



**PTx**  
Trimble



**bilberry**

# **GREEN ON GREEN BROADLEAF IN LUPIN APPLICATION BOOKLET**





# INTRODUCTION

Bilberry has developed a solution capable of accurately and reliably detecting and spraying weeds in crops, otherwise known as Green on Green. This technology comes in the form of specifically designed applications which includes the Broadleaf in Lupin application.

**Broadleaf 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.

# APPLICATION GUIDELINES

## Which Weeds?

Most broadleaf weeds with a diameter > 5 cm, including:

- **Rosette shaped**
  - Wild radish – *Raphanus raphanistrum*
  - Volunteer canola – *Brassica napa*
  - Capeweed – *Arctotheca calendula*
  - Double gees – *Rumex hypogaeus*
- **Others like**
  - Mallows – *Malva* sp.
  - Clover – *Trifolium* sp.



## Best timing?

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



## 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 weeds and escapees at a later stage is a common use pattern with the cameras. We have seen strong results with salvage spot spraying as long as the weeds are flowering or above the canopy. 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.



# SYSTEM BASICS AND BENEFITS

## Spray What You Can See

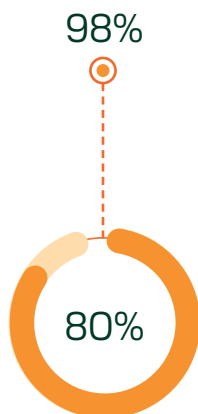
Cameras can be affected by high stubble loads, crop shading, and canopy closure. If they cannot see the weeds in question, they cannot spray them—it's as simple as that.

“If you can see the weed with your eyes, the camera will see it.”

– Broden Holland, Bilberry User

## 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.



**20** km/h  
optimal spraying speed

## Best Light Time

Ideal spraying timing starts 1 hour after sunrise and stops 1 hour before sunset, when the natural light is the strongest.

There are many other benefits for your farm.  
**Check them out [here](#).**

## USE CASE – ANDREW & ROD MESSINA

### Farming Snapshot:

- **Location:** Mullewa, Western Australia
- **Area:** Over 12,000 hectares of dryland cropping
- **Crops:** Wheat, Canola and Lupins
- **Soil:** 250-350mm annual rainfall
- **Rainfall:** Mullewa, Western Australia
- **Machine:** Agrifac Condor Endurance 2

Weed hit accuracy over

# 93%



The application Broadleaf in Lupin has been used to clean volunteer canola and wild radishes over more than 500 ha. Weed density was quite low and the crop young enough (still open between rows) that the spot spraying system was perfectly adapted for the situation.

**It ended up with excellent weed control and 94% chemical savings.**



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## APPLICATION IN ACTION





## THANK YOU

Get in contact with us if you have any queries relating to your Bilberry system. We have a dedicated support team available to offer you assistance when you need it.

### Want to see more? Follow us on social media



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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.



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