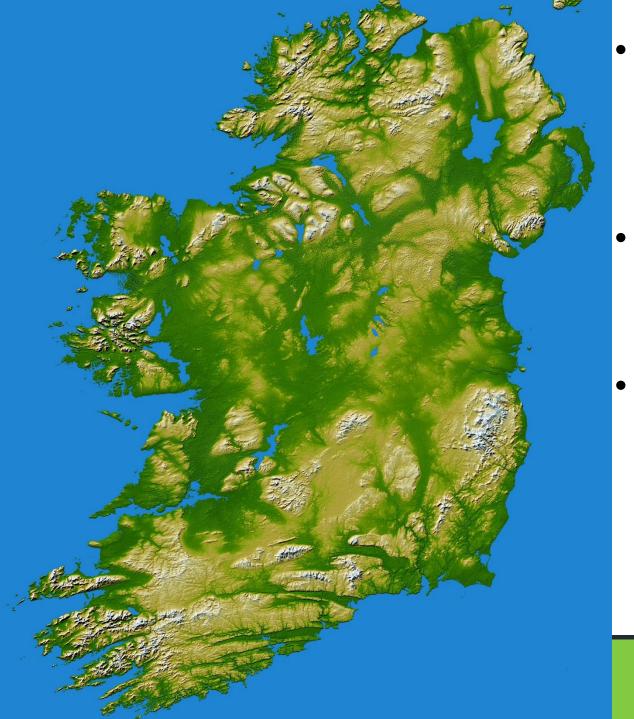


Goldcrop

- Main area of business is seed
- Aim is to supply all the seeds that farmers require
- Partner with Teagasc Grass and clover breeding
- Ideal scenario for our business:
 - we supply the seeds
 - farmer sows and produces a profitable crop
 - comes back for more the following year

Always optimistic every Spring!



Ireland - Improved
Grassland Area
3.6M ha

 Average Reseeded Area 97,400ha

On average 2.7% reseeded

Grassland Legumes – past 15 years

- Annual average usage in Ireland over past 15 years based on seed imports
 - 140 tonnes White Clover
 - 5.5 tonnes Red Clover
 - 0.5 tonnes Lucerne

Grassland Legumes – past 15 years

- White Clover
 - Usage in past 4 years at 100-120 tonnes
 - 15 years ago almost all grass mixture acre packs had 0.5kg of White Clover. Could call it passive usage.
 - Now it is split 3 ways:
 - No clover (due to farmer demand)
 - Standard 0.5kg
 - High clover mixes with 1kg or more
- Red Clover
 - Most of usage is on Organic Farms

Great Potential to increase Clover use on grassland farms

- White Clover for grazing
- Red Clover for silage
- Other legume species may also have a place

Target Outcomes

- Reduce fertiliser nitrogen use while maintaining productivity
- Increase the Crude Protein content of silages so less dependence on imported high protein concentrate feeds
- Improved Carbon Footprint

Teagasc research

- Excellent research work on white clover at Solohead, Moorepark and Clonakilty
- Demonstrates how to use clover and overcome the challenges
- Nitrogen saving
- Excellent sward and animal performance

Slow adoption at farm level

Obstacles to adopting clover

- Bloat fear
- Fear of reduced spring yield for grazing
- Clover persistence
- Poor weed control tools for a clover swards
 - Post sowing spray options reducing
 - Established sward options are not reliable
- Cheap nitrogen
- Intensive farmers viewed it as unfashionable or uncool in the last 10 years

Grassland Legume challenge

- Get the research messages out to farmers
- Plant breeding needs to contribute to solutions for Spring Yield, Bloat, Persistence
- Weed control solutions

Above combined with Pull and Push motivation

Pull Factors

- Reduce cost
- Reduce fertiliser N
- Nitrogen fixation
- Lower Carbon footprint
- Less Ammonia and Nitrous Oxide Gas emissions
- Lower food miles
- Greater self sufficiency for animal feed on the farm
- Biodiversity & Environment benefits

Push

- Current
 - Nitrogen derogation farms limit on fertiliser N
 - Nitrogen derogation farms clover must be included in reseeding mixtures at 1.5kg/ha
 - Limits on Crude Protein content of concentrate feed
 - Fertiliser cost increase

- Potential Push Measures
 - All reseeding mixes to include clover
 - Obligation to overseed clover into swards
 - Further restrictions on concentrate feed protein content

Goldcrop Outlook

- We expect a significant increase in clover usage on farms driven by Pull and Push factors.
- The tide is turning
- High performing Teagasc bred varieties in Irish and UK official trials
 - Seed production is underway
- Fearga Red Clover on UK RL
 - Seed production almost at commercial seed stage

Arable Crop Legumes - comments

- Beans and Peas
- Unpredictable area sown risk in assembling seeds
- Spring sowing very weather dependent
- Wet weather disease issue Beans
- Peas lodging risk
- Inconsistent crop results for farmers

- Lack of spend on breeding of cropping legumes
- Very little breeding in our climate zone

Thanks for your attention