

ORANJE TRACTOR WINES: ACHIEVING CARBON NEGATIVITY THROUGH REGENERATIVE FARMING



Oranje Tractor Wines is a vineyard located near Albany, Western Australia, known for its commitment to sustainable and regenerative farming practices. They have a strong focus on producing high-quality wines while actively preserving and regenerating the natural environment.

BACKGROUND

Oranje Tractor vineyard was established in 1998. In 2005, they achieved organic certification. Over the years, the vineyard embraced regenerative agricultural practices, aligning itself with nature's circular ecosystems. Their approach is centred around soil health and biodiversity, which ultimately enhances the quality of their produce.

SOLUTION

To address these challenges, Oranje Tractor Wines implemented a range of sustainable and regenerative agricultural practices. These included transitioning to organic farming, focussing on soil health and increasing soil carbon, eliminating synthetic inputs, planting diverse cover crops between vine rows to nurture the soil food web, avoiding the use of tractors to prevent soil compaction, and leaving canes on the ground to return nutrients to the soil.

RESULTS

Oranje Tractor Wines achieved remarkable results on their journey to sustainability and carbon negativity. They were recognised with the Albany Chamber of Commerce and Industry Great Southern Business Environment and Sustainability Award in 2019. A Landcare Australia-funded carbon accounting exercise in 2021 revealed that their property absorbs six times the amount of CO₂ than their vineyard emits, making them carbon negative. This achievement was confirmed by Professor Peter Newman from Curtin University in 2022.

CHALLENGE

The challenge Oranje Tractor Wines faced was to create a sustainable and regenerative agricultural system while maintaining the quality and viability of their wine production. Additionally, they aimed to become carbon negative.

IMPLEMENTATION

The implementation involved adopting organic farming methods, planting cover crops, and integrating regenerative practices to improve soil health and biodiversity.

ORANJE TRACTOR WINES STORY

Pioneering Carbon Negativity

Oranje Tractor Wines, nestled near Albany, Western Australia, has not only achieved carbon neutrality but has gone a step further by becoming carbon negative. Their journey to sustainability and carbon negativity is a testament to the power of regenerative farming practices.

In a typical year, the 8-hectare Oranje Tractor Farm sequesters 8.5 tonnes of CO₂, while the 2.6-hectare vineyard emits just 1.4 tonnes. Owner Murray Gomm proudly states that they don't need to purchase offsets because they are better than net-zero now, thanks to their organic and regenerative practices.

Oranje Tractor Wines' journey to sustainability and carbon negativity involves shunning synthetic inputs, reducing waste, using recycled materials in construction, and minimising the use of fossil fuels. They have transitioned to using renewable energy sources and offer free electric vehicle charging for visitors.

Oranje Tractor Wines takes a comprehensive approach to soil health and plant nutrition. Remarkably, Oranje Tractor Wines have refrained from applying any fertilisers for 12 years. Instead, they dedicate themselves to creating soil that functions as a living system, unlocking nutrients and making them readily available to the plants.

They don't rely solely on soil tests, also incorporating leaf tissue tests, soil biology tests, and plan to incorporate plant sap analysis tests in the future. This meticulous approach ensures they have a holistic understanding of their vineyard's needs and if a deficiency is identified they can target an appropriate treatment, such as the application of a foliar. This commitment to soil health is reflected in the lush vineyard they've nurtured.

But there's more to this story. A focus on soil health and increasing soil carbon has paid dividends. From 5.8% in 2003, they've boosted soil carbon to an impressive 8.6% in 2022, marking a 48% increase. This isn't just a numerical achievement; it signifies the ushering in of soil structure, nutrient cycling, and availability. It provides a welcoming home for essential microbes, facilitates water infiltration and storage, encourages root penetration, and supports efficient gas exchange.

Additionally, their commitment to regenerative practices includes planting cover crops between vine rows, leaving canes in the vineyard to break down and release nutrients, and strip grazing sheep to manage grass height and increase availability of nitrogen and phosphorous in the soil. These practices have fostered a thriving soil food web with diverse fungi and bacteria.

Oranje Tractor Wines has truly showcased that a commitment to regenerative agriculture not only benefits the environment but also yields exceptional results in the quality of their wine. Their story is one of dedication to sustainability and a harmonious coexistence with nature, setting a remarkable example for the wine industry and beyond.

Oranje Tractor Wines' remarkable journey to carbon negativity through regenerative farming, sets an inspiring example for the wine industry and beyond.