

# *Effectiveness of Sustainability Programs in California Viticulture*

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## Issue

Local and statewide sustainability programs are playing an increasingly important role in California viticulture. Many have broadened their scope of education and outreach activities from the more traditional grower meetings and dissemination of printed educational materials to include self-assessment workbooks and third-party certification. Prominent examples of sustainability programs in California viticulture include the Central Coast Vineyard Team, the Lodi Winegrape Commission, the Napa Valley Grapegrowers, and the California Sustainable Winegrowing Alliance. Such programs play a potentially critical role in promoting environmental, economic, and social sustainability by encouraging the adoption of sustainable practices and improving cooperation among growers, scientists, wineries, and regulatory officials. The study reported here uses quantitative surveys of outreach professionals and qualitative interviews of growers in California viticulture to evaluate the perceived effectiveness of a broad range of program goals for different programs throughout the state.

## Key Findings

Outreach respondents evaluated programs as being largely effective in achieving the goals of increasing practice adoption, increasing grower participation in programs, increasing communication among growers, and reducing environmental risks. However, there was a great deal of uncertainty regarding program success in achieving broader social and economic goals; over one-fourth of respondents answered “don’t know” for the majority of the program goals evaluated. Furthermore, goals that received a greater number of “don’t know” responses scored lower in terms of program effectiveness. We found no strong evidence of regional differences in program evaluations, or among different types of outreach professionals. In interviews winegrape growers offered a range of opinions regarding program effectiveness and relevance. Supportive growers stressed the benefits of program participation including the opportunity to learn about and eventually implement practices leading to lower input costs, improved winegrape quality, reduced environmental and human health risk, and more precise vineyard management. Less enthusiastic growers identified several reasons for a lack of participation including a perceived inapplicability of sustainability activities to the specific grower’s situation, a perceived lack of need for the program’s education activities, and frustration with the multitude and diversity of certification programs and the excessive costs associated with participation. Survey respondents also ranked the effectiveness of several different broad approaches to viticulture, and reported that third-party certification and the use of self-assessment workbooks promoted sustainability more so than did biodynamic and certified organic approaches.

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## Policy and Management Implications

Because uncertainty about program effectiveness is associated with negative evaluations, programs should prioritize outreach and reporting activities that communicate goal achievement. This is particularly important for goals associated with the social and economic aspects of sustainability, which showed higher levels of uncertainty. Diversifying program activities and communicating their relevance to diverse constituencies may attract a greater range of grower participants. Streamlining reporting requirements and minimizing the financial costs of certification would appeal to growers frustrated with the complication of many different potential programs and the diverse requirements of each.

## Methodology

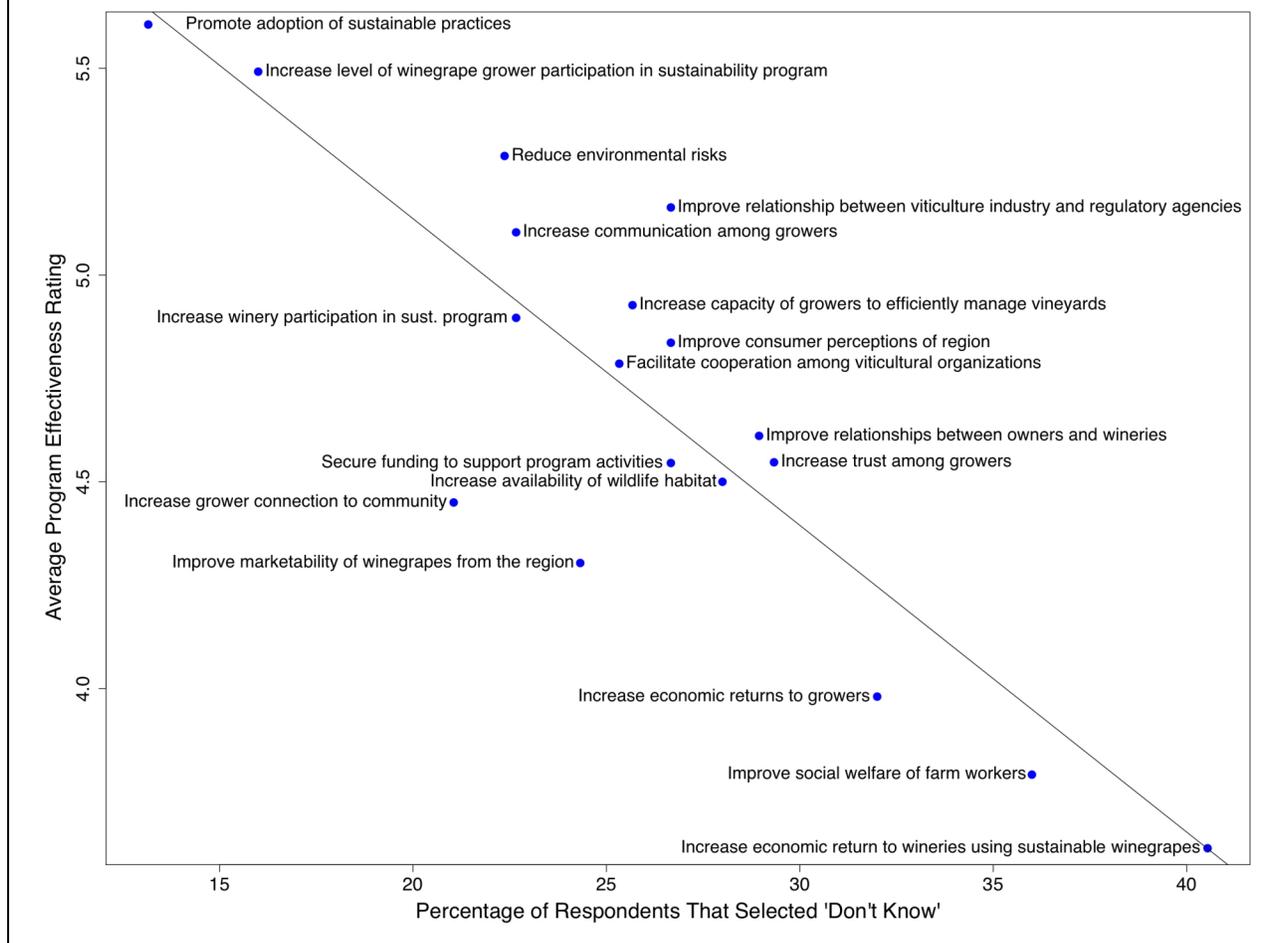
We conducted a statewide survey of outreach professionals in California viticulture that targeted university researchers, cooperative extension agents, producer group staff, and vineyard management consultants. The outreach survey collected 123 responses with an overall response rate of 43%. Outreach survey respondents were asked to identify any sustainable viticulture programs that they were aware of. For the individual program that respondents were most familiar with, they ranked (on 7-point scales) the success of the program in achieving 18 different goals. We also conducted 16 personal interviews of winegrape growers in the Lodi, Napa Valley, and Central Coast winegrowing regions to ask about their participation in sustainability programs, their opinions on the effectiveness of these programs, and their thoughts on the evolution of these programs over time.

## Results

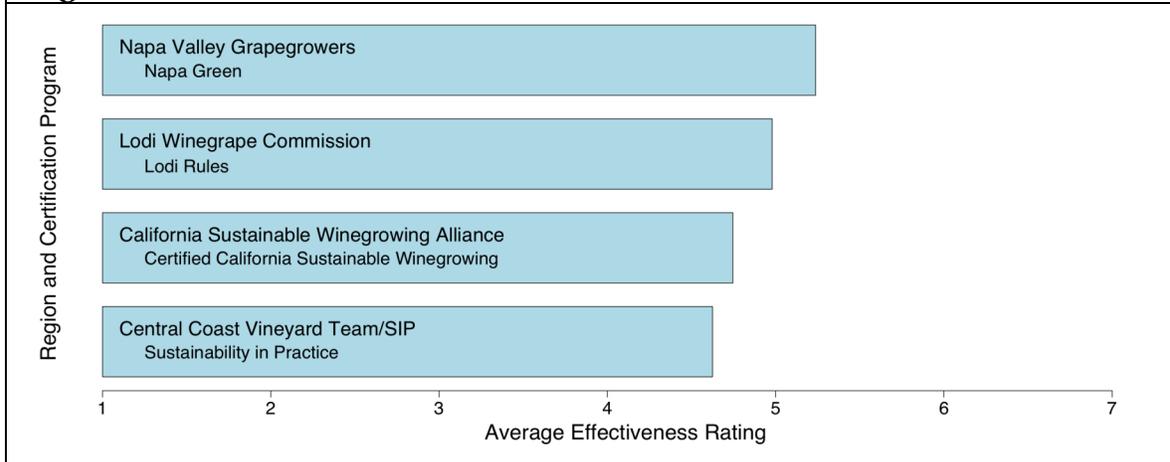
Figure 1 shows the average effectiveness ratings for each goal evaluated on the vertical axis, and the percentage of respondents answering “don’t know” on the horizontal axis. The five goals that respondents rated partnerships as being most effective in meeting are: 1) Promote the adoption of sustainable practices; 2) Increase level of winegrape grower participation in sustainability program; 3) Reduce environmental risks; 4) Improve relationship between viticulture industry and regulatory agencies; and 5) Increase communication across growers. Figure 1 also illustrates that a greater percentage of “don’t know” responses is associated with a lower effectiveness rating. Figure 2 shows the average effectiveness by region for all program goals combined. The regional comparison groups the relevant programs and associated third-party certification system mentioned in each region. A small number of respondents mentioned some less prominent programs, but they are not included here. There are no statistically significant regional differences, and we also did not find differences based on important characteristics of respondents, such as location, type of job, years of experience, or degree of involvement in actual vineyard management. Figure 3 reports the average degree to which the different approaches promote sustainability.

# Research Brief

**Figure 1: Uncertainty and Effectiveness for Each Program Goal**



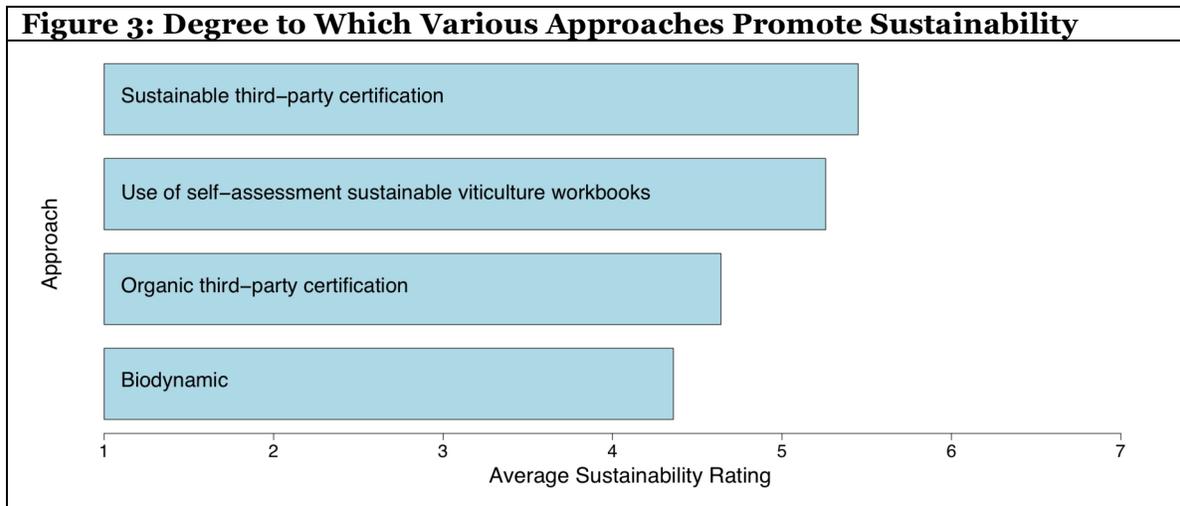
**Figure 2: No Significant Differences in Average Performance Across Regions**



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### New Research Directions

This study examines the *perceived* effectiveness of sustainability programs and approaches by outreach professionals and winegrape growers, but says little about the *actual* effectiveness of these partnerships in terms of concrete environmental, economic, and social outcomes. Additional research should examine actual biophysical and social measures of program effectiveness, such as increases in income, improvements in water quality, and changes in farm labor conditions. Such research could be incorporated with the data reported here on perceived effectiveness, thereby also testing the degree to which outreach professionals and growers are accurately assessing program performance. Studies of how different types of outreach and education activities will reduce uncertainty are also needed. Our survey finds little evidence of regional differences in program effectiveness despite comments from many interview respondents and research advisors asserting the importance of regionally unique factors. Further research is needed to quantitatively identify and measure these regional differences. Also, this research does not comprehensively assess program participation and practice adoption across all growers in any region. The next stage of the NSF study will be conducting grower surveys in Lodi, Central Coast, and Napa Valley to gather this information.