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See And Spray Select Image Filter Guide

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Overview

This guide helps you to diagnose and resolve two key issues:

- Missing Weed – Weeds are not being detected and sprayed.
- Over spraying – Spraying where there are no weeds.

Missing Weed

Diagnostics Checklist

- Weed Size: If missed weeds are small or early-stage, the detection sensitivity may be too low.
- Weed Color: Light green, bluish, or grayish weeds may not be detected by standard filters.
- Weed Type: Some species like Kochia or Santa Luzia require specialized detection filters.

Corrective Actions

1. Increase Sensitivity Level
 - Sensitivity levels range from 1 (least sensitive) to 5 (most sensitive) based on the size of the weed
 - If small weeds are being missed, increase the sensitivity to Level 5 to improve weed detection
2. Decrease Filter Strength (DA 165)
 - If weeds are still not detected, decrease the DA 165 value below 100 to enhance weed detection.
 - Lowering the filter strength helps the system find weed that are less green which the original algorithm might have missed.
3. Enable Targeted Weed Detection (DA 164)
 - This feature enhances detection of weed types not typically captured by standard green detection algorithms.
 - Set DA 164 to 1 if the missed weed is known to be either Kochia or Calthrop.
 - Set DA 164 to 2 if the missed weed is Santa Luzia.
 - If the weed variety is not one of the listed types, set DA 164 to either 1 or 2 and use the setting that works best for that case.

Over Spraying

Diagnostics Checklist



- Residue or Stubble: Increased spraying in presence of residue and stubble.
- Shadow: Spraying in shaded areas, under boom shadow or under center frame.
- Sun Direction: Excessive spraying when driving towards the sun.









Corrective actions




1. Lower Sensitivity Level
 - Reduce the sensitivity level (e.g., from 5 to 4) to avoid detecting non-weed elements like residue or stubble.
2. Increase Filter Strength (DA 165)
 - Increase the value above 100 to reduce false detections caused by stubble, shadows, or soil color.
3. Enable Into the Sun Filter (DA 149)
 - If over spraying occurs when driving toward the sun (especially during early morning or late afternoon), set DA 149 to 1 to reduce false triggering.
4. Turn on Special Filters (DA 163)
 - These filters help reduce false detections in low light, shadows or other complex field conditions.

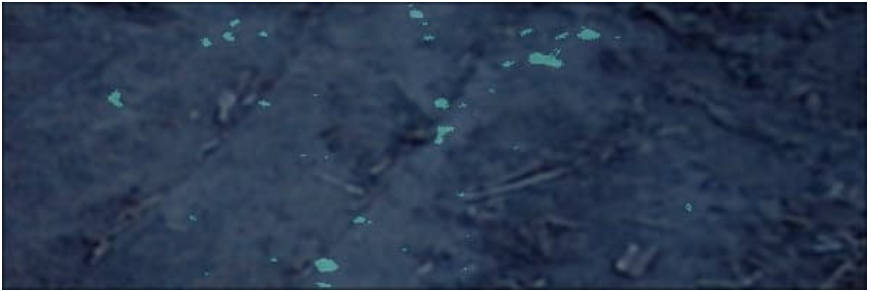
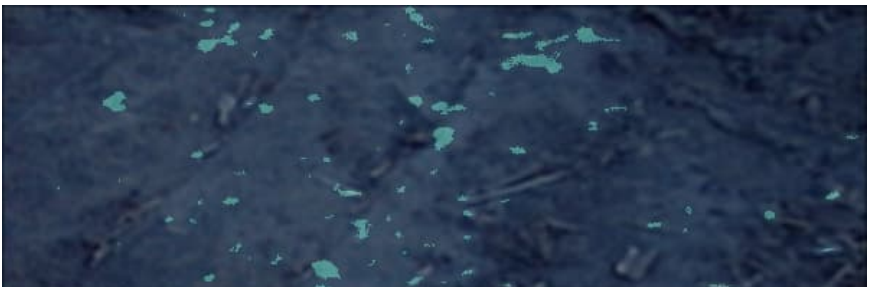
Image Filtering Diagnostics Addresses (DA)

This table outlines different DA values and provides example field conditions where each setting is recommended.

DA	Set	Description	Target Conditions
149	0	Off (Default)	
	1	<p>Reduce spray while going towards the sun.</p> <p>Enable this setting when sun angle is low either early morning or late afternoon.</p>	 

DA	Set	Description	Target Conditions	
163	0	Off		
	1	Default Setting Minimize spray on stubble and shadowed areas.		
	2	Default filter + Reduce spray on blue shades during low light and shadow.		
	3	Default filter + Reduce spray on washed-out stubble		
	4	Default filter + Reduce spray on blue shades and during low light + Reduce spray on washed-out stubble		
				

DA	Set	Description	Target Conditions
164	0	Off (Default)	
	1	<p data-bbox="310 772 545 905">Detect light green weed including Calthrop and Kochia</p> <p data-bbox="310 940 545 1003">Detect light green weed</p>	 
	2	<p data-bbox="310 1528 545 1661">Detect light green and purple weed including Santa Luzia</p> <p data-bbox="310 1696 545 1759">Detect light green weed</p>	

DA	Set	Description	Target Conditions
165	100	Default filter strength.	
	80	Decrease filter strength for more spray. Shadow and stubble filter is less aggressive.	
	120	Increase filter strength to reduce spray. Shadow and stubble filter is more aggressive.	