

# Innovative Trial at Woodend Farm

USING DRONE TECHNOLOGY TO INCREASE WINTER WHEAT CROP YIELD AND QUALITY

### Woodend Clover Companion Trial: Boosting Beans, Oats, and Wheat



### Sowing Details

The first step in the trial is sowing the seeds using precision agriculture techniques. Accurate sowing ensures uniform crop emergence and growth, resulting in higher yields and a better outcome.

### Using the Skippy Scout Drone

We will be using the Skippy Scout drone for plant health assessment, crop scouting, and yield predictions. The drone's high-resolution multispectral camera and software provide accurate and timely information for decision making.

#### Monitoring and Assessment

During the trial, we will monitor the crops for pests, diseases, and growth rate. We will assess the data and make necessary changes to maximize yield and quality.

#### Post-Harvest Management

After the harvest, we will collect data on crop yield and quality. We will also assess the performance of the Skippy Scout drone and make necessary changes for future trials.



### Sowing Details

The Skippy Scout drone was used to sow a white clover seed blend and other seeds in the trial to ensure even distribution and efficient sowing. This method helps to save time and reduce wastage, ensuring a higher yield.





# Victus Spring Beans

### Spring Beans Overview

Spring beans are a type of legume that are sown in spring and harvested in autumn, and are used in poultry feed at Woodend Farm.

### Spring Beans Benefits

Spring beans are used for their rich protein content, energy and essential nutrients like iron, fibre and vitamins C and K.

### Sustainability in Agriculture

Spring beans play an important role in sustainable agriculture practices due to their ability to fix nitrogen in the soil, reducing the need for synthetic fertilizers and enhancing soil fertility.

## Conway Spring Oats

The use of drones in agriculture provides farmers with better crop insights, precision agriculture, and cost optimization. It is a crucial tool for improving crop health and yields, while also reducing resource wastage.



### Vespa Winter Beans

Winter bean is a type of legume crop that can be sown in winter and harvested in late spring or early summer. White clover seed blend can be over-sown with winter beans to increase the soil fertility, and both can be sown using the Skippy Scout drone, which is a precision technology used in agriculture.





### Using Skippy Scout Drone

The Skippy Scout drone is a revolutionary technology that ensures even distribution and efficient sowing of clover seeds into standing crop. This allows farmers to save time and resources while maximizing crop yield.

### Nitrogen Sequestration

Clover understorey can be used to sequester nitrogen from the soil, reducing the amount of nitrogen leaching into the environment. Tissue and soil samples can be tested to measure nitrogen levels before and after the establishment of the clover understorey to assess the benefits of nitrogen sequestration.







## Yield and Quality

#### Winter Wheat Crops

Winter wheat crops are an important source of food and income, and the yield and quality of subsequent crops are critical for farmers and producers to ensure profitability and sustainability.

### Clover Understorey

Clover understorey is a common practice in agriculture, and its effects on crop performance, yield, and quality have been a subject of ongoing research and debate.

### Assessment of Benefits

The assessment of benefits of clover understorey on crop performance, yield, and quality can help farmers and producers make informed decisions about crop management and production.

### Post-Harvest Management

Direct drilling of winter wheat into established clover understorey is a postharvest management technique that promotes soil health and reduces the need for synthetic nitrogen fertilizers.



### Outcomes and Next Steps

#### Improved Soil Fertility

Integrating white clover into crop rotations is expected to enhance soil fertility, nitrogen sequestration and soil health, leading to improved crop performance.

#### Enhanced Crop Performance

By fostering a clover understorey, we hope to achieve enhanced yields and quality in winter wheat, leading to improved crop performance and better returns on investment.

#### **Continuous Monitoring**

We will continuously monitor the progress of the trial and adapt our practices based on data and research findings, to optimize soil fertility, crop performance and sustainability.

