



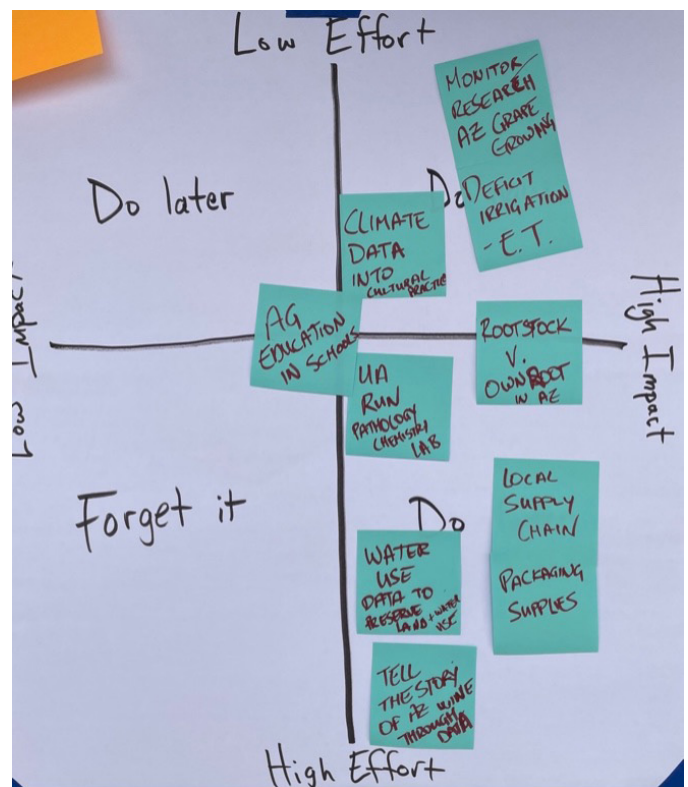
## Recurring Topics of Breakout Group Discussions at the 2023 Arizona Viticulture Summit

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University of Arizona Cooperative Extension, in collaboration with Visit Southern Arizona and Designing Arizona Signatures, organized and presented the Arizona Viticulture Summit on March 6 and 7, 2023. The purpose of the two-day summit was for growers and winemakers in attendance to help detail and expand research and extension plans through discussions of current needs and priorities. Participants also reviewed and assessed different innovation models and technologies potentially relevant to wine grape growing.

Much of the second day of the summit consisted of presentations and corresponding breakout group discussions. Presenters during the first half of the day provided reviews of current knowledge of viticulture in Arizona, as well as perspectives on the needs of and concerns, challenges, and opportunities for the industry across five thematic areas. These areas were: viticultural production; industry and economic development; operations management; customer acquisition and fulfillment and brand development; and technology integration.

During the second half of the day, summit participants split into groups that rotated through discussions on each of the five thematic areas. Presenters from earlier in the day facilitated group discussions in the context of their respective presentation themes, prompting individual groups for their perspectives on industry needs, concerns, challenges, and opportunities, as well as ideas and possible actions to address them (Figure 1). Facilitators and participants wrote down the gist of these perspectives, ideas, and actions, centrally placing them for all of the group to see, consider, and refer to during the rest of a given breakout discussion. At the end of a given breakout discussion, facilitators removed previous comments from view in order to not bias comments from subsequent groups.



**Figure 1.** In some discussions, breakout groups additionally placed individual comments along scales from low to high impact and from low to high effort, in order to help assign levels of priority to individual ideas and actions. For instance, low-effort / high-impact ideas and activities ranked higher in priority than low-effort / low-impact or high-effort / high-impact ones. Photo by Jeremy Weiss.

For this bulletin, we identify recurring topics in participant comments from all breakout group discussions across all five thematic areas. Below, we list the most frequently occurring ones, along with their individual comments and thematic area. We then connect these topics back to the purpose of the summit to help detail and expand research and extension plans for the industry.



**Table 2.** The word ‘Arizona’ occurred 16 times. IPM is an abbreviation for integrated pest management.

Viticultural Production	Arizona wine awareness; identify top fungal pathogens in Arizona develop wet- and dry-year spray programs
Operations Management	focused varietal information database for Arizona; varietal phenology data for Arizona; monitor research Arizona grape growing; rootstock versus own-root in Arizona; tell the story of Arizona wine through data; mock pro forma for Arizona wine business; ripening models for Arizona grapes
Technology Integration	adapt models to Arizona degree days; adapt IPM models to Arizona viticulture; Arizona winemakers outside of state; need rootstock, Arizona vineyard nursery

**Table 3.** The word ‘wine’ occurred 14 times. AMA is an abbreviation for Active Management Area.

Thematic Area	Individual Comments
Viticultural Production	Arizona wine awareness; regional wine identity; transition production guide for wine grapes
Industry and Economic Development	promoting water policies that allow wine industry to succeed; ability to serve wine, beer, spirits, food; regional wine identity for Arizona
Operations Management	tell the story of Arizona wine through data; mock pro forma for Arizona wine business; demonstrate agricultural conversion from commodity crops to wine grapes, water-use economics; cost return of water use for wine grapes, tell the story
Customer Acquisition and Fulfillment and Brand Development	-
Technology Integration	water for crops, cotton, corn, forage, wine; value of acre, wine grapes, cotton bales; wine; AMA will shut down wine industry

**Table 4.** The word ‘research’ occurred 13 times. AI is an abbreviation for artificial intelligence, AVA for American Viticultural Area.

Thematic Area	Individual Comments
Viticultural Production	app photo geo tag AI sort and identify to report and quickly identify opportunity for research; research to reflect specific AVA; research on pest impacts on production
Industry and Economic Development	updating studies and research; link consumer research with Arizona strengths; funding for industry research; industry research; research needs assessment on inputs and suppliers; state-level funding mechanism for marketing and research
Operations Management	monitor research Arizona grape growing; research to demonstrate the low-water requirements of grapes; need varietal research; varietal research
Customer Acquisition and Fulfillment and Brand Development	-
Technology Integration	-

**Table 5.** The word ‘industry’ occurred 10 times. AMA is an abbreviation for Active Management Area.

Thematic Area	Individual Comments
Viticultural Production	-
Industry and Economic Development	promoting water policies that allow wine industry to succeed; regular meetings for industry; resources for industry advocacy; industry outreach to local schools, workforce retention development; ancillary industry relationships education; funding for industry research; industry research; industry body cooperative
Operations Management	event facilitation, industry education, compliance federal, state, county, local
Customer Acquisition and Fulfillment and Brand Development	-
Technology Integration	AMA will shut down wine industry

**Table 6.** The word ‘irrigation’ occurred 9 times.

Thematic Area	Individual Comments
Viticultural Production	timing for deficit irrigation; irrigation and water management; irrigation technology; develop a model for deficit irrigation; bulletin for deficit irrigation
Industry and Economic Development	-
Operations Management	more educational seminars focused not nebulous, reduced deficit irrigation, evapotranspiration, pathology model; deficit irrigation, evapotranspiration
Customer Acquisition and Fulfillment and Brand Development	-
Technology Integration	low-water irrigation technology; statutory regulations, harvesting for irrigation regulated

**Table 7.** The word ‘data’ occurred 8 times.

Thematic Area	Individual Comments
Viticultural Production	-
Industry and Economic Development	-
Operations Management	more localized weather data; varietal phenology data for Arizona; climate data into cultural practices; water-use data to preserve land and water use; tell the story of Arizona wine through data
Customer Acquisition and Fulfillment and Brand Development	triangulate data; data acquisition events; anonymous data share
Technology Integration	-

The approach of looking at individual word frequency and visualizing it as a word cloud has shortcomings like separating words that have a similar meaning and stripping words of context. For instance, the comment “regional wine identity for Arizona” from the Industry and Economic Development thematic area in Table 2 could relate to ‘marketing’, a word that only appeared once in all comments. The comment “focused varietal information database for Arizona” from the Operations Management thematic area in Table 2 also relates to the frequently occurring word ‘data’ in Table 7, but does not appear in that list of comments. The comment “AMA will shut down wine industry” from the Technology Integration thematic area in Tables 3 and 5 arguably is a ‘water’ issue, even though the comment appears with the frequently occurring words ‘wine’ and ‘industry’. Despite such limitations, the approach used here nonetheless provides a summary of participant perspectives, ideas, and actions from the breakout groups that can serve as a starting point for further discussion. A complete list of all breakout group comments is available from the lead author of this bulletin upon request.

## Leveraging the 2023 Arizona Viticulture Summit

One way to address shortcomings of the above analysis approach is to compare frequently occurring words and corresponding comments from the summit with results from a recent statewide viticulture needs assessment (Halldorson et al., 2023). For example, if recurring topics from breakout group discussions are similar to needs assessment topics rated as ‘important’, we would be more confident prioritizing our future research and extension activities for Arizona viticulture using in part the above results (Tables 1 through 7). If not, a next step for us in leveraging breakout group discussions might be to assign summit comments to needs assessment topics and identify any additional information the comments might give.

Regardless of how that comparison turns out, breakout group discussions at the summit will help detail and expand our future research and extension activities for Arizona viticulture. Many individual comments topically line up with our areas of expertise and reinforce existing needs. For example, such comments for the lead author are “adapt models to Arizona degree days” (Table 2) and “climate data into cultural practices” (Table 7).

Breakout group discussions also might help detail and expand activities of the state viticulture industry itself. Individual comments, like “promoting water policies that

allow wine industry to succeed” (Table 1) and “industry outreach to local schools, workforce retention development” (Table 5), are examples of this.

## Acknowledgments

Funding for the summit was made possible by the U.S. Department of Agriculture (USDA) Agricultural Marketing Service through grant SCBGP20-52. Content of this bulletin is solely the responsibility of the authors and does not necessarily represent the official view of the USDA.

## References

Halldorson, M.M., Weiss, J.L., Sherman, J., and Rauluk, V. (2023), Arizona Statewide Needs Assessment for Commercial Viticulture, Arizona Cooperative Extension



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