



Growing Forage in the “Orange Triangle”



Tim Downes

[home](#)



The Farm



9 6 2003



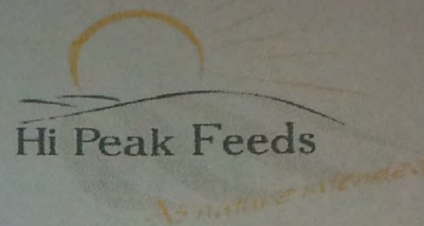
Food from Earth



Forage Analysis Report

Hi Peak Feeds Limited

Farm MR TIM DOWNES
 SHREWSBURY
 Reference R. POYNTON
 Forage Type FRESH GRASS
 Variety
 Additive
 Date Received 15/05/12
 Lab Report No. L451004



Independently Analysed by Frank Wright Ltd.

Analysis (Dry Matter)		Result	Low	Normal	High	Target
Dry Matter	%	23.1	10	<16	>22	28
ME	MJ/kg	13.0	10	<11	>12	13
Crude Protein	%	13.9	18	<22	>26	30
Free Nitrates - Fresh	mg/kg	100.0	0	<500	>1000	1500
Oil (Process A)	%	3.0	3	<4	>5	6
NDF	%	33.5	35	<40	>45	50
ADF	%	15.4	15	<20	>25	30
Sugars	%	12.5	4	<8	>12	16

No. of Handfuls	22.00	Total Grass Weight	76.18 g	Hours At Grass	12.00 Hrs
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Performance Prediction

Grass DM Intake	kg/day	3.2	7	<10	>13	16
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Analysis Results (SOIL)

Customer J&T DOWNES
LONGNOR

Distributor ANDREW & DAVID DUTTON LTD
MARTON HOUSE
MARTON
BASCHURCH
SHREWSBURY
SHROPSHIRE
SY4 2BZ

Sample Ref POPLARS
Sample No E062470/04
Crop GRASS (CATTLE)

Date Received 10/12/2013

Analysis	Result	Guideline	Interpretation	Comments
pH	5.5	6.0	Slightly Low	Refer to Lime Requirement.
Phosphorus (ppm)	8	16	Very Low	(Index 0.8) 80 kg/ha P ₂ O ₅ (64 units/acre).
Potassium (ppm)	88	181	Low	(Index 1.4) 30 kg/ha K ₂ O (24 units/acre). Avoid applications in Spring if there is a history of Hypomagnesaemia.
<u>Magnesium (ppm)</u>	158	51	Normal	(Index 3.7) Adequate level.
Calcium (ppm)	1887	2000	Slightly Low	Low priority. If ph low use Calcium Limestone.
Sulphur (ppm)	8	10	Slightly Low	Consider treatment for optimum grass growth.
Manganese (ppm)	31.6	5.0	Normal	Adequate level.
<u>Copper (ppm)</u>	4.1	8.0	Low	PRIORITY FOR LIVESTOCK HEALTH.
Boron (ppm)	1.34	0.50	Normal	Adequate level.
<u>Zinc (ppm)</u>	4.8	7.0	Low	PRIORITY FOR LIVESTOCK HEALTH.
Molybdenum (ppm)	0.02	<0.50	Slightly Low	No problems anticipated.
Iron (ppm)	732	50	Normal	Adequate level.
Sodium (ppm)	33	90	Very Low	PRIORITY FOR LIVESTOCK HEALTH.(see comments below).
C.E.C. (meq/100g)	15.8	15.0	Normal	Cation Exchange Capacity indicates a soil with a good nutrient holding ability.
Organic Matter (%)	6.9	3.0	Normal	Adequate level.
Lime Req. (t/ha)	4.0			



Growth Rate over time

Select Graph

Growth Rate ov

3D

Show Key

Horizontal (X)

Date

Series

2013

Visible

Data

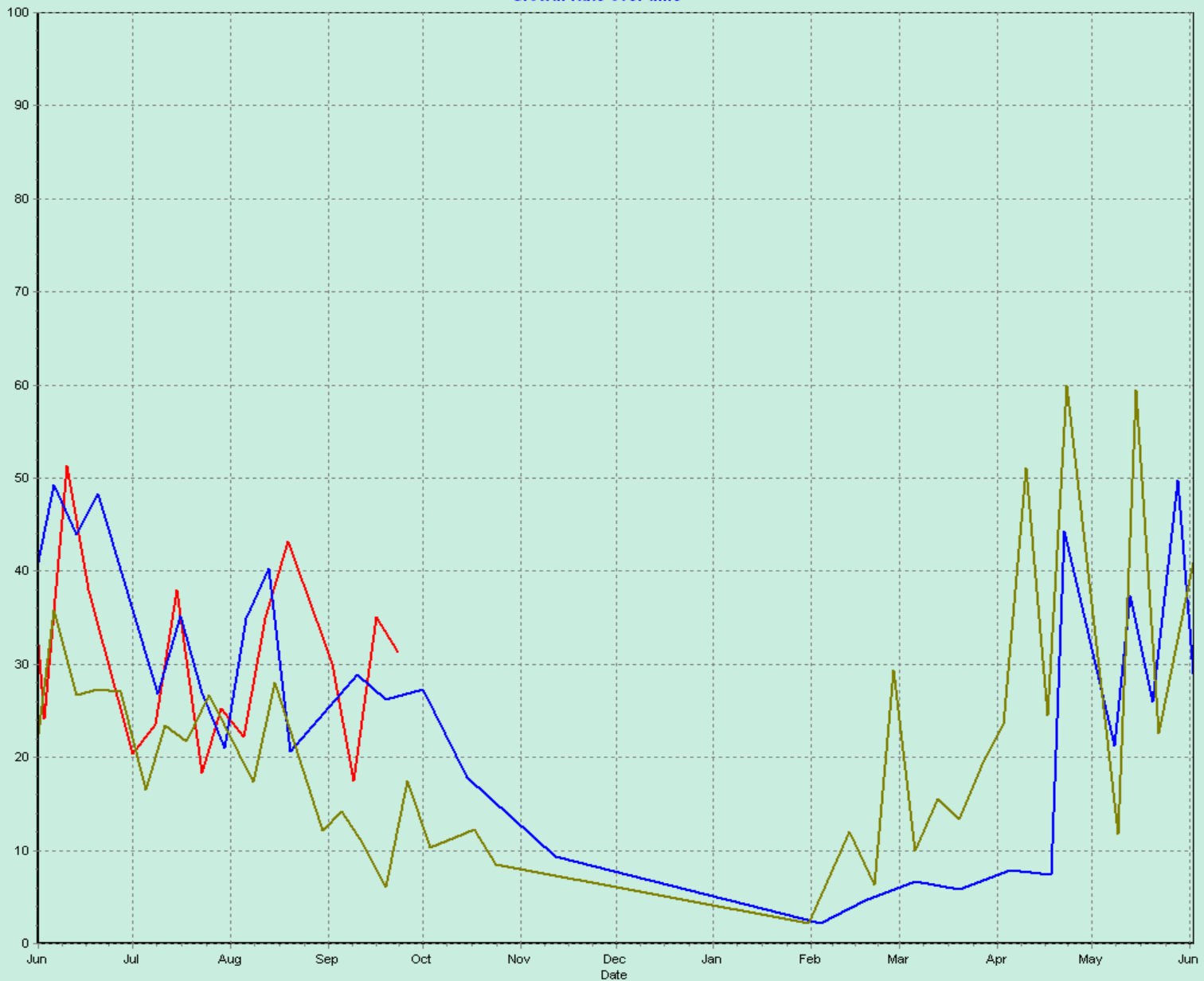
Y0

Type

Line

Group by

No Group



2013

2012

2011



Wedge on 14/05/2009 (All units)

Select Graph

Wedge on 14/05/2009

3D

Show Key

Horizontal (X)

Pad names

Series

Cover

Visible

Data

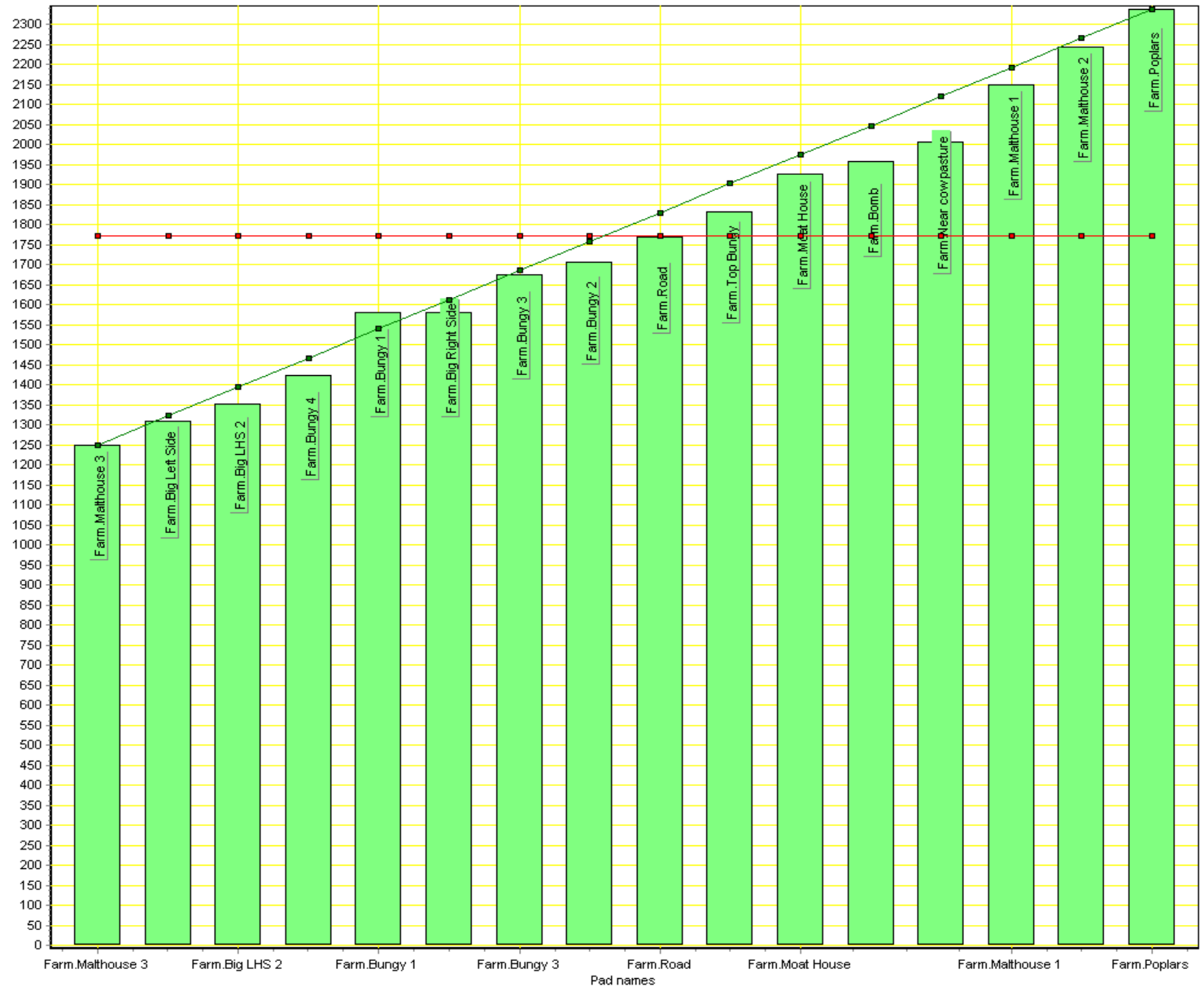
Cover

Type

Bar

Group by

No Group

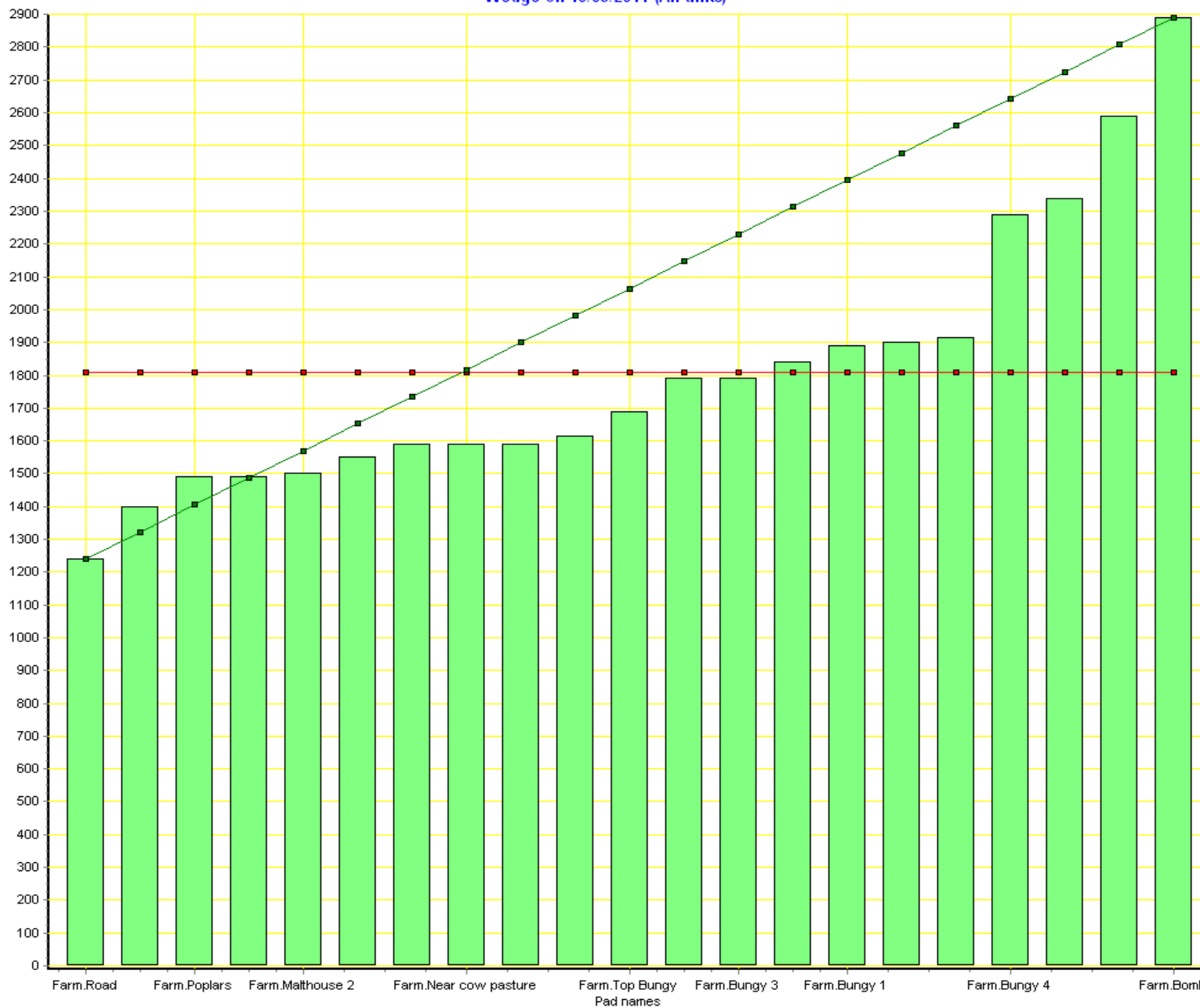


Legend:

- Cover (Green Bar)
- Average (Red Line with Square)
- Trend (Green Line with Square)

Back

Wedge on 16/05/2011 (All units)



Legend:

- Cover (Green bar)
- Average (Red line with square)
- Trend (Black line with square)

Select Graph

Wedge on 16/05/2011

3D

Show Key

Horizontal (X)

Pad names

Series

Cover

Visible

Data

Cover

Type

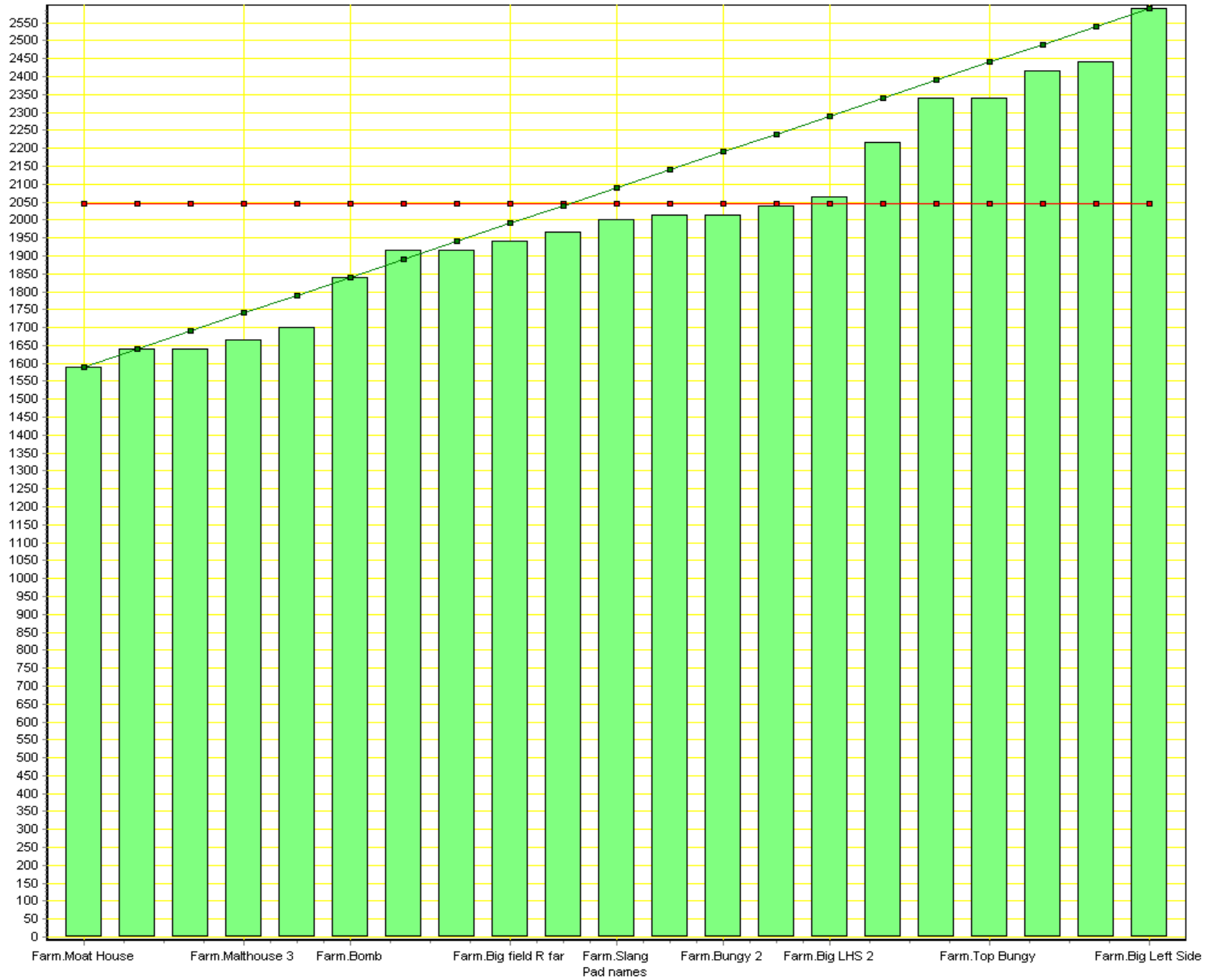
Bar

Group by

No Group

Back

Wedge on 14/05/2012 (All units)



Select Graph

Wedge on 14/05/2012

3D

Show Key

Horizontal (X)

Pad names

Series

Cover

Visible

Data

Cover

Type

Bar

Group by

No Group

Cover

Average

Trend

Back

Wedge on 13/01/2014 (All units)

Select Graph

Wedge on 13/01/2014

3D

Show Key

Horizontal (X)

Pad names

Series

Cover

Visible

Data

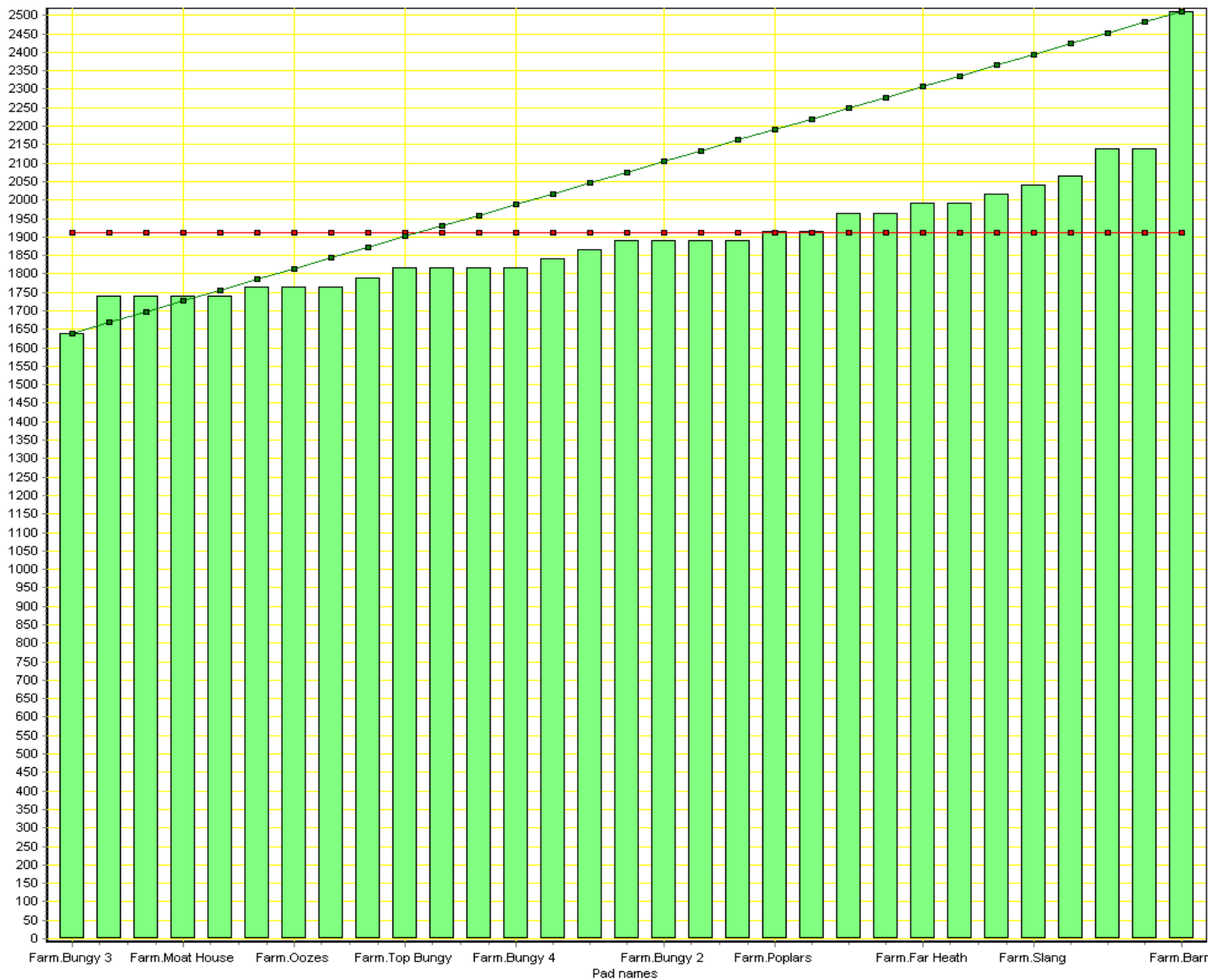
Cover

Type

Bar

Group by

No Group




Cover

Average

Trend




Aims

- Reduce energy consumption per unit of food produced
 - To increase soil Organic Matter %
 - Maintain good soil structure
 - Use composted manures and avoid acid load
 - Graze animals from February to November
- 



How We Do It?

- Lower input organic farming system
 - Rotational paddock 12hour grass allocation. Platemeter measurements
 - “On-off” grazing
 - “Deferred” grazing
 - “Extended” grazing
 - Soil aeration
- 

Need to check soils
with spade before...



**Avoid
compaction
use three
wheels!**



.....Aeration



Moving shelters and grazing in snow



Mixed herb sward deep rooting.

- Plantain
- Chicory
- Clover
- HS grasses



Valuable Nutrient/organic matter
source.

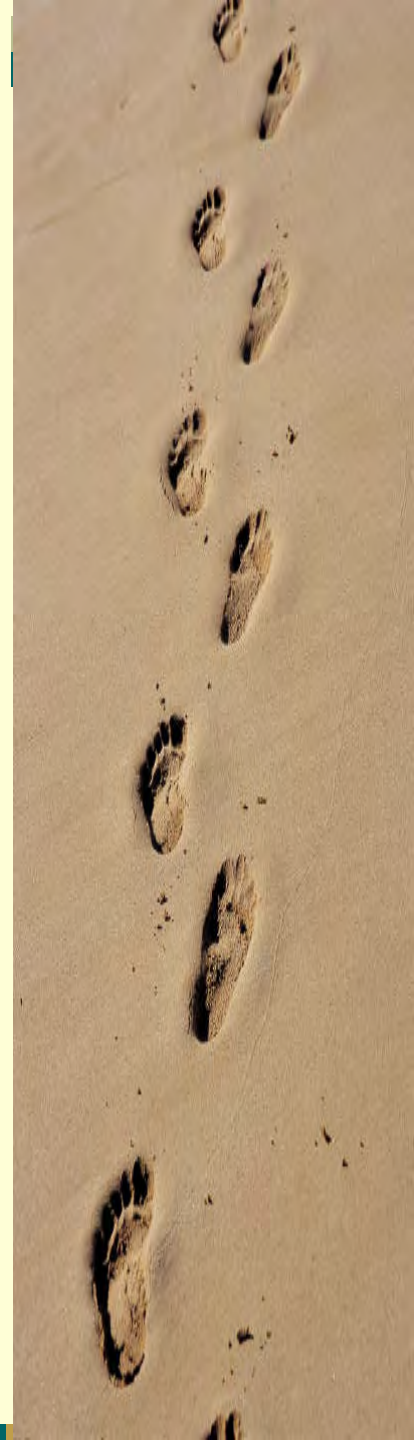
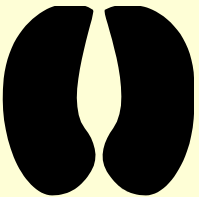







Summary

- Use a spade to determine compaction
- Soil test
- Reduce pasture damage
 - Regular animal moving
 - Trough and shelter management
- Use High sugar grasses to balance available N and Energy
- Chinese proverb “Man who keep feet firmly on the ground have trouble putting on their pants”





Working with Soils: Soil Biology & Nutrient Management Workshop
12 March 2014 10:00 - 12 March 2014 15:00
Longnor Village Hall, Longnor, SY5 7PP

This event will also include a farm walk at The Farm, Longnor, with the kind permission of Tim Downes and family.

The workshop is aimed at all livestock and arable farmers and is designed to help you to improve soil performance on your farm.

We have brought together two experts, Roger Hitchings and John Morgan, to explain how you can do this on your farms. In addition we will be hearing from our host Tim Downes on how he manages to maximise the potential of his soils and forage production for the dairy herd at The Farm.

The session will:

- Inspire you to develop a better understanding of soil and the benefits that healthy soils have on your farming system
- Highlight ways that you can increase your farm profitability through efficient use of nutrient resources