

***Evaluate the communication methods
used to disseminate the findings of a
dairy research farm for extension
purposes***

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Study Objectives



1. *Identify current communication methods nationally and internationally and establish which methods are suitable for a dairy research farm*
2. *Establish if the students on a research farm have a greater understanding of research results in comparison to those who are not*
3. *Establish the degree of understanding farmers currently have in relation to research findings and identify opportunities to improve the dissemination of these findings*
4. *Identify the attitudes and needs of dairy advisors and teachers in relation to the dissemination of research findings*





Methodology

Obj 1

Methods

- Trial communication methods and track engagement. Literature review and organisations outside Ireland

Obj 2

Students

- Cross-sectional survey with Teagasc Level 6 Advanced Certificate in Dairy Herd Management students (n=94)

Obj 3

Farmers

- Cross-sectional survey of Lakeland/LacPatrick milk suppliers (n=100)

Obj 4

Advisors

- Focus group with dairy advisors in the region

Teachers

- Focus group with dairy teachers



Objective 2

Student Survey



- *The survey was sent to all agricultural colleges that offer the advanced dairy course.*
- *A total of 106 students completed the survey.*
- *from both colleges which have dairy research farms/herds and those which don't.*

Student Survey

Table 1: Breakdown of numbers of students who completed survey (n=106)

College	Research	Non-Research
Ballyhaise	24	
Clonakilty	32	
Gurteen		4
Kildalton		31
Pallaskenry		15
Total	56	50
	106	

Objective 3

Farmer Survey



- *Convenience sample of farmers in the Cavan/Monaghan region*
- *1410 dairy farms in Cavan/Monaghan with a 10% Confidence Interval = sample size of 90*
- *Phone survey with contact details provided by Lakeland Dairies and LacPatrick*
- *Text sent out prior to survey*



Objective 2

Findings to date - Students

Main reason for choosing course



Reason	Percentage (%)	Number
To gain a better qualification	40.6	43
Specialist subject area	28.3	30
Better employment opportunities	18.9	20
To see the most up to date technology	5.7	6
To see the cutting edge of new research	4.7	5
To obtain the “Green Cert”	0.9	1
To be further away from home	0.9	1

“Is your college involved in dairy research?”

- *Yes = 70.8% (n=75)*
- *No = 29.2% (n=31)*

College of Study	Is college involved in dairy research?		Total
	Yes	No	
Ballyhaise	100% (n=24)	0	24
Clonakilty	100% (n=32)	0	32
Gurteen	25% (n=1)	75% (n=3)	4
Kildalton	54.8% (n=17)	45.2% (n=14)	31
Pallaskenry	6.7% (n=1)	93.3% (n=14)	15
Total	75	31	106

Of those who said their college was involved in dairy research:

- *9.3% (n=7) were categorised as having a good understanding of research topic*
- *33.3% (n=25) were deemed to have a mild understanding of the research topic*
- *25.3% (n=19) gave an answer for the current research topic as they believed that their college had a dairy research herd, however in reality it doesn't.*

Findings to date - Students

- *No student from Ballyhaise (n=24) knew the exact research topic*
- *Five mentioned either “crossbreeding” or “breeding”*
- *Seven students from Clonakilty (n=20) mentioned a variation of “clover and different grass species”*
- *11 further students mentioned “clover”*

Research
Ballyhaise

The effect of breed on milk production per cow/ha,
reproductive performance, grass utilisation

Research
Clonakilty

The effect of tetraploid and diploid swards sown with and
without white clover on the productivity of spring milk
production systems

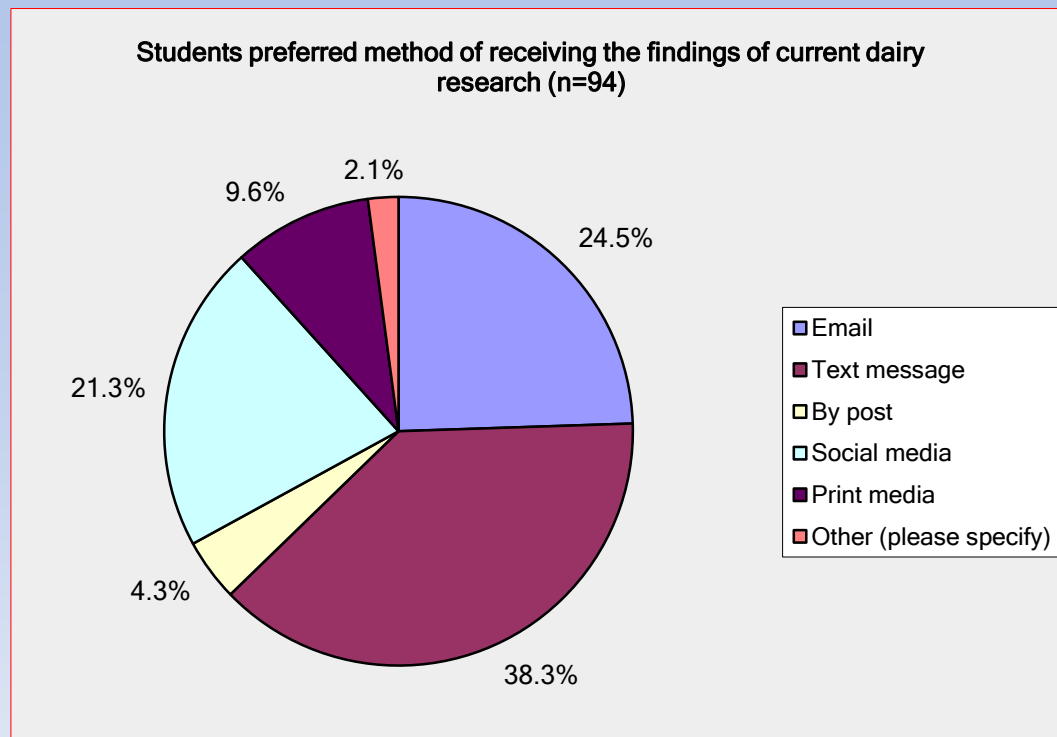
Research topic



Ballyhaise	Clonakilty	Kildalton
Crossbreeding	Grass and clover	Solids
Breeding	Clover	Sustainable farm project
Meal feeding	Dairy	Grass
Fertility	Different types of grasses with and without clover	Water
Dairy herd management	Grass	Doc trials
Low cost grass	crossbreeding	Breeding
grassland		Dairy
Grass mgt on heavy soils		Nothing
Dairy		Cows

Receiving research findings

- Students most preferred method of receiving research findings was via text message with 38.3% choosing this method (n=94)*



Knowledge of the findings of current dairy research (n=106)

Rating	Percentage (%)	Number
Excellent	14.2	15
Very good	41.5	44
Good	35.8	38
Fair	5.7	6
Poor	2.8	3

Degree to which the most up to date research is being taught (n=105)

Rating	Percentage (%)	Number
Excellent	18.1	19
Very good	52.4	55
Good	21.9	23
Fair		7
Poor		1

Aspect of course that most enhanced learning experience (n=103)

Aspect	Percentage (%)	Number
Grass measuring & management	30.1	31
Farm visits	23.3	24
Breeding management	12.6	13

- *nutrition*
- *farm placement*
- *teachers/staff*
- *college facilities*
- *class discussions*
- *No particular aspect*

Access research findings in own time (n=13)

- *Yes = 63.1% (n=65)*
- *No = 36.9% (n=38)*

How?

- *57.6% (n=38) reading information sources*
- *27.3% (n=18) discussion group*
- *6.1% (n=4) attending Teagasc open days*
- *4.5% (n=3) attending conferences*

Predominant home farm enterprise (n=103)

Enterprise	Percentage (%)	Number
Dairy	65	67
Beef	22.3	23
Sheep	1.9	2
No home farm	10.7	11

Applying research results or findings on home farm (n=93)

Yes (58.1%)	No (41.9%)
improve grassland management	time constraints
improve breeding	running a different system
to improve output	not at home full-time
to learn more	don't feel the need to
to improve calf management	unwilling father
to make the farm more profitable	rented land
to achieve best practice	jersey cows
	different ground conditions
	waiting for definite results to see if it's worthwhile

Change any practices on own farm as a result learning's from colleges on farm dairy herd practices (n=93)



Yes = 88.2% (n=82)

No = 11.8% (n=11)

What practices?

- *58.5% (n=48) = grass management*
- *28% (n=23) = fertility management and calving pattern*
- *11% (n=9) = improve milk production*
- *1.2% (n=1) = environmental science*
- *1.2% (n=1) = calf rearing practice*

Breakdown of where students see themselves in both five and ten years' time (n=103)



	5 years' time		10 years' time	
	Frequency	Percentage (%)	Frequency	Percentage (%)
farming at home (full time)	46	44.7	67	65
farming at home (part time)	22	21.4	13	12.6
farm labourer/operative(not home farm)	9	8.7	1	1
farm manager (not home farm)	20	19.4	16	15.5
other education course	1	1	0	0
industry work	2	1.9	3	2.9
working abroad	2	1.9	1	1
share farming/partnership	1	1	2	1.9

Optimistic about the dairy industry going forward (n=103)



Yes - 64.1% (n=66)	Unsure - 24.3 % (n=25)	No - 11.7% (n=12)
Milk price will rise	poor & volatile milk price	poor & volatile milk price
Markets and industry will improve	volatile markets	over supply of milk on world markets
opportunities to expand and increase production	unsure as to what will happen in the future	calving
most profitable farming enterprise		the industry is going down
Low cost production		
Lots of opportunities		
Cash flow		
Population growth		
People will always need milk		

Rating of confidence with regards to technical skills before course (n=103)



	Very Poor	Poor	Average	Good	Very Good	Excellent
Grass Management	11 (10.7%)	17 (16.5%)	28 (27.2%)	20 (19.4%)	16 (15.5%)	11 (10.7%)
Fertility	4 (3.9%)	18 (17.5%)	28 (27.2%)	26 (25.2%)	17 (16.5%)	10 (9.7%)
Farm Planning	2 (1.9%)	21 (20.4%)	35 (34%)	27 (26.2%)	9 (8.7%)	9 (8.7%)
Animal Health	1 (1%)	6 (5.7%)	29 (28.2%)	37 (35.9%)	19 (18.4%)	11 (10.4%)
Theory	2 (1.9%)	10 (9.7%)	33 (32%)	34 (33%)	14 (13.6%)	10 (9.7%)
Practical Advice	0	5 (4.9%)	30 (29.1%)	29 (28.2%)	25 (24.3%)	14 (13.6%)

Rating of confidence with regards to technical skills after course (n=103)

	Very Poor	Poor	Average	Good	Very Good	Excellent
Grass Management	1 (1%)	1 (1%)	6 (5.8%)	22 (21.4%)	42 (40.8%)	31 (30.1%)
Fertility	1 (1%)	2 (1.9%)	4 (3.9%)	28 (27.2%)	43 (41.7%)	25 (24.3%)
Farm Planning	1 (1%)	1 (1%)	10 (9.7%)	27 (26.2%)	43 (41.7%)	21 (20.4%)
Animal Health	1 (1%)	0	4 (3.9%)	27 (26.2%)	48 (46.6%)	23 (22.3%)
Theory	1 (1%)	2 (1.9%)	7 (6.8%)	28 (27.2%)	44 (42.7%)	21 (20.4%)
Practical Advice	0	1 (1%)	5 (4.9%)	16 (15.5%)	52 (50.5%)	29 (28.2%)

Students' knowledge of recommended targets (n=101)

	Correct	Incorrect
% calved in 6 weeks	44 (43.6%)	57 (56.4%)
% in calf in 6 weeks	4 (4%)	97 (96%)
Grass utilization (tonnes DM/Ha)	40 (39.6%)	61 (60.4%)
Milk solids production per cow (kg/cow)	34 (33.7%)	67 (66.3%)
Milk solids production per hectare (kg/Ha)	24 (23.8%)	77 (76.2%)

Objective 3

Findings to date - Farmers

Farmer Profile



	Average	Minimum	Maximum
Age (yrs)	48.77	24	82
Land (Ha)	64.87	9	283
Land around parlour (Ha)	32.79	9	110
No of cows	79.32	15	250

	Yes	No
Significant beef enterprise	27%	73%
Derogation	43%	57%
Discussion group	38%	62%

Last visit to Ballyhaise Farm

- *34% within the last six months*
- *17% six months to one year ago*
- *14% one to two years ago*
- *13% three to five years ago*
- *3% six to nine years ago*
- *12% ten years or greater ago*
- *7% were never on the Ballyhaise farm*

Reason for visit



Of those that have previously visited the farm:

- *47.3% (n=44) for a farm walk*
- *31.2% (n=29) for an open day*
- *12.9% (n=12) as part of a discussion group*
- *8.6% (n=8) as part of college or a training course*

Relevance of farm



- *53% of farmers felt that the Ballyhaise research farm was of relevance to them*
- *Reasons for non relevance:*
 - *Land is better in Ballyhaise – 46.7%*
 - *Cow breed – 33.3%*
 - *Labour units – 13.3%*

Strengths and Weaknesses

Strengths	%	Weaknesses	%
Representative land and location	10	Crossbreeding/cow type	21
Grass management	46	Labour	35
Good Genetics	13	Out wintering pad	11
		Land is drier than most in the region	4
		Heavy/wet land	7

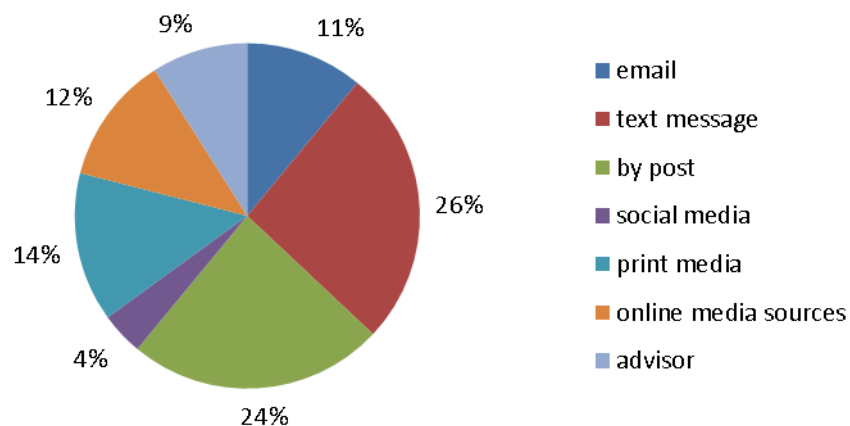
Receiving the findings of the research from the Ballyhaise dairy research farm going forward



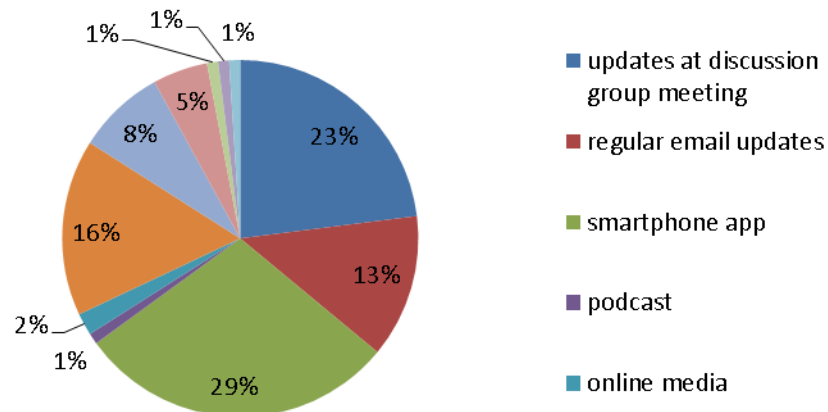
Method	%
Smartphone app	29
Updates at discussion group meetings	23
By post	16
Regular email updates	13
Text message	8
Print media	5
Online media	2
Podcast	1
Advisor calling to farmers	1
Information session	1
Open day	1

- Farmers most preferred method of receiving current research findings was via text message with 26% choosing this method (n=100)*
- Going forward, a smartphone app was the most preferred method (29%) chosen to receive the findings from Ballyhaise (n=100)*

Farmers preferred method of receiving the findings of current dairy research (n=100)



Farmers preferred method of receiving the findings from Ballyhaise going forward (n=100)



Ballyhaise Dairy Twitter

TeagascBallyhaise DY
@ballyhaisedairy

Teagasc Ballyhaise Dairy research herd

📍 Cavan, Ireland teagasc.ie

48 FOLLOWING 632 FOLLOWERS

Tweets Media Likes

TeagascBallyhaise DY @ballyhaisedairy · 1d
@agrinetonline - #agrinet - 64% closed

Home Notifications Moments Messages Me

TeagascBallyhaise DY
@ballyhaisedairy

Teagasc Ballyhaise Dairy research herd

📍 Cavan, Ireland

teagasc.ie

📅 Joined April 2016

TeagascBallyhaise DY @ballyhaisedairy · Oct 14

Spread 40tonne of lime this week & another 20tonne to spread in about 2 wks. Lime applied at rate of 1–2 tonne/acre depending on requirement

🔄 1 ❤️ 7

TeagascBallyhaise DY @ballyhaisedairy · Oct 20

13.8 Lts/cow, 5.18% F, 4.12% P, 1.33kg MS, SCC 123,000

Have sold 345kg of milk solids to the end of Sept

Received 33.5 c/l for Sept milk

🔄 ❤️ 12

TeagascBallyhaise DY @ballyhaisedairy · Oct 18

@agrinetonline - #agrinet - 46% closed, ground condition sticky, cull cows gone this week

Key Data

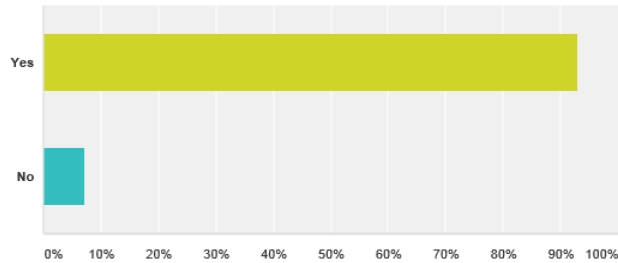
17-Oct-2016	836 Avg Cover	31.10 Growth	2.78 LU/ha	13.84 Ltr/Cow	4.12% Prot
	60 Post Graze	36.00 Demand	301.10 Cover/LU	40 Days Rotation	5.18% Fat

🔄 3 ❤️ 4

Video Update

Would you look at video updates of the research farm if they were available to you?

Answered: 100 Skipped: 0



Answer Choices	Responses
Yes	93.00% 93
No	7.00% 7
Total	100



TeagascBallyhaise DY

@ballyhaisedairy

Would you look at video updates of the Ballyhaise research farm if they were available to you?

96% Yes

4% No

192 votes • Final results

RETWEETS

6

LIKES

5



6:47 AM - 14 Oct 2016



6



5



Teagasc Ballyhaise
Dairy Research Herd
18th October 2016

0:01 / 2:18



Ballyhaise Dairy Update



Teagasc



Subscribe

1,937

1,617 views

Conclusions to date



- *Students don't seem to understand the difference between research and best practice*
- *The majority of farmers realise that Ballyhaise is of relevance to them but don't understand what research is being conducted*
- *There is a need to improve the dissemination of research findings to both students and farmers*
- *Students on research farms need to benefit from having this resource close at hand*
- *Twitter and YouTube are proven successful as means of dissemination so far*

Next Steps

- *Further analysis of surveys*
- *Evaluation of current communication methods*
- *Dairy advisor focus group*
- *Teacher focus group*
- *Thesis write-up*



Thank You

