SUPPLEMENTARY DATA
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SUPPLEMENTARY DATA

Table S1. Percentage of grape production between wine, juice, table and dry grape, and certified organic acreage on total grape production for each region (FranceAgriMer, 2016; internet accessed 8 January 2025).

Country	Climate	Regions	Total land area (ha)	% Acreage of land area grapes				
				Wine	Juice	Table	Dry	Certified organic
France	Temperate-cold	Alsace, Burgundy, Champagne	15,600 29,500 33,344	99	01	0	0	18
France	Semi-arid	Ardèche, Beaujolais, Hérault, Vaucluse	12,000 19,000 80,000 24,714	96	01	03	0	19
USA	Temperate-cold	New York, Pennsylvania, New Jersey	10,240 5,665 800	57	42	01	0	15
USA	Semi-arid	California	212,000	81	01	11	09	16

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Figure S1. Questionnaire.

Part 1. Background of Grape Region

1. What is the total grape acreage in the area that you provide extension for?

   Total acreage: hectares/ acres

2. Please estimate percentage of each above in your area.

% Wine	% Juice	% Table

3. Please estimate the percentage of vineyard production in your area.

	Conventional
	Certified Organic
	Certified Biodynamic
	Other (please specify)

Part 2. Challenges and Opportunities

Many vineyard practices can impact SOC, either directly or indirectly.

4. Do growers in your region currently consider SOC when they are making decisions about vineyard management practices?

YES	
NO	
Not sure	

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5. To what extent do you think that growers will consider SOC in their vineyard management decisions in the next 5-10 years? (range from not at all to always)?

0 (=Not at all)	1	2	3	5 (=Always)

6. What are three current practices in your region that you think could increase SOC?

Practice 1	
Practice 2	
Practice 3	

7. What are three practices growers in your region could adopt to increase SOC?

Practice 1	
Practice 2	
Practice 3	

8. What are the top three challenges or obstacles relating to practice adoption to increase SOC in your region?

Challenge 1	
Challenge 2	
Challenge 3	

Part 3. Specific Practices

9. Reducing or eliminating the use of herbicides in the vineyard.

a. To what extent do growers in your region consider eliminating herbicides?	**b.** What prevents this practice?	**c.** What might encourage this practice?

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10. Increasing the use of cover crops or resident vegetation – both between rows and under vines – in the vineyard.

a. To what extent do growers in your region consider increasing the use of between row or under vine cover crops/resident vegetation in the vineyard?	**b.** What prevents this practice?	**c.** What might encourage this practice?

11. Reducing or eliminating tillage/cultivation – both between rows and under vines – in the vineyard.

a. To what extent do growers in your region consider reducing or eliminating tillage/cultivation in the vineyard?	**b.** What prevents this practice?	**c.** What might encourage this practice?

12. Returning dormant vine pruning wood to the soil in the vineyard.

a. Is it common practice for growers in your region to return dormant pruning wood to the soil?

	Yes
	No
	Depends on the grower

If applicable:

b. To what extent do growers in your region consider returning dormant pruning wood to the soil in the vineyard?	**c.** What prevents this practice?	**d.** What might encourage this practice?

13. Inoculating vines with arbuscular mycorrhizal fungi in the vineyard.

a. To what extent do growers in your region consider inoculating vines in the vineyard?	**b.** What prevents this practice?	**c.** What might encourage this practice?

14. Introducing animals for grazing in the vineyard.

a. To what extent do growers in your region consider introducing animals for grazing in the vineyard?	**b.** What prevents this practice?	**c.** What might encourage this practice?

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Table S2. Total number of responses relating to encouraging adoption of SOC-building practices that fall within each category.

	Extension	Research	Regulatory	Incentives	No idea/no need/nothing/I don't know
Increase cover cropping	7	14	5	5	1
Increase integration of grazing animals	8	10		13	1
Reduce herbicide use	9	8	10	5	
Increase mycorrhizal associations	10	17		1	4
Increase return of pruning residues	15	6	4	3	4
Reduce/eliminate tillage	13	11	3	3	2