

### ***3. Production Efficiency***

<b>Objective</b>	<b>Research Outcome</b>	<b>Industry Benefit</b>
<b>3.1 Optimize vineyard production systems for cost, quality and the environment</b>	Reduction of production inputs including labor, water, fertilizer and pesticides, while maintaining fruit quality	Increased environmental and economic sustainability
<b>3.2 Develop and adopt advanced technologies for precision viticulture</b>	Implementation of precision viticulture technologies that reduce vineyard variability and improve production efficiency	Improved vineyard performance and fruit quality
<b>3.3 Identify and maintain the highest quality grape germplasm</b>	Utilize the highest performing plant materials for each growing region and market use	Improved vineyard performance and fruit quality
<b>3.4 Develop tools to enhance traditional breeding approaches for improvement of grape germplasm</b>	Identify genes responsible for resistance to environmental stresses and pests, and the regulation of key fruit quality traits	Improved vineyard performance and fruit quality