Driving Farm Innovation through Knowledge Transfer

Applying the learning from the Agricultural Innovation Support programme

What are the implications for agricultural extension?

Agriculture and Food Development Authority

Session 1: Challenges and Opportunities to improve farm management and productivity

Agriculture and Food Development Authority

MAgrSc Innovation Support Programme 2013-2015

Title: *Improving farmer engagement in herd health planning and biosecurity on beef farms through the BETTER farm programme*

Student: Teri Acheson

Supervisors: Prof. Alan Renwick (UCD)
Mr Adam Woods (Teagasc)

Office Location: Ballyhaise, Co. Cavan

Objectives

- Establish current uptake of bio-containment (BC) and herd health (HH) practices at farm level
- Explore the effectiveness of technology transfer through the BETTER farm programme
- Identify ways to improve uptake of main BC and HH practices
- Tailor make a method/model to improve knowledge transfer and thus provide recommendations to key stakeholders

Methodology

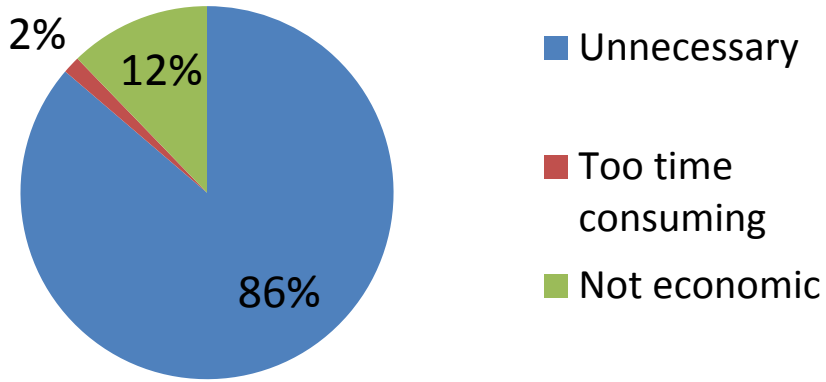
BETTER farm discussion groups	Non BETTER farm discussion groups
Study group	Control group
18 groups	18 groups
10 people selected (1 BETTER farm + 9 others)	10 people selected
Bio-containment and vaccination survey	
Vaccination protocol and Bio-containment practices	-
Final Survey (based on views of protocol)	-

Vaccinations

Main diseases vaccinated against (n=167)

Disease	No. (%)
Clostridial	113 (77)
Scour	81 (59)
Lepto	77 (55)
BVD	74 (55)

Reasons for not vaccinating



'Poor' skills at vaccinating

Booster vaccinations

Correct timing of vaccinations

Use of appropriate equipment

} Key to booklet development

Herd Health

BC practices

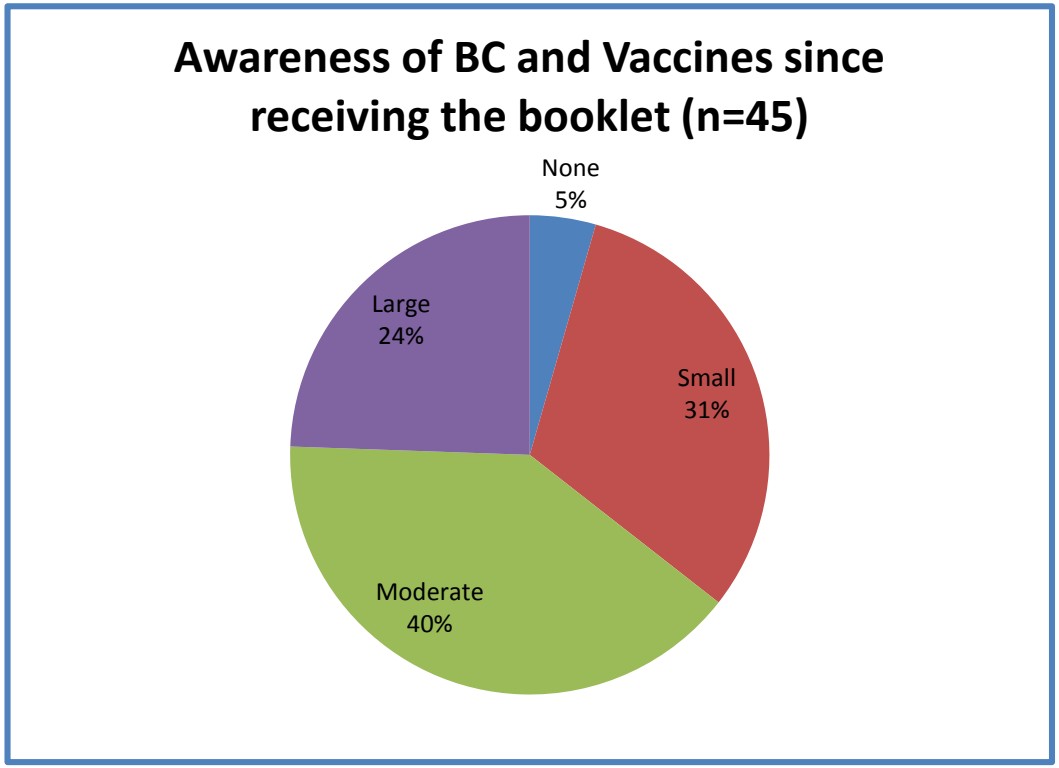
- 85% identified BC measures as important in preventing disease outbreak on farms
- An average of 18 BC practices per farm
- BC practices increased as farmers opinion on BC increased
- Highest opinion of:
  - Good hygiene
  - Buying from herds with high health status
  - Quick removal of dead animals
  - Stock proof boundaries

HH planning

- 63% of respondents had no HH plan in place
- Farmers with a HH plan vaccinated for
  - BVD
  - IBR
  - Lepto
- 58% felt it was useful to complete
- Only 40% of HH plans contain BC practice measures

Vaccination/BC booklet

- **77%** rated the booklet as a useful/very useful farm planning tool
- **32%** found the booklet simplified vaccinations and increased their understanding
- **82%** agreed it has changed their view and overall approach to herd health
- **35%** discussed HH plans with their vet after consulting the booklet



Conclusion

- No significant difference found between B and NB farm groups.
- There is a gap in the use of vaccinations as a control method - farmers aware of impact however a lack of implementation was found.
- Principle diseases vaccinated against include clostridial diseases, scour, BVD and lepto.
- Lack of clinical signs in herds prevented the use of vaccination.
- Vaccination skills were deemed adequate however this was self reported.
- Level of HH planning was very low
- The booklet improved the awareness level towards vaccination and BC while encouraging uptake.

Opportunities to improve Farm management and Productivity

Study title: An assessment of Irish sheep farmer's attitudes towards the use of genetically evaluated rams

Student: Sean Cooney

Supervisors: Dr. M. Gorman, M. Gottstein & Dr. A. G. Fahey

Background/Context

- This is a study of how farmers are influenced to change their behaviour using sheep farmers as a case study.
- The question that needs to be addressed is why sheep farmers are not adopting breeding technology.
- Results from the Teagasc BETTER Sheep Farm Programme indicate that progeny from genetically evaluated rams are 2.5kg heavier at weaning and reach slaughter 2 weeks earlier

Background/Context

- The Malone Report (2006) recommended the development of a sheep breeding database.
- Sheep Ireland established 2008 & collects data from:

(1) Pedigree ram breeders

(2) Non pedigree sheep flocks

(3) Central progeny test flocks (CPT)

(4) Maternal lamb producer group (MALP)

.

Background/Context

- Sheep Ireland use this data to generate The Star Rating Index.
- Index ranges from 1-5 with 5 being best performance
- DAFM launched The Sheep Technology Adoption Programme (S.T.A.P) (January 2013)

Objectives

1.Determine the factors that affect farmer's decisions to purchase genetically evaluated rams.

2. Determine the factors that affect farmer's decisions to continue purchasing genetically evaluated rams.

Methodology

- Structured Interview questionnaires administered to Pedigree ram breeders at Breed Society AGMs (n=80)

- Non pedigree sheep farmers were sampled at marts and Teagasc sheep Discussion groups (n=258)

Analysis

- Summary descriptive statistics of all variables were generated. (Statistical unit of analysis was at farm level.
- A multivariable logistic regression model was used to analyse the likelihood of an Irish sheep farmers purchase and continued purchase of a genetically evaluated ram using the maximum likelihood method of the LOGISTIC Procedure of SAS (SAS® version 9.3).

Analysis

- Model specification was based on the backward elimination method.
- The fit of all statistical models was evaluated using the Hosmer and Lemeshow goodness-of-fit test of SAS (Hosmer and Lemeshow, 2000) by including the lackfit option in the model statement.
- Variables (main effects or interation terms) that were significant by the Wald statistic at $P<.35$ were included in the model.

Factors influencing sheep farmer's decisions to purchase genetically evaluated rams

(1). Farmers that do not have sheep handling facilities (sheep race) are less likely to purchase genetically evaluated rams (OR = 0.38, 95% C.I = 0.22,0.68)

(2).Lowland sheep farmers are more likely to purchase a genetically evaluated ram

OR of 3.50 (95% C.I = 1.93, 6.32)

(3). Farmers who were unaware of the Sheep Ireland genetic star rating system were less likely to purchase a genetically evaluated ram (OR =0.16, 95% C.I 0.03-0.75)

(4).Non- pedigree sheep farmers were less likely to purchase genetically evaluated rams than pedigree sheep breeders. (OR 0.20, 95% C.I 0.11-0.39)

Factors influencing sheep farmers decisions to continue purchasing genetically evaluated rams

(1). Farmers who are unaware of the star rating index are less likely to continue purchasing genetically evaluated rams (OR = 0.17,95% CI= 0.04, 0.62)

(2). Lowland sheep farmers are more likely to continue purchasing genetically evaluated rams with an OR of 3.24 (95% C.I= 1.61,6.52)

(3). Farmers that did not have a spouse with off farm employment were less likely to continue purchasing a genetically evaluated ram with an

(OR= 0.36,95% C.I = 0.18,0.74)

Other key findings

- High level of awareness 93.13%.
- 40% had previously purchased a genetically evaluated ram.
- 83.95% were satisfied with the star rating index
- 72.68% of farmers declared that they wanted to receive more information on the indices.
- Farmers preferred source of information - Newspaper 53.4%.

Key findings from the literature

- Farmers guiding motive is not profit maximisation (vanclay,2004) (Garforth, 2010) (Gasson, 1973)
- The social context and value system are influencing factors e.g. lifestyle, prestige and community standing (Garforth,2010)
- Age, farm size, land type, marital status and education impact decision making (Garforth,2010)
- Farmers gather information from a variety of sources

  Garforth *et al*.,(2003) (Macken-Walsh *et al*.,2003)

- Farmers are aware of their role as peer educators and value honest discussion with other farmers and like to see innovations in operation on similar farms (Franz et al.,2012) (Macken-Walsh et al., 2012)

- Farmers use both explicit and tacit knowledge and reserve the right to use and take part in extension activities for a specific purpose only. (Vanclay,2004)

- The family farm situation may hinder or encourage adoption as may the stage in the life cycle that succession takes place. Macken-Walsh et al ., (2012)

Conclusion/Recommendations

- Farmers are in the contemplation or persuasion stage of the technology adoption process.
- Extend the STAP incentive to increase the population of genetically evaluated rams.
- Increased data collection from hill flocks.
- Link between genetically evaluated rams and financial gain be emphasised more by advisors.

Conclusion/Recommendations

- Final and most important recommendations for advisors working with farmers:

(1). Accept farmers current mind sets and work with them.

(2). Where there is resistance it must not be dismissed but accepted. (Mills et al.,2013)

Challenges and Opportunities to Improve Farm Management and Productivity

Study Title: Using the innovation-decision process to understand reasons for the low uptake of grass measurement technology on dairy farms

Student: Paul Newman

Supervisors: Deirdre O'Connor and Mark Moore

Office Location: Oak Park

Background

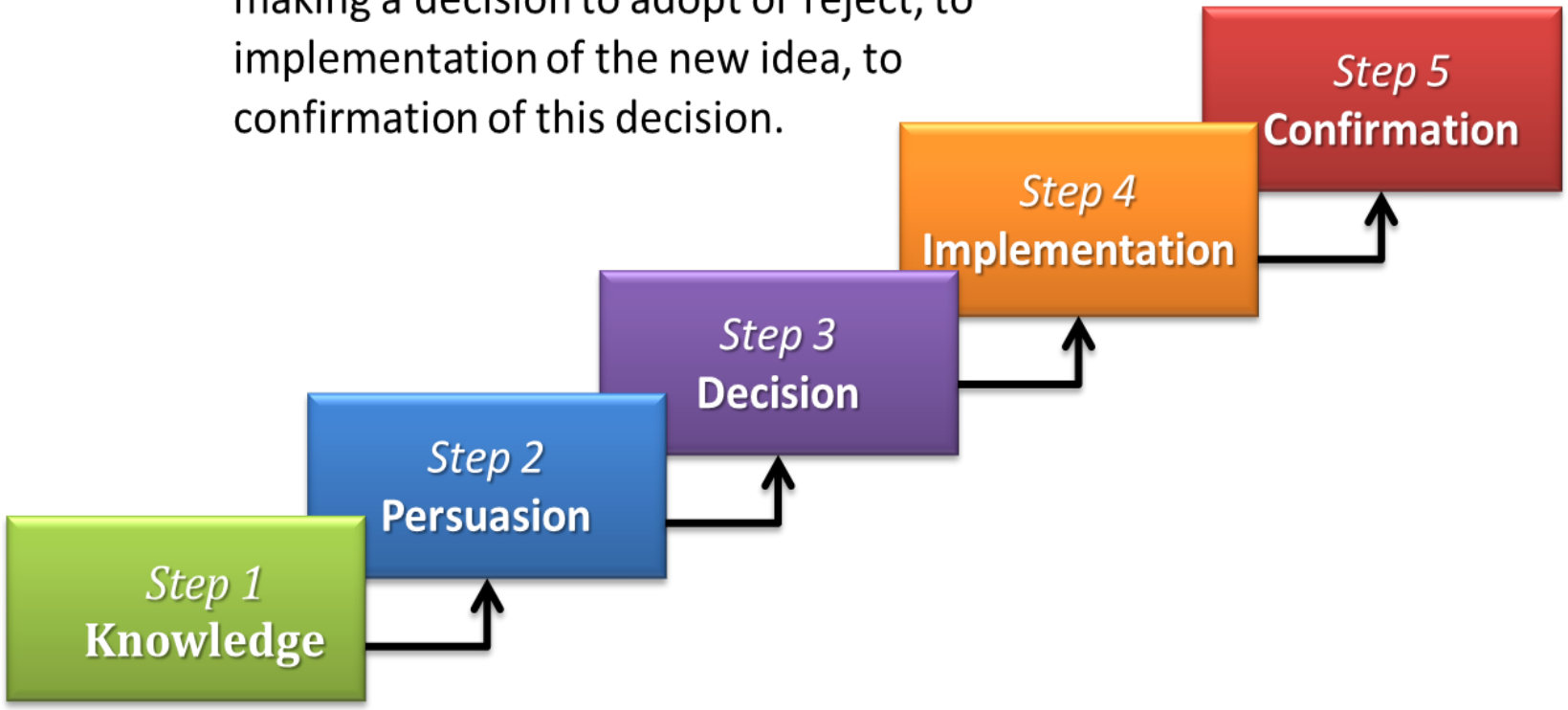
- Grass is the cheapest feed source
- Irish farms can grow up to 16 t DM/ha
- Grass utilised is variable – farms & regions
- Computer programmes available
- Low uptake of such programmes

My Research

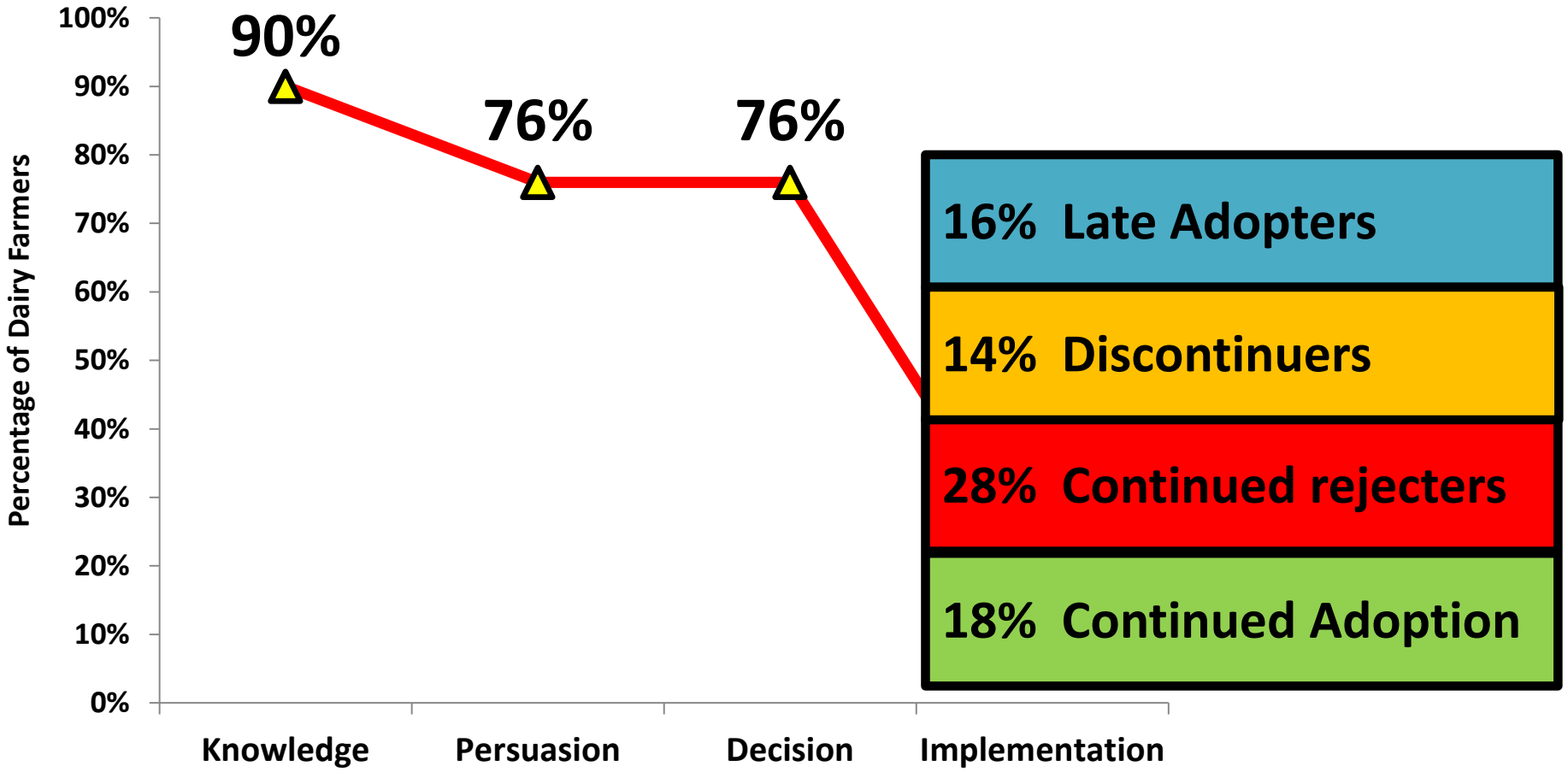
A study of Teagasc dairy farmers in County Carlow, to identify their stage within the innovation-decision process and to assess his/her reasons for adoption or non-adoption of grass measurement technology.

Innovation-Decision Process

The process by which an individual passes from gaining initial knowledge of an innovation, to forming an attitude towards the innovation, to making a decision to adopt or reject, to implementation of the new idea, to confirmation of this decision.



Distribution of Respondents in the Stages of the Innovation-Decision Process (N=50)



Reflections so Far

- 90% of dairy farmers indicated they had knowledge on grass measurement technology
- ***However,*** only 18% measure grass on a recognised grass budgeting programme
- More support must be provided to dairy farmers
- The formation of grassland discussion groups is one method to increase the adoption rate of grass measurement technology while also improving farmer skills and offering continued support


Thank you for listening

MAgrSc Innovation Support Programme 2013-2015

Study title: An Analysis of the Use of Financial Planning Tools by Dairy Farmers and Advisors

Student: John Greaney

Supervisors: Dr. Michael Wallace (UCD), Fintan Phelan (Teagasc)

Office location: Teagasc Office Fermoy, Co. Cork.

What am I hoping to achieve?

- Review/evaluate existing tools and approaches that are available to farmers and advisors
- Determine the extent to which financial planning tools are used to assist in the farmer's decision making process
- Examine attitudes of farmers and advisors towards business planning and determine the key influences, external sources of advice and intra-family responsibilities
- Make recommendations about the development of new modes and tools to assist advisors and farmers in preparing, reviewing and updating farm plans

Methodology

Questionnaire-Stratified Sampling

Cash Plan Programme- 2014. €1million

My Farm, My Plan

Rec. Monthly Cash Flow 2014

Prep. Monthly Cash Flow 2015

- 90 farmers (East Cork)
- 80 responses
- 55/25

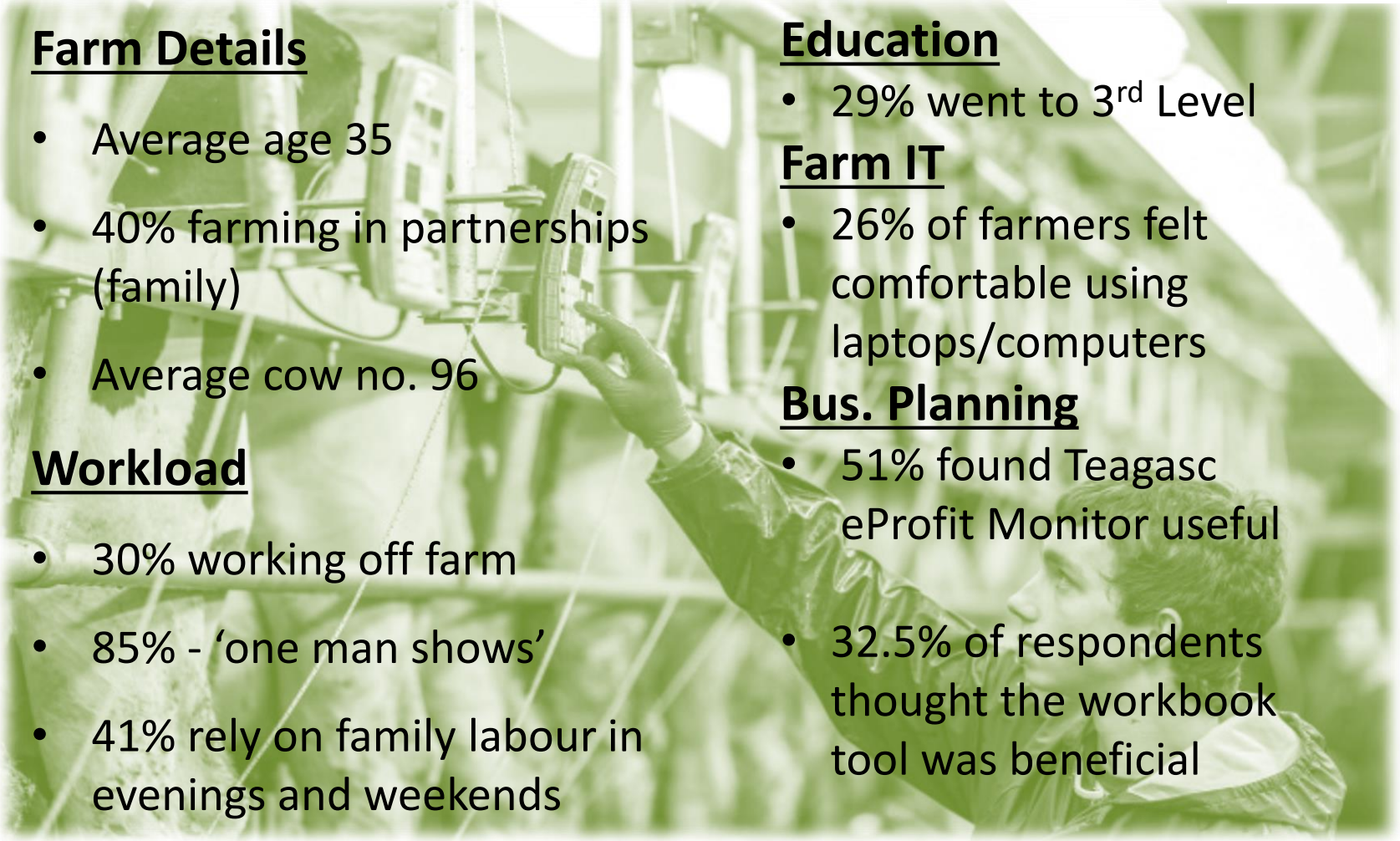
Interviews

Stakeholders-Banks, Processors Accountants, Feed Companies

Focus Group

Dairy Advisors

Findings to Date



Farm Details

- Average age 35
- 40% farming in partnerships (family)
- Average cow no. 96

Workload

- 30% working off farm
- 85% - 'one man shows'
- 41% rely on family labour in evenings and weekends

Education

- 29% went to 3rd Level

Farm IT

- 26% of farmers felt comfortable using laptops/computers

Bus. Planning

- 51% found Teagasc eProfit Monitor useful
- 32.5% of respondents thought the workbook tool was beneficial

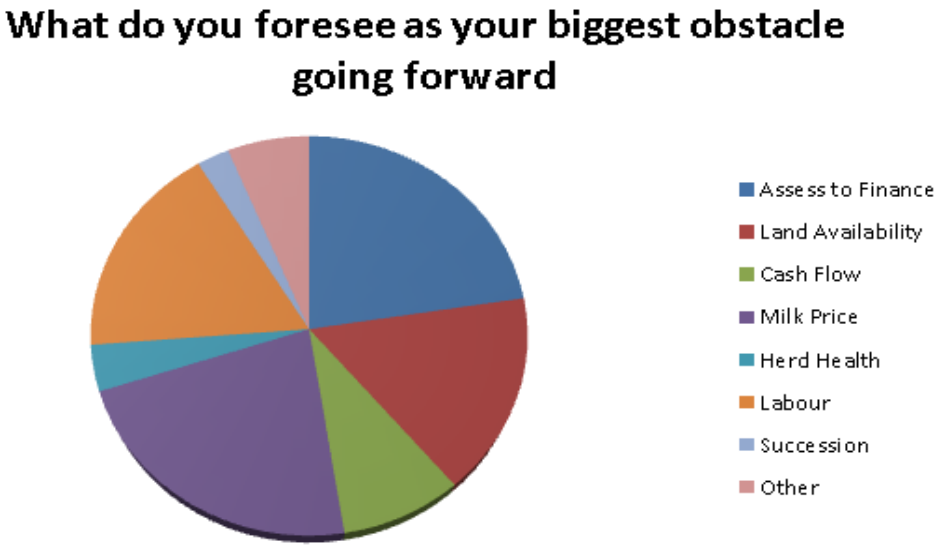
Findings to Date

Financial Management

- 46% of spouses keep farm records
- 50% have a farm office
- 80% calculate their costs of prod.
- 87% restructured debt over the last 5 years

Future Plans

- 58% intend on expanding
- Only 30% have a financial plan in place



Common New Entrant Pit Falls

- Not enough working capital to carry over ‘dry’ period
- Constant burden on cash flow
- Exceeding budgeted cost for investment in facilities
- Low output from heifers
- Higher disease as animals coming from numerous yards
- Higher empty rate

Conclusion

- 61% ‘benefitted’ from Cash Plan Programme
- 68% expressed interest in attending another course
- 31% of farmers interested willing to pay a fee

Next Steps

- Complete Lit. Review
- Further analysis of Data
- Key Informant interviews
- Focus group discussions
- Complete Write-up

Session 2: Can we categorise farmers towards a better meeting of their needs?

Agriculture and Food Development Authority

Developing a Targeted Marketing Tool Through Farmer Categorisation to Help Enhance the Efficiency of Knowledge Transfer

Zerlina Pratt

Kildalton College, Co. Kilkenny

Supervisors:

Dr Deirdre O'Connor

Mark Moore

Teagasc

Agriculture and Food Development Authority

UCD DUBLIN

Background/ Context

- Knowledge Transfer (KT) is of paramount importance to future productivity and sustainability in the agricultural sector
- Must improve efficiency of KT through areas such as targeted marketing to meet the requirements of the Food Harvest 2020
- Reduction in number of Teagasc agricultural advisors over recent years

➢ Remaining advisors have less time to deliver quality KT to farmers

Objectives

- To evaluate current farmer characteristics used in Client Relationship Management (CRM) systems in Teagasc

- To identify the most suitable characteristics that could be used in forming a categorisation tool of farmers in Teagasc

- To provide recommendations on the use and further development of a categorisation tool of farming clients in Teagasc

Methodology

- Review of current CRM systems in Teagasc
- Identification of 122 Teagasc clients in 8 Electoral Divisions (EDs) in Carlow
- **Identification of 7 independent variables**:

– client enterprise type, enterprise size, age, marital status, children, off-farm employment and discu involvement

- **Dependant variable** – Adopter (yes/no)
- 3 best practices chosen per enterprise

Methodology

- Interviews with 3 Teagasc advisors

- Characteristics of farmers that indicate their likeliness to adopt best practices

Key Findings

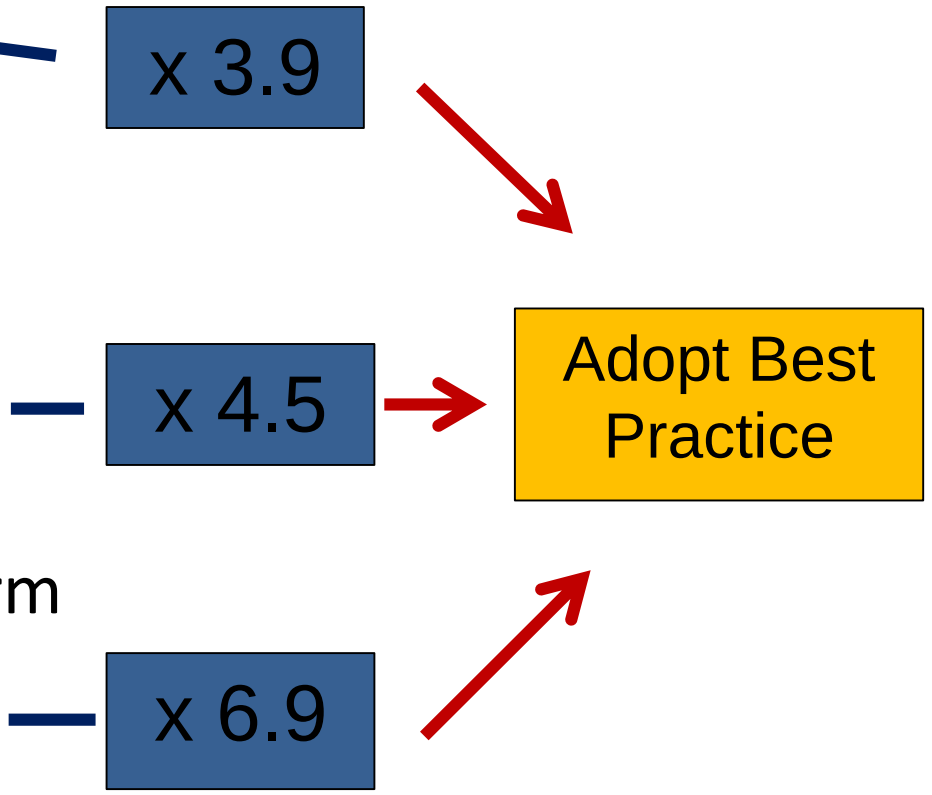
- Citrix system in Teagasc – basic farm details:

  - Farm Size
  - Teagasc Contract Type
  - Discussion Group Involvement

- * In some cases a number of these details were missing on
- individual client profiles

Key Findings

- In a Discussion Group



- >100ha Farm vs <32ha Farm

- Married vs Widowed/Divorced

Key Findings

- Presence of Children
- Age of Farmer
- Off-Farm Employment

- **No Association with**
- **Adoption of Best Practice**

Conclusion

- Number of characteristics identified as indicators of adoption of best practices by farmers
- This research project is the first of its kind to be piloted in Ireland
- Information on farmers was limited – caused problems when trying to develop a categorisation framework of farmers
- This research will be the basis of further study into the area of CRM development in Teagasc


Thank You

MAgrSc Innovation Support Programme 2013-2015

Study title: An assessment of the knowledge transfer (KT) supports required by high profitability dairy farms (HPDF).

Student: Eilish Burke.

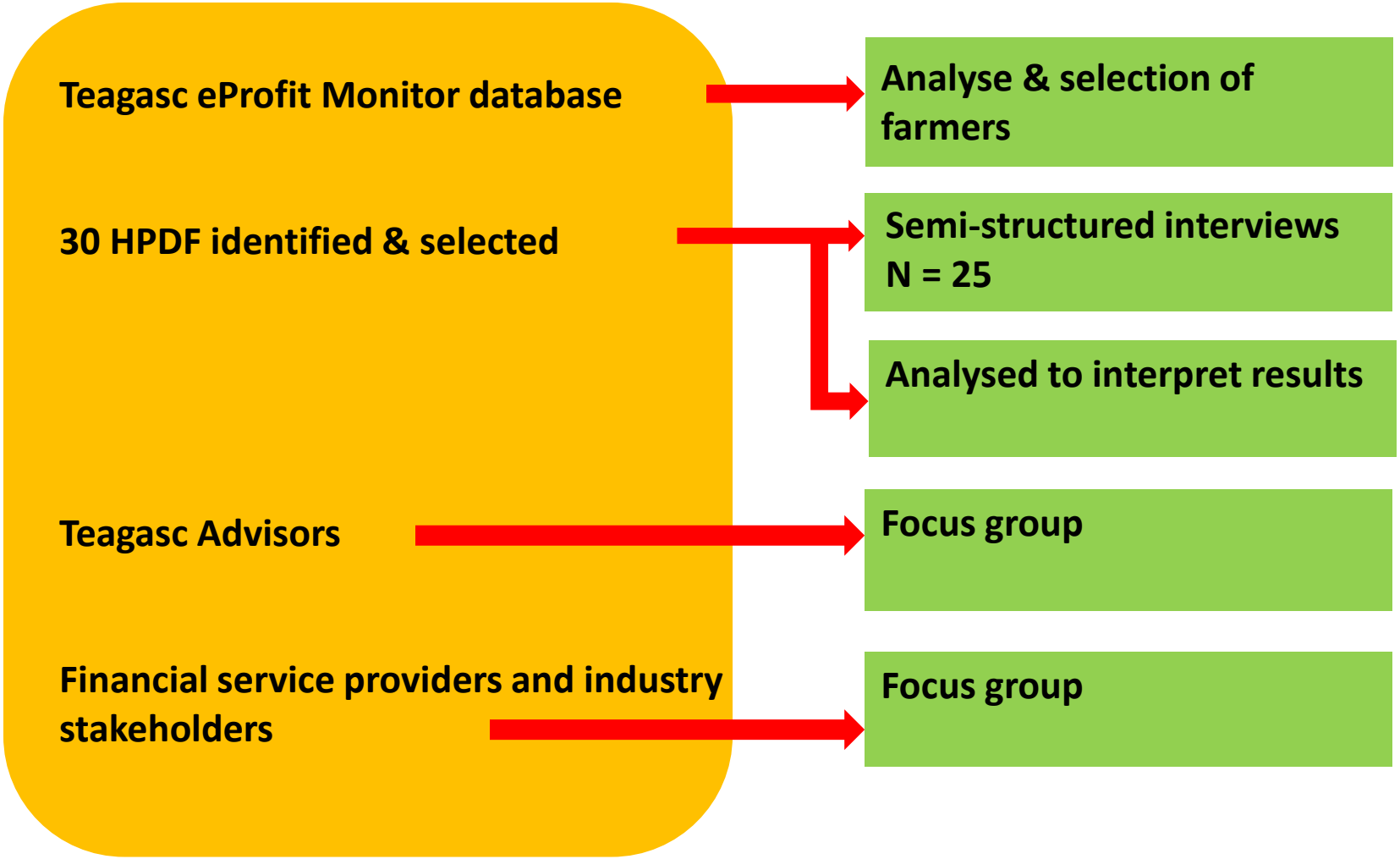
Supervisors: Dr. Monica Gorman (UCD), Dr. Karina Pierce (UCD) & Mr. John Maher (Teagasc).

Office location: Teagasc Office Mallow, Co. Cork.

Objectives of the Study

- To determine why HPDF are so profitable
  - Technical
  - Financial
  - Social
- How HPDF use the AKIS
- Clear understanding of priority KT needs of HPDF
- Recommendations for Teagasc and the wider industry for this group of farmers

Methodology



Findings

Study location: National

Time frame: 2009 - 2013

	HPDF Ave		ePM Ave
Net Profit (c/Litre)	19.82c/l	8.18c/l	11.64c/l
Net Profit (€/Dairy Ha)	€2914/Ha	€1658	€1256/Ha
Yield (Kgs MS/cow)	446		385
Cow No.	96		89
Stocking Rate (LU/Ha)	2.5		2.09

N=30

Key Supports & Tools

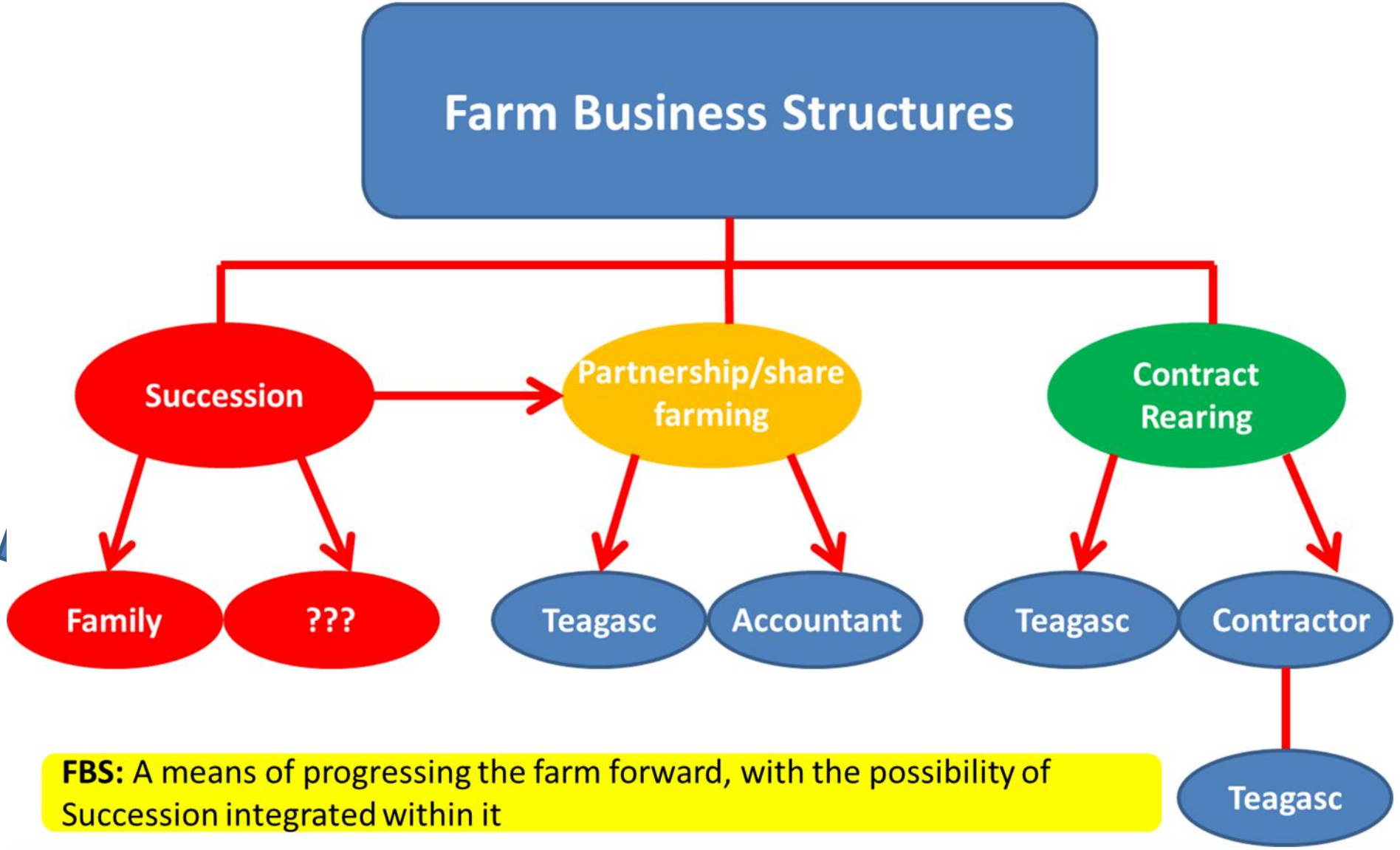
Supports

1. Discussion Group
2. Family support
3. Teagasc

Tools

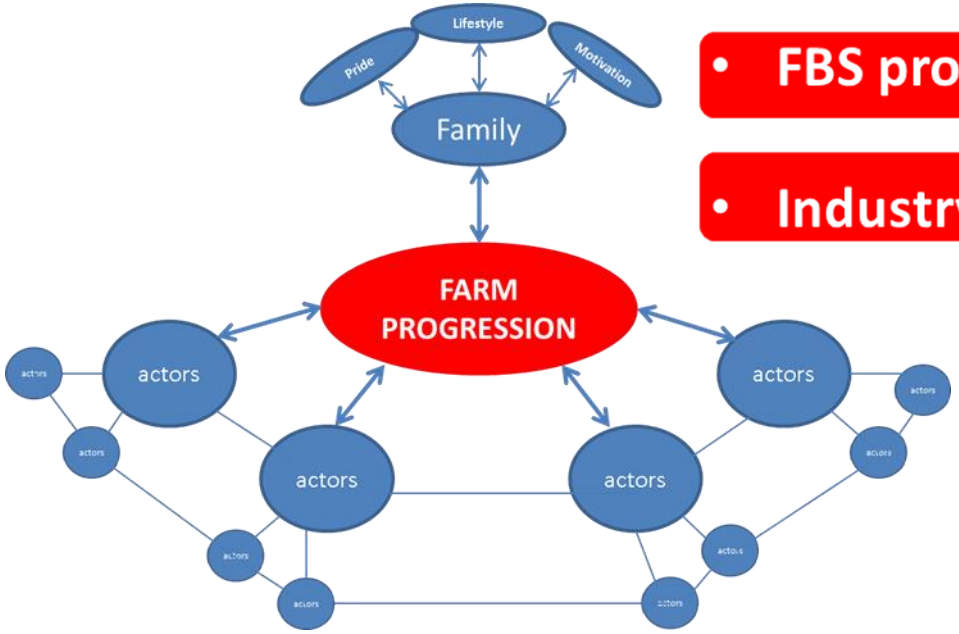
1. eProfit Monitor
2. ICBF information systems
3. Grass recording programmes
4. AI usage
5. Grazing plan
6. Breeding plan

Conclusion



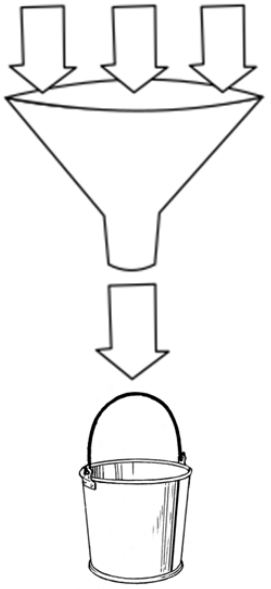
FBS: A means of progressing the farm forward, with the possibility of Succession integrated within it

Recommendations



- **FBS programme**
- **Industry collaboration**

INDUSTRY STAKEHOLDERS



KT needs

- **Further consultation with HPDF** prior to any development of KT tools & supports
- **This study is being continued to further investigate/develop KT tools & supports required by HPDF**

Can we categorise farmers towards a better meeting of their needs?

The influence of knowledge transfer uptake on the profitability of beef farms and the knowledge transfer requirements of beef farms with varying levels of profitability

James Dunne[12], Pearse Kelly[3], Bridget Lynch[2],

Teagasc Advisory Office, Mellows Campus, Athenry, Co. Galway [1]

School of Agriculture and Food Science UCD, Belfield, Dublin 4 [2]

Teagasc Grange, Dunsany, Co. Meath [3]

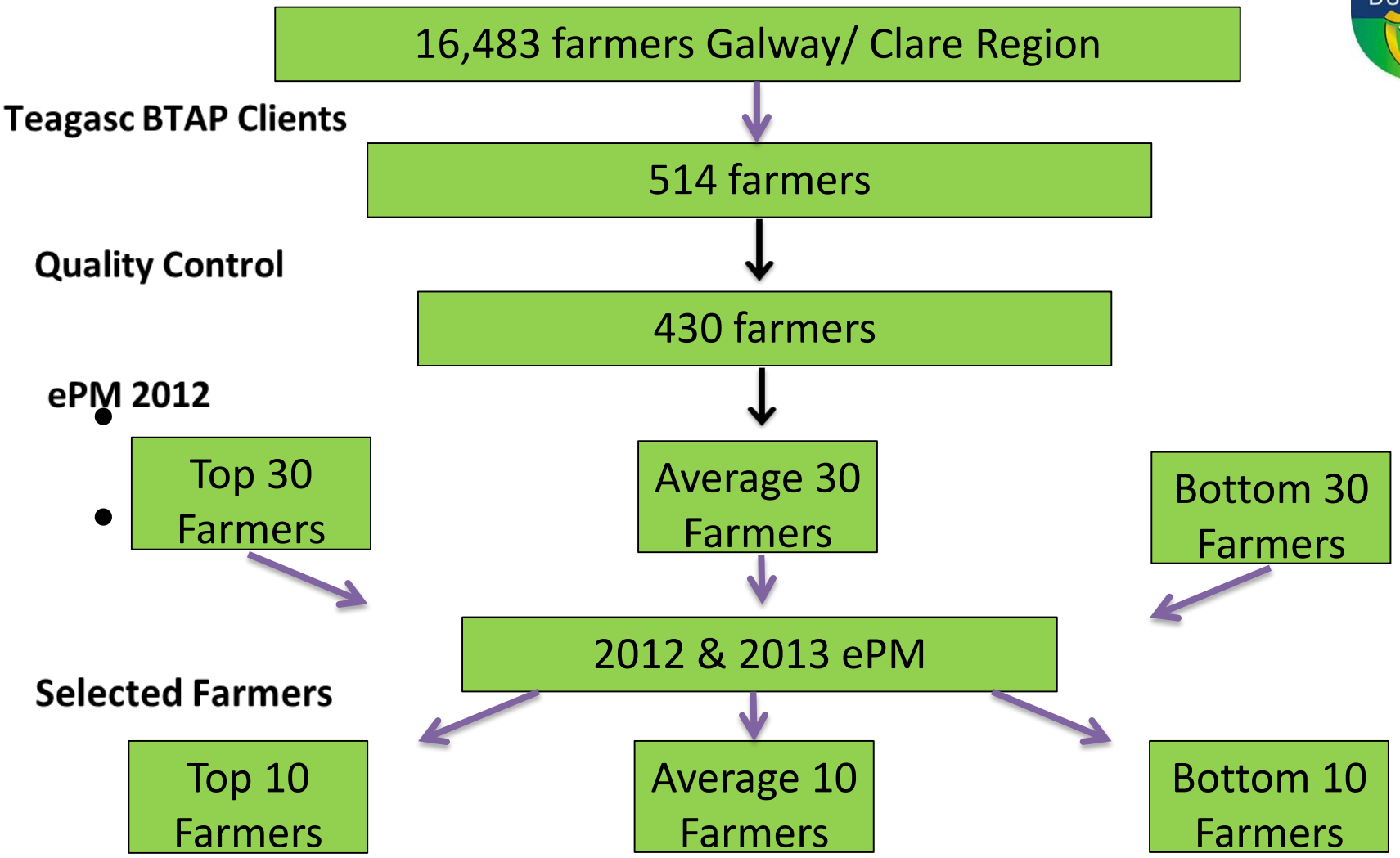
Study Rationale

- 100,000 herds involved in beef farming nationally (CSO, 2012)
- Irish beef sector accounts for 30% of value of Irish agricultural outputs (Bord Bia, 2015)
- Proportion of economically viable dry stock farms remains low, at about 15% and 22% for cattle rearing farms and non breeding farms respectively (NFS, 2015)
- Huge variability in the level of profits made from beef farming (Teagasc, 2015)

Study Objectives

1. Identify the current economic performance levels on Galway/Clare beef farms and distinguish why performance on these beef farms varies
2. Identify the relationship between KT uptake and overall profitability of the enterprise
3. Identify farmer's attitudes towards change and adoption of new practices and what have been the barriers in adopting new practices in the past
4. Determine across differing farm profitability's what farmers feel they require to progress and what KT/innovation practices they would be willing to implement

Methodology



Methodology

- Final study sample of 30 farmers
  - ✓ Rendered from 2012 and 2013 ePM analysis
  - ✓ 10 in each performance category (top, average, bottom)
- One to one survey with each farmer in the study sample
  - ✓ Ensures higher quality data

Study Findings

eProfit Montior Data 2012 & 2013

	Farmer Profitability Category (Av. 2012 & 2013 ePM)			
	Top 10	Average 10	Bottom 10	Top v Bottom
Stocking Rate LU/ha	1.66	1.23	1.11	+ 0.58
Gross Output €/ha	1513	761	554	+ 959
Total Variable Costs €/ha	696	552	745	- 49
Liveweight (kg LW/ha)	624	371	261	+ 363
Gross Margin €/ha	817	208	-191	+ 1008

Study Findings

- The number of good farming practices completed on farm are higher as you move from the bottom 10% through to the top 10% category.
  - Showing a direct relationship between KT uptake and profitability.

- The main limitations in the adoption of new practices differed greatly within each group;
  - **Top 10% category:** land availability and farm infrastructure
  - **Bottom 10% category:** motivation and lack of profitability

- Farmers have identified extension priorities they feel they need to improve profitability;
- - A separate KT model for each category of farmer
- - More one to one contact with advisors
- - Continuation of beef BETTER Farm Programme

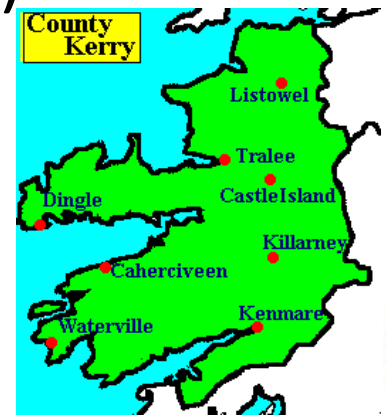
THANK YOU

Can we categorise Farmers towards a better meeting of their needs?

Study title: Categorisation of Hard-to-Reach Dairy Farmers in Kerry with regards Soil Fertility in terms of their Views and Knowledge towards engaging with Knowledge Transfer Services

Student: Oisín Coakley

Supervisors: Tom O'Dwyer (Teagasc)
& Doris Laepple (UCD)



Research Objective

Categorise HTRDF's in Co. Kerry in relation to engagement in soil fertility practices (SFP)

- *What is meant by a hard-to-reach (HTR) farmer in terms of soil fertility from the point of view of the adviser*

- *Identifying characteristics of these farmers to allow advisers to familiarise themselves with the views, knowledge & wants of HTR farmers*

- *Current sources of information and how to efficiently reach these farmers through appropriate channels*

How the study identified the hard-to-reach (HTR) farmer

- Firstly, developed categories of HTR

Category	Category	Category	Category
1	2	3	4
Hard-to-reach (HTR)	Somewhat HTR	Partially Reached	Reached

- Advisers categorised own clients into each category
  - Categorised abiding by a set of criteria and guidelines
    - 3 main categorising guidelines (best-fit approach)
      - Contact with adviser on soil fertility
      - Soil sampling strategy if any at all
      - Discussion group membership

- Advisers & Industry identified Non-client farmers whom they believed to be HTR

How to identify their needs

- In-depth qualitative interview of 15 farmers (HTR from the adviser point of view)

Examining views and knowledge of; Teagasc, SF & Key SFP's, Familiarity with campaigns, Current sources & trust in external info,

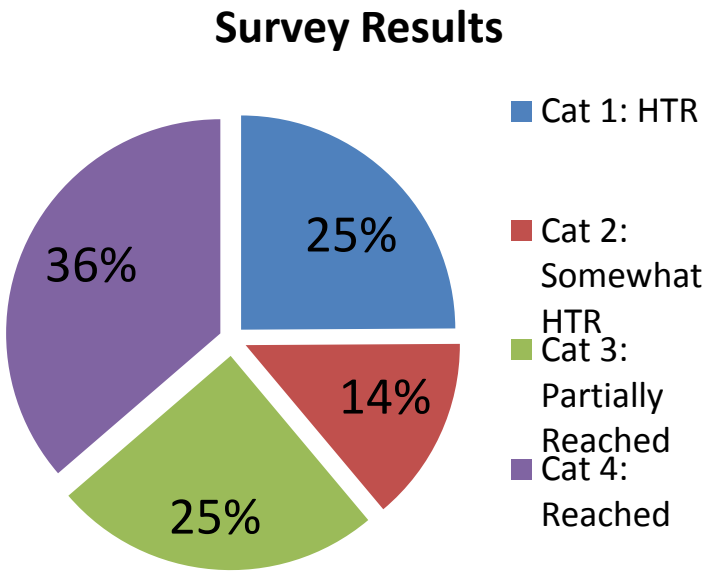
On 1st contact approx. 1/2 farmers agreeing to participate in the research

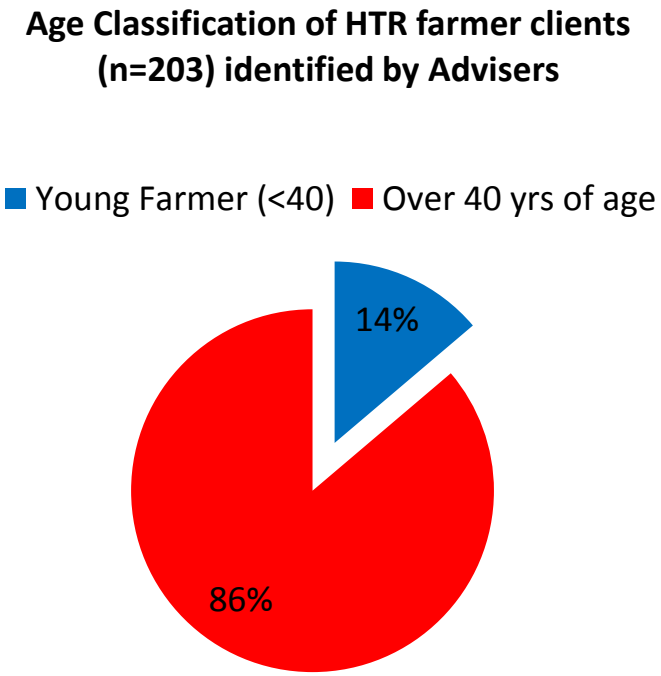
-Are some of these still reachable even though they will not participate?

Can we categorise Farmers towards a better meeting of their needs?

- **Accompanying the adviser survey was:**

A list of each advisers clients, DG status, any soil-samples with Teagasc in last 5 years





Preliminary findings:

- Adviser: *"if you'd asked me this bout 4 or 5 years ago I would've a-lot more lads for you, but between the joint programme with Kerry which is always encouraging soil sampling & fertility improvements & various events we've had, am, we have reduced the number of those eligible for the category HTR to you"*

- HTRDF's: mostly very well versed in how to improve soil fertility e.g. soil sampling, liming, compound fertiliser (Don't assume these farmers are not savvy, but they indicate a clear preference for specific technical information to come from an approved adviser or expert opinion)

- *"It's not financially viable"* to invest money in my farm's soil

Current sources of information - how to efficiently reach this diverse group

- **Soil Fertility** seen by HTRDF's as very important to their farm business-

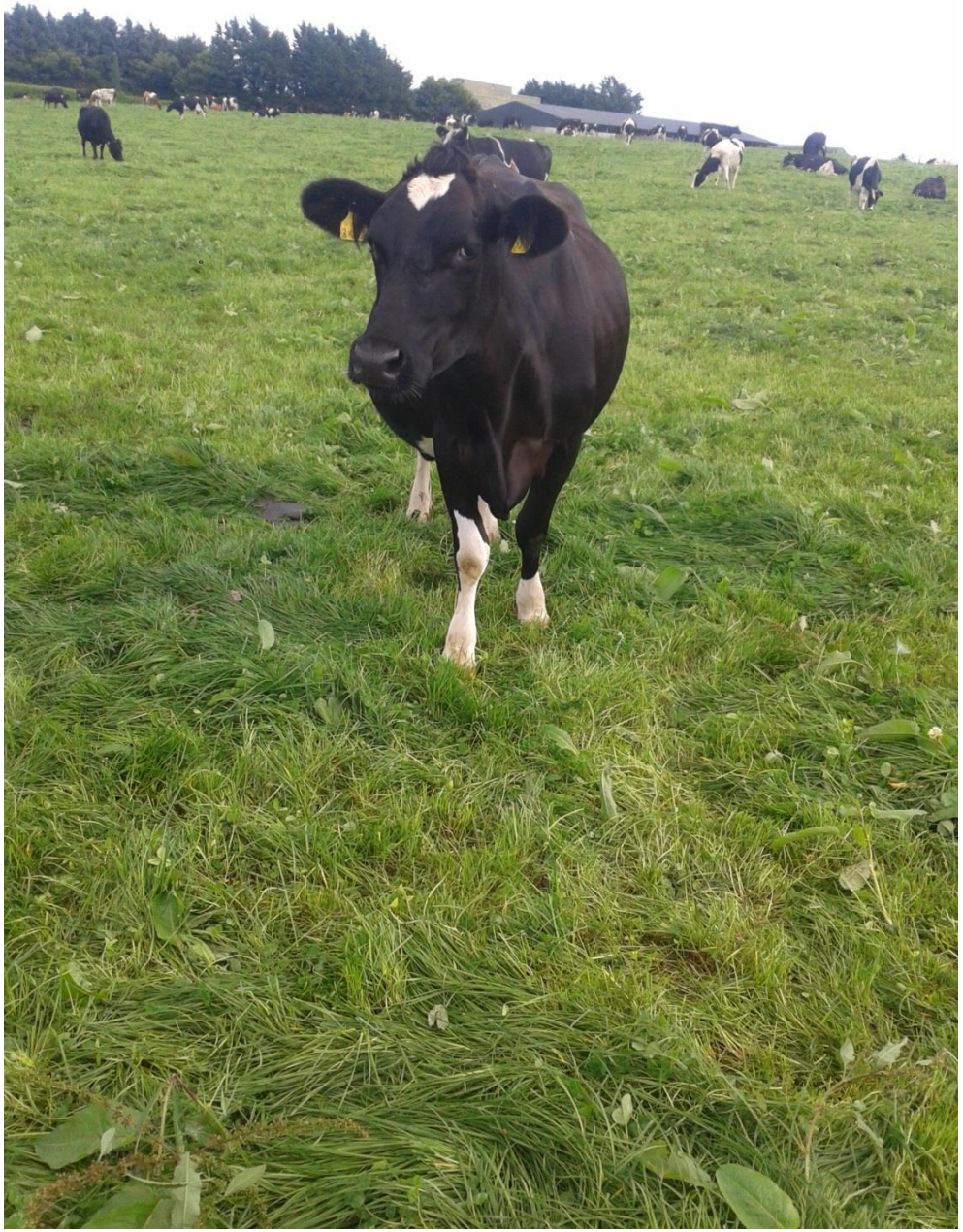
  "ya I mean I see about it in the Journal every week… or anything that comes through the door, it's (soil fertility) very much central to the whole farms capability"

- Barriers: Poor soil (low agronomic potential) & weather conditions, ownership/lease issues, lack of finance or too much stress already

- Initiative to conduct soil analysis in conjunction with **Kerry-Agribusiness** viewed positively – Campaigns can be as successful elsewhere

- Some previously in DG's - not as "*vocal*" or "*confident*" as others in group – preference to attend **public events** or settings which involve less exposure of their individual circumstances to their peers e.g. **workshops**

Any questions or comments?



Can we categorise Farmers to better meet their KT needs?

•**Study title: An exploratory study of engagement between Teagasc Advisory Services and 'Hard to Reach' Dairy Farmers in Co. Limerick in the adoption of specific technologies**

•**Student:**

•**Conor Kavanagh**

•**Supervisors:**

•**Dr Jim Kinsella UCD**

•**Dr Tom O' Dwyer Teagasc**

•**Office location:**

•**Kilmallock, Co. Limerick**

Aims & Objectives of Research

•The study aims to understand why hard to reach (HTR) dairy farmers in Limerick do not use certain available farm advisory services; and to test a new knowledge transfer intervention which can increase their engagement with the advisory services.

• Objectives:

1. **Why HTR dairy farmers in Limerick use little or no farm advisory services?**
2. **What are HTR dairy farmers' advisory service needs and their opinion of the different advisory technologies?**
- **3. How extension methods can increase the uptake of advisory support by HTR farmers?**

.

Criteria for selection of HTR farmers

–HTR dairy farmers were identified by Dairy Advisors in Co. Limerick based on their existing clients level of engagement, and use of advisory services in 2015. The criteria for selection were:

–1. Actively milking cows in 2015

–2. Not in a dairy discussion group

–3. Not attend more than 2 dairy related events/ year

–4. Limited contact with Adviser e.g. BPS or NMP only

–5. Not using certain Teagasc-promoted technologies

–e.g. Profit Monitors

How I am researching it

1. **Review of literature on hard to reach groups and low engagement with extension services**
2. **Advisors' Survey (6) to identify HTR farmers - Total dairy farming clients 810, Clients classed as HTR 283**
3. **HTR Farmers (100) Survey to identify possible KT interventions and farmers willing to trial them**
4. **Focus groups (2) of HTR Farmers to trial KT intervention(s)**

Findings to date

•Distribution of HTR Farmers by self-rated performance in key areas of farm management (n=100)

Performance	Financial Management	Grassland Management	Stock Management	People Management
Very Poor	2	0	0	0
Poor	26	7	2	3
Adequate	53	36	31	36
Good	19	53	63	56
Very Good	0	4	4	5

- **Financial management skills - farmers felt they performed poorest at this (81% of farmers felt they were just adequate or below for financial management competencies)**

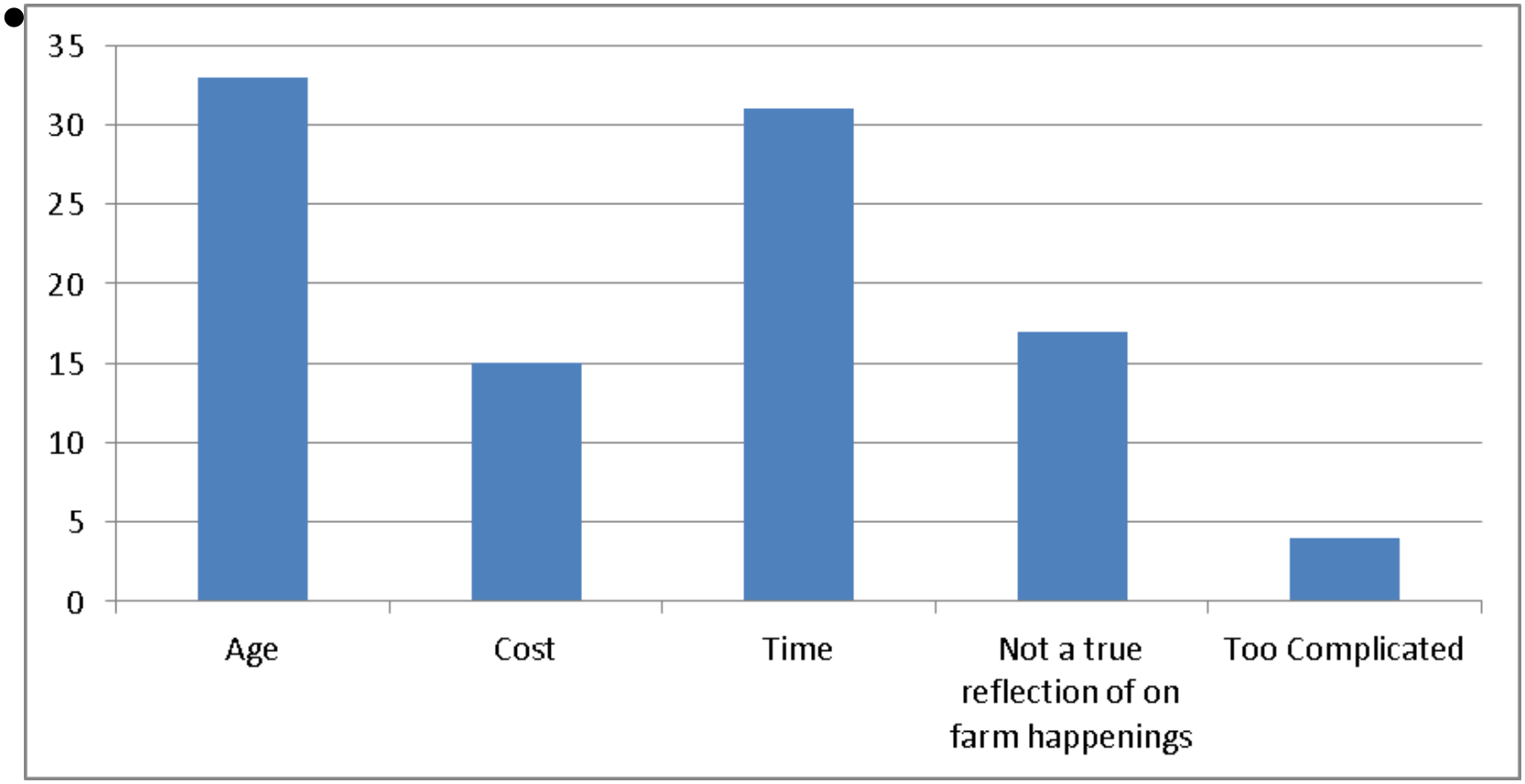
Findings to date

•**Distribution of HTR Farmers by their self-rated level of improvement in key areas of farm management (n=100)**

Level of Improvement	Financial Management	Grassland Management	Stock Management	People Management
0-No Improvement	18	43	56	68
1-Needs most improvement	56	26	15	3
2- Second most improvement	23	22	16	16
3- Third most improvement	2	9	11	7
4- Fourth most improvement	1	0	2	5

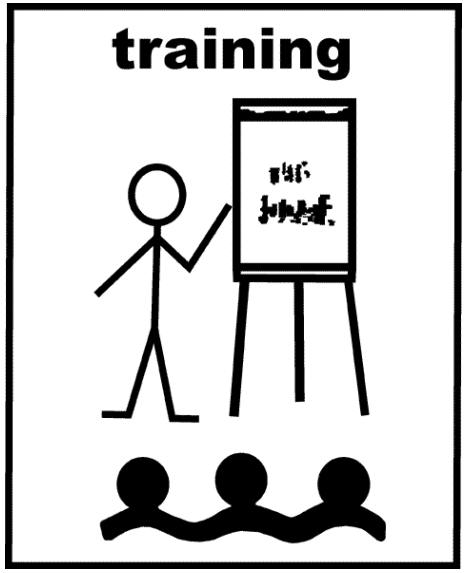
•**Financial management was area in which farmers indicated they wanted to improve most in (56% said 'most important')**

Reasons given by farmers for lack of uptake of advisory technologies (% farmers)



Conclusions and Recommendations

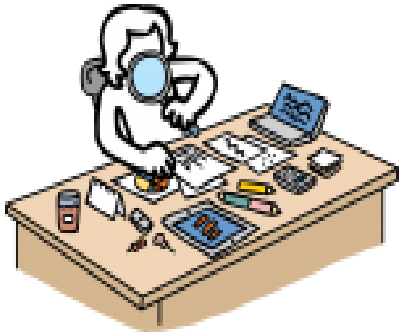
- **30% farmers interested in increasing their engagement with Teagasc**
- **• Age was key reason for lack of engagement - potential for more services to support decisions on succession**
- **• Time was a second key reason behind lack of engagement - advisors to encourage farmers to join discussion groups**
- **• The use of workshops and/or training days for knowledge transfer could be suitable for the 30% of HTR farmers willing to engage**



Next steps?

- **Further data analysis**

- **Planning, delivery and assessment of training intervention**



Can we categorise farmers towards a better meeting of their needs?

Study title: *"Categorisation of hard to reach drystock farmers according to their aspirations, intentions and motivations"*

Student: Tom Deane

Supervisors: Dr. Karen Keaveney (UCD), Aidan Murray (Teagasc)

Office location: Castlerea, Co. Roscommon

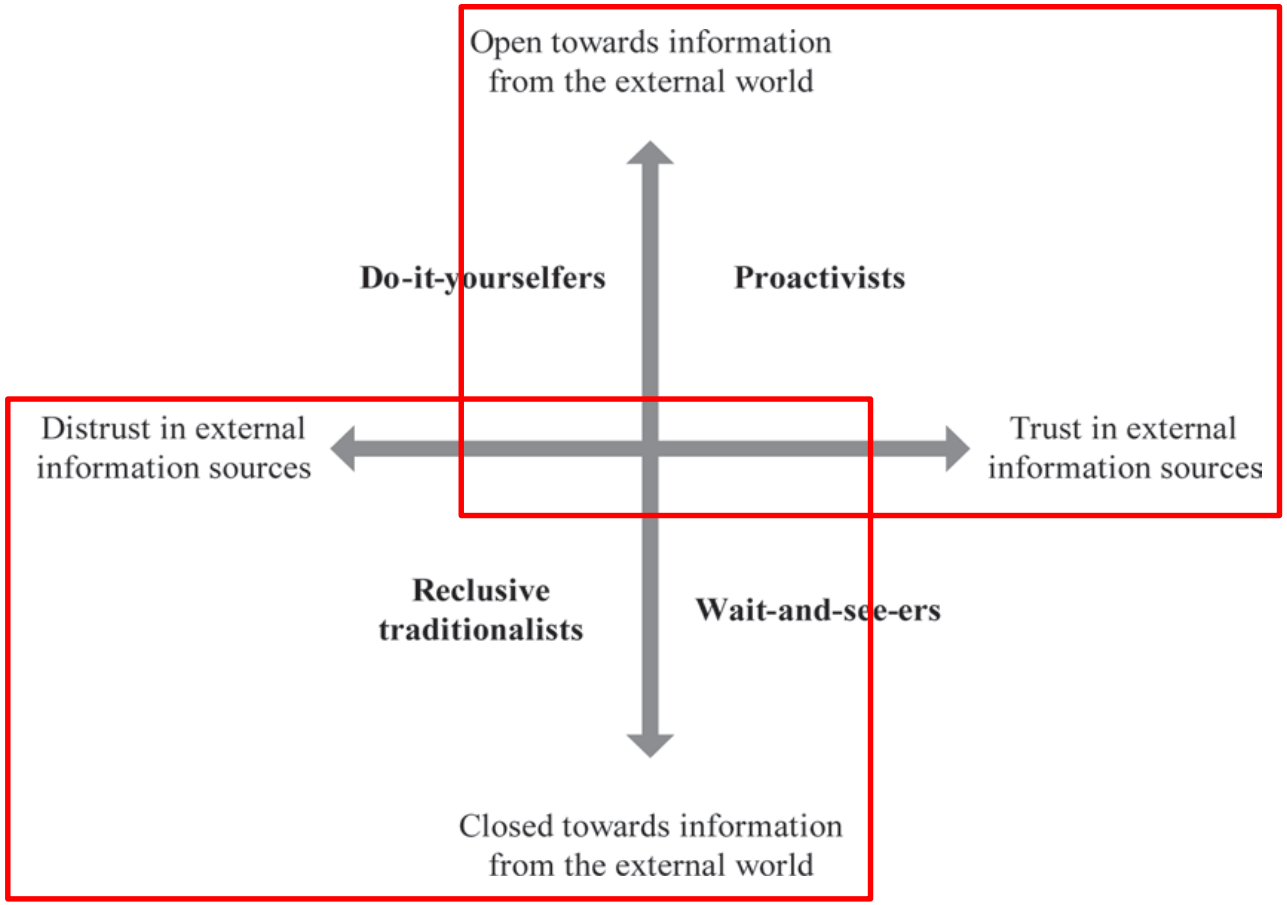
Research project outline

- Based in Roscommon and Longford region
- Includes research on hard to reach drystock farmers

Roscommon/Longford Advisory Region

Why categorise hard to reach drystock farmers?

- Effective dissemination of KT requires the different types of HTR farmer to be targeted in a different manner



(Jansen et al., 2010)

Hard to reach farmers

- Hard to reach with potentially useful information (Jansen et al., 2010)
- Mainly interested in scheme work
- Some can be reluctant to change: ‘entrenched in their own ways’
- Little desire to seek out & utilise technical info
- Sceptical towards usefulness & accuracy of information available
- Contact made but does not utilise information

Findings to date

- Large variation amongst farmers and the information sources they utilise
  - Some rely exclusively on their advisors for information
- Many farmers rely solely on farming publications & ‘word of mouth’ for technical information
- Certain farmers are focussed on the situation on their farm only
  - They are closed to external information
- Only 20% of HTR farmers completed the ‘Green Cert’
- Many farmers willing to engage more with advisory services but are unaware of how they can

How to reach the hard to reach?

- Different categories of HTR farmer need to be targeted in different ways
- Progressive HTR farmers can be effectively targeted via the internet and newsletters
- Some are slightly more reserved and can be effectively targeted via open days and demonstrations
  - Most HTR farmers in this category are prepared to make changes to their farming operation
- Many HTR farmers are reluctant to change due to 'traditionalist' values and are difficult to communicate with via indirect methods of contact
  - One-to-one advice is most beneficial for this category

Thank you for your attention

Can we categorise farmers towards a better meeting of their needs?

Study title: Review of advisory tools and methodologies to engage with 'hard to reach' drystock farmers

Student: Joanne Masterson

Supervisors: Dr. Bridget Lynch UCD and
Mr. James Keane, Teagasc, Leitrim

Office location: Longford

Research objectives

- How can advisory services engage with ‘hard to reach’ drystock farmers?
- Teagasc provide knowledge transfer programmes – are they engaging with this group of farmers?
- Where are ‘hard to reach’ drystock farmers sourcing information on specific farm topics and which technologies are they adopting on their farms?
- What impact is the BETTER Farm Programme having in a local area

Implementation

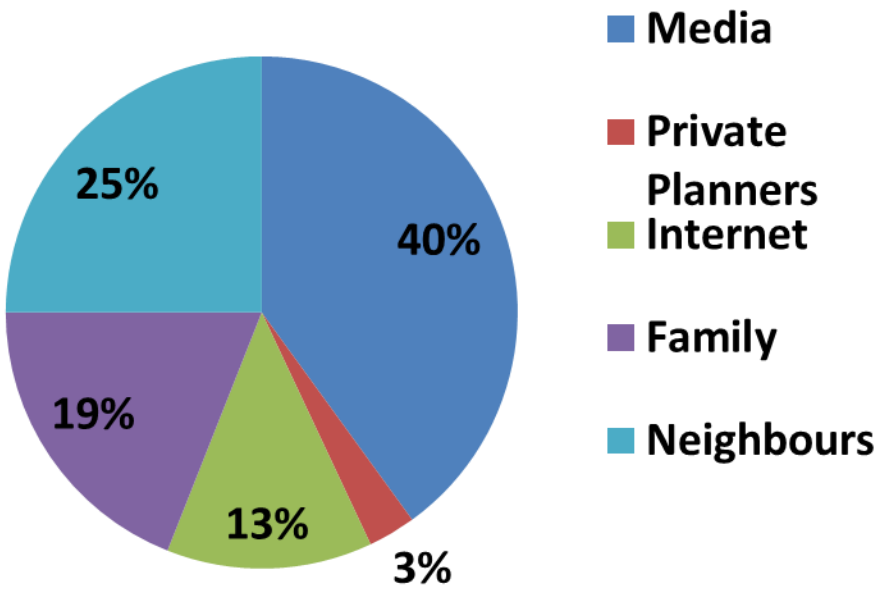
Study population and sample:

- Specialist beef and sheep farms in the Longford/Roscommon Region
- Targeting Teagasc 'club contract' clients as "hard to reach"
- Sample size 1,480 club contract clients in region – 73 specialist sheep, 1091 beef
- For survey – 35 sheep farmers and 65 beef farmers sampled
- Interviews – 30 interviews – Discussion group involved with Beef BETTER Farm (15) and Sheep BETTER Farm (15) – were once 'hard to reach'
- Focus group – Advisors in region

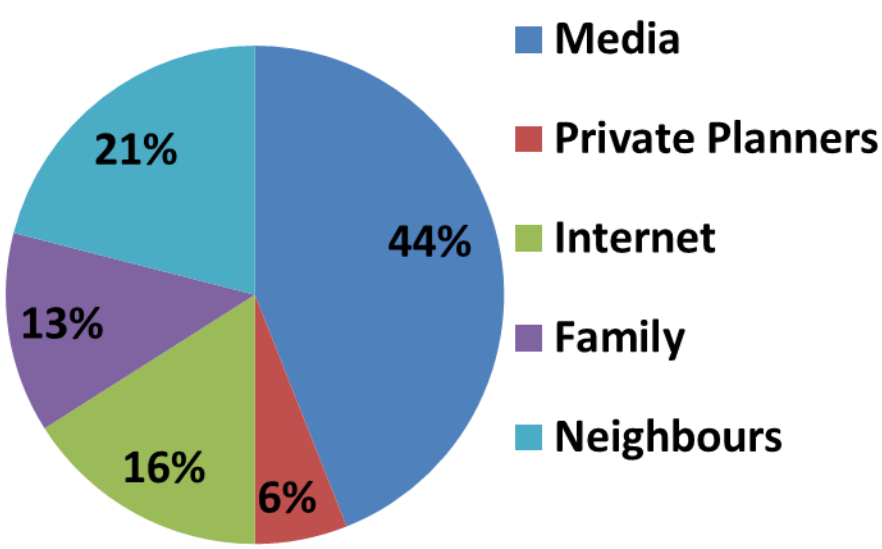
Key Findings

Source of information on farm topics

- **Sheep farmers**

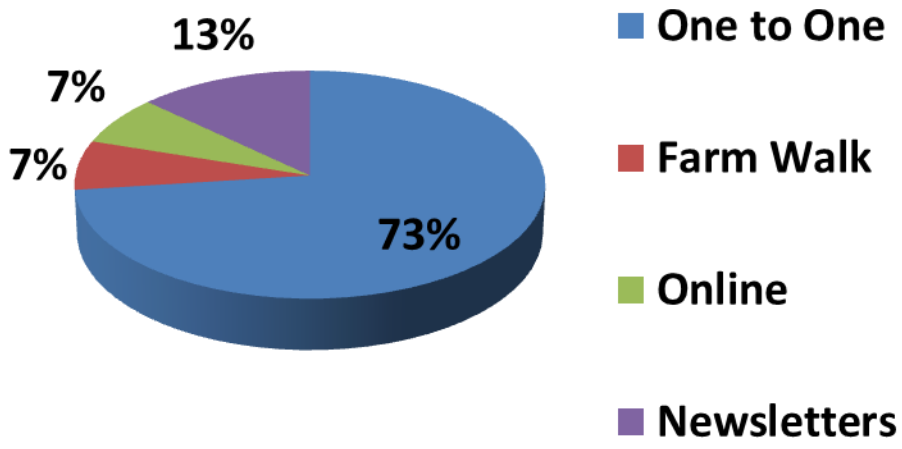


- **Beef farmers**

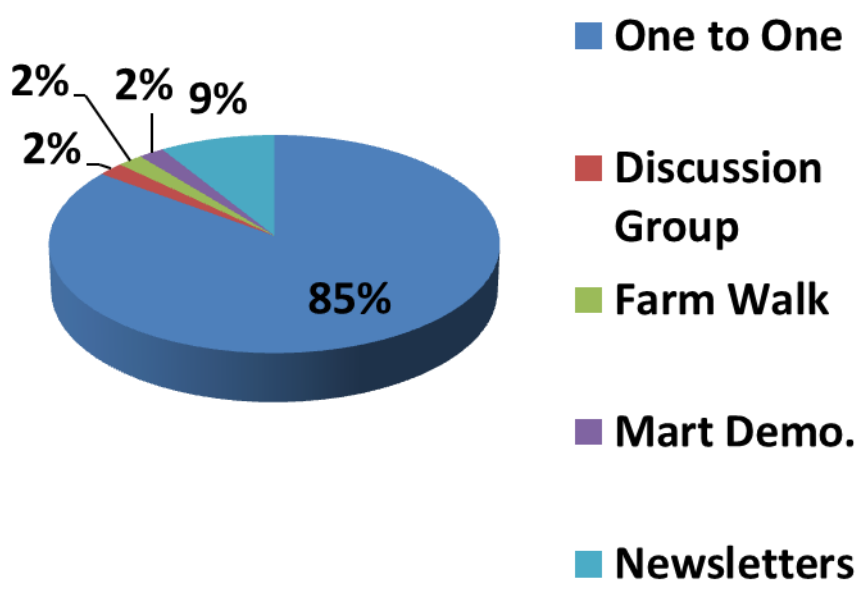


Preferred method of learning

Sheep



Beef



Impact of BETTER Farm in Local Area

- **Impact on Discussion Group members**

Contact with Teagasc - "None, No, I used to do it myself, no I had no contract with them at all , I suppose my father would have been old fashioned enough he wouldn't have been, he'd be set in his ways, he wouldn't go to Teagasc. He'd think some of the stuff I'd be at would be mad, but that would be…(pause) it would've been the best thing I've ever done, I'd say if I didn't join Teagasc I wouldn't have done anything like I'd be still losing money at it."

Influence in the area – "he always opened up the farm and he never hid anything, he always tells you straight. I'd have often rang him, you know when I was going reseeding or buying heifers and that, I'd have rang him for advice, and he was always open, he'd be a big help, you can benchmark yourself off him, and if he has failing or if he has things that he's not happy with he wont hide them, he'll tell the group and you can learn from him."

Implications of study

- Awareness of Teagasc services – some services have more awareness than others – e-Profit Monitor less awareness
- Media and neighbours have an influence on where farmers source information
- Discussion Group method of learning is less popular with this study population, one to one method most popular

Interviews:

- Advisor has an influence on farmers – pushes farmers on
- Impact of BETTER farm in local area – positive in particular for reseeding and drainage practices
- Farmers benchmark themselves against BETTER Farm

Thank you

Session 3: Can we reach out more effectively to the broader population of farmers?

Agriculture and Food Development Authority

MAgrSc Innovation Support Programme

The Use of Local Radio and Podcasts in Knowledge Transfer

- Owen Keogh
- Monica Gorman, UCD
- Pat Clarke, Teagasc
- Ballina, Co.Mayo

Good Farming Radio

Table 6: Criteria for Good Farming Radio Slots (n=10)

1	Know your audience	**6**	Interviewees
2	Layout and structure	**7**	Strong introduction
3	Variation/diversity	**8**	Voice/tone/pace
4	Preparation	**9**	Linking
5	Information	**10**	Follow on engagement

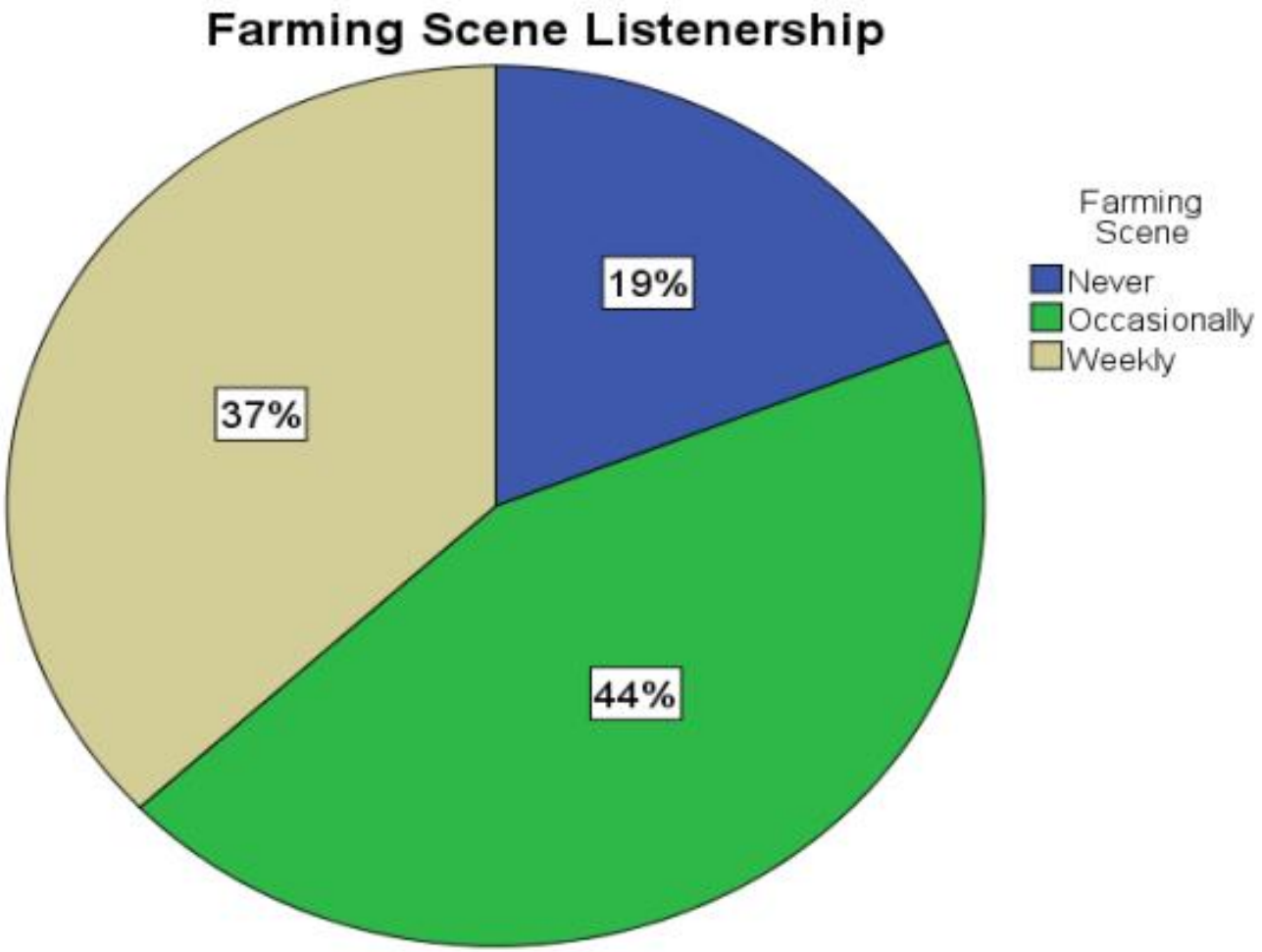


Figure 3: Distribution of Farming Scene Listenership (n=127)

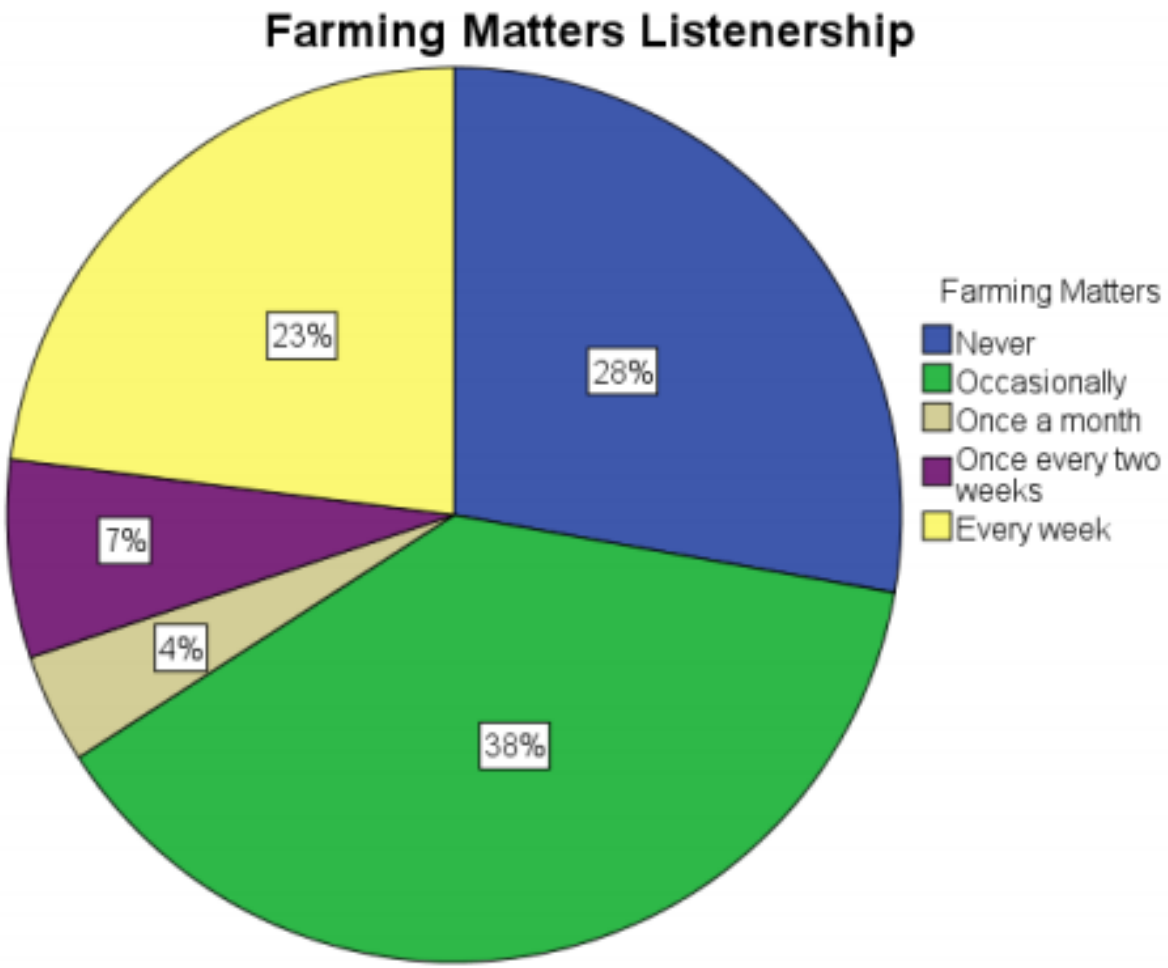


Figure 4: The Distribution of Farming Matters Listenership (n=127)

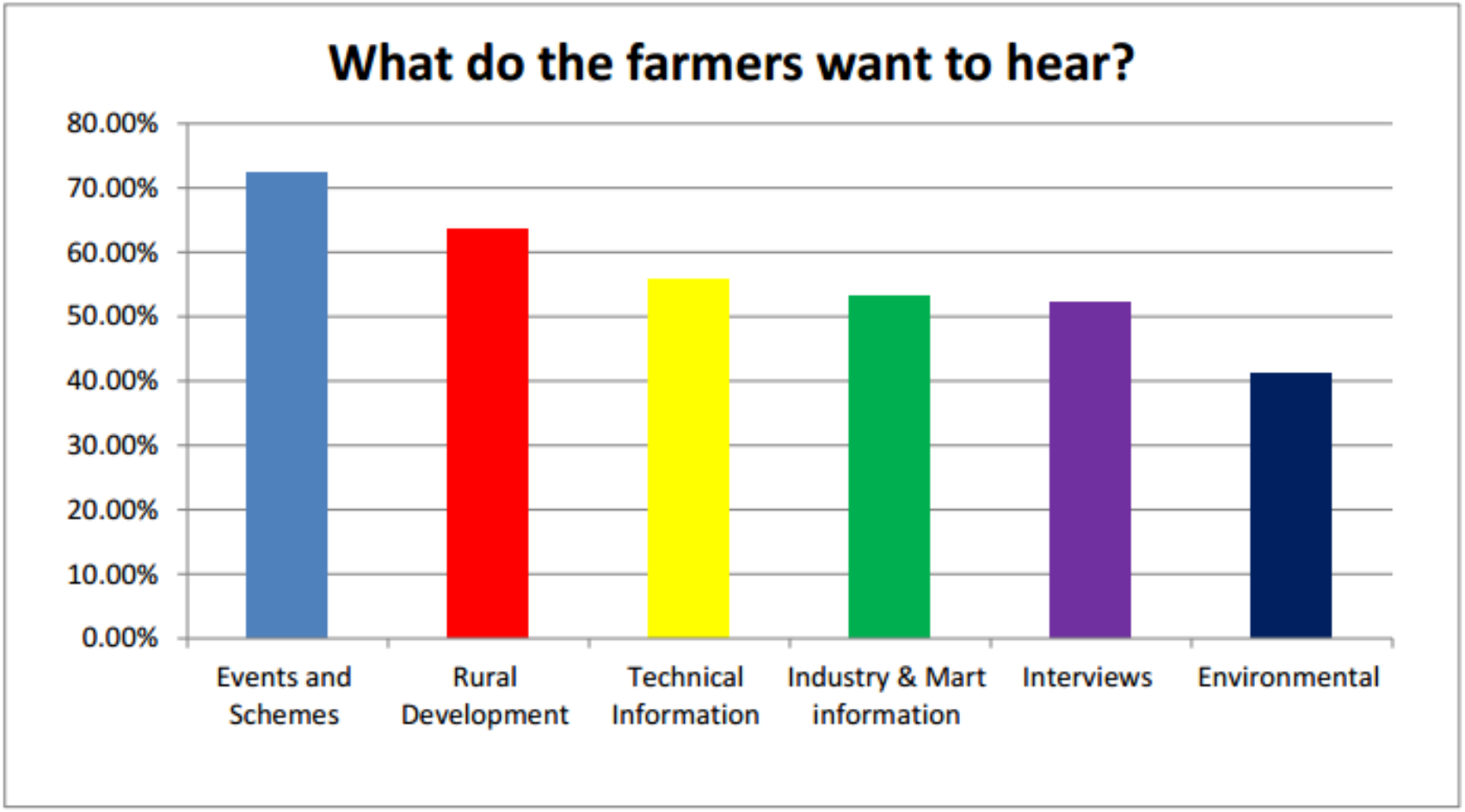


Figure 6: What do the farmers want to hear? (n=127)

Discussion Group Findings (N=10)

- Majority of group members listen every week
- They use the radio as a reminder / prompt on certain actions but not as the main source of information for decision making
- The up to date mart information does influence some decisions e.g. selling stock
- They suggest areas for improvement including the quality of mart reports, the proportion of local information and the breakdown of technical material in simpler terms

Mapping Farm Radio

- There is scope to develop agri-radio further – building on current agri programmes across local radio stations and with enthusiasm from Teagasc regional managers and staff

- Circled area is where Teagasc are involved

Podcast Findings

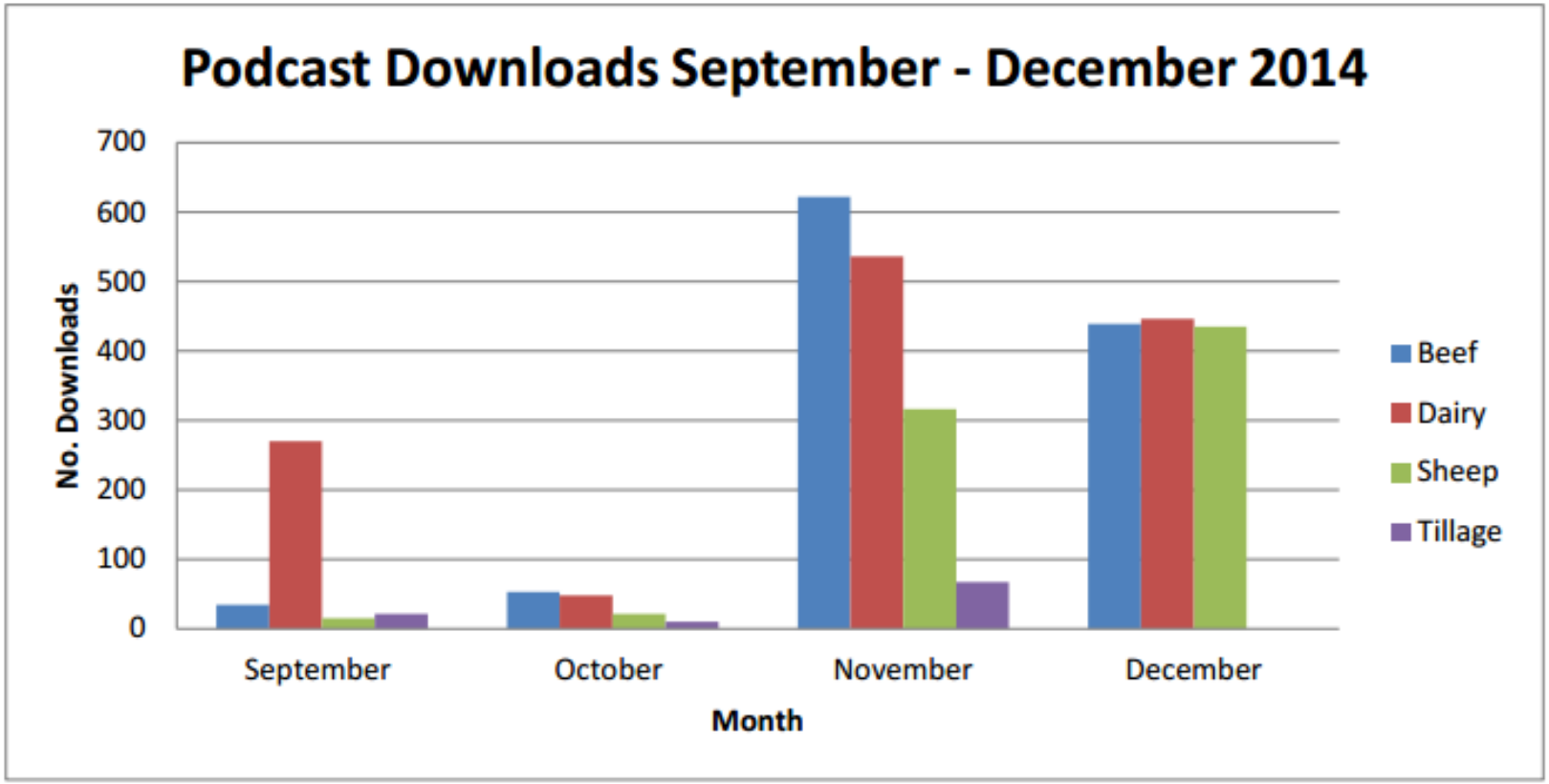


Figure 9: Mp3 Podcast Downloads September – December 2014

Podcast Findings

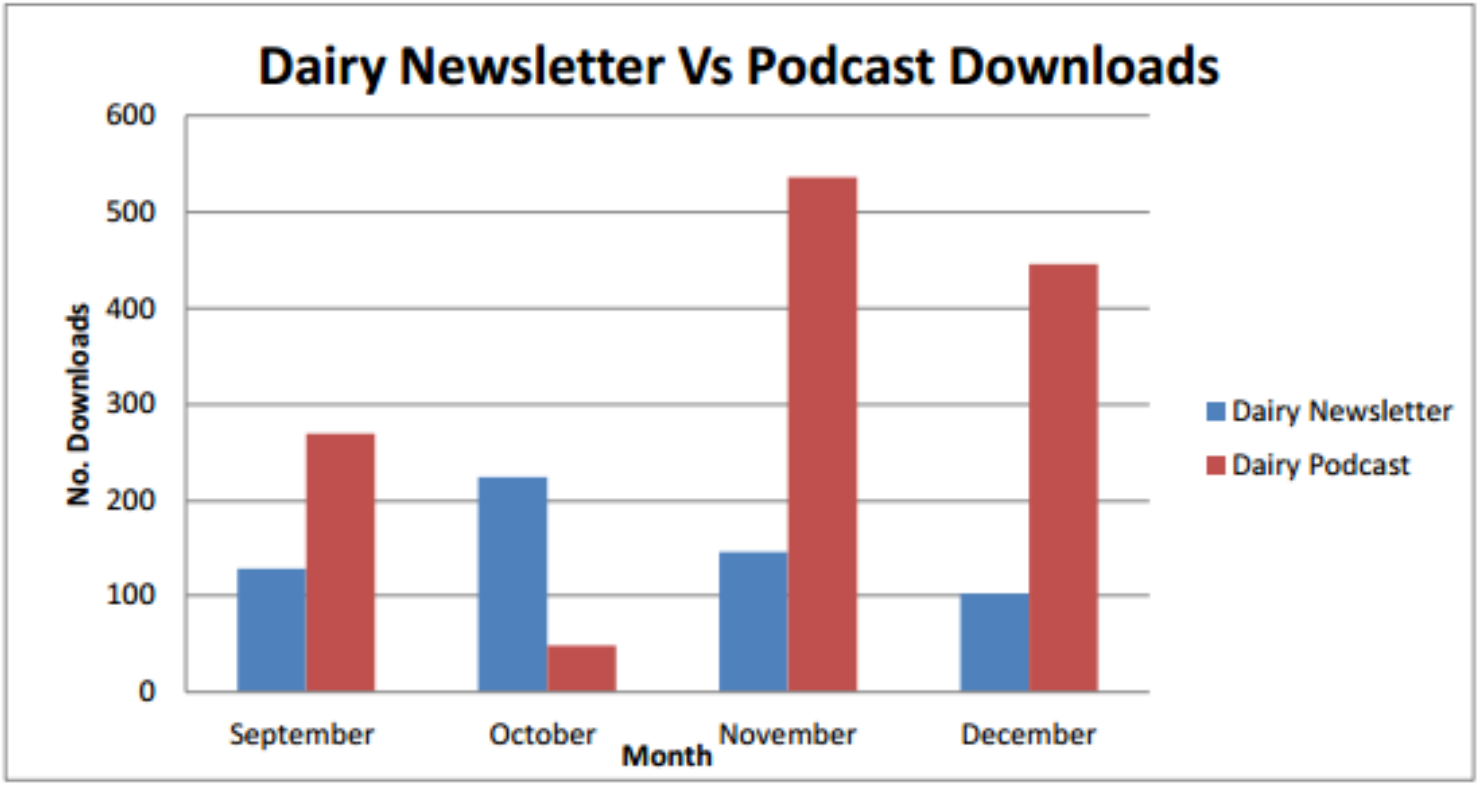


Figure 11: Dairy Newsletter vs. Dairy Podcast Downloads September – December 2014

Conclusions

- There is a high awareness and a wide listenership to the farming programmes in Co Mayo, that extends beyond Teagasc clients
- Farmers use the information from radio programmes in a specific way – usually as a prompt for further research or a reminder for action
- Farmers appreciate information and news that are specific to their own local area and relate experiences of farmers in similar situations to theirs
- Radio could be further utilized in the specific area of promoting knowledge transfer events
- The Teagasc Podcast experiment showed farming based podcasts as popular downloads particularly when promoted through social media

Can we reach out more effectively to the broader population of farmers?

Study title: Key ingredients for effective farmer learning through knowledge transfer events.

Student: Sean Mannion

Supervisors: Anne Markey - UCD
Mark Gibson – Teagasc

Office location: Teagasc Athenry

What I am researching?

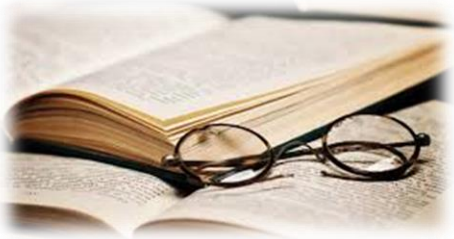
- *Farmer learning*

Main Focus: Teagasc Events

- *Teagasc events to determine what the major components are for farmers to learn effectively.*

I learn better on my own

- *Key criteria for [illegible]ture for effective farmer learning at events*



How I am researching it?

- *Literature review*
  - *Systematic review*
- *Exit poll survey at Teagasc events*
  - *Clients & Non-Clients*
- *Follow up Interviews with respondents*
- *Questionnaires with Teagasc Advisors/Researchers/Specialists*

Findings to date viz a viz Conference theme

- To-date Respondents 30 Counties
  - 536 surveys from 6 events
  - Germany, France, Australia
- Why farmers attend events?

- 67% of the respondents stated that there were no improvements that they would recommend to improve the way information was presented

- Some of the common areas of improvements suggested:
  - Better sound
  - Smaller groups
  - Increase Peer to peer communication
  - Have events more often
  - Take home information

Findings to date viz a viz Conference theme

- *98% of the respondents stated that the event met or exceeded their expectations*
- *Visually seeing a practice in action and being able to ask questions is regarded as very important for many farmers*
- *66% of the respondents are or have been part of a discussion group*
- *Farmers who are not part of a discussion group learn more at events*

What are my next steps

- *Complete data collection*
  - *Dairy events*
  - *questionnaire with Teagasc Advisors/Specialists/Researchers*
- *Expand on Literature Review*
- *Analyse Data*
  - *Excel – SPSS*
- *Write-up*

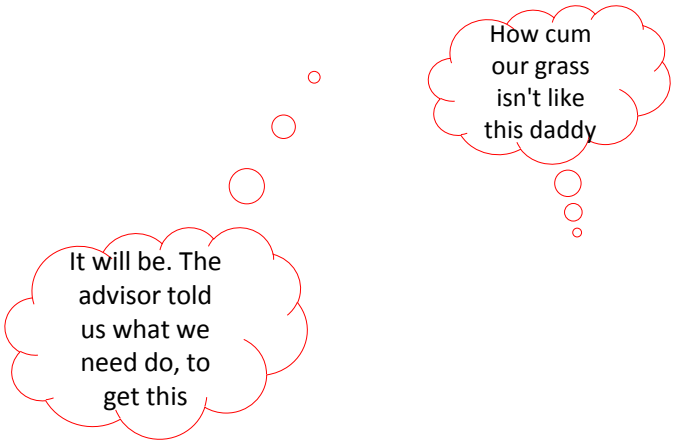
Implications – how can the study findings be applied or made useful

- *Used in the organisation & delivery of further knowledge transfer events*
  - *Getting the logistics right is very important*
- *Provide insights for event organisers and presenters on how farmers learn best at KT events*

- *Assist Teagasc building best practice for KT events within sheep, Dairy and Beef enterprises*

Thank You for listening

Any Questions?



Session 4: How can we better support the next generation of young farmers?

Agriculture and Food Development Authority

Decision making by Farmers in relation to Succession & Inheritance

Tomás Russell[1,2]

Dr James Breen[2] , Mr James McDonnell[3] Dr Kevin Heanue[4], Dr Monica Gorman[2] & Dr Padraig Wims[2]

[1]Teagasc Advisory & Training Office, Tullamore, Co. Offaly

[2]University College Dublin, Belfield, Dublin 4

[3] Farm Management & Rural Development Department, Teagasc, Oakpark, Carlow

[4] Rural Economy & Development Programme, Teagasc Mellows Campus, Athenry, Galway


What is the literature saying?
What are the issues? (key results from this study)
How can we better support the next generation of farmers?
What supports can be put in place? (key results from this study)
Farm Succession & Transfer Guide

What is the literature saying?

- Only 6.2% of farmers holders in Ireland are under the age of 35 (CSO, 2012)
- The main mechanisms for increasing the number of young farmers in agriculture are:
  Succession – The gradual transfer of MANAGEMENT from one generation to the next
  Inheritance – The legal transfer of OWNERSHIP from one generation to the next
- Communication is the main obstacle facing farm families in dealing with succession and inheritance (Crosby, 1998)
- Changes in taxation policy are unlikely to influence farmers but extension programmes which include succession and inheritance planning as an important component in farm business management planning may be of interest to farmers (Crosby, 1998)
- Planning for succession is one of the most critical & inevitable aspect in the life of the farm business (Mishra and El-Osta, 2007)
- Communication is the key factor in determining how successful any succession plan will be (McLeod & Dooley, 2012)


What is the literature saying?
What are the issues? (key results from this study)
How can we better support the next generation of farmers?
What supports can be put in place? (key results from this study)
Farm Succession & Transfer Guide

Stakeholder Focus Group

- Lack of communication and mechanism to start conversation
- Need for more info on succession and inheritance

Education Officer Focus Group

- Lack of communication is the main barrier
- Farmers don't understand the meaning of "Succession"

Young Farmer Focus Group

- How to start the conversation is the main barrier to succession & inheritance
- Limited knowledge on succession and inheritance

Farmer Survey

- Poor level of knowledge on succession and inheritance
- No successor identified, successor not interested & cost of transfer are the main influencing factors

Advisor Survey

- Low number of farmers asking about succession and inheritance
- Advisors level of knowledge on succession and inheritance is poor

What are the issues? (key results from this study)


What is the literature saying?
What are the issues? (key results from this study)
How can we better support the next generation of farmers?
What supports can be put in place? (key results from this study)
Farm Succession & Transfer Guide

Stakeholders Focus Group

- Specific succession planning (education & advisory)
- Succession & Inheritance module in Ag college needs to look at the softer issues with succession plan as a key component

Education Officer Focus Group

- Discussion group topics focused on succession and inheritance
- Information events for parents with children in agricultural college

Young Farmer Focus Group

- Specific advisors on succession and inheritance
- Farmers should be actively approached by their advisor on succession and inheritance
- Facilitated succession planning which is incentivised

What supports can be put in place? (key results from this study)

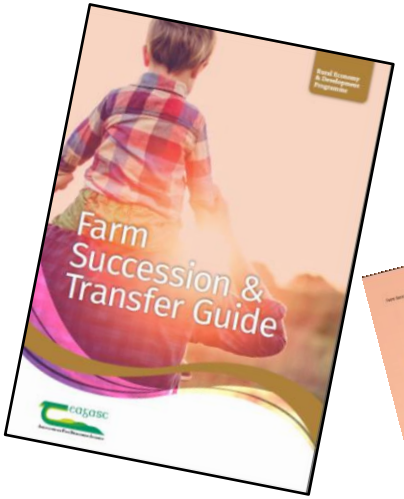
Farmer Survey

What can the advisory service do to help farmers make decisions on succession & inheritance?

1. Succession & Inheritance Course
2. Run local info evenings
3. External specialist advisor
4. Print and info booklet


What is the literature saying?
What are the issues? (key results from this study)
How can we better support the next generation of farmers?
What supports can be put in place? (key results from this study)
Farm Succession & Transfer Guide

Farm Succession & Transfer Guide



- Tool to support farmer decision making on succession and farm transfer
- Provides a step by step methodical approach for farm families in dealing with the issues of succession and the transfer of the farm assets
- Text light, easy to read book with self complete exercises for farm families to help them start communicating and making decisions on succession and farm transfer
- Addresses communication and starting the conversation on succession and farm transfer
- Includes a formal succession plan which sets out a distinct easy to follow plan for succession on the family farm
- Created using a co-creation process which involved consultation with key stakeholders, professionals, developers and end users at all stages of the development

Farm Succession & Transfer Guide


What is the literature saying?
What are the issues? (key results from this study)
Any Questions? Or Comments?
What supports can be put in place? (key results from this study)
Farm Succession & Transfer Guide

A Study of Communication Methods for Teagasc to Engage with Agricultural College Graduates from Graduation to Farm Ownership

John W Kelly

Supervisors:
Dr. Padraig Wims (UCD)
Mr. Kevin Connolly (Teagasc)

October 2015

Teagasc
Agriculture and Food Development Authority

UCD DUBLIN

Approach and Research Methods

Location

Ballyhaise Agricultural College

Research Methods

- Baseline survey Ballyhaise Agricultural College graduates since 2008 (n=464)
- Identified preferred methods of communication
- 4 Methods piloted between February and November 2014
- Evaluation of methods piloted

Study Findings

Survey of Graduates (n=166)

- 82% wanted to receive updates about Ag College farm.
- 77% wanted to engage with Teagasc.
- 60% working on their parents' farms

Suggested Methods of Communication

Text message, Phone call, Newsletter and Facebook.

ISSUE 02 October 2014

Ballyhaise College Newsletter

This issue
Beef P.1
Forestry P.2
Sheep P.2
Pigs P.3
DairyP.3

Upcoming Events

Presentation of Certificates to Class of 2014 — 4th December 2014

College Open Day — 19th March 2015

Information day for prospective students on courses available for September 2015.

Did you know?

The first Dairy cows came to the college in 1905. Intensive milk production was a priority for the college in its early days. Nine in-calf heifers were purchased and in 1906 there were 46 cows recorded in the herd book The herd has remained strong to this day.

Tillage returns to Ballyhaise

It has been eighteen years since a cereal crop has been sown in Ballyhaise when Paul McGoldrick was in charge of the Department of Agriculture seed trials for Barley, Wheat, Oats and root crops. Plots were located on the college lands for testing of these crops for there suitability for commercial use. The field opposite the Church of Ireland in the village which contains four acres will grow Winter wheat. It is an ample opportunity for students at the college to learn crop husbandry.

Beef

Spring 2013 born bulls have been housed for the last month and are receiving 12kg of meal a head/day along with ad lib straw. The performance of the animals on this diet is remarkable at 2 kg of growth a day.

The Autumn 2013 born bulls have also been housed on the 20th of October and are on a diet of silage and 2 kg of meal a day.

All spring and autumn cows were dosed for stomach fluke using Zanil. Autumn calving is going well with 20 calves born and no losses and with only one cow needing some assistance. The calves are being vaccinated for viral pneumonia at two weeks of age, it involves administering a nasal injection to the animal.

The spring calves will be weighed before the end of the month and cows in poor body condition will be put on high quality silage during the winter. The calves are in super condition and they have all been vaccinated for pneumonia using a live vaccine via intramuscular injection. The risk of pneumonia to weaned calves at housing is high and rapidly infectious to the rest of the herd.

Ballyhaise College Newsletter Issue 02 October 2014

Teagasc, Ballyhaise College,
Ballyhaise,
Co Cavan.
Phone: +353 49 4338108
Fax: +353 49 4338540
Email: ballyhaise.college@teagasc.ie

Compiled by: John W Kelly
Teagasc Ballyhaise

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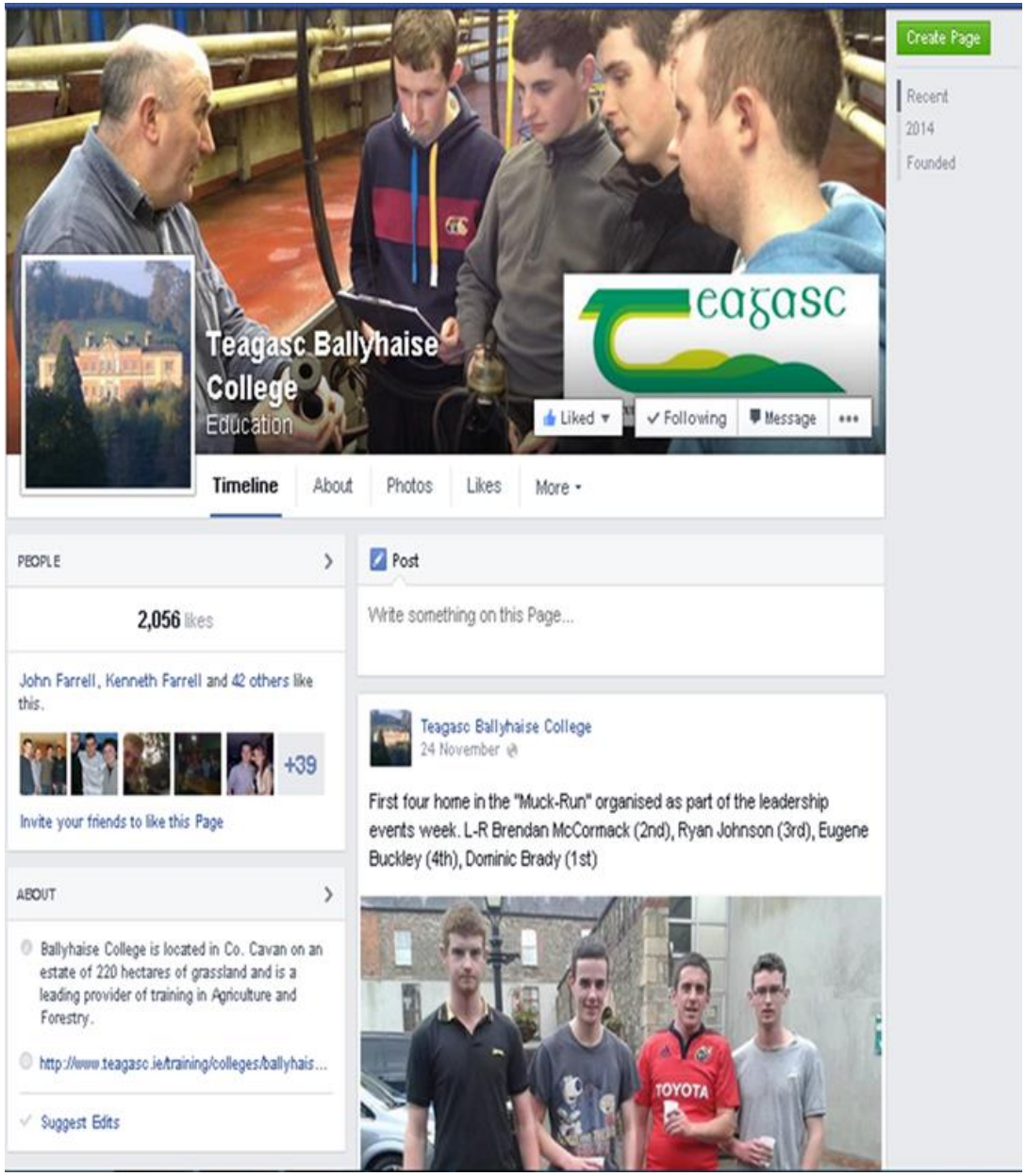
- All respondents found the content interesting and 94% wanted to continue receiving it.
- 73% used the newsletter to measure their farm performance
- 48% changed their farming practices as a result of its content



- Dairy videos all received over 1000 views.
- 43% of respondents checked into the Teagasc Ballyhaise Facebook page twice–three times per week

Text message

- All respondents read the messages
- 97% said that they would like to continue to receive text messages

Sample Text Message 22/10/14

Teagasc Grad:Ballyhaise 22Oct,GR 48kg/day KgDM/LU 310.AFC 1000kg PGY 2500kgs,Feed 3kg meal,Soil temp 12.5C. Grass Dm 15% Yld 14.5kg,5.04%F, 4.05%P,1.31kg MS/Cow

Conclusions

- Graduates were very interested in college farm updates and in maintaining contact with Teagasc.
- Teagasc advisors need to be introduced to students while in college.
- The advisory regions in Teagasc and advisors themselves with an interest in contacting graduates should establish Facebook pages.
- Ag colleges should consider developing a newsletter.
- Text Messaging was very successful with all respondents reading them.

Moodle based online learning
&
Developing distance training models in horticulture

Colm Doran
Teagasc Botanic Gardens

UCD Knowledge Transfer Conference
23rd October 2015

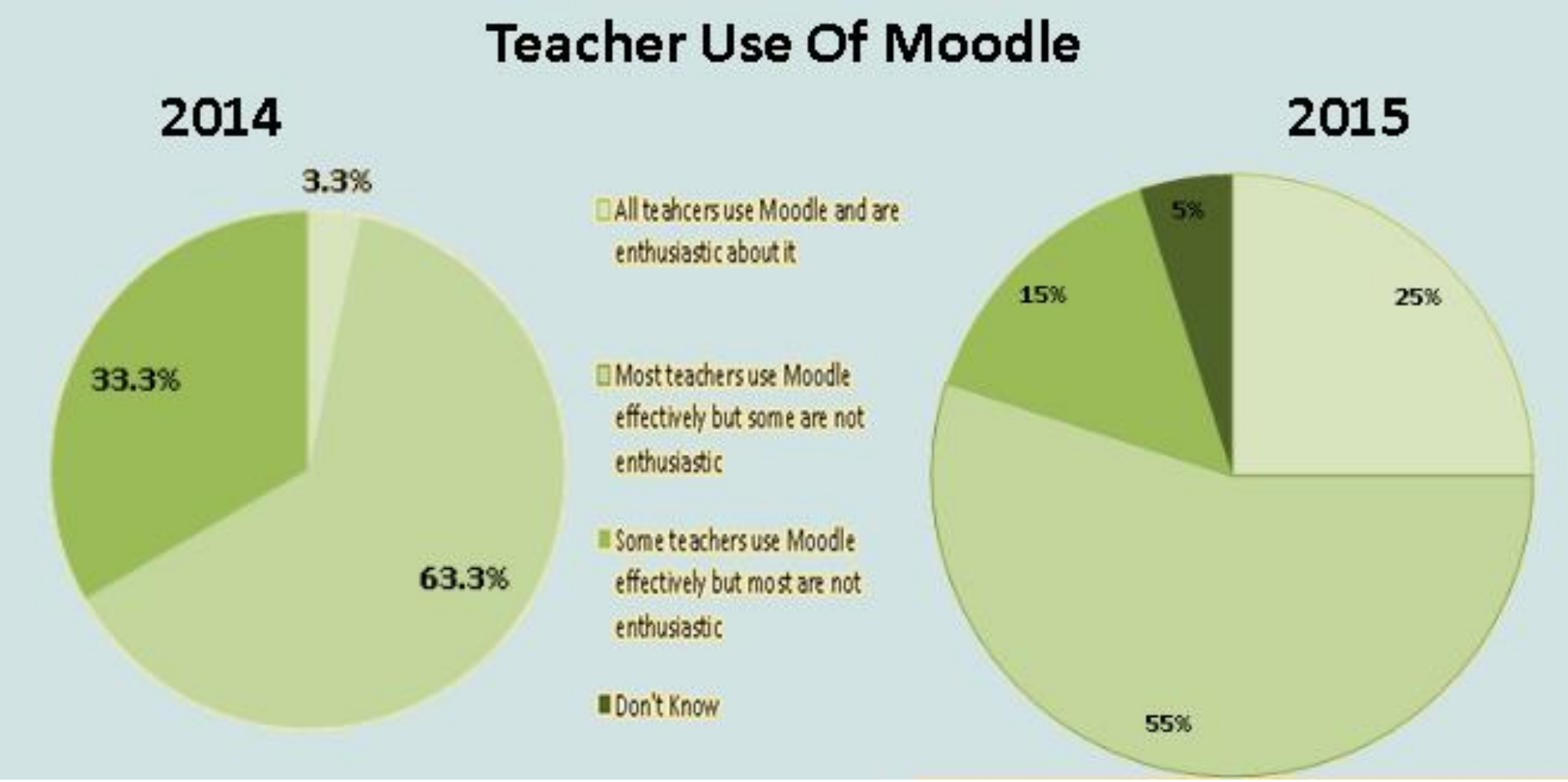
A web-based learning platform

ecollege.teagasc.org

Objectives & Methodology

Assess the use of Moodle and its future potential in Teagasc Botanic Gardens

Identify how a module in horticulture can be adapted for online learning



Students' attitudes towards Moodle improved

Gradual Process!!!!

Future for short online courses????

Summarise

Improvements were made in the use of Moodle over the course of this study in the Botanic Gardens,

However teachers need further support in their use of the technology to utilise Moodle fully.

The Pesticide Application online course showed that short courses can be adapted for online delivery,

But more research and evaluation into this potential must take place.

MAgrSc Innovation Support Programme

Develop & Pilot a practical tool to support current & potential non-family farm partnerships in Irish dairying

Michael Keane

Teagasc Walsh Fellow, 2013-5

Supervisors: Dr David Stead, UCD

Thomas Curran, Teagasc

Objectives

- To review the theoretical & empirical literatures on knowledge transfer issues & MPP's in Ireland
- To review existing models of knowledge transfer regarding collaborative farming initiatives in Ireland & internationally
- To determine the knowledge transfer needs & supports of existing & potential farmers in MPP's
- To develop & pilot practical tools for existing & potential farmers in MPP's

Methodology

1. Literature review: reviewing KT issues in agriculture nationally & internationally, and MPPs in Ireland

2. Conducted semi-structured interviews with a short questionnaire

Survey Details	
Sampling frame	Teagasc farm partnership register
Areas	Co. Cork & Co. Tipperary
Sample size	N≈125

Farm Partnerships in Ireland	
Registered MPP's (Jan 2015)	710
Family MPP's	477
Non-Family MPP's	233
Co. Cork	90
Co. Tipperary	35

3. Piloting of the new KT tool on Teagasc staff and participants from the semi-structured interview/questionnaire

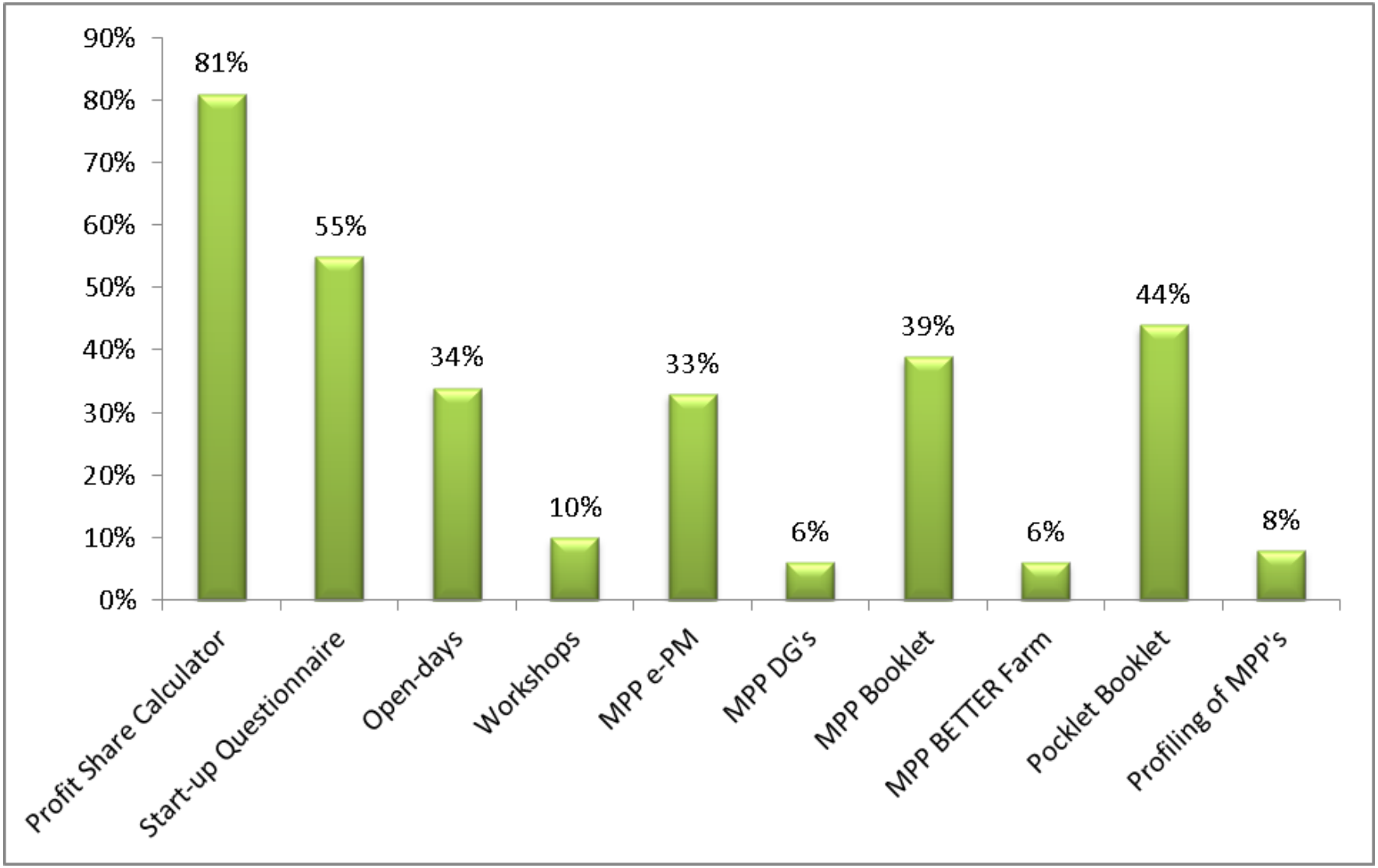
Key Findings: Ireland UK and USA

- Existing literature on MPPs in Ireland is quite limited
- Few KT tools are developed for non-family MPPs
- 3-5% of farmers in UK are involved in a Joint Venture Farming (JVF) activity
- Partnerships account for 7.9% of all farms in USA
- KT Case Studies: Fresh Start initiative in the UK and Sharemilk in the USA

Key Findings: Semi-structured interview/questionnaire

- 90% of respondents knew their partner prior to MPP
- The mean age of a farmer in a MPP is 47
- Benefits identified: pooled resources (90%), better lifestyle (79%), farm efficiency (64%), access to milk quota (83%)
- Over 90% stated no disadvantage of being in MPP
- Gained information from Teagasc diary partnership office (79%)
- Array of interesting KT tools/supports that respondents requested

KT tools/supports requested by respondents



Worksheet for establishing Profit / Share Ratio

RFP Name:		MPP Farm								
Adviser:		Teagasc				**Date:**		01-Jul-15		
		Partner A		**Partner B**		**Partner C**		**Partner D**		
Average no. of (unpaid) labour hours per week		40		60						
Labour Hour Charge €		€12.50		€12.50		€12.50		€12.50		
① Land	**Value/Acre**	**Acres**	**Value**	**Acres**		**Acres**	**Value**	**Acres**	**Value**	
Owned	€10,000	100	€1,000,000	70	€700,000		€0		€0	
Leased	€250		€0		€0		€0		€0	
Rented	€250		€0		€0		€0		€0	
TOTAL			€1,000,000		€700,000		€0		€0	
② Buildings			**Value**		**Value**		**Value**		**Value**	
Cow Housing		–	€100,000	–	€60,000	–		–		
Rep/In-calf Housing		–		–		–		–		
Cattle Housing		–		–		–		–		
Calf Shed		–		–		–		–		
TOTAL		–	€100,000	–	€60,000	–	€0	–	€0	
③ Livestock	**Value €/hd**	**Number**		**Number**		**Number**		**Number**		
Dairy Cows	€1,500	60	€90,000	40	€60,000		€0		€0	
Suckler Cows	€1,200		€0		€0		€0		€0	
Stock Bulls	€1,500		€0		€0		€0		€0	
Rep Heifers 0-1 yrs	€600	30	€18,000	15	€9,000		€0		€0	
Rep Heifers 1-2 yrs	€1,100	20	€22,000	10	€11,000		€0		€0	
Rep Heifers 2+ yrs	€1,500		€0		€0		€0		€0	
Cattle 0-1 yrs	€600		€0		€0		€0		€0	
Cattle 1-2 yrs	€1,000		€0		€0		€0		€0	
Cattle 2+ yrs	€1,200		€0		€0		€0		€0	
TOTAL			€130,000		€80,000		€0		€0	
④ Machinery			**Value**		**Value**		**Value**		**Value**	
Tractor		–	€50,000	–	€70,000	–		–		
Loader/Telehandler		–		–		–		–		
Trailer		–		–		–		–		
Vacuum Tanker		–	€8,000	–		–		–		
Agitator		–		–		–		–		
Fertiliser Spreader		–	€800	–	€800	–		–		
Mower/Topper		–		–		–		–		
Sprayer		–		–	€1,000	–		–		
Other		–		–		–		–		
TOTAL		–	€58,800	–	€71,800	–	€0	–	€0	

RFP Profit / Share Calculator

RFP Name:	MPP Farm		
Adviser	Teagasc	Date:	01-Jul-15

⑥

Column La	Partner A		Partner B		Partner C		Partner D		Total Value	Total Asset %
Row Labels	Value	Asset %	Value	Asset %	Value	Asset %	Value	Asset %		
Land	€1,000,000	45.44%	€700,000	31.81%	€0	0.00%	€0	0.00%	€1,700,000	77.25%
Buildings	€100,000	4.54%	€60,000	2.73%	€0	0.00%	€0	0.00%	€160,000	7.27%
Livestock	€130,000	5.91%	€80,000	3.64%	€0	0.00%	€0	0.00%	€210,000	9.54%
Machinery	€58,800	2.67%	€71,800	3.26%	€0	0.00%	€0	0.00%	€130,600	5.93%
Grand Total	**€1,288,800**	**58.57%**	**€911,800**	**41.43%**	**€0**	**0.00%**	**€0**	**0.00%**	**€2,200,600**	**100.00%**

Partner A	Partner B	Partner C	Partner D	TOTAL
59%	41%	0%	0%	100%

⑦ Labour Management

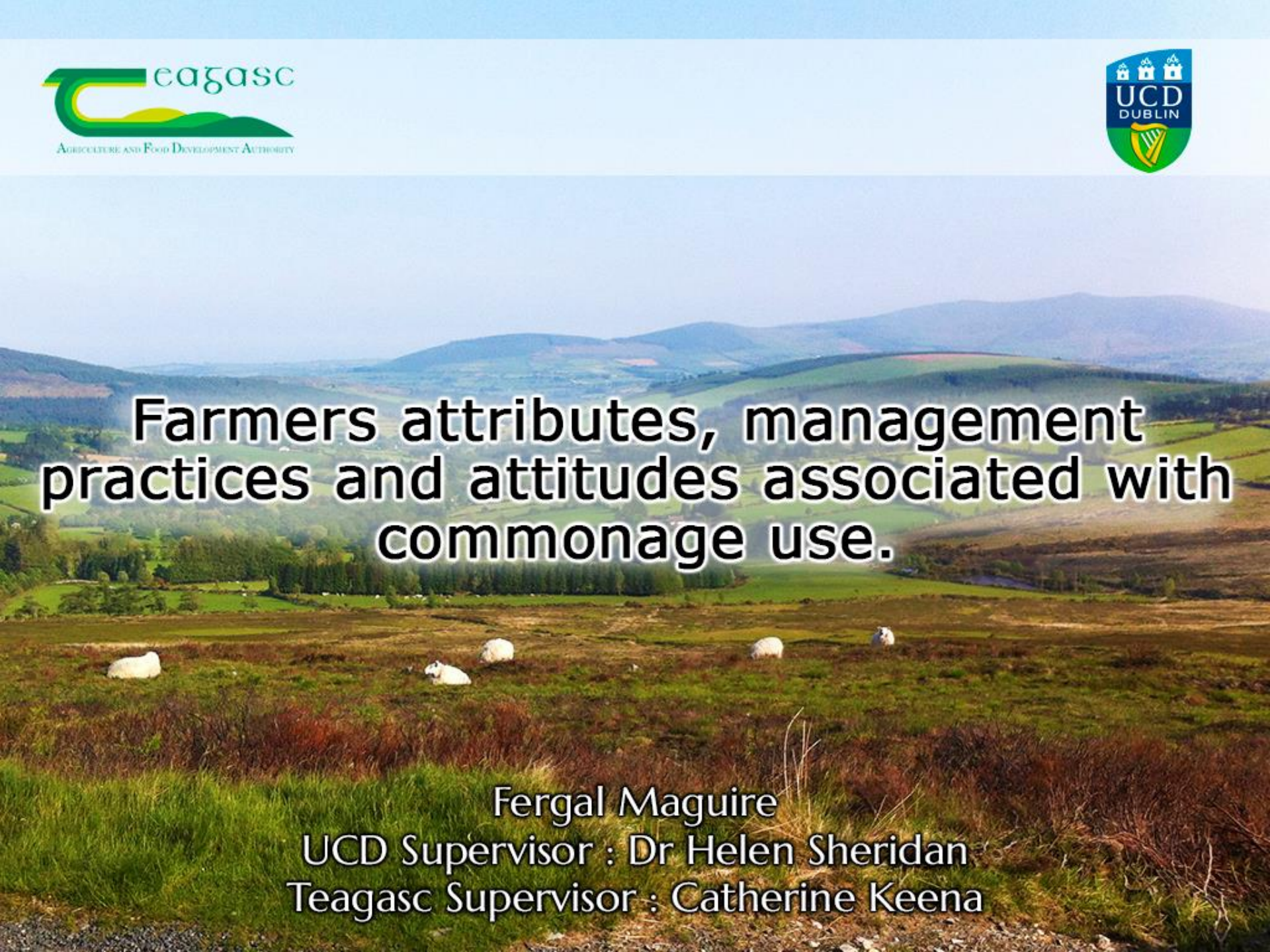
Partner	Hours/ week	Rate/hr	Per Week	Per Annum	Difference
Partner A	40	€12.50	€500	€26,000	-€13,000
Partner B	60	€12.50	€750	€39,000	
Partner C	0	€12.50	€0	€0	
Partner D	0	€12.50	€0	€0	

Conclusion & Recommendations

- Nationwide study on KT needs/supports of MPPs
- Basis for further work with nine other KT tools/supports identified
- Partnerships offer a mechanism for dairy expansion post quota
- Awareness of MPPs to the broader farming community is low
- Promotion of collaborative farming in regard to lifestyle and labour benefits

Session 5: How can we be more effective in securing Ireland's environmental credentials?

Agriculture and Food Development Authority

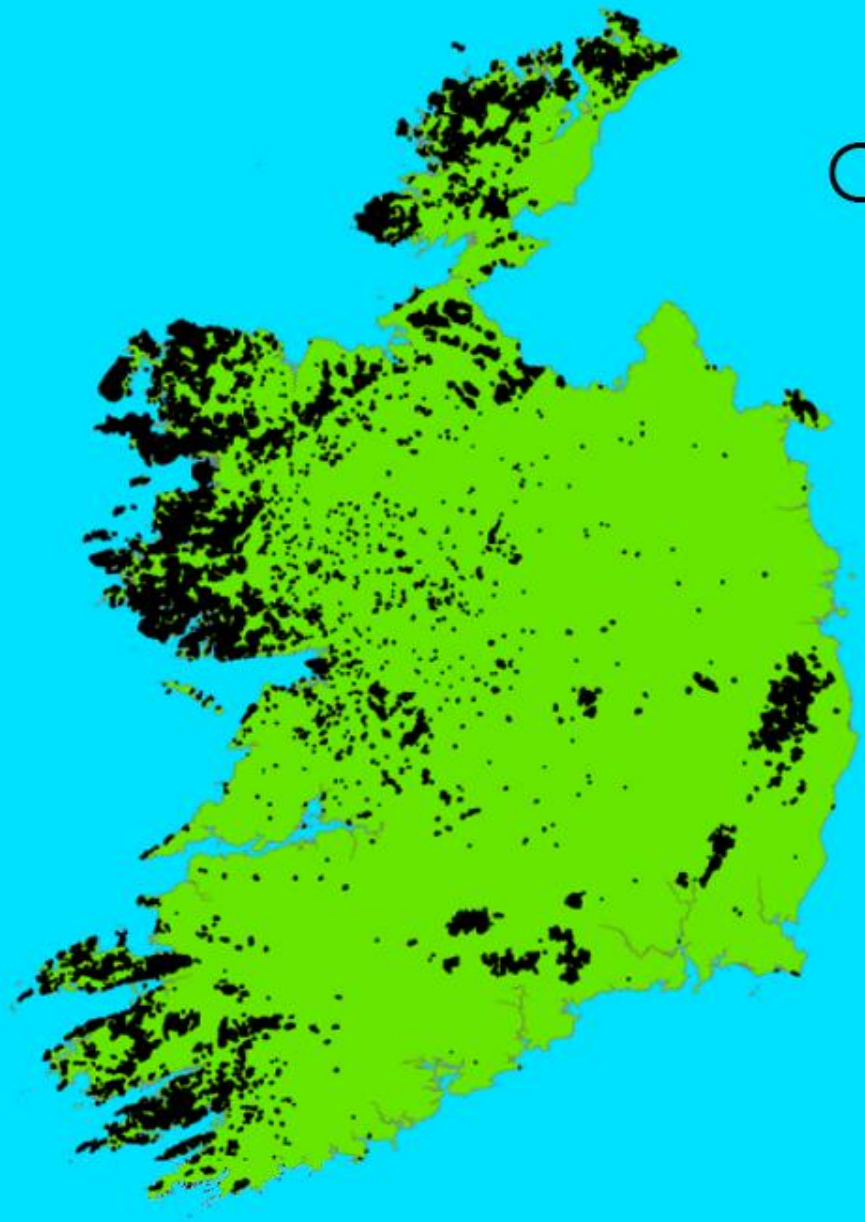

Farmers attributes, management practices and attitudes associated with commonage use.
Fergal Maguire
UCD Supervisor : Dr Helen Sheridan
Teagasc Supervisor : Catherine Keena

Outline

1. Background to the study and commonage in Ireland
2. Aim of the study
3. Methodology
4. Findings

Background

Commonage Area in Ireland



Aim

To develop a clear understanding of how commonage land is used at present and to identify practices that could help maintain these common areas in GAEC.

- Identify how commonage is used by farmers in Co. Wicklow.
- Determine the main reasons that prevent farmers from continuing to use their commonage
- Establish the effectiveness of increased shareholder organisation in addressing management issues of commonages

Methodology

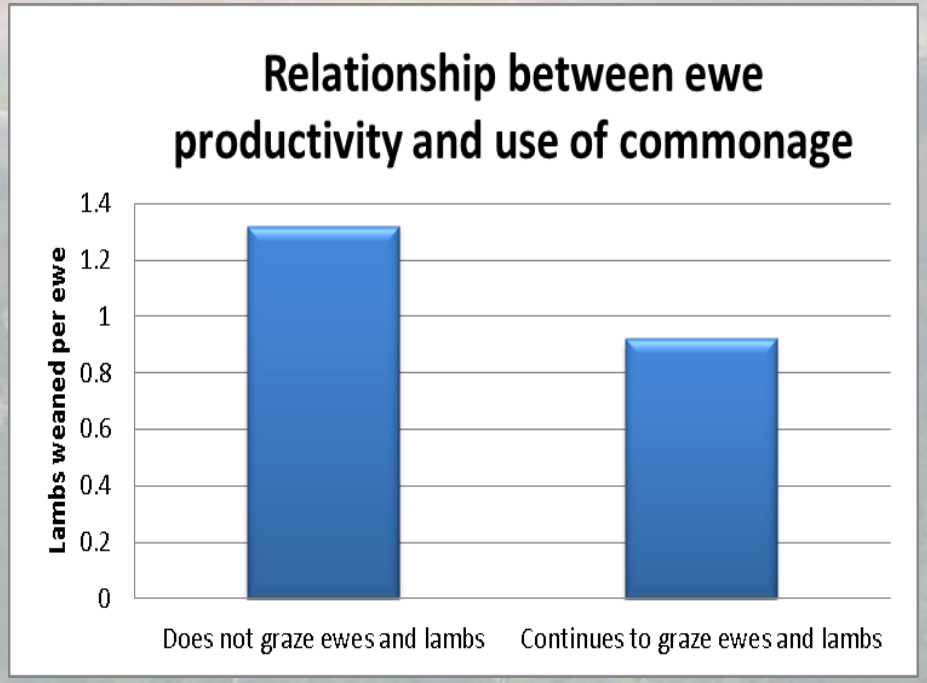
- Detailed survey of 60 farmers in Wicklow who have access to commonage.
- All shareholders from two commonages were invited to attend a meeting to discuss commonage issues and the future of their commonage.

Survey Findings

- The number of farmers grazing their commonage area in the last 15 years has declined.
- The only factor that was associated with non-usage of the commonage was off farm employment.
- How farmers use the commonage has also changed.

Survey Findings

- Main reasons citied in survey for no longer using commonage:
  - Reduced ewe productivity
  - Increased ewe mortality/losses
  - Increased workload
  - Poor market for store lambs
  - Overgrown vegetation



Farm Survey Findings

- 58% of farmers surveyed had not identified a successor to the farm.
- Of the farmers surveyed, none had ever attended formal meetings of shareholders to discuss management of their commonage.

Commonage Meeting Results

- All shareholders accepted that there was a problem with undergrazing on their commonage.
- They all accepted that these areas had to be actively managed in the future to get farm payments.
- All shareholders felt that there needed to be regular meetings of all shareholders to discuss and manage their commonage.


Go Raibh Mile Maith Agat.

How can we be more effective in securing Irelands Environmental Credentials?

Study title: Assessing farmers perceptions of greenhouse gas emissions and developing effective KT interventions to support practice change and emissions reductions

Student: Méabh O'Hagan

Supervisors: James Breen & Pat Murphy

Office location: Johnstown Castle, Wexford

What I am researching

What level of awareness and knowledge of agricultural greenhouse gases is present among dairy and beef farmers in Ireland?

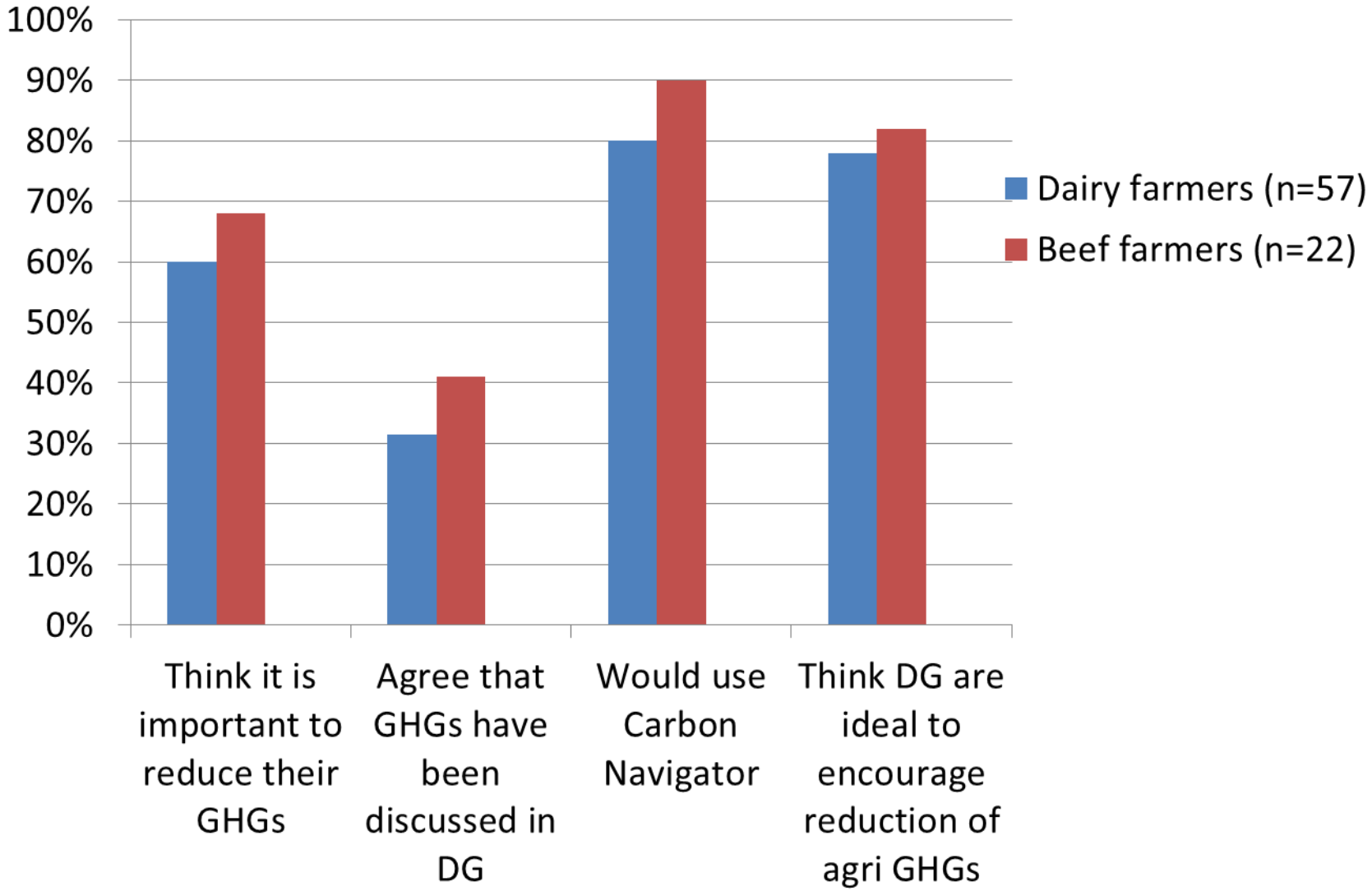
How can Teagasc best use its advisory service to encourage farmers to reduce their greenhouse gas emissions?

How I am researching it

Carrying out a survey with beef and dairy discussion group members to assess knowledge and attitudes towards greenhouse gases and mitigating technologies.

Evaluating different methods for roll-out of the Carbon Navigator tool through the use of focus groups with farmers.

Main Findings to date



Main Findings to date

Farmer preferences for mitigation technologies

Most popular :

Dairy: Extending of grazing season length.

Beef: Improve live-weight gain

Slurry application in spring and in suitable weather conditions

Least popular:

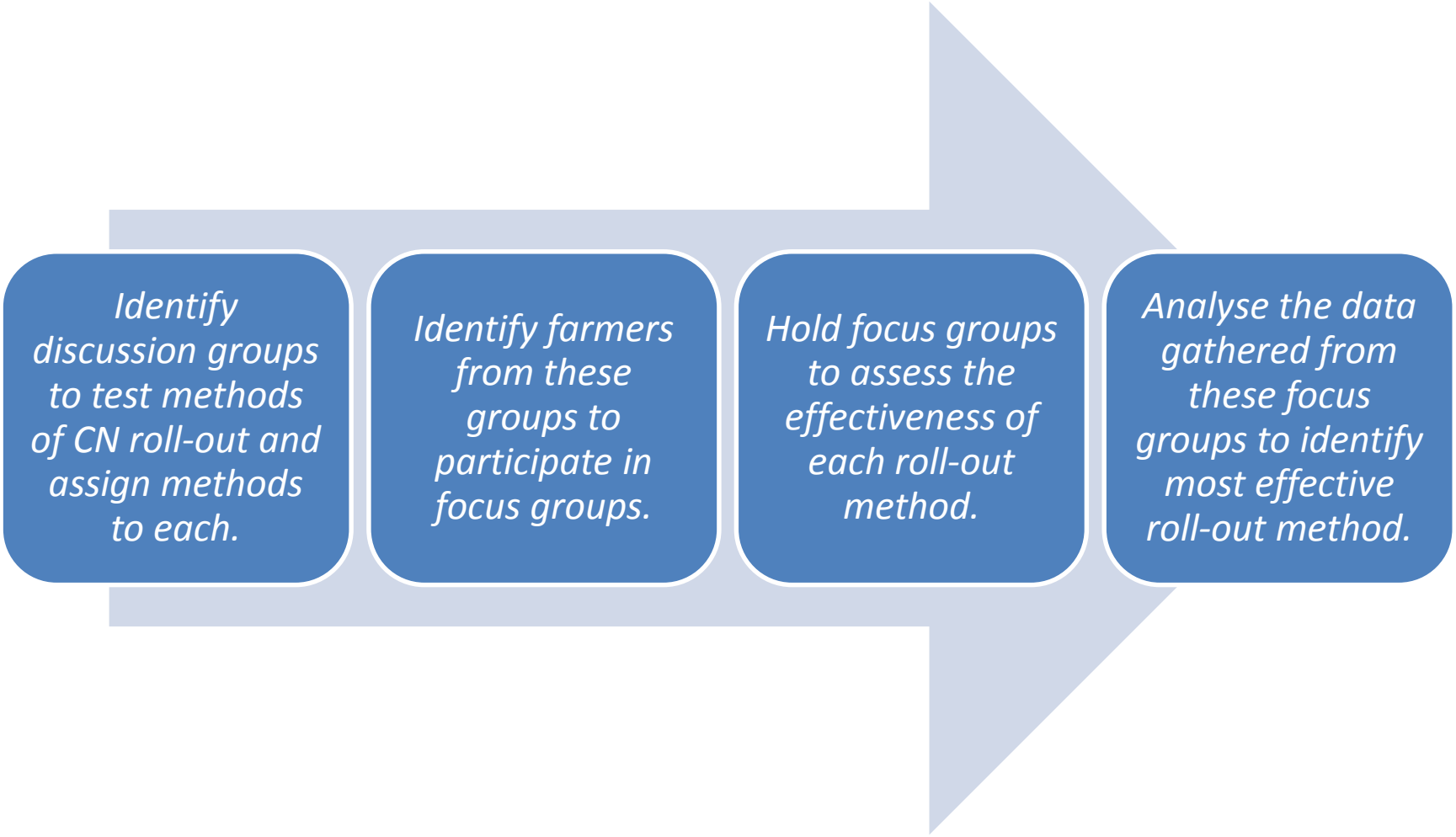
Dairy: Dietary additives to reduce methane emissions

Planting of forestry/coppicing of trees, planting of hedgerows

Beef: Use of urea treated to reduce emissions and losses to air.

Planting of forestry/coppicing of trees, planting of hedgerows

Next steps in my project



Study Implications

By identifying the mitigation technologies most likely to be adopted, Teagasc can begin to promote these technologies immediately.

By identifying the mitigation technologies least likely to be adopted, Teagasc can place more emphasis on providing information on the benefits of these technologies to try and change attitudes.

By identifying the most effective method of roll-out for the Carbon Navigator, Teagasc can use this method to optimise the uptake of the Carbon Navigator on Irish farms, especially in the Beef Genomics Scheme as the Carbon Navigator is included as a requirement.

A new nutrient management software tool: the view from farmers and advisors

Study title: Soil fertility-develop and test knowledge transfer initiatives to support achievement of high performance on farms

Student: John Ryan

Supervisors: Tim Hyde(Teagasc) & Paul Murphy(UCD)

Office location: Mohill, Co Leitrim

What I am researching

Teagasc has recently developed and launched just last week a new Nutrient Management software tool called NMP-Online.

My study focuses on assessing farmer and advisors reactions/opinions on this and identifying potential improvements.

Fertiliser plan summary

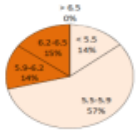
Fertiliser Plan Summary — Andrew Brennan — 2015

Herd No.		Land Areas	Ha	%
Address		Total	65.56	
County (Zone)		Grassland	62.76	95.7
Weeks Storage		Non-Grassland	2.80	4.3
Closed Periods		Sampled Area	65.56	100
Chemical		Soil Samples required for 2016		
Slurry	15 October to 12 January	Stocking Rates		
FYM	1 November to 12 January	Whole Farm	176	kg/ha
		Grassland	184	kg/ha
Derogation	YES			

Soil Fertility Summary

Overall Fertility Status (pH > 6.2, P & K index 3 or 4)

Lime Status (Soil pH)



Phosphorus (P Index)

Potassium (K Index)

Good Overall Status		Soil ph		Soil P		Soil K	
Yes	4.9 Ha	< 5.5	9.5 Ha	Very low	4.6 Ha	Very low	20.4 Ha
No	60.66 Ha	5.5-5.9	37.1 Ha	Low	24.9 Ha	Low	31.9 Ha
		5.9-6.2	9.2 Ha	Optimum	23.9 Ha	Optimum	9.1 Ha
		6.2-6.5	9.8 Ha	High	12.2 Ha	High	4.2 Ha
		> 6.5	0 Ha				

Losses in production V Optimal Fertility

Overall	pH	P	K
30%	20%	8%	15%

Soil pH & Lime

Target pH	Grass	Tillage
Mineral Soil	6.3	6.5
Organic Soil	5.5	5.5

Lime Recommendation

2016	50 Tonnes
2017	20 Tonnes
2018	40 Tonnes
2019	10 Tonnes

Organic Manure Plan

Distribution	Index 1 & 2	Index 3 & 4
Cattle Slurry	65%	35%
Other	20%	80%

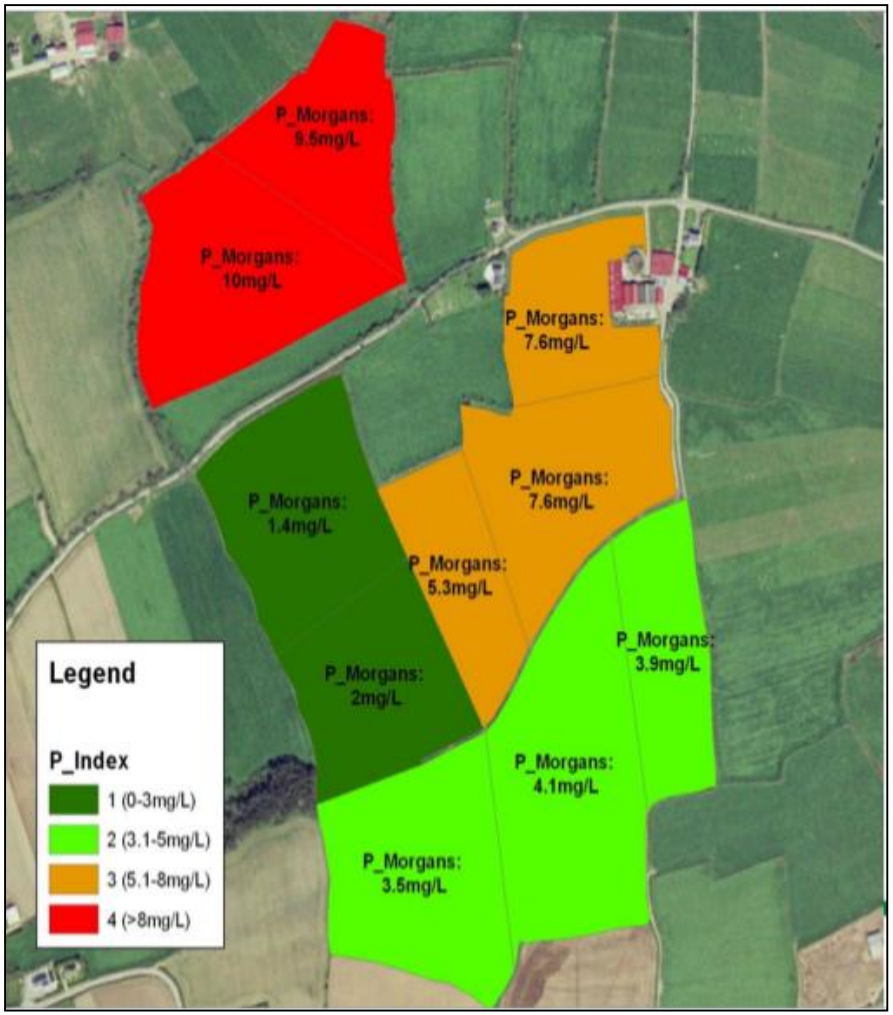
	Type	Volume M³	Kg N	Kg P	Kg K
Produced	Cattle Slurry	200	400	100	250
+ Imports	Pig Slurry	100	300	50	200
- Exports					
Total Available		300	700	150	450

Fertiliser Advice

	N	P	K
Max Chemical (Nitrates Directive) Kg	18,121	707	
Recommended Chemical (For your stocking rate) Kg	13,164	707	3,505

Planned Fertiliser	tonnes
Urea (46%N)	9.0
CAN (27%N)	30.0
27-2.5-5	2.0
CAN +S (27%N)	4.0
20-0-15	15.0
0-10-20	6.0

Total Chemical Fertiliser Planned Kg	N	P	K
	16860.0	650	3550



Soil Phosphorus levels map

How I am researching it

I have conducted a written survey of 25 farmers.

Teagasc clients with recent soil tests and a derogation plan completed were chosen.

Using qualitative and quantitative questions(50), farmers were surveyed trialling some of the new outputs from this software tool.

Also an online survey of Teagasc staff was carried out through Survey monkey with 164 respondents.

Again this survey had qualitative and quantitative questions giving staff a chance to give their views and opinions on soil fertility KT and the new software tool and its outputs

Some findings to date

Farmer surveys

- On balance, farmers appeared to have a positive view towards the new nutrient management planning outputs. For example, 96% agreed with the statement ”Is the Lime information displayed in a clear fashion on the new Lime map?”, while 92% agreed with the statement “Is the slurry information displayed in a clear fashion on the new cattle slurry application map?”
- Farmers want results presented in a non-scientific fashion (High/Medium/Low rather than “X” Mg/l)
- Farmers want slurry calculations to be presented in gallons/acre/ha rather than cubic metres as it is now.
- Only 56% of farmers knew the correct pH for grassland, while only 24% understood their soil analysis report fully.

Some findings to date

Teagasc staff survey

- An option to be able pick the farmers preferred method of measurement(Units/acre/ha. Kg's/acre/ha etc) needs to be included in the software and was highlighted as being vital by 84%.
- 67% outlined 'Lack of knowledge' as the main barrier to farmers adopting soil fertility best practices.
- Problem areas were identified in the soil test reports, summary sheets, fertiliser plans and in the new colour land management maps.

What are my next steps

Finish the literature review, hopefully by mid to late November

Finish the analysis of both the 'Farmer survey' and the 'Teagasc staff survey' through SPSS

Write up the results, discussion and conclusions sections of the thesis with a projected timeline of this being early January

Implications – how can the study findings be applied or made useful

Key changes needed to the existing and also the new NM software will have been identified and recommendations drawn up that will help make improvements in the future.

Reduce and streamline the workload on Teagasc staff by having a efficient and effective nutrient management tool, while also optimising this NMP tool for use across the industry by other agriculture professionals

Gaps in farmers knowledge on soil fertility will have been identified allowing for targeted knowledge transfer in the future, be it through soil fertility campaigns, newsletter additions etc.

Thank you for listening