



Treasury Wine Estates: using spatial soil data to improve vineyard decisions

Treasury Wine Estates is one of Australia's largest wine producers, managing vineyards across varied soils, climates and production zones.

For a business operating at this scale, small decisions in the vineyard matter. Where vines are planted. How frost damage is assessed. When grapes are picked. How field data is captured and reported. Each decision affects yield, quality and operational cost.

TWE needed a better way to connect field observations, soil conditions and spatial data across its vineyard operations.

The challenge

TWE wanted to improve vineyard productivity by matching vine plantings more closely to soil conditions.

The team needed a practical way to assess new planting areas spatially, capture accurate field data and turn that information into repeatable decisions. This included support for planting strategy, frost impact assessment and variable rate grape picking.

The core problem was not a lack of data. It was that data needed to be collected, standardised and made usable across the business.

The GXLab approach

GXLab, formerly FarmLab, worked with TWE to bring vineyard, soil and field data into one environmental data platform.

The platform combined satellite imagery, ground-truth field data and in-field mobile workflows to support precision vineyard management.

Using GXLab, TWE could:

- spatially assess new vine plantings against soil conditions
- record frost assessments directly in the field
- support variable rate grape picking decisions
- consolidate environmental and vineyard data in one place
- generate standardised reports across the business

Field staff used the mobile app to upload vineyard data directly from site. This gave the business faster, cleaner and more consistent information for decision-making.

The outcome

The work helped TWE systemise a process that could be scaled across vineyard operations.

By connecting spatial analysis with field data, TWE was able to make more informed decisions around planting, frost impact and picking strategy.

The result was a more repeatable workflow for vineyard teams, with clearer reporting and better access to environmental data across the organisation.

Key results

- Improved alignment between vine plantings and soil conditions
- Better support for grape quality and yield decisions
- Faster collection of in-field vineyard data
- More consistent reporting across operations
- A single platform supporting multiple vineyard workflows

Client quote

“The results have been very pleasing, and we have now systemized that process within TWE... It’s very exciting to have one platform that can solve many issues for us and have all the data in one place.”

Marcos B
Head Technical Viticulturist, Treasury Wine Estates

About GXLab

GXLab helps agriculture, remediation and laboratory teams collect, manage and report environmental data.

The platform combines field workflows, spatial data, laboratory integrations and analytics to help organisations make better land management decisions.

For clients like TWE, GXLab provides the tools to turn field and environmental data into practical operational decisions.