

MAgrSc Innovation Support Programme 2016-18

Study title: Assessing extension methods for computer based
grass budgeting on dairy farms

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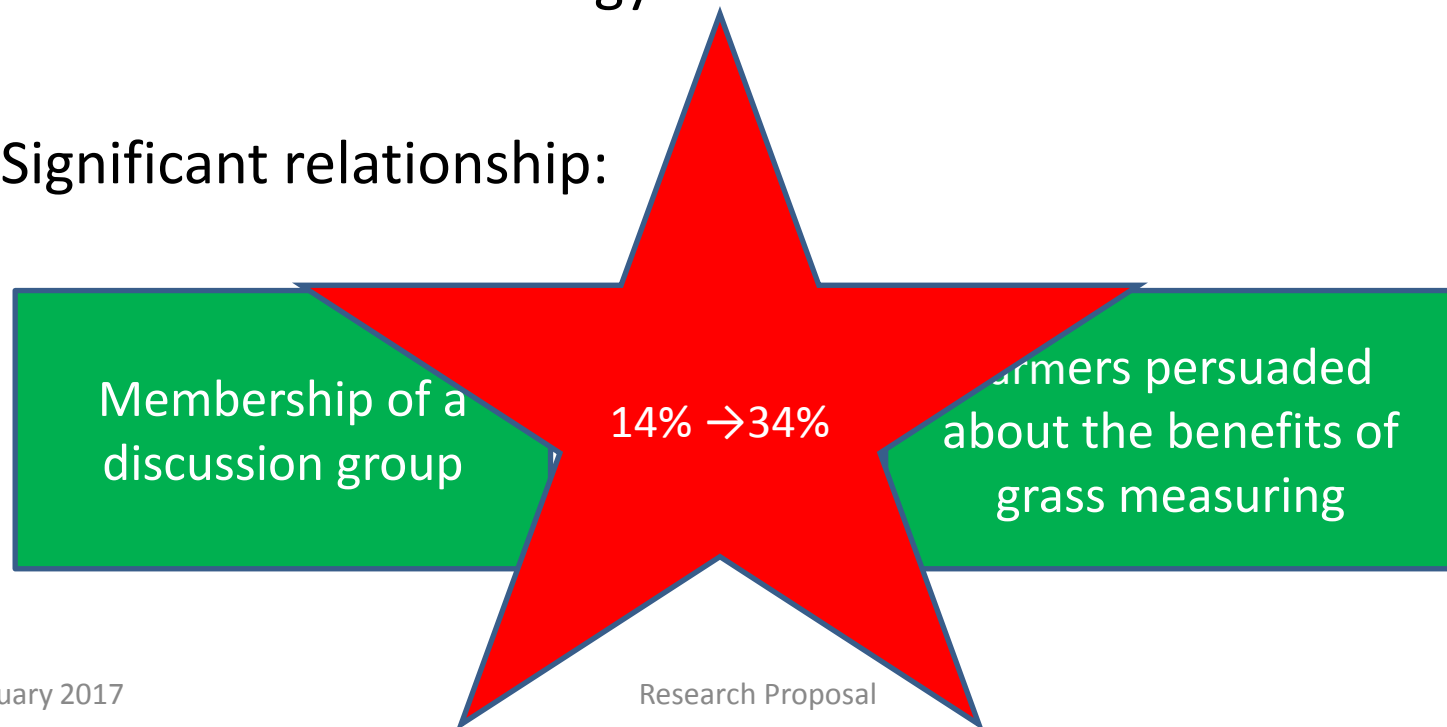
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Study Background

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

- > 90% felt utilising grass and maximising profit was important
- 14% used the technology
- Significant relationship:



Study Rationale

- FW2025 “Farmers must adopt, and be encouraged to adopt, the latest technologies and processes to increase sustainable productivity which will result in increases in farm level profitability”
- FH2020 Target 10tDM/ha utilised
- Adoption is very low – potential improvements are huge
 - Utilisation
 - Grass grown
 - Sustainability: Environment, Profit



What is the literature saying?

- 44% of variation in net profit/ha accounted for by grass utilization (Shalloo, 2009)
- Improved grassland management necessary for Ireland's ruminant production systems to maintain competitive advantage (O' Donovan *et al.*, 2011)
- Adopted by 51% of new entrant dairy farmers - Low adoption compared to other technologies (McDonald *et al.* 2016)
- Adopted by 18% - suppliers from 3 large dairy processors (Creighton *et al.*, 2011)

Aim

Study Aim

Primary:

- **Assess effectiveness of three extension methods to support adoption of computer based grass budgeting on Irish dairy farms**

Secondary:

- Increase the effectiveness of future extension – guidelines
- More efficient use of resources
- Assess if applicable to other technologies

Aim

Research
Questions



Research Questions



1. Which extension method is the most effective for increasing adoption of computer based grass budgeting in dairy discussion groups?
2. What makes a group intervention or extension method successful?
3. What attitudes/personality traits contribute positively or negatively? Is a particular method more effective for a particular demographic?
4. What changes could be made?
5. How can this be applied other technologies?

Aim

Research
Questions

Objectives

Objectives

1. Identify most effective extension methods and why they are effective
2. Identify farmer attitudes or personality traits which influence effectiveness
3. Assess whether specific extension methods are more suitable for a particular farmer demographic
4. Produce guidelines to improve extension identify ways this information can be applied to other technologies

Research
Questions

Objectives

Aim

Extension
methods

Extensive

Semi-intensive

Intensive

Approach and Research Methods

Study on 3 different levels of support for discussion groups:

1. Extensive support

- Dairy Knowledge Transfer Programme discussion groups in the Wexford/Wicklow/Carlow Teagasc advisory region

2. Semi-intensive support

- 2 existing discussion groups
- Monthly discussion group meetings - Grass focused
- Farm visit option

Approach and Research Methods

3. Intensive support

- New group formed end 2016
- Monthly discussion group meetings
- Farm visits and individual help with PastureBase Ireland



Study Population

- 16,500 dairy farmers in Ireland (Teagasc,2016)
- 1,046 specialist dairy farmers in Wexford/Wicklow/Carlow advisory region



Sample

- Intensive category = 20-25
- Semi-intensive category ~ 30-40
- Extensive category ~ 30-40

Sampling Methods

- Purposive sampling: a non-probability form of sampling where the units studied are selected with direct reference to the research questions being asked (Bryman, 2016).
- Priori purposive: criteria to select the study participants have been established at the beginning of the research and do not change over the course of the study (Bryman 2016).
- Not possible to randomly allocate farmers to each of the three categories
- For practical reasons all farmers in the study are in Wexford/Wicklow/Carlow

Research
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Extension
methods

Extensive

Semi-intensive

Intensive

Survey X 2

Focus groups

Advisor interviews

Schedule of Activities (Work Plan)

(February 2017 – March 2018)

February-March 2017

- Design survey questions
- Pilot survey *3, make necessary changes, survey, gather results
- Analyse survey results
- Attend discussion groups

April-June 2017

- Attend discussion groups
- Farm visits - intensive group and semi-intensive categories
- Interviews with advisors

July-September 2017

- Attend discussion groups Farm visits - intensive group and semi-intensive categories
- Analyse interviews

Schedule of Activities (Work Plan)

(February 2017 – March 2018)

October –December 2017

- Focus groups
- Transcribe focus groups and analyse

January-March 2018

- 2nd survey if necessary
- Produce guidelines
- Assess if applicable to other technologies

