A new app being developed by researchers at the Tasmanian Institute of Agriculture (TIA) will not only help vineyard managers grow their grapes, but the app itself will grow smarter the more it is used.

Visitors to Agfest can road-test the pre-commercial VitiApp, which is funded by Sense-T and developed in collaboration with the School of Engineering and ICT at the University of Tasmania.

This VitiApp will use artificial intelligence to enhance the way the system supports users’ decisions.

It will give vineyard managers a simple and accurate way to monitor on-farm growing conditions and understand disease and other risks.

Tasmania holds a national and international reputation as one of Australia’s leading producers of premium wines, but our vineyards are susceptible to serious damage from variable conditions including frost, wind, smoke and diseases such as botrytis and powdery mildew.

The app will support growers to combat these issues by aggregating data from the Bureau of Meteorology and on-vineyard weather stations into an easy-to-access platform that will notify them of high risk situations.

Having this information at their fingertips will help vineyard managers make informed data-based decisions so they can continue to improve their crops and produce premium quality wine.

Project Leader, Dr Kathy Evans from TIA says the app will boost confidence around decision-making for managers.

“The app gives users access to real time weather and forecasts, disease risk awareness, vine growth conditions and notifications of high risk situations like frost, wind and disease,” Dr Evans said.

“This means that even if they cannot yet see an issue occurring on the ground, they will have the information that lets them know they need to take action.

“What is great is that it will be readily and easily configured to individual vineyards and will allow users to setup tailored alerts.
“For example, a manager could set the app so they get an SMS or email when the temperature drops below the level that they specify.

“Users can also pick and choose the functions they want to use, which means they only get information they want at the time they need it.”

Artificial intelligence research also aims to create even greater functionality in the app.

Collaborator Associate Professor Byeong Ho Kang and his team are using smart technology to recognise a user’s inputs about vineyard observations so that the quality and relevance of information returned to the user is improved.

This means that the app will learn from its human users about what information is important to them.

The project is involving users deeply throughout the development of the app to make sure it is useful, usable and accessible.

Matt Pooley from Pooley Wines has been involved in the project and sees real value in the data.

“We can benchmark from season to season, grower to grower, and we can start to develop a bigger picture for what we are trying to do and have a better understanding of our industry,” he said.

There is a community of industry members ready for the next stage of app testing to help improve and shape the final product.

Test the tool for yourself at Agfest. Visit the TIA and Sense-T display at the DPIPWE (site 503-505) site to see the app in action.

Dr Kathy Evans will be at Agfest today between 12.30pm-5pm demonstrating how the VitiApp works.

For more information, contact Kathy Grube (TIA) on 0418 524 297 or Carmen Stephens (Sense-T) on 0428 028 508.

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