

# Sward Mixtures

## How They Can Be Incorporated Effectively Into Rotations

Richard Barnes

1<sup>st</sup> July 2019



# Current Observations

- Soil/soil health – everyone is talking about it!
  - Cover crops – nearly everyone is talking about them!
  - Those who have previously grown cover crops in general are doing more
  - More of the reluctants/sceptics are joining in
  - EFA rule change a key driver for many
  - Cover crops need not be just short term – especially on heavier soils
  - Forage shortage been a strong driver – many more crops getting grazed
  - Blackgrass control strategies seeing more longer term leys coming into the rotation – can be linked to EFA and Countryside Stewardship options
  - Cover crop benefits are being seen in following crops
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# James Hutton Institute

## 3 year cover crop/spring barley trial



- Commenced in 2016 – 3 sets of GPS fixed and replicated green cover and stubble field scale plots
- Yield data, grain quality, sheer strength, earthworms, VESS scores, infiltration, porous pots, biomass.....
- Harvest 2018 final year





# One field below trial field



# Green cover trial field

Image taken on same day, 10 mins later



# Options For Green Cover Catch/Cover Crops



- **Ecological Focus Areas (EFA's)**

- Catch crops

- Cover crops

- Rye/vetch worth consideration
    - £48/ha

The 2019 English EFA rules are as follows:

- Catch Crops must be established by 20th August 2019 and retained until at least 14th October 2019
- Cover Crops must be established by 1st October 2019 and retained until at least 15th January 2020.

## Cereal Species

Each mix needs at least 1

Oats, Rye and Barley

## Non-Cereal Species

Each mix needs at least 1

Radish, Mustard, Vetch, Phacelia and Lucerne

# Options For Green Cover Grass Leys



- For best effect grass leys need to be established at least 3 months prior to pig units being built – ideally 6 months
  - Options include
    - **Westerwolds**
      - Annual ryegrass – very quick growing but not persistent
    - **Italian ryegrass**
      - 2-3 year persistence – quick growing
    - **Perennial ryegrass/creeping red fescue or grass/herb rich**
      - 2-5 years persistence
      - Creeping red fescue brings added resilience to sward
      - Herbs bring deeper rooting/access to minerals
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# Options For Green Cover Grass Leys



- **Standard Pig Mix** (37kg/ha) - £125/ha
  - Strong Creeping Red Fescue
  - Intermediate Perennial Ryegrass
  - Late Perennial Ryegrass
- **Standard Erosion Mix** (20kg/ha) - £95/ha
  - Cocksfoot
  - Timothy
  - Tall Fescue
  - Smooth Stalked Meadow Grass
  - Creeping Red Fescue
  - Red Clover



# Opportunities From Ecological Focus Areas - Fallow



- EFA Fallow period – 1<sup>st</sup> January – 30<sup>th</sup> June
- Opportunity to establish a grass ley classed as EFA Fallow that can then be used from 1<sup>st</sup> July onwards – a win win for all?



# Opportunities From Countryside Stewardship

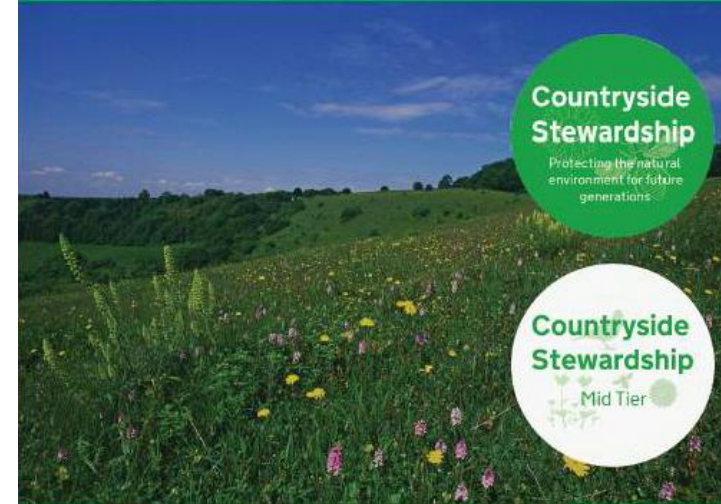
- Key options to bring pigs in after
  - **SW6 – Winter Cover Crops** £114/ha
    - Short term overwinter cover crop
    - 'Establish a green cover' – grass?
    - Minimal sward but better than nothing!
  - **AB15 – Two Year Legume Fallow** £522/ha
    - 2 year option – ryegrass/legume
    - Good grass cover and root mass
  - **GS4 – Legume and Herb Rich Swards** £309/ha
    - 3-4 year option – potentially the perfect entry for pigs?
    - Deep rooted mixture, stabilise the soil profile



The European  
Agricultural Fund for  
Rural Development:  
Europe investing in  
rural areas

## Countryside Stewardship: Mid Tier

Helping to enhance and protect the natural  
environment



Search for 'Countryside Stewardship Mid Tier' on GOV.UK

Cover image © Rural Payments Agency

# Summary



- Green cover prior to pigs can bring benefits to
    - Soils – structure and health
    - Water – keep nutrients and soil in the field!
    - Biodiversity – pollinators can benefit
    - Rotations – help manage blackgrass challenge
    - Your pigs!
    - Don't forget that a following green cover crop can help retain nutrients and improve soils for the next cash crop
  - Utilise opportunities available, where you can, from
    - EFA's
    - Countryside Stewardship
  - Take good advice – there is much to be gained with foresight and planning. Get a Pig Report!
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