

Application Booklet Green on Green



Grass in Lupins

April 2023

Version 1

<https://bilberry.io>

Any questions? hello@bilberry.io

Introduction

*Bilberry has been developing a technology capable of detecting and spot spraying weeds in crops, known as Green on Green, for more than 3 years. **Grass in Lupin** is a great application of our Green on Green market leading technology, showing promising results in minimising crop damage and herbicide expenses whilst maximising profit through sustainable practices.*

This booklet will set out best practice guidelines to ensure users maximise the benefits of the camera system and overall integrated weed management strategies on farm. Included are use cases and testimonials from a range of users, highlighting different approaches to obtain the same goal: sustainably optimising weed control at a whole farm scale.



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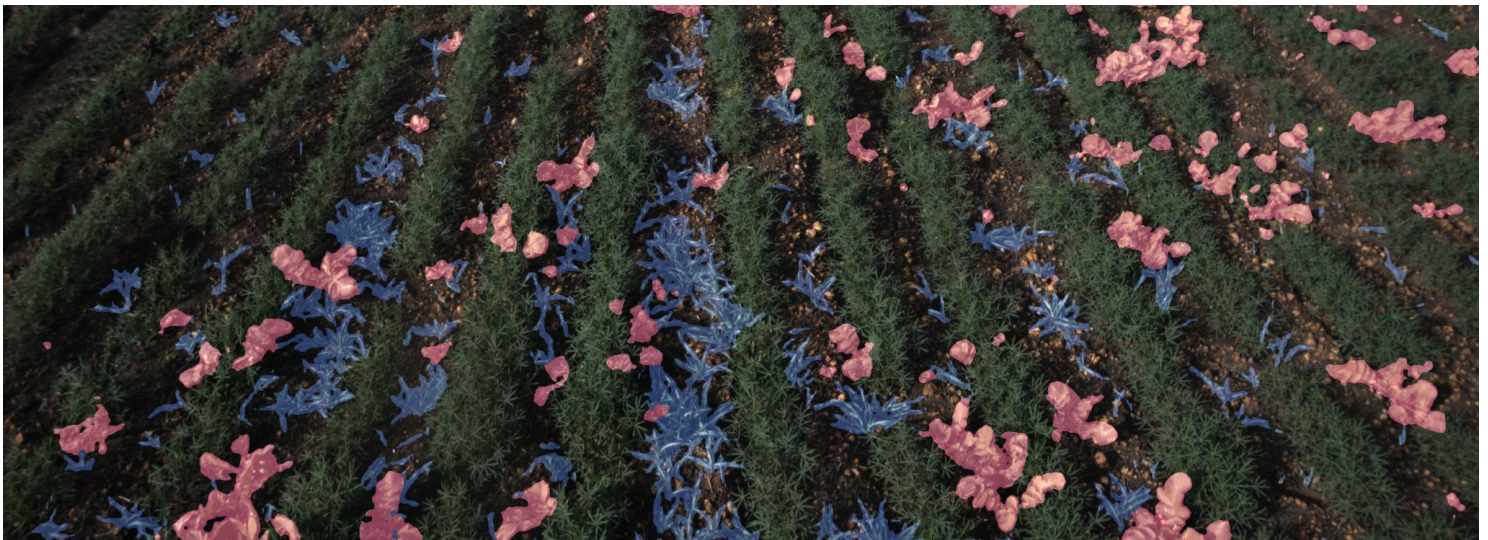


1. Application Guidelines

Which weeds does it detect?

All grasses with more than 4 leaves including:

- volunteer wheat and barley
- ryegrass, brome grass, wild oats



*pink overlay = broadleaf
blue overlay = grass weed*

What is the best timing?

Our cameras can detect what you can see when you're sitting on the boom. For best results, we recommend an early application before stem elongation, ideally before crop development obscures the inter-row after canopy closure.



1. Application Guidelines

! After crop canopy closure, only weeds at the same level or above the canopy will be seen and therefore, detected by the cameras.



Is a camera salvage spray possible?

Yes, spot spraying later germinating grass weeds and escapees at a later stage is a strong use pattern with the cameras. We have seen strong results with salvage spot spraying as long as the weeds are above the canopy. If they are patchy, it's even better. Salvage application timing can be performed in later crop growth stages, as the algorithm has been developed with the ability to detect weeds out of a senescing crop.



2. System Basics and Benefits

Spray What You Can See

"If you can see the weed with your eyes, the camera will see it." - Broden Holland

Cameras can be affected by high stubble loads, crop shading, and canopy closure. If they cannot see the weeds in question, they cannot spray them, it's as simple as that.



20km/h
recommended
spraying speed

Get Significant Chemical Savings

Average chemical savings are around 80% and can go up to 98% depending on the weed infestation in your paddock and the section size.

Best Light Time

Ideal spraying timing starts 2h after sunrise and stops 2h before sunset, when the natural light is the strongest.

➔ **and many other benefits for your farm**
check them out [here](#)

3. Application in Action



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Disclaimer

The content and data presented in this document is correct at time of writing and contains some anecdotal information which may not align with the results you experience on your farm. If you are experiencing varied performance with your Bilberry system please bring it to the attention of your local sprayer representative or Bilberry support team member.