



NITROGEN SAVING USING SKIPPY SCOUT

Agrii agronomist, Andrew Lowe, has been using Skippy Scout's Green Area Index to recommend Nitrogen rates for OSR, saving £60/ha*

*Based on the average price of Nitrogen in 2022

Oil Seed Rape

Last season, Andrew managed to save one of his farmers £60 per ha in one field of OSR by using Skippy Scout. He did this by doing some soil mineral nitrogen tests to find out the true value of the nitrogen that was left in the soil by the previous crop. He then used Skippy Scout to get the GAI values from the crop at different points in the field. These could then be used to apply nitrogen variably or could be used to create an average application for the whole field.

In this instance Andrew created an average application for the farmer to apply to each field due to Skippy Scouts "Crop Uniformity" reading. This reading gives growers an insight into how evenly their crop is growing and if variable rate is in fact needed or whether an average is sufficient. In this instance the crop uniformity was 91%.

Andrew's Calculation using Skippy Scout

The Soil Mineral Nitrogen value after soil tests = 50kg/ha

Skippy Scout GAI average for the field = 1.48

Nitrogen already in the crop = 74kg/ha

Nitrogen required for optimum canopy (GAI 3.5) = 175 kg/ha

Nitrogen deficit = 51kg/ha

Medium soils produce a 60% efficiency for standard yield nitrogen. Therefore changing the required nitrogen to reach deficit to 85 kg/ha if aiming for a yield of 3.5 tonne per ha.

The aim for this field however was to hit 4 tonnes per ha yield. This requires an extra 50 kg/ha bringing the total spring application to 85 kg + 50 kg = 135 kg/ha.

Final applied amount = 135kg/ha

Nitrogen cost = £700/t or £94.50/ha

3.71 ha field = £350.60

Field savings compared to RB209 recommendation using Skippy Scout's GAI Metric:

= £221 over 3.71 ha

40% cost savings when using Skippy Scout equating to savings of £60/ha.



RB209 Calculation (Standard practice)

SNS 1 Recommendation:

190kg + 30kg for 4t/ha yield

= 220kg/ha

Nitrogen cost: £700 per t

= £154/ha

3.71 ha field = £571.34

Average yield for OSR in 2022: 3.2 - 3.6 tonnes/ha

Average yield for OSR in case study field: 3.46 tonnes/ha

Using
SkippyScout

135kg/ha of

Nitrogen

£94.5/ha

Using
RB209

220kg/ha of

Nitrogen

£154/ha

Study by: Andrew Lowe



Written by: Edwin Nichols



Agrii

DroneAg
FARMERS WHO KNOW DRONES

WWW.SKIPPY.FARM | +44 (0) 01668 217100 | INFO@SKIPPY.FARM



Welham Lane Front Field

OSR // 3.71Ha // 9th November 2022 // Week: 12

Field Average Stats



59%
Crop Cover



1.48
Crop GAI



0%
Weeds



1%
Unhealthy Crop



1%
Yellow Leaves



0%
Purple Leaves



Detected
Insect Damage



91%
Crop Uniformity



204 kg/ha
Required N (EST)



Report from case study

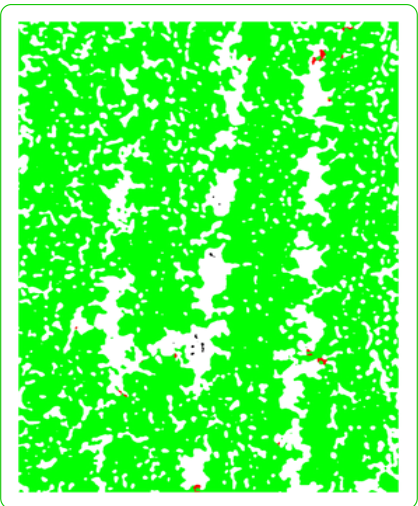


Scout Point 1 // ID 50755

Welham Lane Front Field // OSR // 9th November 2022 // Week: 12

Scout Point Stats

76%	2.03	0%	0%
Crop Cover	Crop GAI	Weeds	Unhealthy Crop
0%	0%	191 kg/ha	
Yellow Leaves	Purple Leaves	Required N (EST)	



Scout Point 4 // ID 50758

Welham Lane Front Field // OSR // 9th November 2022 // Week: 12

Scout Point Stats

9%	14 // 86	0.18	3%
Crop Cover	Plants per sqm // Total plants	Crop GAI	Weeds
0%	0%	0%	Detected
Unhealthy Crop	Yellow Leaves	Purple Leaves	Insect Damage
237 kg/ha			
Required N (EST)			

