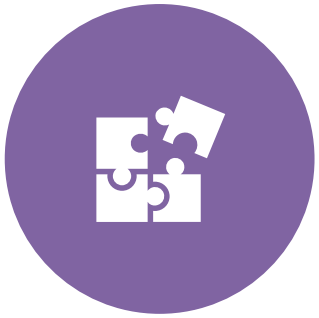

UAVSOLUTIONS
INNOVATIVE PRECISE EFFECTIVE

EARTHBOUND

HORTICULTURE

Drones in the Olive Grove



EFFICIENCY, **INSIGHTS** **INNOVATION**

Introduction

Challenges in olive orchards:

- Water management
- Reducing chemical input
- Early detection of stress Insect Pests and Diseases
- Responding to pests and disease when ground access is difficult
- Time and labour efficiency
- Costs
- Bio security

Why Use Drones?

FAST DATA COLLECTION
ACROSS LARGE AREAS

NON-INVASIVE MONITORING
AND CHEMICAL APPLICATION

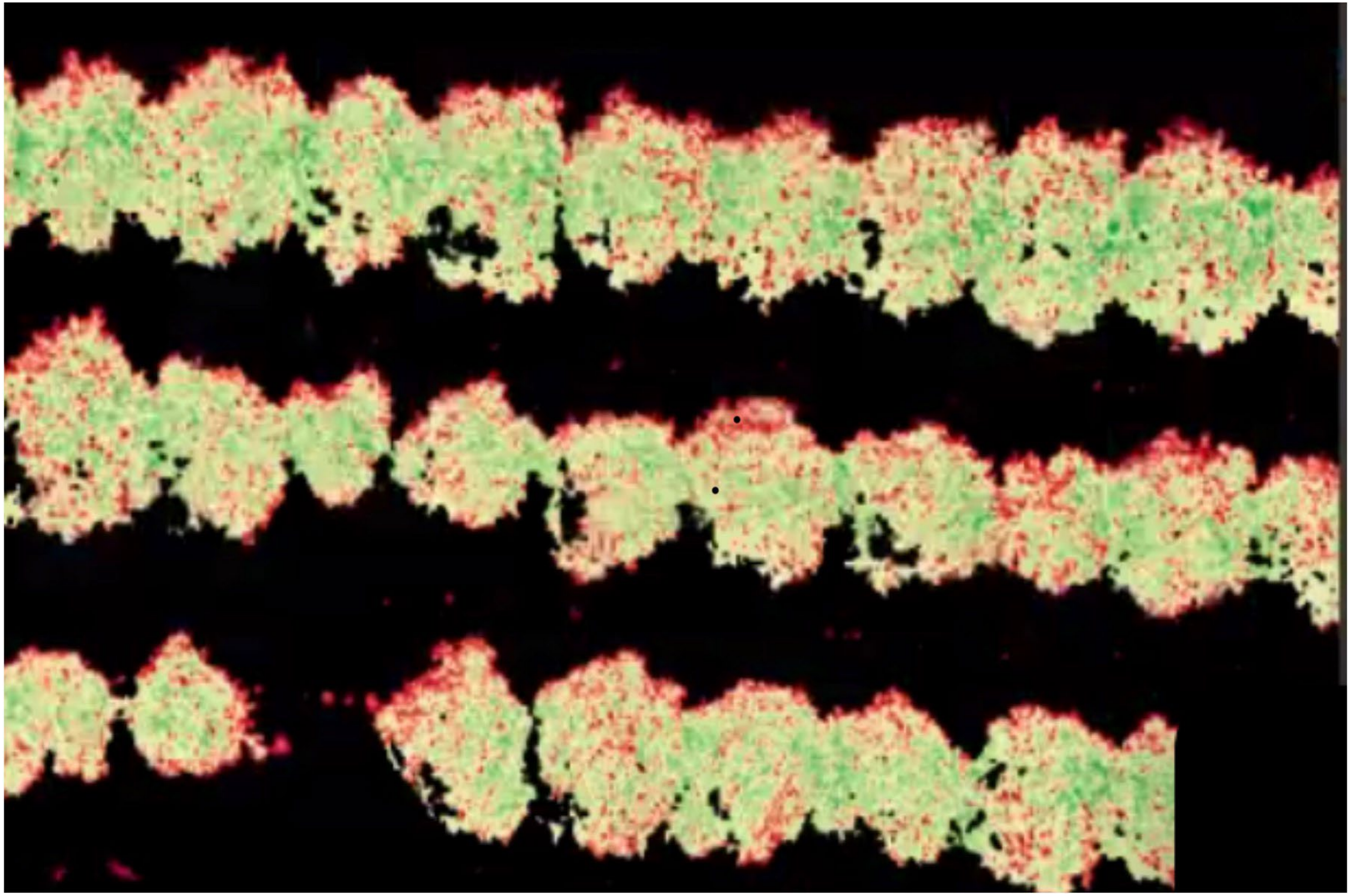
REAL-TIME ACTIONABLE
INSIGHTS

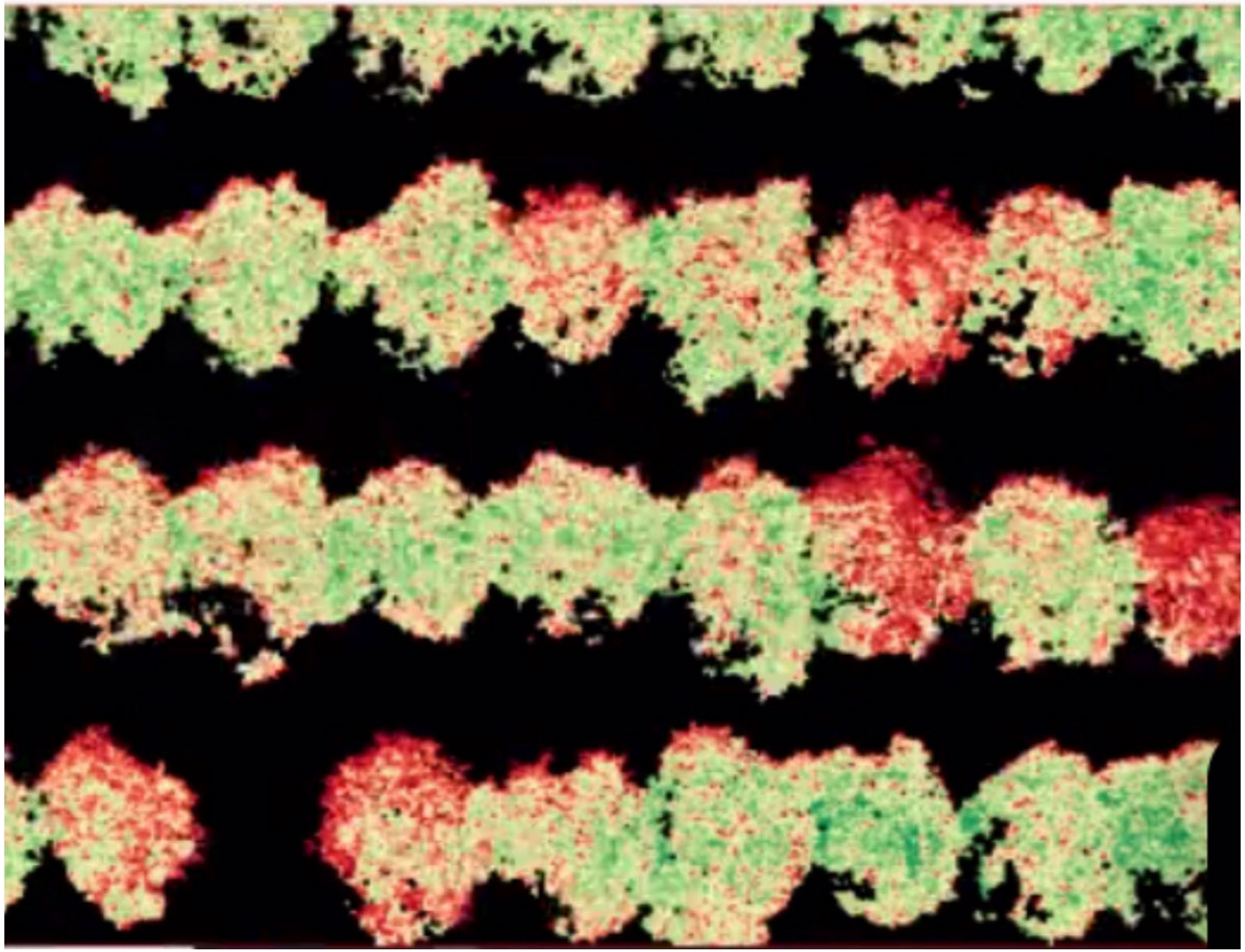
Multispectral Surveys

DETECT PLANT STRESS
BEFORE SYMPTOMS APPEAR

IDENTIFY NUTRIENT
DEFICIENCIES

GENERATE NDVI AND
VEGETATION HEALTH MAPS





Water Efficiency

DETECT WATER STRESS EARLY

OPTIMIZE IRRIGATION SCHEDULES

REDUCE WATER WASTE AND COSTS

Reduced Chemical Use

TARGETED SPRAYING USING DRONE MAPPING

VARIABLE-RATE APPLICATION REDUCES WASTE

LOWER CHEMICAL RUNOFF IMPROVEING ENVIRONMENTAL / SOIL HEALTH

Other Benefits

LOWER LABOR COSTS THROUGH AUTOMATION

CONSISTENT, REPEATABLE DATA COLLECTION

INTEGRATION WITH AI AND FARM SOFTWARE

Economic & Environmental Impact

REDUCED INPUT COSTS (CHEMICALS & WATER)

IMPROVED YIELD & QUALITY

ROI IN AS LITTLE AS 6–12 MONTHS

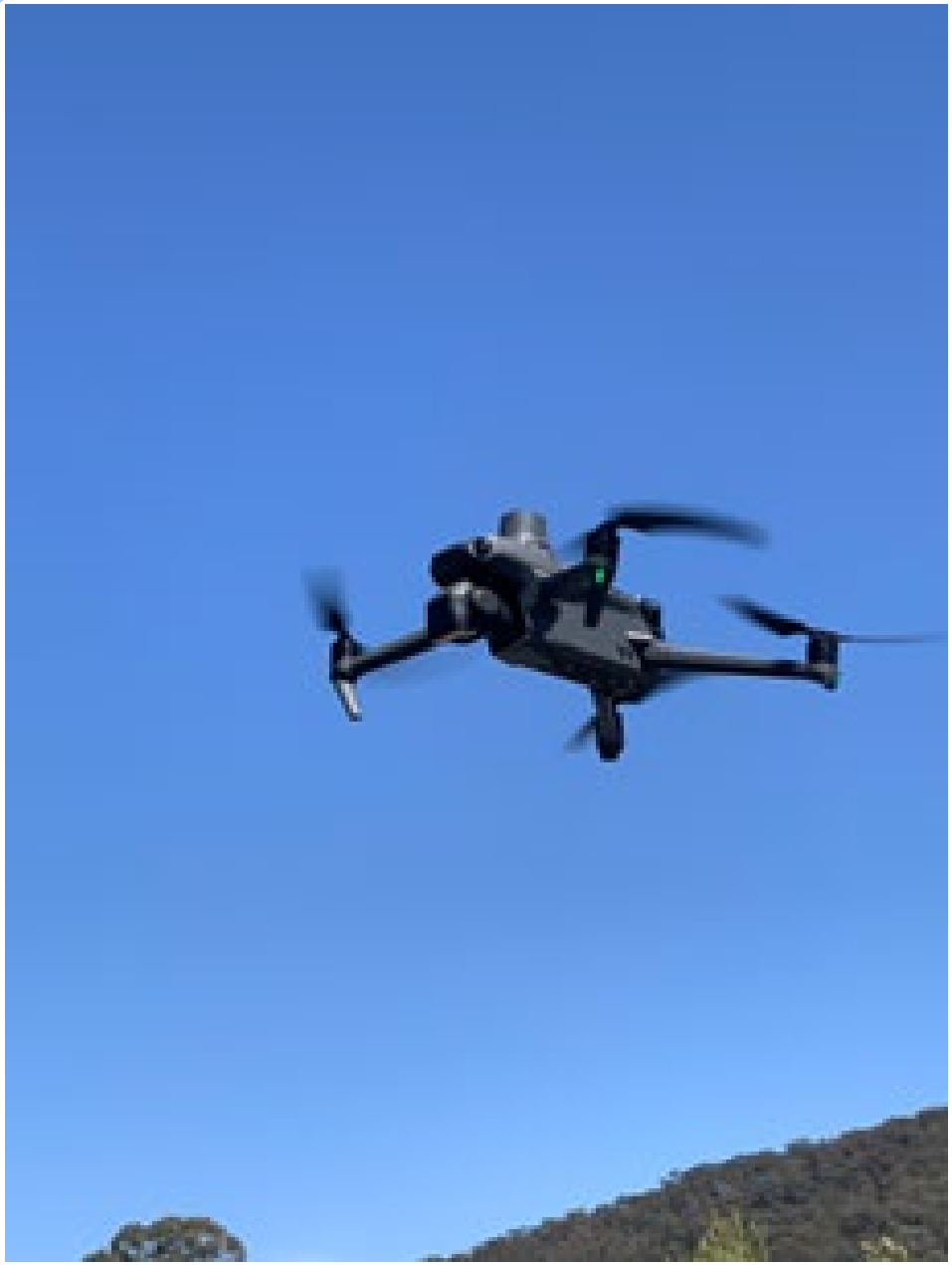
Conclusion

Drone technology = smarter olive farming

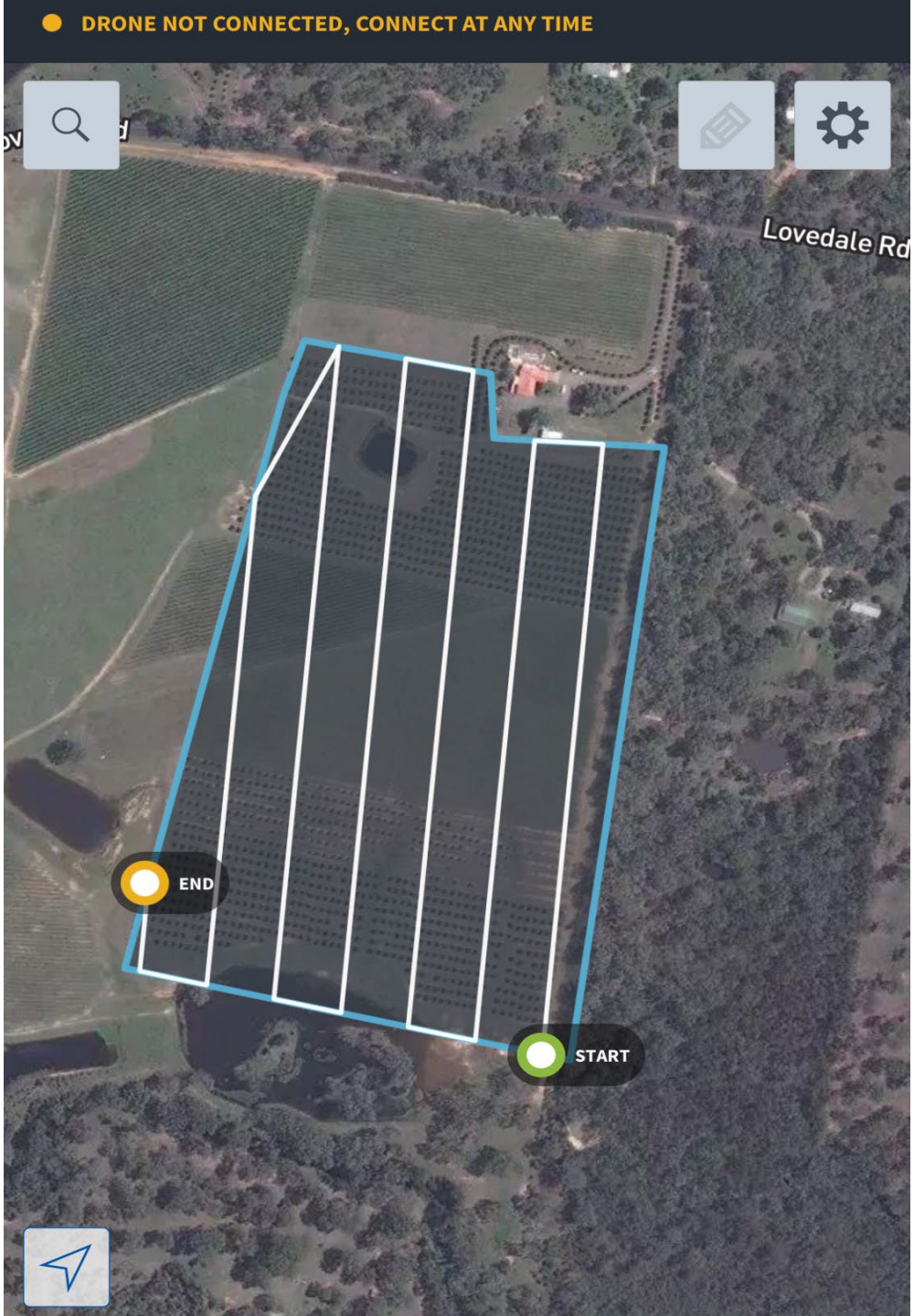
Benefits: Efficiency, Profitability, Sustainability

Next step: Implementing UAV precision agriculture solutions

Applications In the Grove

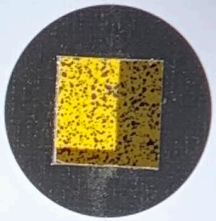



MAVIC 3

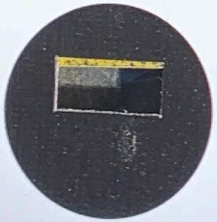

DRONE NOT CONNECTED, CONNECT AT ANY TIME
Lovedale Rd
END
START

counting aid

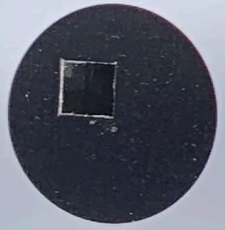
Select window according to the droplet number, place it at random on the collector and count the droplets with the lens:



1 cm²
few
drops

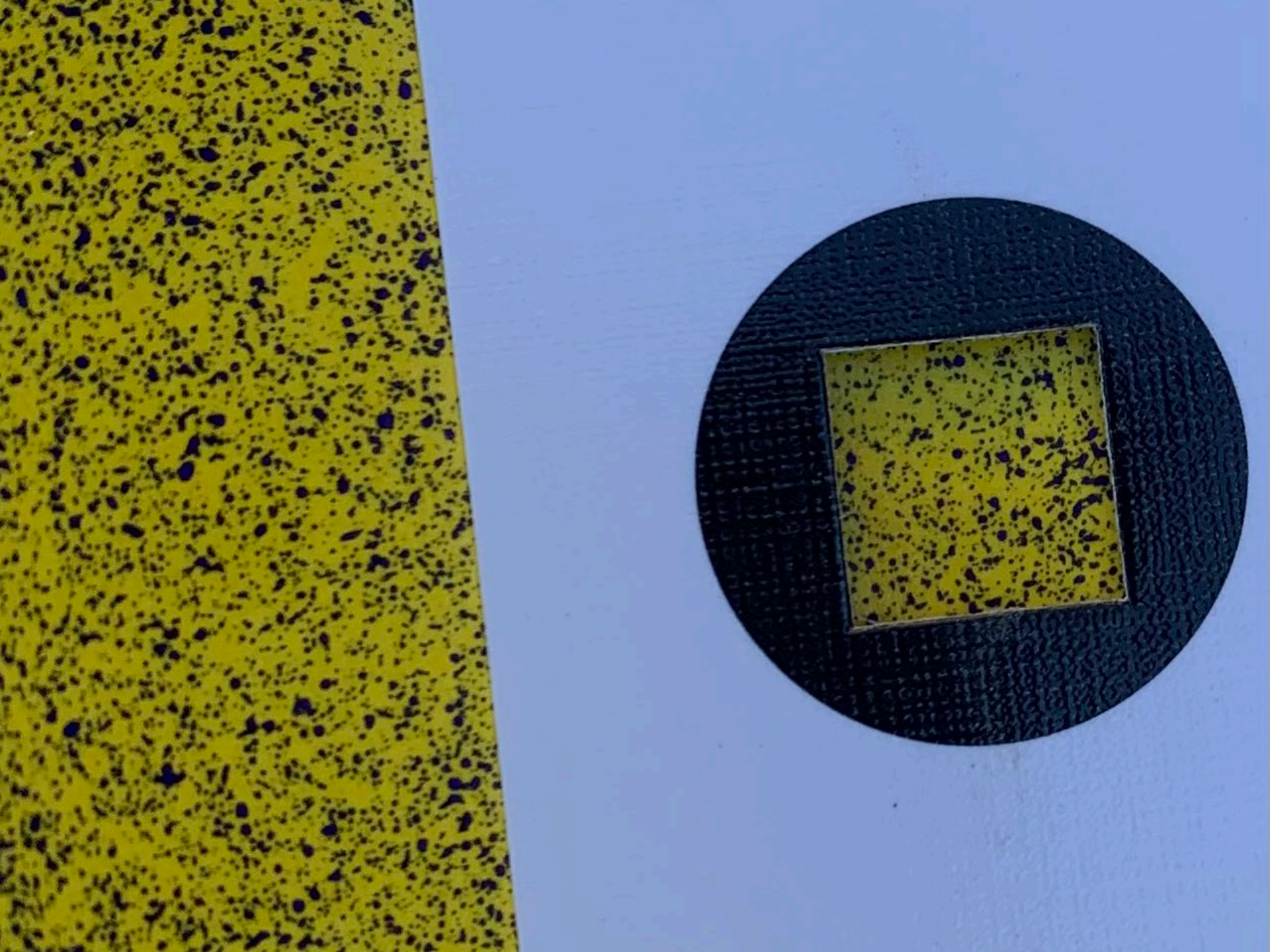


1/2 cm²
many
drops

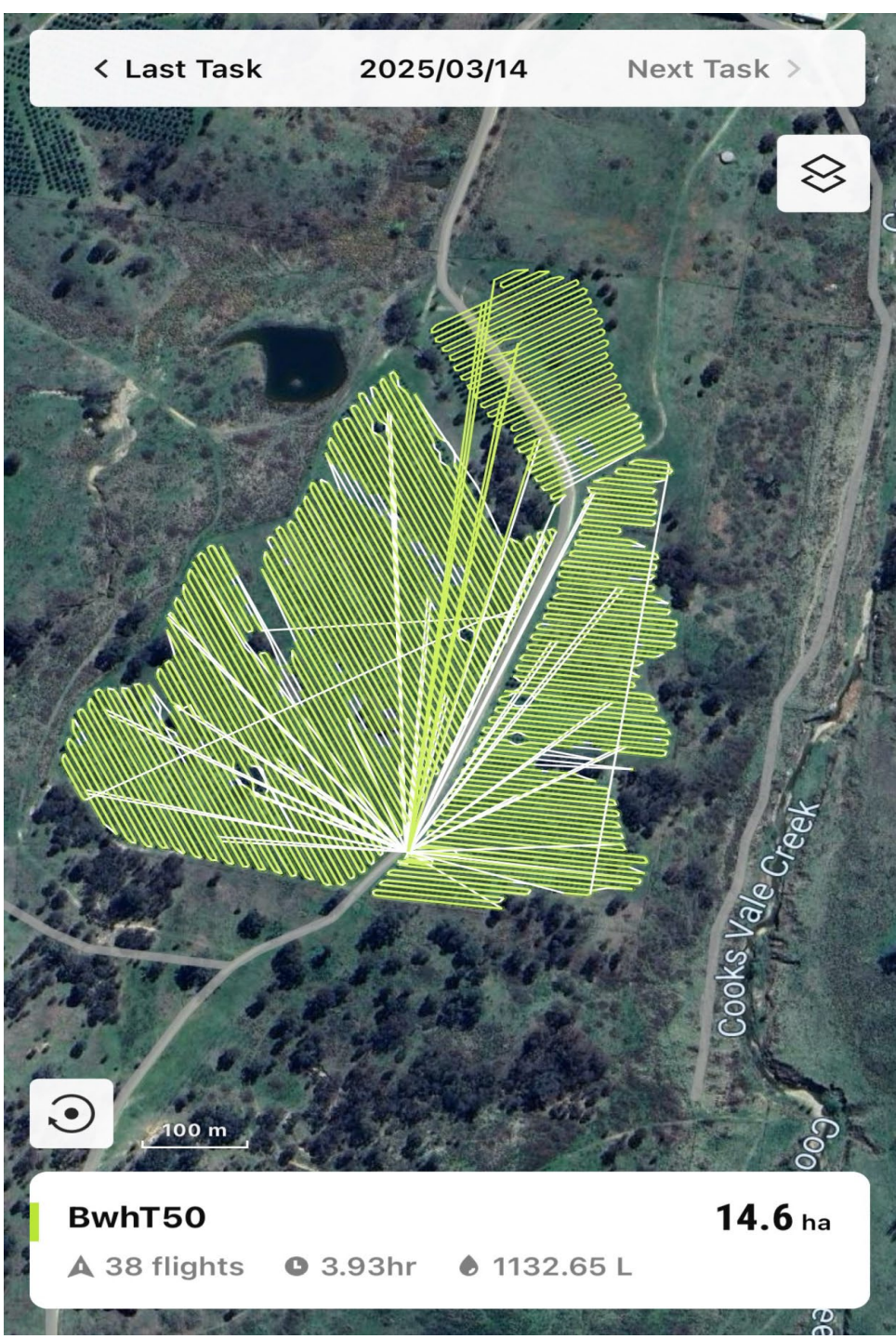


1/4 cm²
great
number
of drops

1 cm² = 0.155 sq in
1 sq in = 6.452 cm²



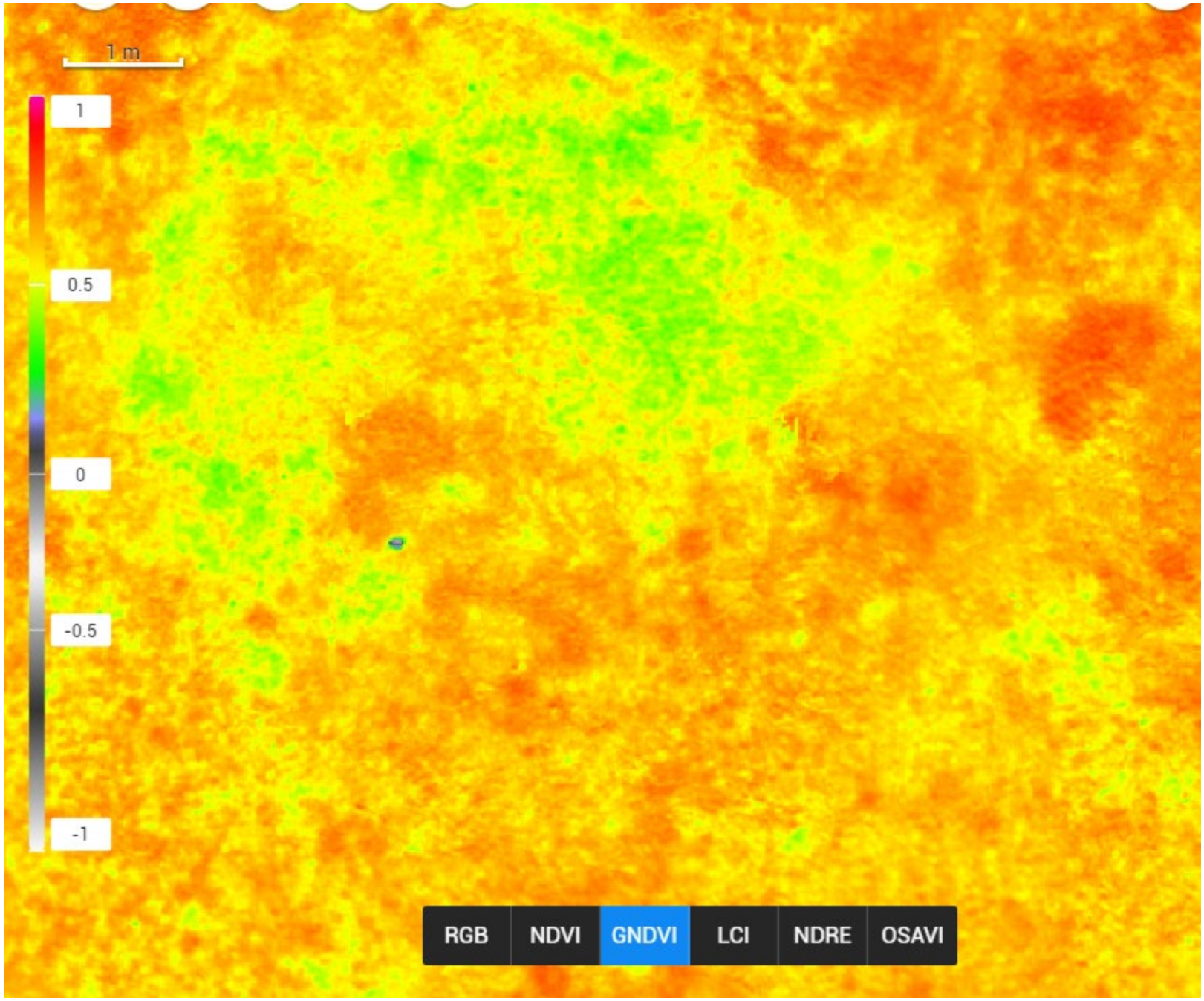

Last Task
2025/03/15
Next Task
Cavan Park School Site
100 m
BwhT50
12.04 ha
32 flights
3.04hr
957.61 L


Last Task
2025/03/14
Next Task
Cooks Vale Creek
100 m
BwhT50
14.6 ha
38 flights
3.93hr
1132.65 L

Olive Ag Chemicals – Summary Reference

Compiled May 2025 — based on APVMA PUBCRIS & Permit Portal, and Australian Olive Association guidance. Always verify current permits and labels, check state rules, WHPs, and MRLs for oil vs table olives.

Category	Chemical / Trade Names	Target Pests/Diseases	WHP	Aerial/Drone Application
Insecticide	Alpha-cypermethrin (Sumi-Alpha Flex)	Olive lace bug	T1 oil; T5 crude oil	Yes
	Pyriproxyfen (Admiral, etc.)	Black olive scale	28 d; MRL 1 fruit, 3 oil	Yes
	Sivanto Prime (flupyradifurone)	Lace bug, black scale	14 d	Yes
	Fenoxycarb (Insegar WG)	Black scale	56 d	No
	Paraffinic oils (Trump, SACOA Biopest)	Scales	1 d	Yes (limited)
Fungicide	Copper products (oxychloride, hydroxide)	Leaf spot, anthracnose, knot	1 d	Yes
	Azoxystrobin 250 SC (Amistar)	Anthracnose	21 d	Yes
	Luna Experience (tebuconazole + fluopyram)	Anthracnose	14 d	Yes
	Mancozeb (PER88358)	Anthracnose	14 d	Yes
	Aero (PER87332)	Anthracnose	N/A	Yes
Growth Regulator	Ethephon (PER14460)	Fruit loosening	N/A	Yes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NDVI
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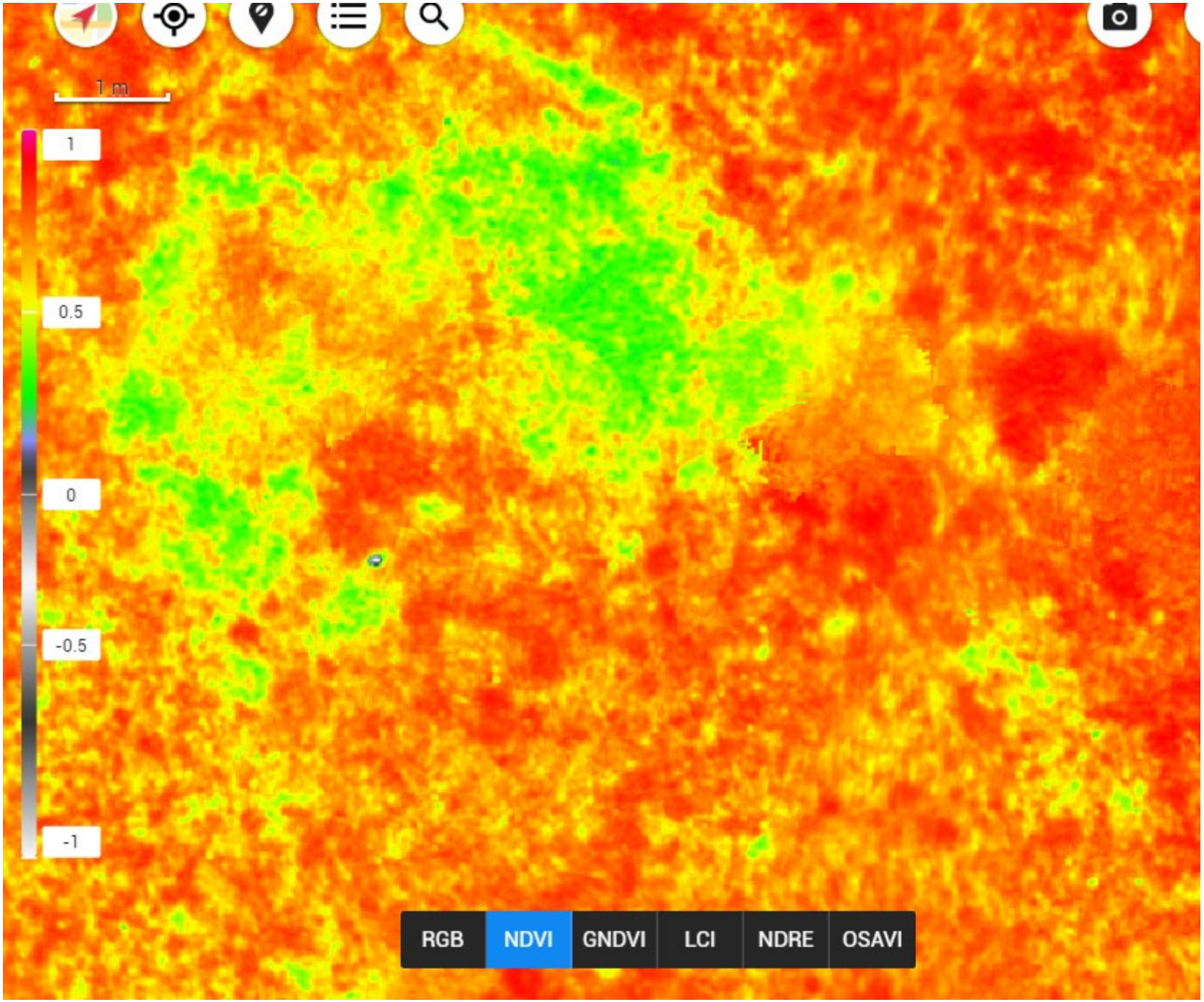
LCI
NDRE
OSAVI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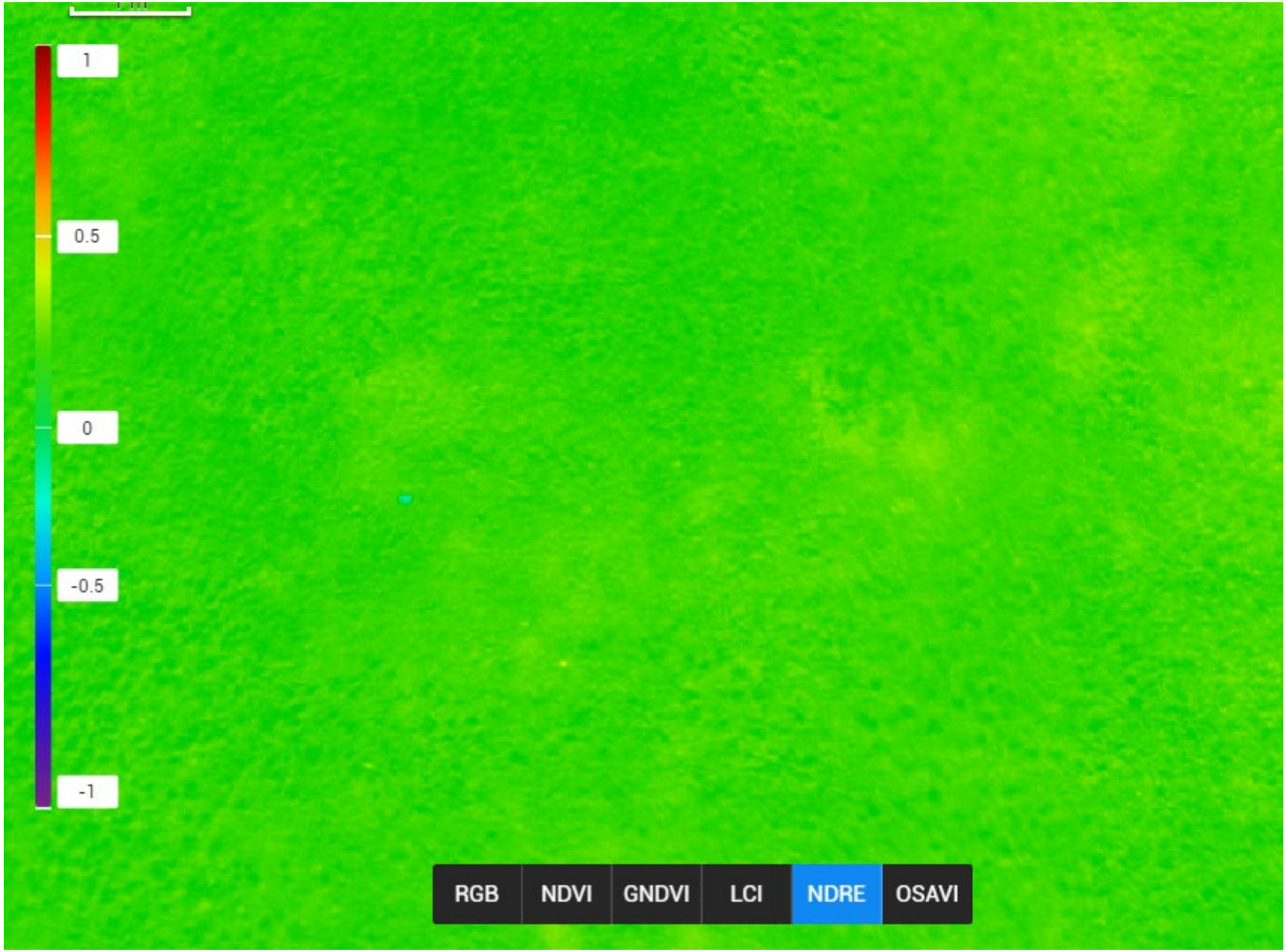
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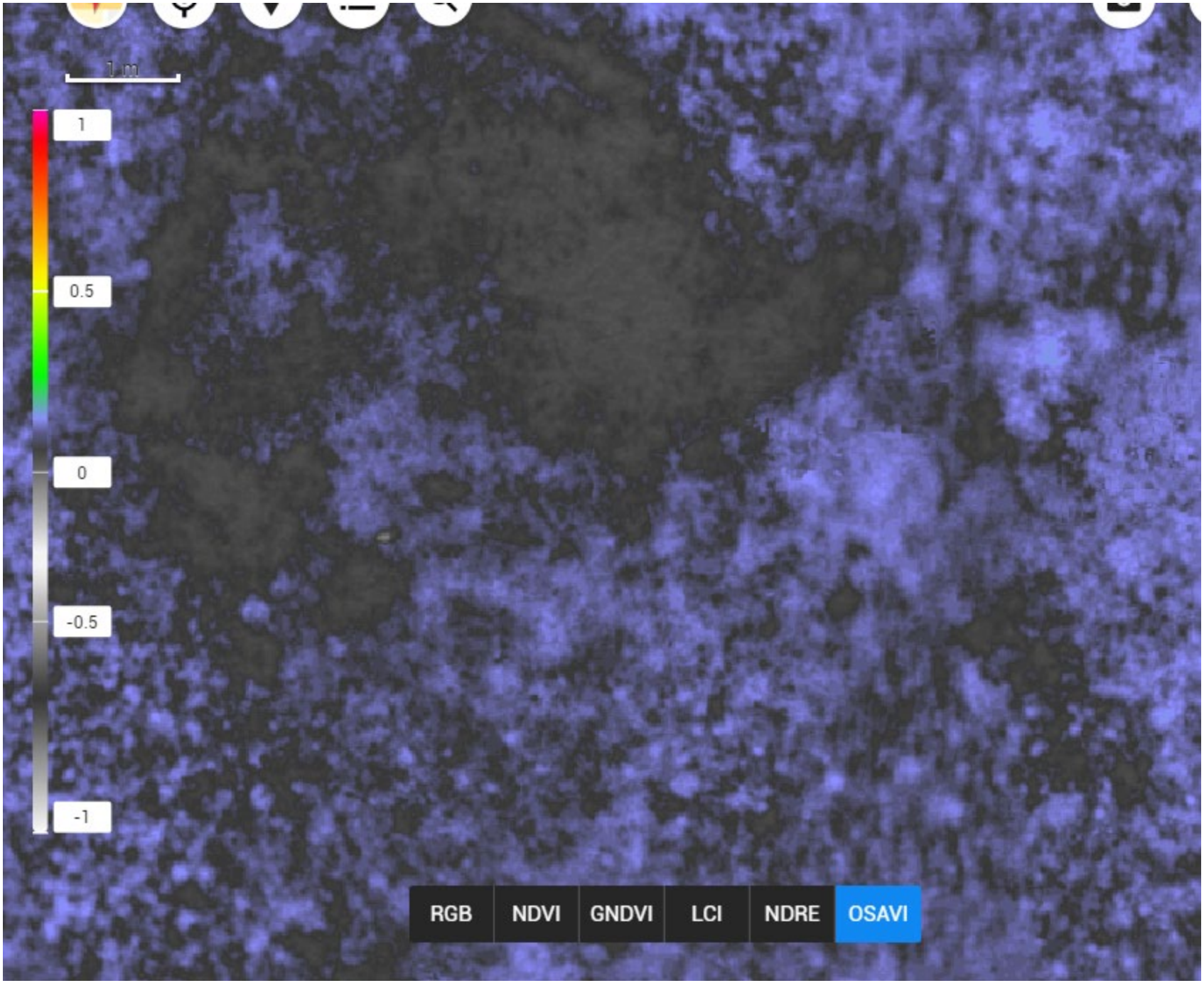
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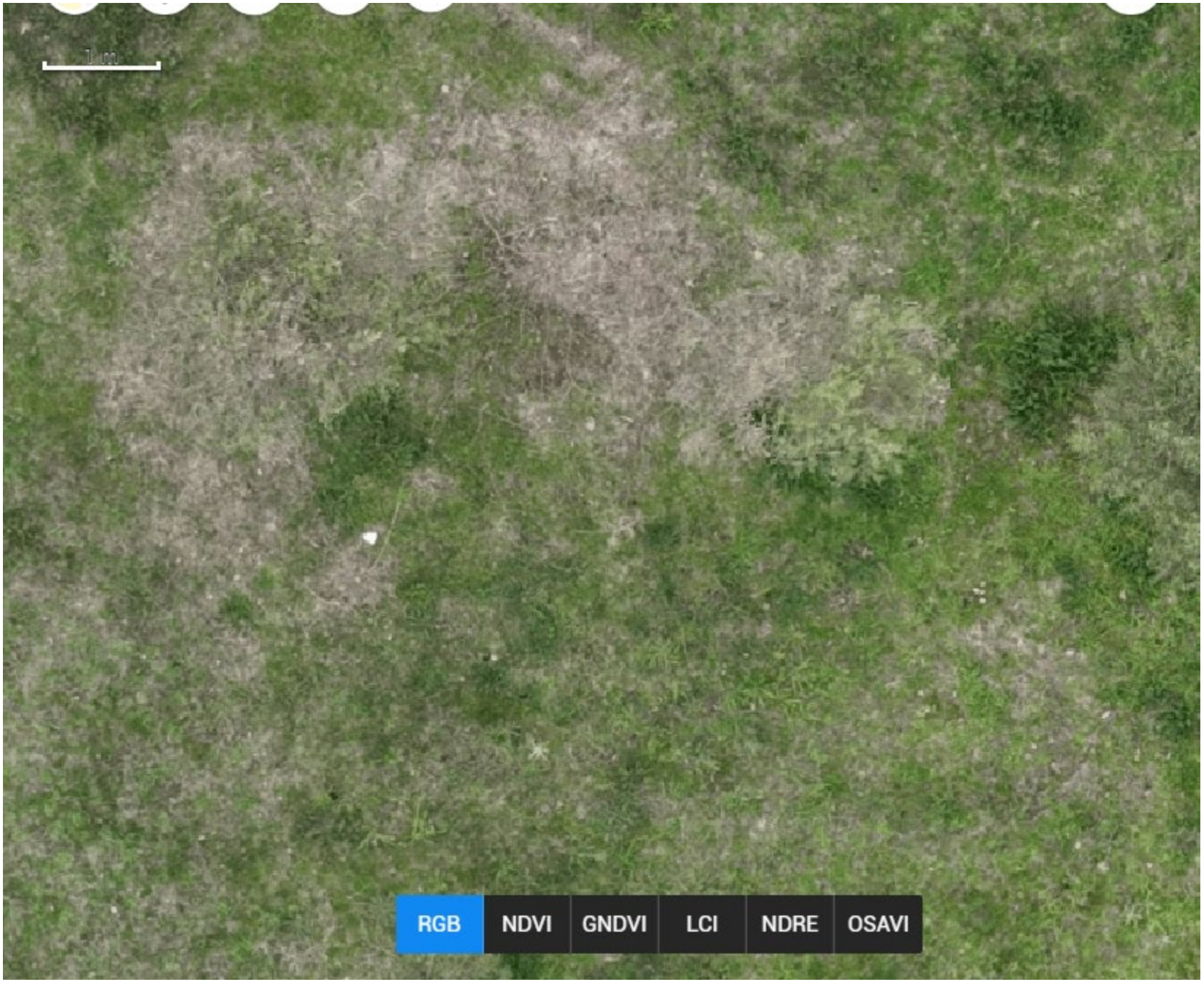
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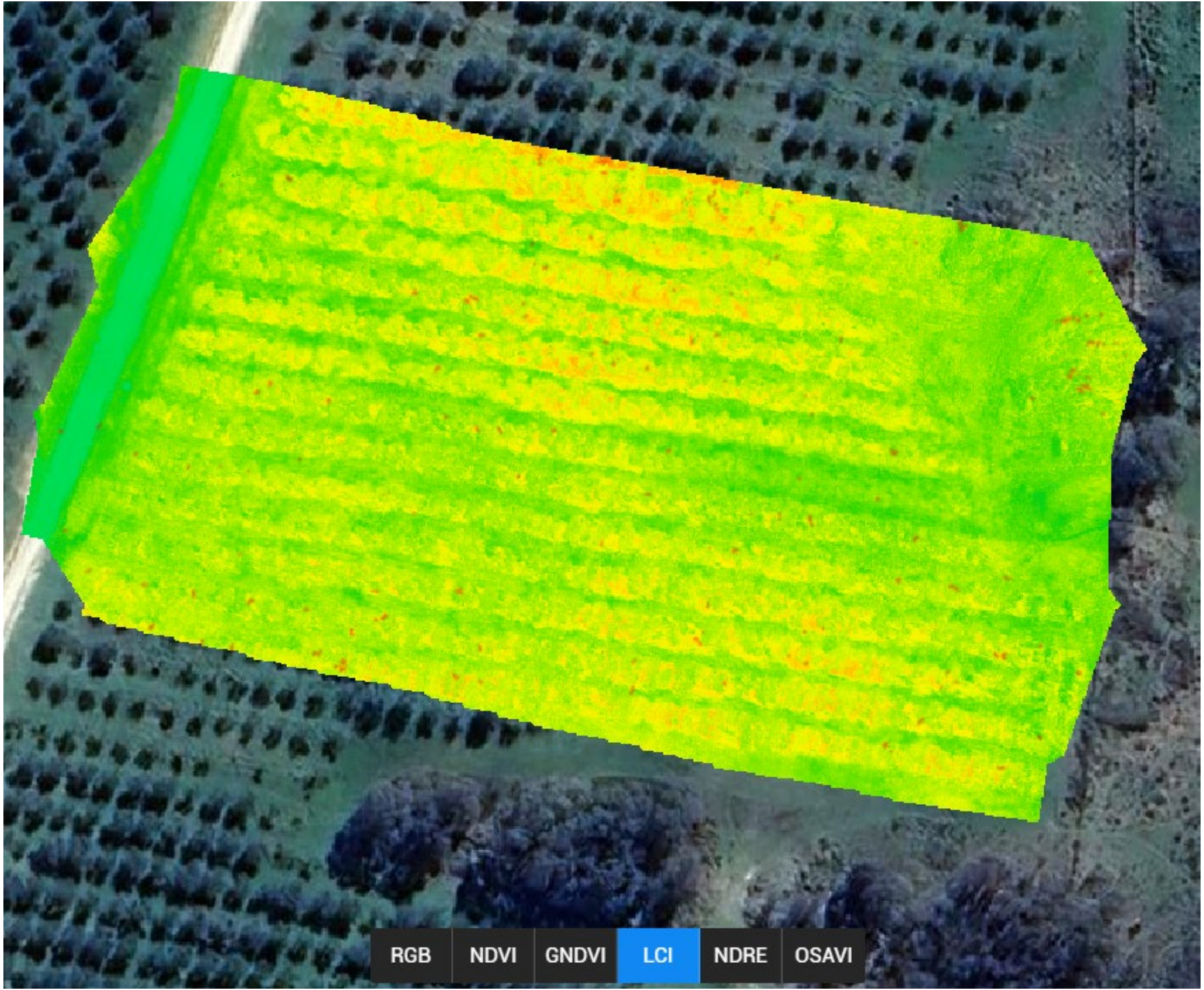
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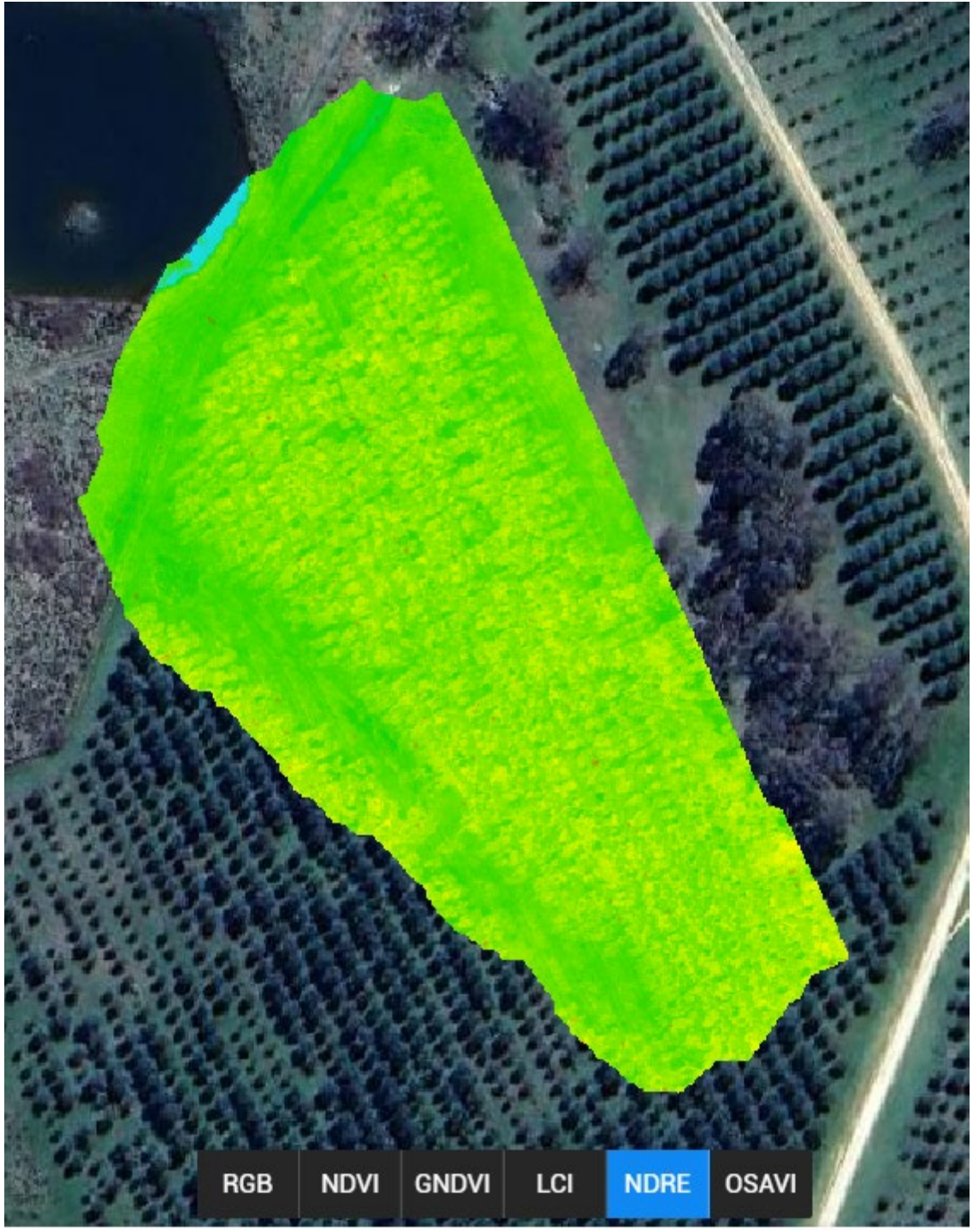
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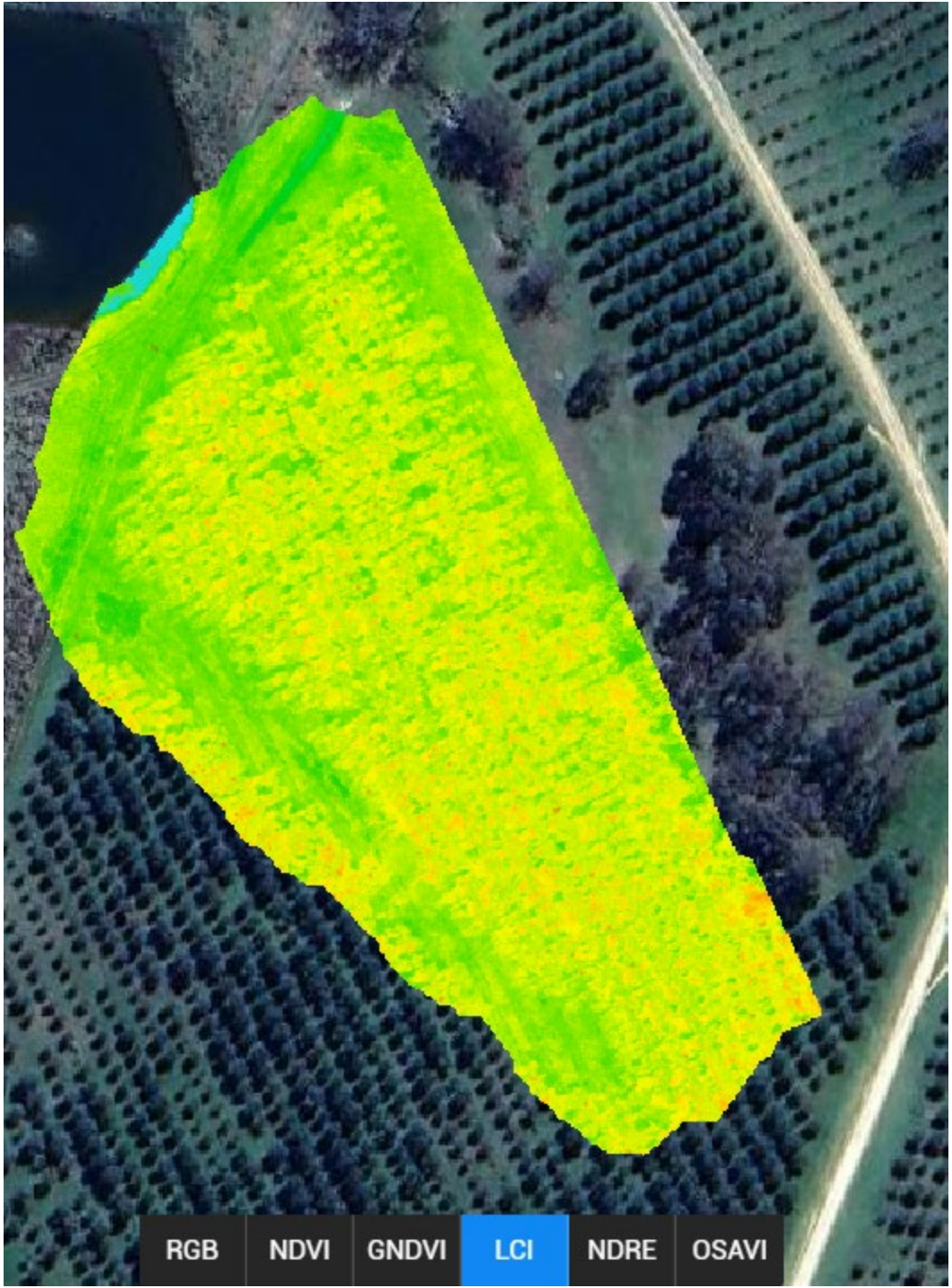
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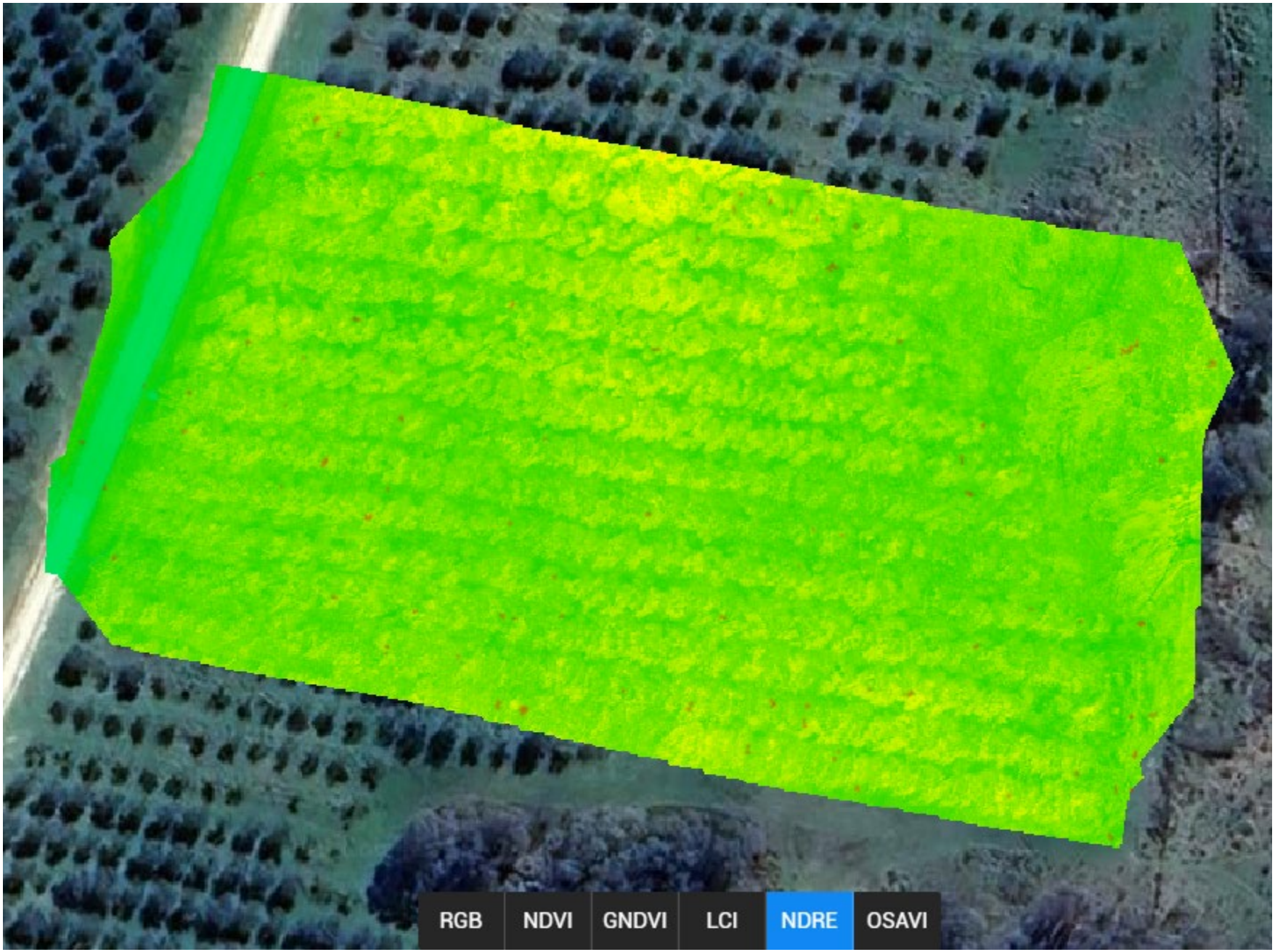
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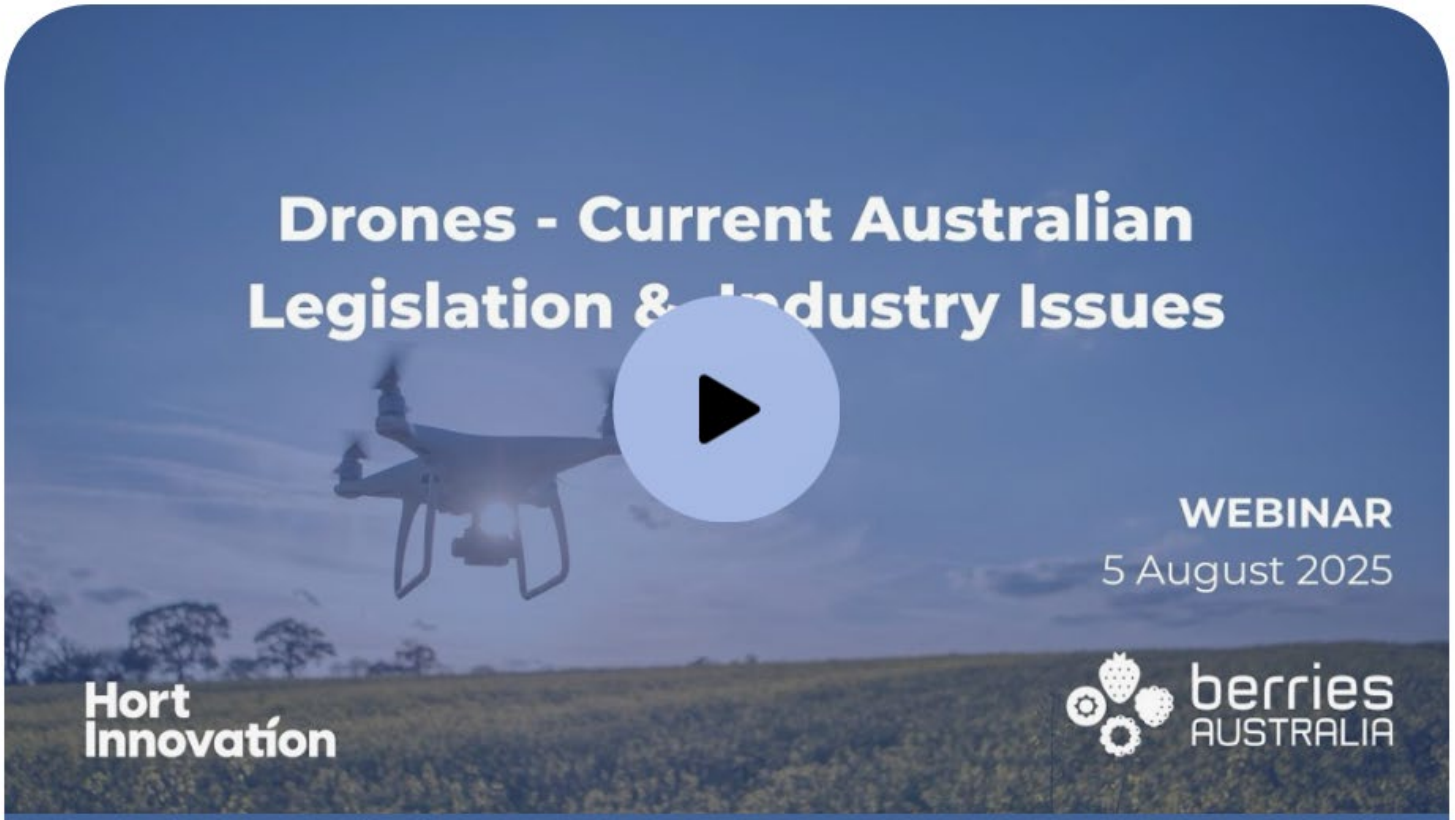

Webinar: Drones - Current Australian Legislation & Berry Industry Issues

youtube.com

- Bio – security. Xylella and other threats out break and response
- Monitoring. Bio monitoring. “BioScout”
- Harvest yield estimates. Flowering percentage
- Pollination aid. Air turbulence In canopy’s

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