

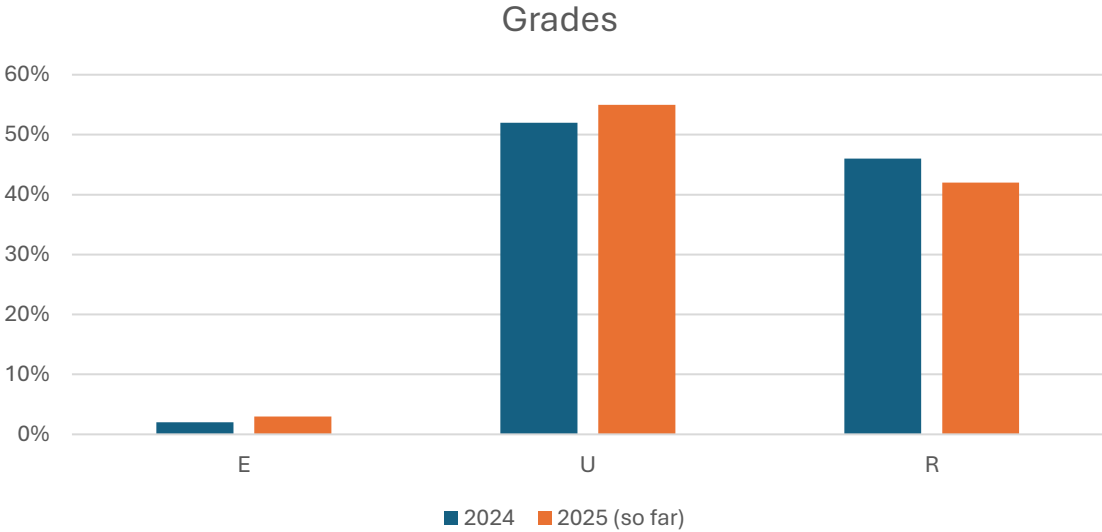
Paraic McNeill ZeroNsile

- 34ha
- 275 ewes/ewe lambs
- 20 suck cows
- All stocked finished on farm

Sheep 2024 & 2025 KPI's

	2024	2025 (so far)
Born	1.78	1.67
Weaned	1.75	1.63
Avg Slaughter Weight (kg)	21.3	21.95
Avg Slaughter Age (days)	208	141
Kill out %	44%	47%

2025	Weight (kg)	DLWG (kg)
60 day weight	24.5	0.345
120 day weight	36.5	0.28



2023 sheep benchmarking

KPI's	Paraic/ewe	Average/ewe	Paraic/ha	Average/ha
lambs born/ewe	1.83	1.64		
Lambs sold/ewe	1.74	1.54		
Output	£ 184	£ 160	£ 1,607	£ 1,730
Forage cost	£ 24	£ 23	£ 209	£ 209
Concentrate cost	£ 25	£ 23	£ 214	£ 125
Gross Margin	£ 114	£ 88	£ 995	£ 646

2024 Suckler KPI's

	2023 born heifers	2023 born bullocks	2024 born bulls
Age (months)	21.4	20.5	14.5
Slaughter liveweight (kg)	550	752	685
Lifetime DLWG (kg)	0.78	1.14	1.46
Carcase weight (kg)	315	438.5	
Kill out	57%	58%	

Red Clover for silage

- **Pros**

- Fixes nitrogen from air (>200kgN/ha)
- High yielding crop (>15tdm/ha)
- High animal intake and performance
- Improves soil structure

- **Cons**

- Persistency (short lived)
- 4 year break needed
- Difficult to ensile (?)
- Less suitable for grazing (?)



- ✓ 3-4 cuts per year
- ✓ High protein silage
- ✓ 12-15 t DM/ha year with little or no artificial N

ZeroNsilage

Making Silage without manufactured Nitrogen

- Twelve farms were selected to trial red clover silage swards
- Swards established during 2023 and spring/summer 24
- Similar yields & quality between Grass & Red Clover in 24
- Although red clover swards received 2.3x less Nitrogen
- 2024 a challenging year for clover!

Recommended establishment

- Spray off, plough/disc/power harrow cultivations, surface seeding
- Fine, firm fertile seedbed, do not sow too deep: 5-10mm max
- 500 000 seeds per kg (x3 of WC)
- Less suited to stitching in than WC - distribution
- Less tolerant of fertiliser N than WC
- Warm soil temperature required (80C) late April/early May – late June
- Seed mix: 9kg grass & 4kg red/acre or monoculture of 6kg red/acre
- Hybrid and tetraploid PRGs
- Soil pH to 6.5 – n.b. not just for the soil

Post establishment weed control

- Ideal: clean ground in previous years with dedicated herbicides and land rotation
- Post emergence sprays: new *ProClova* only after first winter (chickweed, docks - not nettles, thistles – 8°C & before flowering)
- Always check label for clover safe
- Chickweed & annual weeds in reseed: one or two ‘fast’ grazings normally controls
- Alternatives: spot spraying

Paraic's establishment spring 2023

- Fields soil sampled.
- Spayed with Forefront 2-3 years previously.
- Sprayed with glyphosate before reseeding—mainly nettle & thistles docks.
- Ploughed, power harrowed x2 & rolled
- Einbock air seeder use to sow seed.
- Limed 2t/ac
- 0.20.30 2.5 bags/ac

	Size (ha)	Organic Matter	P	K	Mg	Ph
Red Clover	1.8	17.3	2-	2-	2	6
Control	1.7	14	2+	1	2	6.1

GERMINAL	
AberZeus PRG	3.0Kg
AberWolf PRG	2.0Kg
AberGain PRG (T)	3.0Kg
AberClaret Red Clover	3.0Kg
Alice Large Leaf White Clover	1.0Kg
	12kg/acre

2023

- No rain for 5 weeks after seeding.
- Lot of weeds mainly redshank.
- Sprayed with triad 3-4 weeks.
- Grazed.
- 1 cut August.
- Slurry 2000 gallon/ac.
- Grazed with ewes.
- Ewes tuppied on it.

2024

- Grazed tight ewe/lambs in March
- Slurry April 2200 gallon/ac
- Cut 6th June
- 19th June stitched with 4kg/ac of Lemon red clover
- Grazed 10 days after
- Slurry 2200 gallons/ac
- Cut again 2nd September
- Grazed with ewes (tupped on it)

2025

- Grazed tight ewe/lambs in March
- Slurry April 2300 gallon/ac
- Cut 21st June
- Slurry 2300 gallons/ac
- Hoping to cut again in week or two

Red Clover Conservation

- First cut mid- late May (50% flower buds present)
- Avoid crown damage – traffic – rolling
- Mowing: Do not scalp (normal 5-6cm)
- Allow to flower once per year - persistence
- Graze or zero graze autumn re-growth
- 3-5 cuts at 6-8 week intervals
- Wilt to 35%DM (rubber conditioner) and additive
- Leave in swath – one tedding max
- Wilt for 36-48hrs max – leaf loss!
- Nutrition: for each 1tDM removed, needs 7kg Phosphate & 25kg Potash.
- K luxury uptake – K after each crop (org or mineral)
- High K requirement: 15tDM/ha = 375kg/ha K (300 units/ac)

Red Clover Grazing management

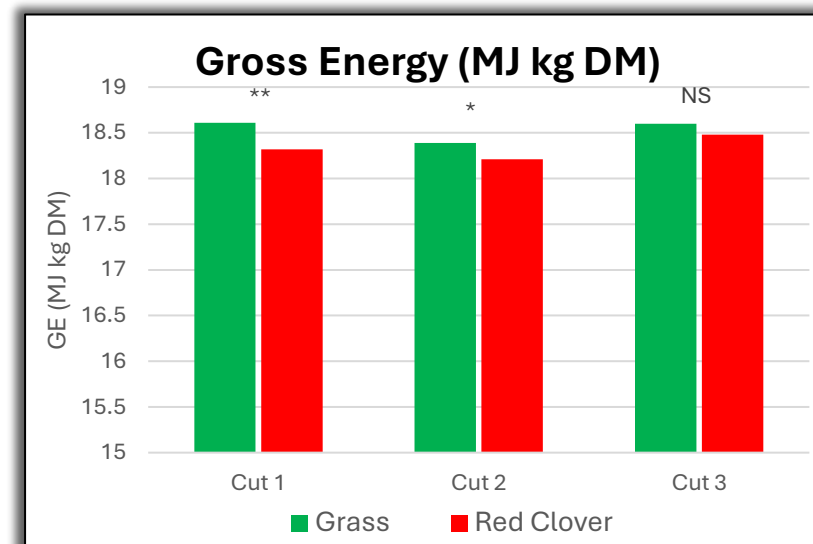
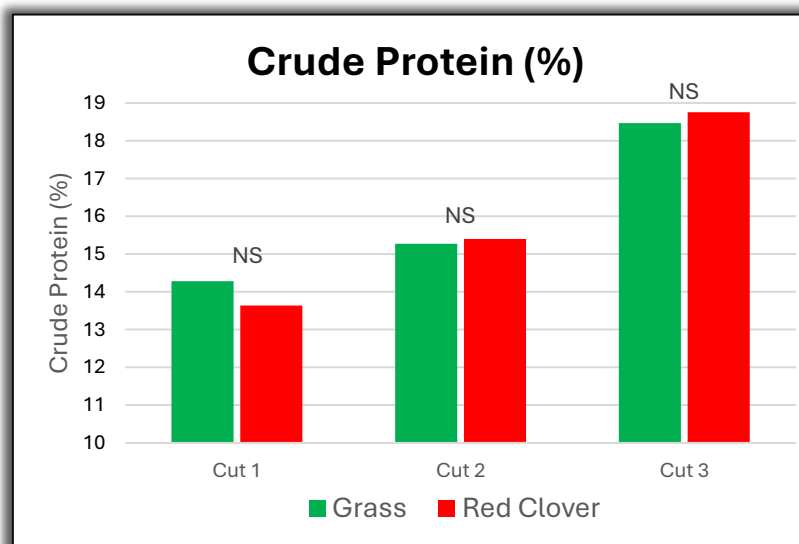
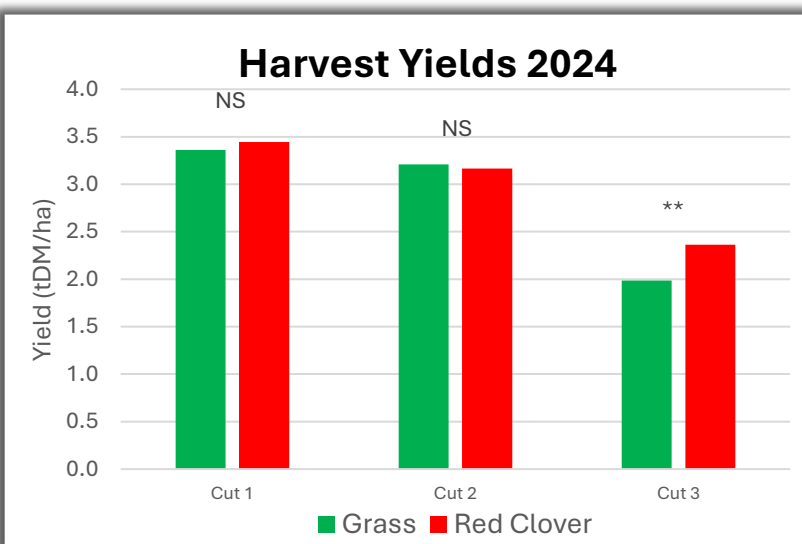
- Established 2022 prior to zeroNsale
- Grazed in March with down tight, 3 weeks.
- Grazing ewes in winter at tupping
- Closed off in October
- Lambs weaned onto red clover
- Protect the crown
- Grazed down to 3 inches not as tight as grass
- Lambs doing roughly 30-40g DLWG high than grass only
- Spring vs Autumn reseeding?
- Post emergence spraying?

Seed Mixture

- Tetragraze hybrid Ryegrass 3.5kg
- Triwarwic(T) Perennial Ryegrass 5kg
- Lemmon Red Clover 3.5kg
- Aberdai White Clover 2kg

2024 Findings

Similar yields & quality between Grass & RC with a 2.3 : 1 Nitrogen ratio. 2024 a challenging year for clover!



Farmer findings

- “It can be slow in cold/wet spring compared to grass”
- “It feeds better than it tests”
- “It’s difficult to get a nutrient balance right with slurry alone”
- “Needs to flower once a year, don’t roll or scalp when mowing”
- “5-6 weeks cuts not 2 bulky cuts”
- “It needs to be grown for specific job”

Average Fertiliser and Slurry N Applied in 2024 across farms.

	Cut 1		Cut 2		Whole season		Ratio
	Grass	Red Clover	Grass	Red Clover	Grass	Red Clover	
N Applied (Units/Acre)	68	30	63	19	173	76	X 2.3

- RC received 97 less units of N/Ace (3.6 bags of CAN/Acre)
- Fertiliser saving of £53/Acre (CAN £300/T)

MSS

- Establishment 2022
- 1 to 4 grass to 15 species mix

Sowing

- Full reseed
 - Control weeds – clean seed bed
 - Ideally in spring
 - Good soil temperature ($>10^{\circ}\text{C}$)
 - pH 6.3-6.5, P and K Index 2
 - Fine, firm seed bed
 - Sow at 10mm
- First grazing: pull test
 - Rotationally graze 25-28 days
 - Grazing residual 5-6cm
 - Avoid poaching
 - Maintain soil pH, P and K
 - Surplus can be cut for silage
 - 48 hour wilt

Grazing management

13 SPECIES SPECIAL

- 1.00Kg DONATA COCKSFOOT (*dactylis glomerata*)
- 2.00Kg LOFA (*festulolium*)
- 2.00Kg COMTAL (*phelum pratense*)
- 2.00Kg COOLFIN (*trifolium repens*)
- 1.40Kg CHOICE CHICORY (*cichorium intybus*)
- 1.50Kg PASTOR(*trifolium pratense*)
- 0.50Kg ALEX BERSEEM CLOVER (*trifolium alexandrinum*)
- 0.50Kg SYMPHONIE (*Medicago sativa* L)
- 1.40Kg TONIC (*plantaginaceae*)
- 0.50Kg BURNET (*saxifrage sanguisorba minor*)
- 0.50Kg YARROW (*achillea millefolium*)
- 1.20Kg SAINFOIN (*esparcet onobrychis viciifolia*)
- 0.50Kg SHEEPS PARSLEY (*petroselinum sativum*)



- 48 farmers across NI measuring grass growth and quality weekly
- Grow and utilise more grass on NI farms.
 - **Demonstrate** good grassland management on farm.
 - **Record** data on a weekly basis for on farm predictions and research .
 - **Exchange** information with other NI farmers.

2024 What is 1 tonne of grass DM/ha?

- 2bales/ac (750kg & 27%DM)
- What does it cost?



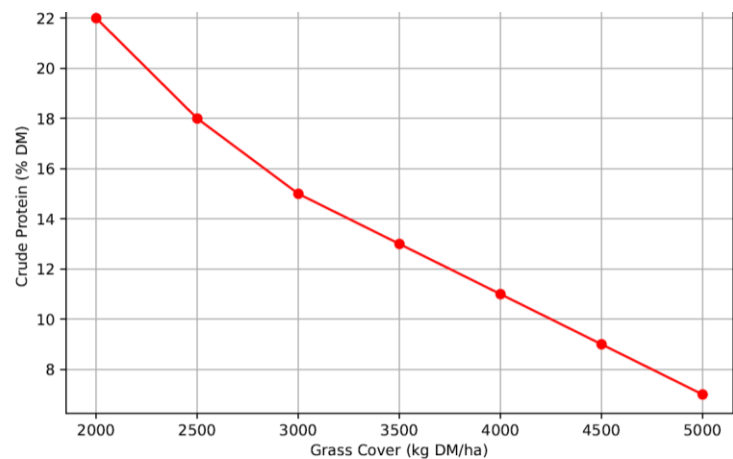
Grazed Grass/White Clover
£75/t DM



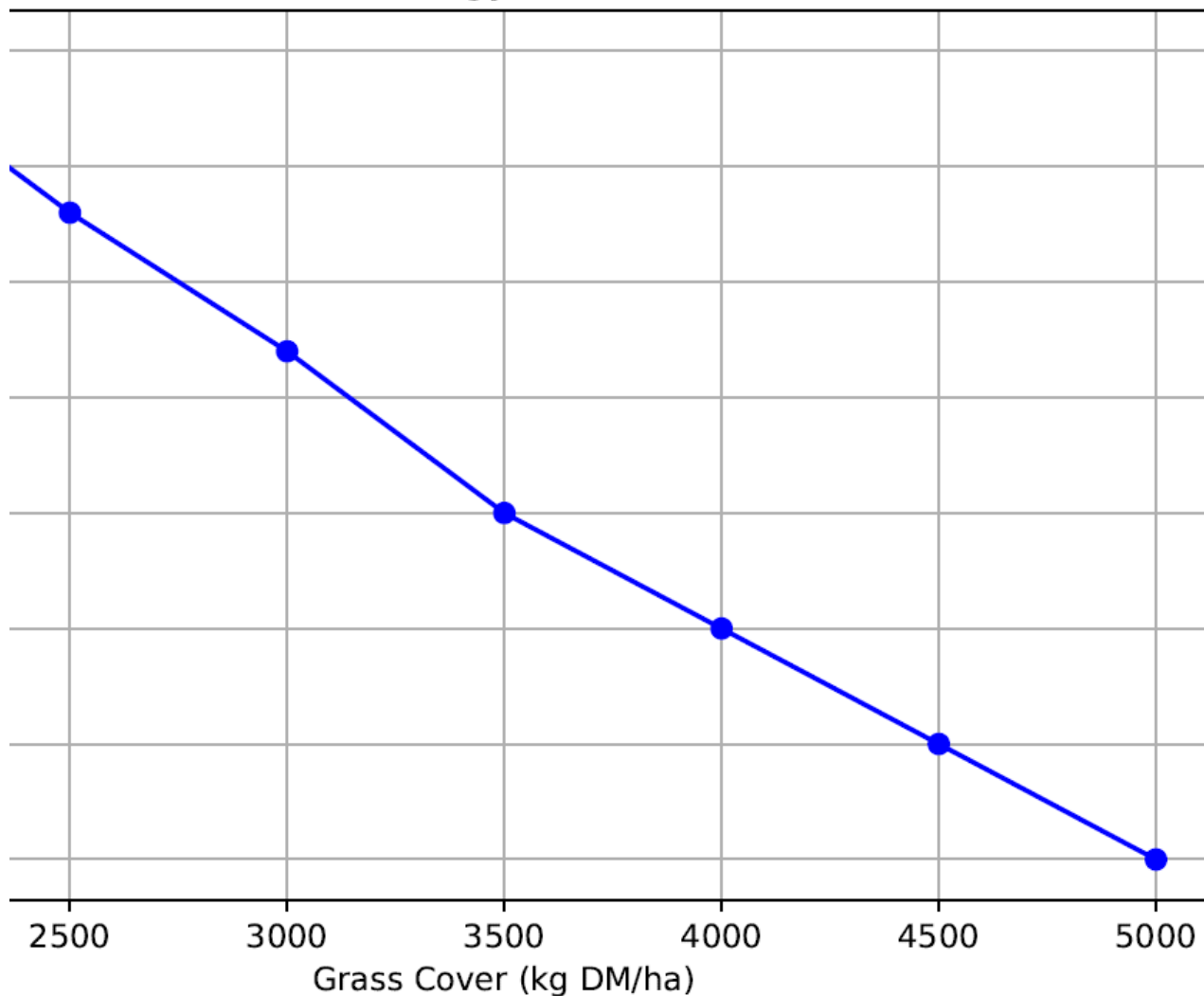
Grass silage £160/t DM



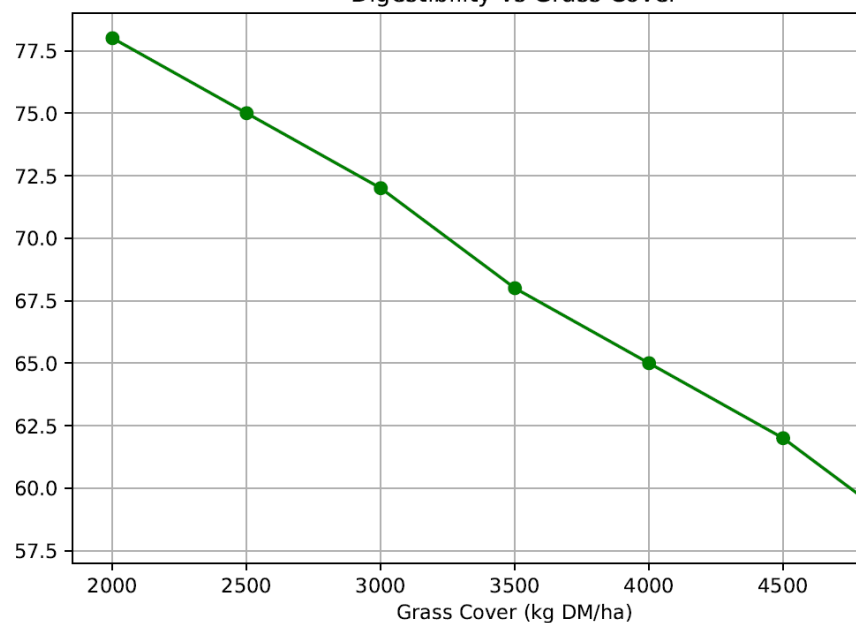
Concentrate £320/t DM



Metabolizable Energy (ME) vs Grass Cover

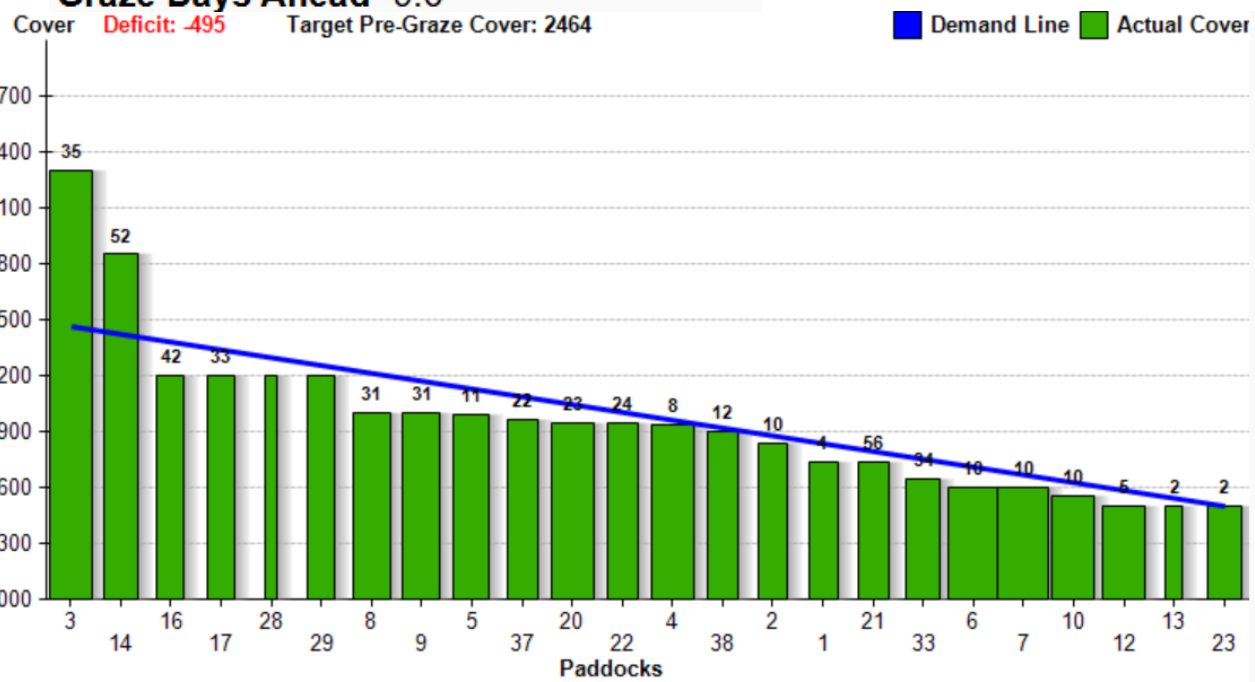


Digestibility vs Grass Cover

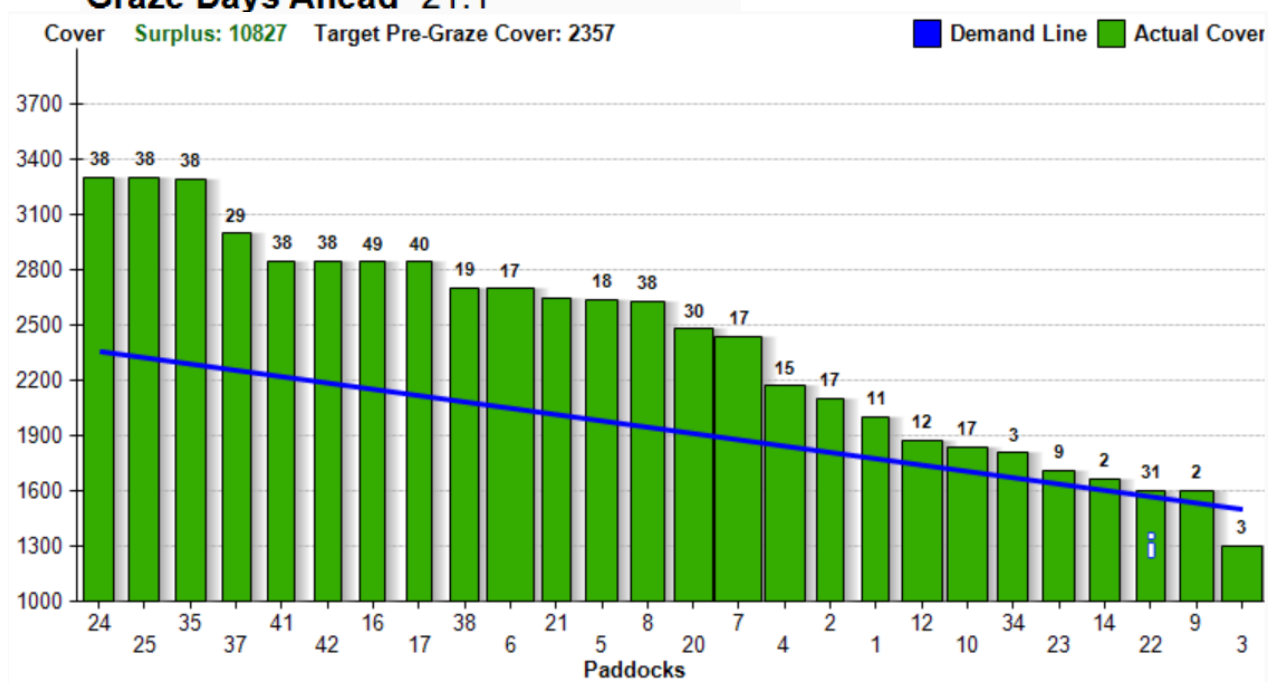


- **Recording grass growth weekly since 2023**
- 69ac measured between 2 blocks
- Turnout mid March, no winter grazing!
- Grazes paddocks for 2-3 days in a 3-week rotation
 - Target Average Farm Cover: 2100–2400 kg DM/ha (6–8 cm)
 - Target Pre-grazing cover: 2800–3000 kg DM/ha (10–11 cm)
 - Target Post-grazing cover: 1600–1700 kg DM/ha (5–6 cm)

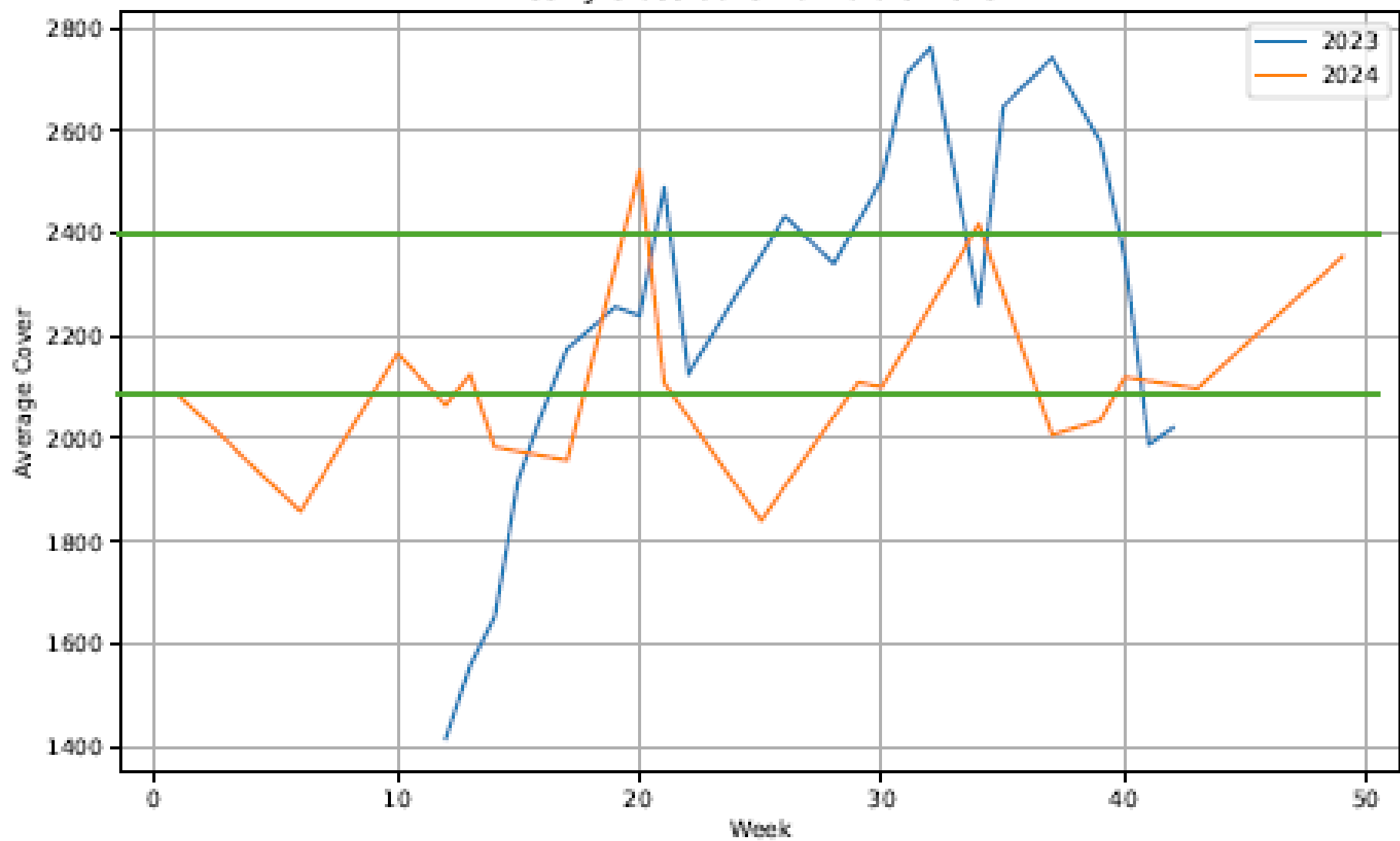
Date Measured	22/07/2025
Selected Mob	All Mobs
Daily Growth	49 (over 7 days) (47.7)
Farm Cover	1939
Total Area	21.57
kgLW/Ha	1344
Demand / Day	991
Demand / Ha	45.9
N Kg / Ha	28.1
N % Area	30.2
Weather	0mm, 0°
Graze Days Ahead	9.6

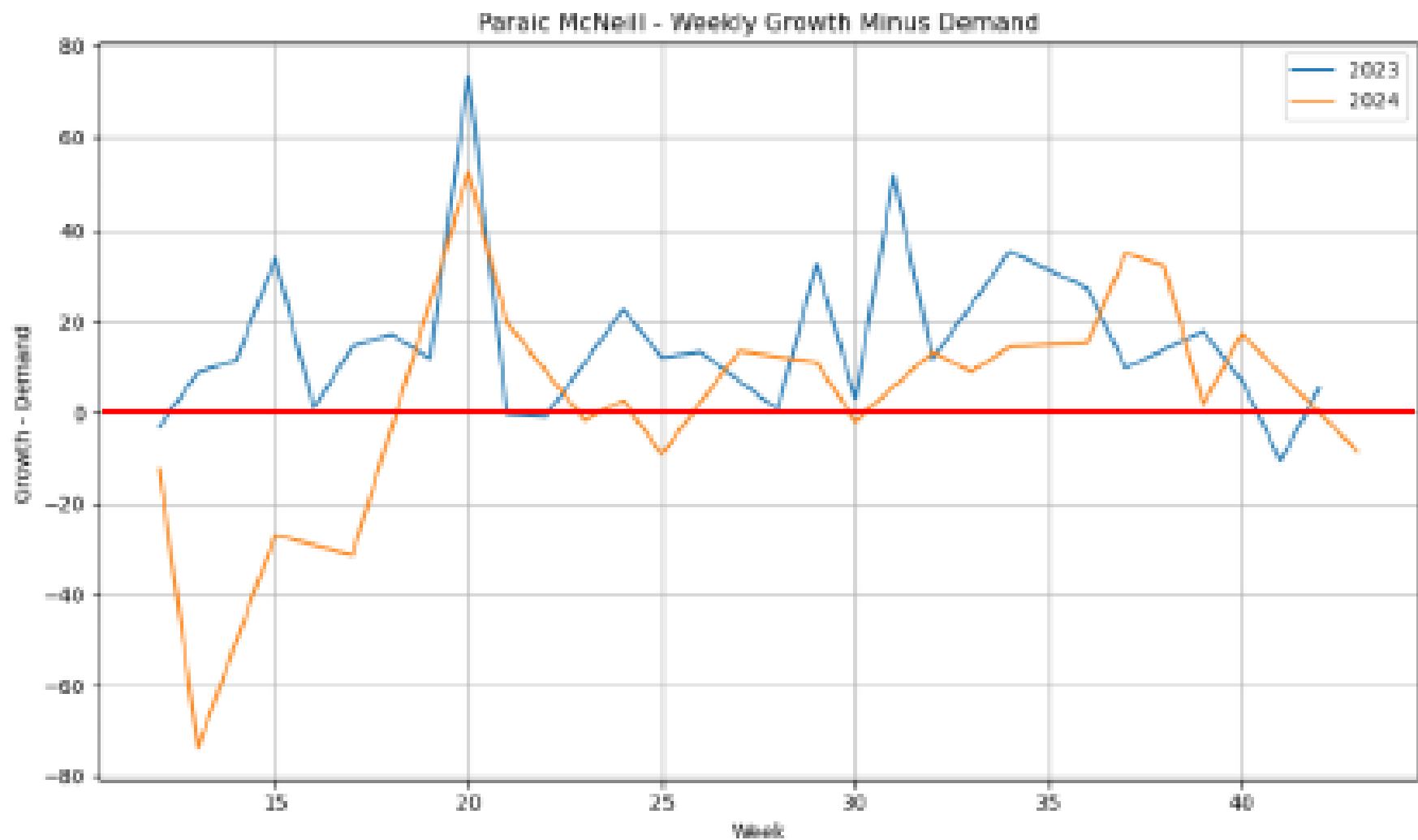


Date Measured	29/07/2025
Selected Mob	All Mobs
Daily Growth	84.7 (over 7 days) (80.4)
Farm Cover	2360
Total Area	24.28
kgLW/Ha	1194
Demand / Day	991
Demand / Ha	40.8
N Kg / Ha	28.1
N % Area	30.2
Weather	0mm, 0°
Graze Days Ahead	21.1



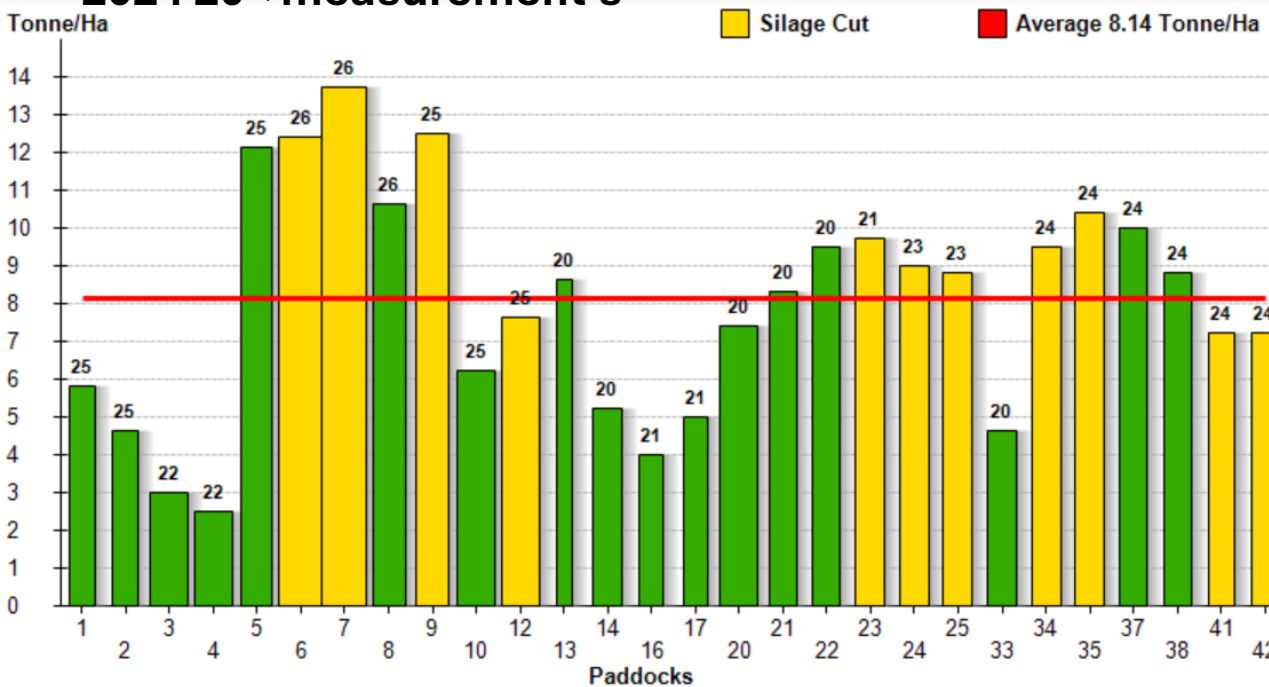
Weekly Grass Cover for Paraic McNeill





GrassCheck best paddocks

2024 20< measurement's



2025 so far... 13< measurement's

