

Wet Weather Recovery Spring 2018



Stranraer Rainfall Figures

| | Annual | June - October |
|------|--------|----------------|
| 2002 | 57" | 20" |
| 2012 | 53" | 27" |
| 2014 | 56" | 16" |
| 2017 | 56" | 29" |

17 year average annual rainfall = 47"

June 2017 – January 2018 = 47"

8 consecutive months of almost 6" rain per month

Agenda



- Introduction
- Looking after Number 1
Making it to Turnout
- Alternative Bedding
- Rebuilding the buffer
- Animal health topics
- Sum up

Are Ewe OK?



Look After Number 1



- Mental wellbeing – your mental state – how you are feeling and coping.
 - Fluid state – at any one time 1 in 4 of us will suffer some sort of mental health problem.
 - What are the pressures we face?
 - What affects how we feel ??



What Pressures affect how you feel ??



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- Weather
- Long hours
- Isolation
- Animal health
- Money
- Subsidy payments
- Uncertainty of income
- Paperwork
- Family issues
- Bereavement
- Separation
- etc



Scottish Government
Riaghaltas na h-Alba
gov.scot

Checking out Stress



- Most common mental health complaints are stress, depression and anxiety.
- Reluctance to talk about it but campaigns like 'Are Ewe Ok?' trying to change that.
- What are the Tell –Tale signs to look out for??

Tell-Tale Signs to look for ??



- The signs?
 - Someone not themselves
 - Teary
 - Unable to sleep/sleeping more
 - Alcohol abuse
 - Isolating themselves
 - Fearful
 - Sad
 - Erratic behaviour
 - Withdrawn
 - Angry
 - Not eating/overeating
 - No concentration
 - Suicidal thoughts
 - Etc



How to look after yourself ?



- Talk – express your emotions
- Get sociable
- Exercise
- Learn something new
- Eat well
- Don't be slow to ask for help



Look After your Friends



- “No Man is an Island”
- How to help others
 - Talk – ask “how they are”.
 - Listen--- don’t be judgemental.
 - Suggest help-family, friends and Public Bodies
 - What bodies can Help??



“Its Good to Talk”



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- RSABI
- Samaritans
- Police
- GP
- Your Minister



Problem Shared



Knowing the pressures, the signs and where to get help is important. Finding the courage to ask the question **‘how are you?’** when you see the signs or **getting help when you know you aren’t quite ‘right’** can make the biggest difference of all



Will You Make It To Turnout?



1. How much do you have left? (*flipchart*)

- Measure quantity in clamp
- Count bales & weigh a couple
- Get a silage analysis done

2. Do a head count

- Are they all productive?
- Get rid of the passengers

Will You Make It To Turnout?



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3. How much do they need to eat?

| | Daily Intake | Monthly Intake |
|-----------------------|--------------|----------------|
| Dairy Cow | 35-40kg | 1-1.2t |
| Spring Calver | 33kg | 1t |
| Autumn Calver | 40kg | 1.2t |
| 280kg calf | 15kg | 0.45t |
| 350kg calf | 21kg | 0.6t |
| Finisher/Rep. Heifers | 27kg | 0.8t |
| Lowground Ewe | 4.5kg | 0.05t |

Will You Make It To Turnout?



4. How long will it last

- Divide total tonnes left by daily/monthly need

5. When will turnout be ??????.....



OK you've done your Feed Budget to Turn-out

What if You've only 5 weeks forage left??

You need to ACT now !!!

I Don't Have Enough!!!

- Spring Calvers
 - Group according to BCS
 - Restrict silage for fat cows
 - Too late to fix thin cows - 2kg extra silage + high energy buckets
 - 1/2kg soya/head/day 2weeks pre calving for colostrum quality
- Autumn Calvers
 - Should be on around 40kg silage + 1.2kg barley
 - Could replace 5kg silage with 1.5kg barley
 - Cost 26.5p/hd/day with bruised barley at £177/t
- Youngstock
 - Substitute silage with hay
 - On average need 20kg/hd/day, replace with 6.5kg/hd/day good quality hay

I Don't Have Enough!!!



- Calving Cows
 - if you can get them out – ½ rate silage + 2kg concentrate + grazing
- Lambing Ewes
 - Substitute silage with hay
 - 1.5kg hay/head/day
 - 100g soya per lamb/hd/day 2 weeks pre lambing
- Minimising the mouths to feed
 - Sell cull animals
 - Are stores ready to go?
 - Could finishing animals be fed harder?

Won't Have Enough!!!

Alternative Feeds

| 1 ton bruised barley = | |
|------------------------|---------------------|
| | 5t wet silage |
| | 4t dry silage |
| | 1.5t crimped barley |
| | 1t beet pulp |
| | 4.5t tatties |
| | 1.1t molasses |
| | 1t maize gluten |
| | 2.25t dreg |

- Use Relative Feed Values to check your getting a good buy

Planning for 2018



How many stock do I plan to carry over 2018/19 winter

- How much will they need to eat?
- Will I be able to grow enough silage?
- Does the system need changing?

Alternative Bedding



***What Are Your Experiences?
(flipchart)***

Alternative Bedding

- **Cereal Straw**
 - Absorb 2 – 2.8 litre/kg (oat, wheat, barley)
- **Woodchip**
 - Free draining rather than absorbent
- **Sawdust/shavings**
 - Absorb 1.5 – 2.5 litre/kg (softwood best)
- **Paper products**
 - Moisture content variable
- **Rape straw**
 - Free draining rather than absorbent, very stalky
- **Miscanthus**
 - Challenging to dry sufficiently
- **Other?**
 - Bracken? Sand?

Rebuilding the Buffer



We've come through worse!!



- “Resilience”—capacity to recover quickly from difficulties

Have A Plan

- Def of Insanity—doing same thing —expecting different result —Einstein

“Inch by Inch ,play by play-until we’re finished”
Al Pacino (Any Given Sunday)

2mths before turnout-wet fields



- Is water lying on surface—across whole field or ponding on low lying parts ??
- Are Drains Running??
- Does the ditch need cleaning??
- Your soil is vulnerable—field capacity
- Tanks full-Q How will you get slurry out??

Getting Slurry Out??

Don't Spread if waterlogged –SEPA Rules Mitigate

- Umbilical –less weight
- Reduce tyre pressure
- Tanker-lighter loads
- Exit bottom of field??



Identifying Compaction

- Use a spade to dig a hole at least 30 cm deep

Examine for:

- Blocky platy vs crumb structure
- Horizontal layers (hard pan)
- Poor root penetration and roots horizontally
- Lower earthworm populations
- Grey mottling



Compacted Layers



Restrict movement of water/air/nutrients

Prevents good root development

Impedes Drainage

Increases release of Nitrous Oxide

Prevention is Better than Cure



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Reduce weight

Minimise loads, remove weights

Light machines, more axles

Reduce ground pressure

Wider tyres, low inflation pressure

Tandom or Dual wheels, Tracked vehicles

Specialised low ground pressure machines

Sacrifice yield for timeliness

Choose crops to suit your soil type

Avoid uphill operations

Use Tracks/Endriggs/Tramlines

Gates at bottom of field ?

Sorting Compaction Problems



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Must use the **Right treatment**
at the Right depth
at the RIGHT time
OR ELSE waste of time and fuel

Spike /Aerator
Flat-Lifter
Plough
Subsoiler
Mole Plough

FLAT LIFTERS



More Fertiliser or Better Use



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% Nutrient Availability at different pH

| | <u>N</u> | <u>P</u> | <u>K</u> |
|---------------------------|----------|----------|----------|
| pH 5 (very strong acidic) | 53% | 34% | 52% |
| pH 5.5 (strong acidic) | 77% | 48% | 77% |
| pH 6.0 (medium acidic) | 89% | 52% | 100% |

Too Wet To Get Lime On??



- Prilled Lime will do a good job this Spring
- Ordinary Lime—need 1t/ac to lift Ph 0.3 units
- Dry periods don't put slurry on after liming for 3mths
- If slurry or urea applied first —wait 10days before liming
- Lime helps grass to taste better

Maximising Silage 2018

QUANTITY



Nitrogen

- Grass utilises *2 units N per Day*
- Apply 6 weeks pre-turnout (or T-Sum 200)
- Nitrogen for 1st cut: 120 kg/ha (*100 units/ac*) 8 weeks pre-cutting
- ***Max use across whole season 310 kg N/ha (250 units) silage; 270 kg grazing (216 units).***

pH

- Soil sample and lime
 - Ground limestone, ***granular lime***

Extra Nitrogen? -2 cut Silage



| <u>N</u> | <u>P</u> | <u>K</u> | <u>Yield Silage</u> |
|-----------|----------|-----------|---------------------|
| 144 units | 52 units | 88 units | <u>12.5t/ac</u> |
| VS | | | |
| 176 units | 72 units | 120 units | <u>15.5t/ac</u> |

- Potassium bulks crop up-Need 32units extra
- Extra 3ton silage/acre vs £26cost extra fert
- £9/ton cost and 24% more silage

Worth going for 3 cuts Silage??



| <u>N</u> | <u>P</u> | <u>K</u> | <u>Yield Silage</u> |
|-------------|----------|-----------|---------------------|
| • 176 units | 72 units | 120 units | <u>15.5t/ac</u> |
| VS | | | |
| • 240 units | 92 units | 160 units | <u>17.5t/ac</u> |

Extra 2 ton silage/acre vs £37cost extra fert
vs £60 extra contracting
£50/t + Less aftermath –can you cut in Sept??

Growing an Arable Crop

| | Yield FW | Yield t/DM | Cost/ha | Cost/t FW | Cost/t DM |
|--------------------------------|-------------|---------------|---------|------------------------|------------------|
| Silage 2 cut (176 units N) | 38t/ha | 9.5t | £575/ha | £15/t (+£6 = £21/t) | £60/t (£86/t) |
| Silage 3 cuts (240 units N) | 43t/ha | 10.75t | £790/ha | £18/t | £73/t |
| Arable Silage | 30t/ha | 8t | £598/ha | £20/t | £75/t |
| WholeCrop WW | 25t/ha | 10t | £758/ha | £30/t | £76/t |
| WholeCrop SW | 22t/ha | 8.5t | | £34/t | £89/t |
| Maize | 40t/ha | 15t | £927/ha | £23/t | £62/t |
| Kale | 45t/ha | 7.5t | £420/ha | £9/t | £56/t |

Alter Slurry Spreading System to lift your Silage Yield??



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Splashplate (inverted) still most common
BUT

Up to 80% of Available Nitrogen could be lost to the atmosphere with 30% of this loss in the first hour and balance within 12hrs

Can Reduce this by

Reducing the surface area of spread slurry that is exposed to air

Considering Spreading Conditions

Yield of 2nd cut Silage-effect of Slurry Applications ---afbi NI Trial



| 1 st Cut made 12 th May | No Slurry | Splash Plate | Band Spread | Trailing Shoe |
|--|-----------|--------------|-------------|---------------|
| Tons DM/Ha | 4.06 tons | 4.51 tons | 5.37 tons | 5.47 tons |
| | | | +19% | +21% |
| | | | | |

Yield of 2nd cut Silage Tons DM/Ha -effect of Slurry Applications ---afbi NI Trial



| Slurry Applied after 1 st cut | 2 nd cut Harvest | Splash Plate | Trailing Shoe |
|--|-----------------------------|--------------|---------------|
| After 9 days | 27th June | 4.88 | 5.63 |
| After 17 days | 2 nd July | 4.60 | 5.47 |
| After 23 days | 3 RD July | 4.06 | 5.30 |

Change Grazing System to free up Silage Acres ??



- **Remember: 3 leaf rule –21days**
- **Always think this will be the best grazing Spring and shut up silage acres-can always strip graze a silage field if tight**
-
- **What Grazing System Do you Use?**

Grazing Systems???

| | ANNUAL YIELD TONS DM/Ha | UTILISATION | USABLE YIELD TONS DM/Ha | % INCREASE | Grazing Acres IMPACT |
|------------|----------------------------------|-------------|----------------------------------|------------|----------------------------|
| SET STOCK | 8.5 | 50% | 4.3 | 0% | 100 |
| ROTATIONAL | 10.2 | 65% | 6.6 | 53% | 65 |
| Paddock | 10.2 | 80% | 68.2 | 91% | 52 |

Stock at right level Early ???



- Target -1 ton liveweight at turnout per Acre
- Reality -750kg/Acre----eg 3 x 250kg stirks
- Dairy Cows—1.6 cows /acre
- 2 cows per acre ?????
- 2.5 cows /acre (220units N/ac)

How many Mouths??

| Nitrogen Use Units/Acre | 80 units | 120 units | 160 units |
|-------------------------|----------|-----------|-----------|
| Ewes with Twins | 3/acre | 4/acre | 5/acre |
| Spring Cows | 1/acre | 1.5/acre | 2/acre |

Repair or Reseed??



- 1 Acre Full Reseed costs same as 1ha Slot
- BUT
will yield 50% more

Choice depends on Quantity required to repair
Availability of Contractors
Fit the farm

Go for an Early Turnout?



- Early Turnout-needs early Nitrogen
 - T Sum 200 now reached. Apply Feb (about 20-25 units)
 - UREA might be better option
 - Phosphate uptake via roots poor when conditions cold. Boost of soluble phosphate early can be helpful
 - BUT spread them out for first 3 weeks if turnout early and ground still fragile

Year to use Urea (46% N)??



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- Urea ----Ammonium Carbonate— $\text{NH}_3 + \text{CO}_2$
- Less Leaching Risk than AN
- BUT less effective (4%-20%)
- Avoid High Temp/recently limed
- Use in Spring-cold and wet
- Usual rate 70 units Urea –Dont go above 96 units
- Needs to be 10%Cheaper on a per unit basis --
if 34% £240/tonUrea needs to be below £280/ton

2018 Slurry Store Management



- Must aim to **empty store before Sept** –book your contractor early this year
- Check DM of the slurry and adjust Fertiliser
- Check now if any clean water can be diverted to field drains eg shed roofs /broken roans/clean silos over summer
- Can your store hold 6mths
- Check if Slurry Store Grant applies