

Why are agricultural decisions challenging?

1. Risk: Decision-makers evaluate the risks of adopting new practices (ideas, behaviors, or technologies) vs. continuing with existing practices. For example, the financial efficiency or practical advantages of one practice over another for their unique farming situation.

2. Uncertainty: Decision-makers must overcome uncertainty about the risks before adopting a practice. Uncertainty increases when:

- Resources are limited
- New knowledge needs to be acquired by the team.
- There is limited scientific understanding of an issue or practice.
- The generalizability of a practice to the decision-maker's unique farming situation is unclear.

3. Team Decision-Making: Decisions are often made by teams whose members differ in:

- **Knowledge:** level of knowledge of an issue and type of knowledge they specialize in.
- **Needs:** the underlying interests a decision must meet, often related to their job role.

Examples of Varied Job Roles within Teams:



Viticulturist
"I have knowledge of viticulture and experience growing grapes. I need this practice to keep the vines healthy"



Financial Executive
"I understand the economic situation of this vineyard. I need the costs of this practice to meet company financial goals"



Owner
"I know the broader picture. I need this practice to align with my vision for the company"



Vineyard Manager
"I have experience and knowledge of the logistics of farming. I need to be able to implement this practice with the farming team"



Winemaker
"I have knowledge of enology and experience making wine. I need this practice to maintain wine quality"

Differences in knowledge and interests are challenging for team collaboration.

High quality decision-making requires:

- **Team members communicate openly and honestly** with each other, creating shared awareness of knowledge, concerns, and solutions to inform their deliberations and decisions. This leads to more effective evaluation of risk and a reduction in uncertainty about an action.
- **Discussion, where interests conflict**, to meet everyone's needs to gain support and commitment to the decision. This helps ensure all important information is shared and makes successful implementation of the decision more likely.

Three Key Influences on Decision Making

These influences must be positively aligned within an individual and across team members to increase the likelihood of adoption and effective implementation.

<i>Category of Influence</i>	<i>Sample questions</i>
<p>EVALUATION of practice as positive or negative</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Is the practice effective? <input type="checkbox"/> Is the practice useful? <input type="checkbox"/> Will the practice save time or money? <input type="checkbox"/> Does this practice have an advantage over an existing one? <input type="checkbox"/> Does it meet company goals? <input type="checkbox"/> Are there wider benefits? (e.g., environmental sustainability)
<p>SOCIAL PRESSURE from others to adopt or reject a practice</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Do other growers in the community use the practice, and what is their experience? <input type="checkbox"/> Do neighboring growers want us to adopt this practice? <input type="checkbox"/> Do respected others (e.g., scientists, extension professionals) think we should adopt this practice? <input type="checkbox"/> Is this a practice the owner or employer wants us to adopt? <input type="checkbox"/> Is there an outside authority (e.g. certification agency; government) that requires us to adopt this practice?
<p>CAPACITY to use the practice</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Is the practice easy to implement? <input type="checkbox"/> Do we have the skills, resources, or opportunities to enact the practice? <input type="checkbox"/> How can we learn the skills necessary to implement the practice? <input type="checkbox"/> Who has decision-making power and are they persuaded of the value of adoption? <input type="checkbox"/> Is there outside support to help us with this action? (e.g., extension training program; industry support group; government subsidy)

Team members, educators, & extension professionals can positively influence decisions by:

- Asking questions relevant to each category of influence.
- Preparing information relevant to each category to encourage constructive evaluation of a practice’s suitability for the farming conditions and to promote well-informed decision-making.

Resources

1. Explains general influences how people make decisions. This [5 minute explainer video](#) expands on the key concepts. Credit: Smith, N. 2013. University of Birmingham.
2. [Demystifying Grower Decision-Making](#) summarizes and provides examples of the influences on adoption using the context of grapevine viral disease management.

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