

Engaging Growers with Network-Aware Outreach & Education

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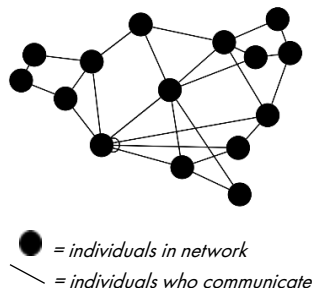
This summary explains the basic principles of social networks and how they can improve knowledge diffusion for vineyard pest and disease management. It illustrates how to think strategically about networks and how to adapt them to local situations and needs, using specific examples from Napa County, California, USA.

What are agricultural social networks & why are they important?

- In this context, an agricultural social network defines who communicates with whom about production practices. Within effective agricultural networks:
 - Knowledge spreads quickly and efficiently among participants.
 - Agricultural professionals gain greater access to information that promotes innovation and problem-solving.
 - Persuasive peer-to-peer conversations increase, making adoption of production practices more likely.
 - Visibility of and access to other growers' experiences increase, encouraging positive social pressure that catalyzes individual and collective action and supports adoption of new practices.
- Extension professionals can adopt a network-based approach to target outreach and education to individuals or groups who are optimally placed within the network to diffuse knowledge.
- Networks can adapt and change to address local needs, emerging threats, and shifting priorities.

Characteristics of Effective Agricultural Networks

Effective networks:

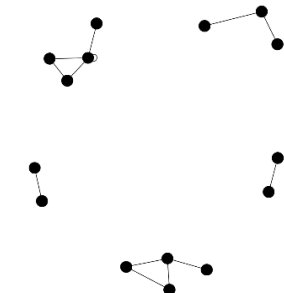


Create numerous connections for each individual, providing greater opportunity for information exchange.

Connect all participants so that information can reach every individual.

Minimize the distance between members, creating fast and efficient knowledge dissemination.

Ineffective networks, by contrast, result in:



Few connections for each individual, with little opportunity to exchange information.

Isolated groups, where information is not shared. Inefficient knowledge dissemination as information must be delivered separately to each group, or they must be convened at regional events to share information.

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Network-aware research considers ...

Network composition & purpose

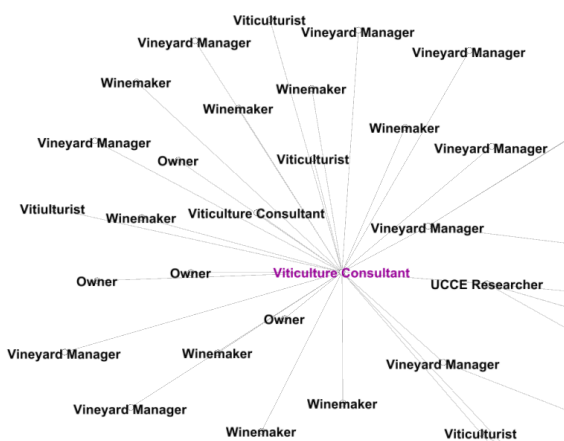
- Who is in the network?
- What is the purpose of the network?
- What educational resources or opportunities are needed to disseminate knowledge across the network?

Network structure & efficiency

How are members connected across the network?

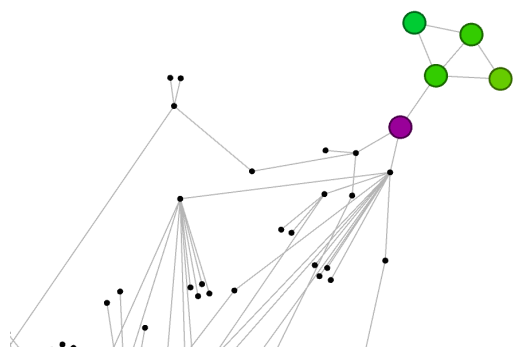
Who has the greatest number of network connections to spread information efficiently and effectively?

This **viticulture consultant**, with 16 clients, communicates with many individuals in a diversity of job roles.



Who are “bridges” between groups in the network who can connect with isolated individuals or groups?

This **viticulturist** shares knowledge with their **vineyard team**.

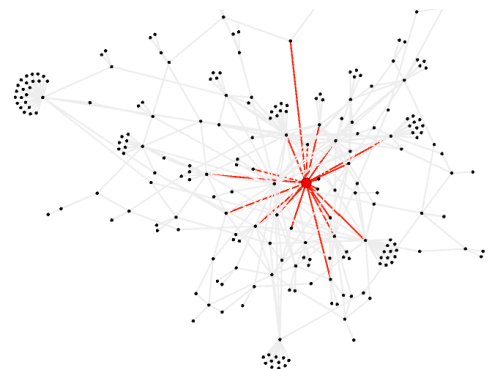


Network actors in Napa, California:

20% Viticulturist	5% Executive
18% Vineyard Manager	3% Extension Professional
15% Winemaker	3% Sales Representative
10% Owner	3% Pest Control Advisor (PCA)
7% Viticulture consultant	2% University Researcher
7% Non-Viticulture Director	2% Viticulture Technician

Who is most efficient at spreading knowledge widely and who are influential actors in the network?

This **viticulturist** works for a vineyard management company and is a regional group coordinator who can spread information quickly as there are few people between them and everyone else in the network.



Best practices for network-aware outreach

- **Develop an understanding of your local networks** to guide outreach and education.
- **Ally with well-connected members** to build your network and place yourself more centrally in the network.
- **Develop awareness of the knowledge needs and assets of network members.** Act as a “bridge” between those needing and those holding knowledge.
- **Help others build relationships** by promoting group interactions and facilitating connections between agricultural professionals.
- **Build science networks** that facilitate knowledge transfer and provide opportunities for interactions between growers and members of the academic community.