</b>	<b>17%</b>	<b>54%</b>



<b>Optimizing Orchard Management</b>	<b>3 MOST Important</b>	<b>3 LEAST Important</b>
<b>Irrigation and/or Fertigation</b>	<b>50%</b>	<b>8%</b>
<b>Nutrient management</b>	<b>47%</b>	<b>0%</b>
<b>Overall fruit quality</b>	<b>47%</b>	<b>22%</b>
<b>Pruning and Training</b>	<b>42%</b>	<b>6%</b>
<b>Crop load/Precision thinning</b>	<b>36%</b>	<b>3%</b>
<b>Overall efficiency</b>	<b>25%</b>	<b>44%</b>
<b>Root systems and soil health</b>	<b>17%</b>	<b>33%</b>
<b>Orchard design</b>	<b>11%</b>	<b>22%</b>
<b>Optimizing your orchard for varying weather patterns</b>	<b>8%</b>	<b>56%</b>
<b>Replant practices</b>	<b>8%</b>	<b>69%</b>
<b>Rootstock selection</b>	<b>8%</b>	<b>8%</b>
<b>Pollination</b>	<b>0%</b>	<b>28%</b>



Harvest and Storage	3 MOST Important	3 LEAST Important
Harvest timing management for optimal fruit quality	79%	21%
Understanding production practices to optimize fruit storage life	70%	30%
Interventions to improve color such as hedging, sprays, reflective fabrics, netting, leaf removal	67%	33%
Mechanization and labor efficiency	52%	48%
Prediction models for fruit storage	27%	73%
Waste management strategies	6%	94%



<b>Technology Development</b>	<b>High/Some Potential</b>	<b>No Potential/IDK</b>
<b>Diagnostic tools to identify disease</b>	<b>84%</b>	<b>5%</b>
<b>Automation for pesticide applications</b>	<b>78%</b>	<b>11%</b>
<b>Biological solutions for pest management</b>	<b>78%</b>	<b>5%</b>
<b>Moisture sensors for irrigation measurement</b>	<b>76%</b>	<b>11%</b>
<b>Soil microbial stimulators</b>	<b>72%</b>	<b>14%</b>
<b>Genetic modification to incorporate disease resistance</b>	<b>68%</b>	<b>14%</b>
<b>Imagery to monitor orchard health</b>	<b>65%</b>	<b>8%</b>
<b>New technology to extend fruit storage</b>	<b>65%</b>	<b>19%</b>
<b>Drones for pollination services</b>	<b>57%</b>	<b>19%</b>
<b>Mechanical/robotic harvesters</b>	<b>58%</b>	<b>11%</b>
<b>UV light to manage fungal diseases in orchard</b>	<b>51%</b>	<b>22%</b>
<b>Imagery to manage orchard health</b>	<b>51%</b>	<b>16%</b>
<b>Micro-climate weather systems</b>	<b>44%</b>	<b>25%</b>



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**Questions?**

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