Agricultural Economics Society of Ireland

Annual Conference 2012

Book of Abstracts

Thursday, October 18th

www.aesi.ie

Venue:

Dodder Suite Rooms

RDS (The Royal Dublin Society)

Merrion Road

Ballsbridge

Dublin 4

www.rds.ie

Thursday October 18th – AESI Conference 2012 – Morning

09.00		**Registration and Tea/Coffee**		
09.30		**Contributed Paper Session 1 (2 parallel sessions)**		
Consumer Behaviour	**Room E**	Chair: Maeve Henchion	Price search in the grocery market	Alan Collins, Ella Kavanagh, James Cronin and Richard George
			Using best-worst scaling to assess who consumers trust: do processing strategies matter?	Danny Campbell and Seda Erdem
			Mind the gap: intention to behaviour, the challenge in confectionery consumption	Paul Naughton, Sinéad McCarthy and Mary McCarthy
Decision-Making on the Farm	**Room B**	Chair: Michael Wallace	Economic and behavioural factors motivating private afforestation decisions in Ireland	Herath Vidyaratne, Mary Ryan, Stephen O'Neill, Nuala Ni Fhlatharta and Srinivas Raghavendra
			Neighbourhood influence on the adoption of organic farming	Doris Läpple and Hugh Kelley
			An examination of computer usage on farms using Teagasc National Farm Survey data	Thia Hennessy and Brian Moran
10.40		**Tea/Coffee Break**		
11.05	**Room B**	Chair: David Stead	**Plenary Session 1: Presentation of AESI Honorary Life Memberships & Estimation of the contribution of the biosector to Ireland's net foreign earnings: methodology and results**	**Ann Derwin (AESI President)** **Brendan Riordan**
11.50		**Contributed Paper Session 2 (2 parallel sessions)**		
Decision-Making and Adoption	**Room E**	Chair: Doris Läpple	An investigation of the participation decision in the Rural Environment Protection Scheme (REPS): a conditional logit approach using simulated counterfactual data for farmers	Geraldine Murphy, Cathal O'Donoghue, Stephen Hynes and Eithne Murphy
			Eliciting individuals' risk perceptions using best worst scaling	Seda Erdem and Dan Rigby
			Uptake and benefits of Profit Monitor use on Irish farms	James Breen, Alan Dillon, Thia Hennessy and Fintan Phelan
Agricultural Policy	**Room B**	Chair: Kevin Hanrahan	New decision-making processes and the CAP	Alan Matthews
			Do decoupled payments affect farm investment financing constraints? Evidence from Ireland	Conor O'Toole and Thia Hennessy
			The effect of policy changes on volatility in dairy markets	Eoin Kelly, Declan O'Connor and Michael Keane
13.00		**Lunch (in Centurion Bar)**		

Thursday October 18th – AESI Conference 2012 – Afternoon

14.00		**Contributed Paper Session 3 (3 parallel sessions)**		
Natural Resource Use	**Room C**	Chair: Danny Campbell	Nutrient budgeting at farm level – eco-efficiency of specialist dairy farms	Cathal Buckley, David Wall and Paul Murphy
			Estimating the effects of land-use and catchment characteristics on lake water quality: Irish lakes 2004-2009	John Curtis and Edgar Morgenroth
			A spatial model of afforestation in Ireland	Vincent Upton, Cathal O'Donoghue and Mary Ryan
Farm Economics	**Room B**	Chair: Eoin Kelly	Identifying determinants of efficiency using Data Envelopment Analysis for Irish suckler beef farms	Eoghan Finneran and Paul Crosson
			Modelling compensatory growth using the Grange Dairy Beef Systems Model	Austen Ashfield, Paul Crosson, Michael Wallace and Mark McGee
			Assessing the role of incentives in the economic returns to discussion group membership	Thia Hennessy and Doris Läpple
Innovation and Food	**Room E**	Chair: Emma Dillon	Innovation and skills: implications for the agri-food sector in Northern Ireland	Claire Jack, Duncan Anderson and Niamh Connolly
			Exploring the role of intermediaries in the innovation networks	Hatice Beste Yildiz, Maeve Henchion and Nola Hewitt-Dundas
			Attitudes towards healthy eating; profiling the health oriented consumer in a representative sample of Irish adults	Paul Naughton, Sinéad McCarthy and Mary McCarthy
15.10		**Tea/Coffee Break**		
15.30	**Chair: Ann Derwin** **Room B**	**Plenary Session 2: CAP Reform** **Vincent Chatellier (INRA) – The October 2011 legislative proposals for CAP reform: a French point of view** **&** **Panel discussion from an island of Ireland perspective:** **Kevin Hanrahan (Teagasc), Rowena Dwyer (IFA), Myles Patton (AFBI)** **(followed by general discussion)**		
17.00		**Close**		

Friday October 19th – AESI Early Career Researcher Seminar 2012

Room G01, UCD Agriculture and Food Science Centre

UCD, Belfield, Dublin 4, www.ucd.ie

09.30	**Introduction and Tea/Coffee**	
	First Years (10 mins presentation + 5 mins questions)	
9.45	Recent developments in the productivity of the dairy sector	Patrick R. Gillespie (Teagasc/NUIG)
10.00	Mediating 40 shades of green: a participatory action research approach in the Irish agricultural extension system	Catherine Seale (Teagasc/OU)
10.15	Welsh farmers' knowledge, willingness to adapt to, and attitude towards climate change	John Hyland (Bangor)
10.30	The Almon model and the transmission of prices from the dairy farmer to the consumer in Ireland	Charlotte Mahon (Eurostat)
	Second Years plus (15 mins presentation + 5 mins questions)	
10.45	The scientific and economic valuation for the environmental benefits of on-farm anaerobic digestion	John Walsh (Bangor)
11.05	**Tea/Coffee Break**	
11.30	Young farmer innovation practices for agricultural and rural development	Jessica McKillop (Teagasc/UCD)
11.50	Promoting innovation in Irish food processing firms: exploring the role of intermediaries in the innovation networks	Beste Yildiz (Teagasc/QUB)
12.10	Addressing system problems: development of an innovation broker	Christina Ryan (Teagasc/NUIM)
12.30	Case study: the potential economic impact on agriculture of possible freshwater pearl mussel protection strategies	Aksana Chyzheuskaya (Teagasc/NUIG)
12.50	**Lunch, Judges' Deliberations & Presentation of Prizes**	
14.00	**Close**	

Judges: Brendan Riordan (research economist) and Michael Wallace (UCD)

Contributed Paper Session 1

Consumer Behaviour

09.30-10.40

Room E

Chair: Maeve Henchion

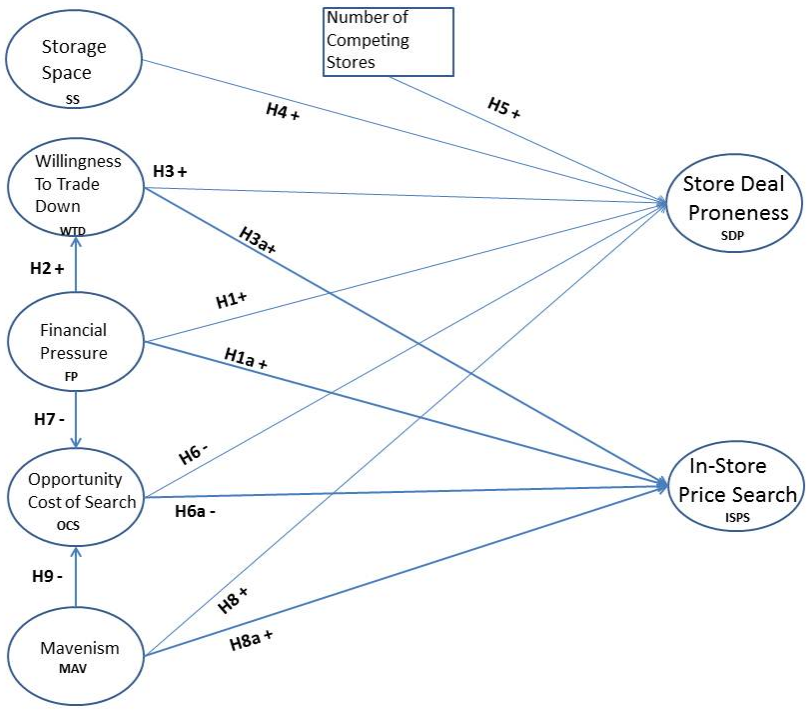
Price Search in the Grocery Market

Dr. Alan Collins (a.collins@ucc.ie); Dr. Ella Kavanagh; Mr. James Cronin; and Professor Richard George

Abstract

This research develops and tests a model of both in-store price search and across store promotional price search based on a conceptual framework focused on hedonic and utilitarian motivations. Based on a sample of 535 US shoppers, the model shows that in-store price search and store deal proneness share many of the same drivers and amongst these the value of time is the most important. The model elaborates and explains of the interdependencies that exist between the variables that influence our focal behaviours. Central to the model is that the opportunity cost of time is endogenous and is explained in terms of financial pressure and price mavenism. Price mavenism is found to have a larger effect on the opportunity cost of time when compared with financial pressure conditions. Price mavenism also influences store deal proneness directly due to its capacity to yield price information required to build and maintain maven identity and indirectly through its effect on the opportunity cost of time. The model also explicitly incorporates shoppers' willingness to trade down which is shown to have a substantial effect on promotional search across stores.

A Model of Price Search.



Using best-worst scaling to assess who consumers trust: do processing strategies matter?

Danny Campbell and Seda Erdem

As a consequence of recent food safety incidents, consumers' trust in food safety management and regulation has diminished. The uncertainty regarding the safety of foods that people consume (i.e., credence nature) has created doubts in consumers' minds. This has led to mistrust in the organisations and people involved in food production. Given the contentious history of recent food technologies, it is important to address whom consumers trust regarding the dissemination of information about new technologies. This study examines consumers' trust in institutions in the food industry, and their role in providing balanced and accurate information about nanotechnology and its use in food production and packaging. Such information may help to explain the public's attitude towards accepting the technology, which may then have a bearing on its adoption in the industry.

In this research, we use Best-Worst Scaling (BWS) to elicit consumers' preferences for institutions that they trust most and least to inform them about nanotechnology. The approach used in this research differs from past studies in that it reduces the cognitive burden associated with people ranking items (i.e., institutions) in large sets. This is achieved by breaking the tasks into a more cognitively manageable size. The BWS preference elicitation offers some insights and challenges, as well as providing opportunities to investigate processing strategies adopted by respondents. Some processing strategies, such as attribute-non-attendance, have been widely investigated in first-choice elicitation procedures. However, they have yet to receive the same attention in the rank-ordered framework. What we are proposing here is the first exploration of attention (or weights) respondents allocate to the position of items in best and worst choice tasks, regardless of what these items are. In other words, more generally, we investigate whether there are anomalies in processing of choice tasks involving best/worst rankings and whether these anomalies are manifested the same way for the best and the worst choices.

The data for the study was collected via an online survey in 2010. This included 625 consumers recruited through a market research company in the UK. The survey included 16 institutions. After ensuring a balanced and nearly orthogonal survey design, tasks were randomised, and a participant was randomly assigned to a version, which led to 300 versions. Respondents were asked to indicate which one of the five institutions shown to them they felt was the most trustworthy and which one was the least trustworthy in providing accurate and balanced information about nanotechnology in food production.

The data is analysed via a number of mixed logit models to uncover probabilistic estimates that respondents' choices were driven solely by the position of the items. Our modelling approach is aimed at obtaining separate estimates for each position. By allowing these estimates to differ between the best and the worst choices, we are able to establish whether or not the processing strategies that respondents adopted when identifying their best choices are the same as when they select their worst choices. We further expand our modelling approach to also facilitate random taste variation.

Results show the existence of heterogeneity in consumers' preferences and the level of trust in information sources about nanotechnology. Crucially, our analysis reveals that processing strategies are not unique to other stated preference techniques. We find strong evidence that respondents adopted processing strategies in this BWS survey. Specifically, we find that respondents were more inclined to disregard the items located in the bottom half of the ranking task when they were making their "best" choices, whereas they tend to allocate more weight (i.e., attention) to these items when making their "worst" choices.

Contact: Danny Campbell (d.campbell@qub.ac.uk)

Mind the Gap: Intention to Behaviour, the Challenge in Confectionery Consumption

Paul Naughton[1,2], Dr. Sinead McCarthy[1], Dr. Mary McCarthy[2]

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[2] University College Cork

Health is an important motive underlying food choice for many Irish adults (FSAI, 2007). The backdrop to increasing health orientation is an obesity epidemic that is a major public health concern in Ireland and across EU member states (National Task Force on Obesity, 2005; CEC, 2007; Department of Health, 2012). In this context, it is not surprising that there has been a recent trend in the food and drink industry of reducing the amount of sugar in products (Leatherhead, 2011). Healthy eating is often regarded as self-directed health behaviour given that individuals can take responsibility for their own wellbeing. In achieving a healthy, balanced, diet people often need to make healthy dietary changes, for example, to reduce consumption of confectionery foods. The first step towards dietary change is to form good intentions. However, research shows that good intentions alone, time and again, do not lead to good behaviour. Employing a mixed research design (i.e. a design using qualitative and quantitative research methods), the objective of this study was to investigate the post-intentional phase of dietary behaviour in order to determine the factors that facilitate the transition of healthy eating intentions into healthy eating behaviour. Qualitative research took the form of 12 in-depth semi-structured interviews with Irish adults. The findings from the interviews were used to guide the design of a quantitative study, which entailed the administration of 500 self-completion questionnaires to a representative sample of Irish adults.

Using logistic regression analysis the factors that predict a reduction in confectionery food consumption were identified. In a sample of individuals motivated to reduce confectionery food consumption, it was found that dietary self-control was a key determinant of successful dietary change. Furthermore, individuals who targeted specific behavioural change goals were likely to be more successful in making a healthy dietary change compared with individuals who had vague goals or no goals. The findings indicate that in order to facilitate healthy dietary change, public health policy should promote the idea of setting lifestyle goals that are reasonable to achieve. In addition, a marketing strategy focused on goal setting should be supported by initiatives that promote people's dietary self-control. From an industry perspective, health promoting foods and associated marketing strategies that facilitate dietary self-control are likely to be received favourably by consumers.

Contributed Paper Session 1

Decision-Making on the Farm

09.30-10.40

Room B

Chair: Michael Wallace

Economic and behavioural factors motivating private afforestation decisions in Ireland

Herath Vidyaratne[1], Mary Ryan[2], Stephen O'Neill[1], Nuala Ni Fhlatharta[2] and Srinivas Raghavendra[1]

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Keywords: Afforestation, planting decision, farmer behaviour, irreversibility

Abstract

The role of forests in providing timber, sequestering carbon, enhancing the environment and facilitating recreational activity is well recognized. Forestry is also recognized for supporting economic development in rural areas. In Ireland, however, the rate of planting in Ireland lags far behind levels that would be expected from a comparison of the returns from farm forestry with competing agricultural alternatives. A comprehensive survey of farmers and forest owners in Ireland was undertaken with the aim of better understanding farmers' behaviour in relation to (a) the decision to enter into forestry and (b) how much land is planted. The evidence presented suggests that farmers consider a broad range of factors other than financial return when making the decision to afforest land. We conclude that the design of policies aimed at encouraging greater rates of private afforestation needs to be guided by a better understanding of both the economic and behavioural factors that influence the decision.

Neighbourhood Influence on the Adoption of Organic Farming

Doris Läpple* and Hugh Kelley

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Abstract
This study analyzes the influence of neighbours on the adoption of organic farming. A Bayesian spatial probit model is applied to survey data collected from Irish drystock farmers, which allows us to quantify the impact of spatial interdependence on farmers' decisions and the extent of the spatial neighbourhood. The empirical results suggest that farmers located in close proximity make similar adoption decisions. The results also confirm that attitudes play an important role in spreading the uptake of organic farming. Overall, the study underlines the importance of accounting for interdependence in farmers' decisions which emerges as an important consideration in the formulation of agricultural policy.

Introduction
Despite the fact that the influence of neighbours is widely thought to be an important factor affecting technology adoption, few studies have previously attempted to empirically study this neighbourhood effect. Hence, this study applies a Bayesian spatial probit model that accounts for the influence of neighbours in the adoption of organic farming of Irish drystock farmers. Interactions or neighbourhood effects may arise due to communication between farmers, suggesting that farmers located in close proximity may exhibit similar choice behaviour. Thus, when modelling adoption behaviour of farmers, it is important to control for possible interdependence in decision making.

Methodology
Given the assumption that farmers' decisions are influenced by their neighbourhood a modelling framework that can account for this is required. Specifically, it is expected that the farmer's utility of adoption to be influenced by the neighbour's utility, which leads to the following spatial lag model:

$$y^* = \rho W y^* + X\beta + u$$

Where y^* is a $nx1$ vector representing the farmer's utility, X is a nxm matrix representing explanatory variables, β is a $kx1$ vector of parameters to be estimated, u is a $nx1$ vector normally distributed error term $N(0, \sigma^2 I_N)$, ρ is a scalar parameter indicating spatial dependence and W is a nxn spatial weight matrix. The spatial weight matrix provides information on the proximity between farms, and is derived from GIS inputs. Since we do not observe the farmer's utility y^* but the observed choice, the dependent variable y is a binary choice variable which equals one if the farmer adopts organic farming and zero otherwise. In order to estimate this spatial probit model, a Bayesian estimation framework using a MCMC sampler is applied.

Results and Discussion
The model estimates confirm strong positive neighbourhood effects in the adoption of organic farming. In addition, farm and farmer characteristics also affect the adoption of organic farming. Overall, the paper concludes that it is important to account for spatial effects in the adoption of organic farming, which also has important policy implications in terms of how to effectively promote organic farming.

An Examination of Computer Usage on Farms using Teagasc National Farm Survey Data

Thia Hennessy and Brian Moran

Agricultural Economics and Farm Surveys Department
Rural Economy and Development Programme
Teagasc

This paper uses Teagasc National Farm Survey data to examine the evolution of computer usage in farm households over the last number of years. Data collected in 2004, 2008 and 2011 is reviewed and computer usage is compared to the rates recorded for non-farm households and for other farm households internationally. The results show that the rate of computer usage has increased from 40 percent of farm households in 2004 to 63% in 2011, with the majority of farmers using computers for farm business purposes. Access to computers and use for farm business purposes is most common on dairy and tillage farms. Farmers cite communications as their main computer use, while a large number also use it for herd register etc. The adoption and use of electronic management tools is also recorded and the characteristics of farmers using these tools are analysed.

Plenary Session 1:

Presentation of AESI Honorary Life Memberships &
Estimation of the contribution of the biosector to Ireland's net foreign earnings: methodology and results
Brendan Riordan

11.05-11.50

Room B

Chair: David Stead

Paper Abstract

The Department of Agriculture, Food and the Marine recently published an estimate of the contribution of the biosector to Ireland's net foreign earnings in 2008. This paper explains the methodology used for this estimate and considers the implications of the results.

It addresses the following questions:

Methodology

- Why are Ireland's net foreign earnings important?
- Why focus on foreign earnings arising from the trade in merchandise rather than all exports including exports of services?
- What adjustments have to be made to derive the net contribution from the value of merchandise exports?
- What is the definition of the biosector?
- What are the main activities that generate inflows and outflows of funds?

Results

Major differences were found between results for the biosector and the non-biosector. In particular, the biosector was found to account for 40 percent of the net foreign earnings from merchandise exports even though it only accounted for 19 percent of the value of these exports. This result is for 2008 and is consistent with results for earlier years, in fact the biosector also accounted for 40 percent of net foreign earnings from merchandise exports in 2005.

The paper concludes that these results point to giving the biosector a greater weight in decisions on measures to grow the economy than would be indicated by the oft quoted ten percent share of agri-food in merchandise exports. The reason being the exceptionally strong links between the biosector and the rest of the economy.

Reference

Department of Agriculture, Food and the Marine, 2012: *The contribution of the 'biosector' to Ireland's net foreign earnings: a provisional estimate for 2008* (http://www.agriculture.gov.ie/media/migration/publications/2012/Reportnetforeignearningscontribution200712.pdf)

Contributed Paper Session 2

Decision-Making and Adoption

11.50-13.00

Room E

Chair: Doris Läpple

An investigation of the participation decision in the Rural Environment Protection Scheme (REPS): a conditional logit approach using simulated counterfactual data for farmers

Geraldine Murphy, Cathal O'Donoghue, Stephen Hynes, Eithne Murphy

In this paper we present a theoretical model of the effect of the choice to participate in the Rural Environment Protection Scheme (REPS) on Irish farms. REPS was a voluntary agri environmental scheme with broad objectives that was available to every farmer in the Republic of Ireland from 1994 to 2009. We describe farmers' hypothetical responses to the possibility of participating in the scheme using an adapted version of the agricultural household model. Data on physical, economic and demographic farm variables were taken from the National Farm Survey (NFS) and were used in a 16-year pooled dataset. In order to produce the budget set associated with alternative choices, we take observed actual choices and associated characteristics from the survey data and simulate counter-factual characteristics utilising an income generation function. We then estimate a preference function in a similar manner to policy endogenous choice models in labour economics (e.g. Van Soest, 1995). In doing this, we compare farmers' actual decision (to join REPS or not) with their alternative decision. A conditional logit framework was used to test our behavioural hypotheses and to estimate values for the average impact of the REPS participation decision on Irish farms over time.

Eliciting Individuals' Risk Perceptions Using Best Worst Scaling

Seda Erdem[*] and Dan Rigby

This research proposes and implements a new approach to the elicitation and analysis of risk perceptions. We use the Best Worst Scaling (BWS) technique to elicit the levels of control respondents believe they have over a set of risks and the level of concern those risks prompt. The approach asks respondents directly regarding control and concern over a large risk set but is structured so as to reduce the cognitive burden typically associated with ranking tasks over large sets. We contend that the BWS method makes the process more intuitive and cognitively manageable for respondents. More importantly, the method allows us to analyse the choice data for exploring differences in individuals' perceptions and how they vary with participants' characteristics by using random parameters models. The approach is implemented for a set of 20 food (e.g., cloning, genetic modification) and non-food risks (e.g., swine flu, climate change). The results show the existence of heterogeneity in individuals' risk perceptions. We also observe that risk perceptions, on average, are different for males and females.

Keywords: Best-worst scaling; maximum difference; risk perception; random parameters; individual differences; novel technology; food risks.

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Uptake and Benefits of Profit Monitor Use on Irish Farms

James Breen[1], Alan Dillon[1,2], Thia Hennessy and Fintan Phelan

[1] UCD School of Agriculture and Food Science, Belfield, Dublin 4
[2] Teagasc Knowledge Transfer and Education

A number of studies have identified the adoption of appropriate farm financial management tools as a key determinant of farm success (Franks, (1997), Gloy et al, (2002) and Jackson-Smith *et al*, (2004)). Therefore in an Irish context farm financial management tools such as the Teagasc e-Profit Monitor and the Cost Control Planner can provide valuable financial information for farmers when making management decisions. Despite the benefits that can be gained from using these farm financial management tools their uptake has been very low to date. In 2006 only 9 per cent of Teagasc dairy farmers were found to be completing dairy profit monitors (Connolly and O'Dwyer 2006). This figure has increased to 16 per cent of Teagasc dairy clients in 2010 with another increase expected in 2012 due to the requirement to complete a Profit Monitor under the Dairy Efficiency Programme (Connolly 2011). However, the adoption of these tools on dairy farms remains low, while the adoption of similar tools on other farm sectors is even lower.

A number of studies have used Teagasc National Farm Survey data to examine the factors affecting technology adoption on Irish farms including, Hennessy and Heanue (2012), Howley *et al* (2012) and Lapple *et al* (2012). Within this literature factors such as discussion group membership, farmer education levels, farm profitability and farmer age were typically found to be statistically significant factors in the adoption of new technologies. Kilpatrick *et al,* (1999) identified farmers who attended farm business management training activities in Western Australia as having higher levels of formal education, being between 35 and 50 years of age, expressing a willingness to seek information, displaying a positive attitude towards the future of agriculture, being computer literate, owning medium to large sized farms (with some level of debt) and being innovative operators. O'Dwyer and Connolly (2007) described farmers who had completed financial analysis using the Teagasc Profit Monitor as being those farmers who are willing to stay abreast of the latest farming developments and willing to entertain the ideas of others and learn about innovations.

This paper addresses two research questions: the first examines the characteristics of farmers who have adopted the e-profit monitor and the second examines the returns to using the e-profit monitor. In this paper we use data from the Teagasc National Farm Survey (Hennessy et al 2011) to estimate a discrete choice model which is used to assess the factors associated with the decision to use the e-profit monitor. A multiple regression model is then used to estimate the effect of e-profit monitor use on farm profit.

References

Connolly, K. Teagasc Financial Specialist 2011, Private Communication (22-05-2012).

Franks, J.R. 1997. *Predicting financial stress in farm business*. European Review of Agricultural Economics. Vol.25.Pg 30-52.1998.

Gloy, B.A., Hyde, J and LaDue, E. 2002. *Dairy Farm Management and Long Term Farm Financial Performance.* Agricultural and Resource Economics Review 31/2. (October 2002) Pg 233-247.

Hennessy T, Moran B, Kinsella A, and Quinlan G (2011): National Farm Survey Report 2010, Galway, Ireland: Teagasc, Rural Economy Research Centre http://www.teagasc.ie/publications/2011/1016/NFS10.pdf accessed 24/01/2012.

Hennessy. T and Heanue. H. (2012). *Quantifying the effect of discussion group membership on technology adoption and farm profit on dairy farms.* The Journal of Agricultural Education and Extension, Vol. 18:1, Pg.41-54.

Howley. P, O'Donoghue.C, and Heanue, K. (2012). *Factors affecting farmer's adoption of agricultural innovations: a panel data analysis of the use of Artificial Insemination among dairy farmers in Ireland.* Journal of Agricultural Science. Vol. 4 No.6. Pg 171-179

Jackson-Smith, D, Tretcher, D and Splett, N, (2004). *The contribution of Financial Management Training and Knowledge to Dairy Farm Financial Performance.* Review of Agricultural Economics. Vol.26. No.1 Pg.132-147.

Kilpatrick, S., Johns, S., Murray-Prior, R., and Hart, D., 1999. *Managing Farming how farmers learn.* Rural industries research and development corporation. RIRDC Publication No. 99/74.

Lapple. D, Hennessy. T and O'Donovan. M. *Extended grazing: A detailed analysis of Irish dairy farms.* Journal of Dairy Science. American Dairy Science Association 2012. 95:188-195. doi:10.3168/jds.2011-4512.

O'Dwyer, T and Connolly, K. 2007. *What are the characteristics of the Irish Dairy Farmers who use Teagasc Profit Monitor?* International Farm Management Association. IFMA 16-Theme 3.

Contributed Paper Session 2

Agricultural Policy

11.50-13.00

Room B

Chair: Kevin Hanrahan

New Decision-making Processes and the CAP

Alan Matthews

Trinity College Dublin

The Treaty of Lisbon ushered in radical changes in agricultural policy decision-making at the EU level. Among the important changes were additional powers given to the European Parliament (EP) in deciding on the EU's multi-annual financial framework (MFF) under a special legislative procedure, and the extension of the ordinary legislative procedure (formerly known as co-decision) to agricultural policy-making thus giving the EP legislative competence over the CAP for the first time. Further, the Lisbon Treaty radically revised the nature of comitology procedures which refer to the Commission's exercise of delegated powers. Agricultural decision-making has always made extensive use of comitology, so it is one of the areas most affected by these changes.

Considerable attention has been paid to some of these changes, notably the extension of the co-decision procedure to the CAP. Various authors have speculated on how the granting of legislative competence to the EP over the CAP might influence the outcome of the CAP reform. With the publication of the COMAGRI rapporteurs' draft opinions in July 2012 on the Commission's CAP202 legislative package published in October 2011, and subsequently the more than 5,000 individual amendments from COMAGRI members to these draft opinions, the role that the EP will play has become a little clearer even if the outcome is still far from certain.

The significance of some of the other changes has been under-appreciated, particularly the comitology changes. There has been disagreement between the institutions on how to interpret the new measures in practice. The new comitology procedures required that all previous legislation should be revised to bring it into line with the new Treaty provisions (a process known as 'alignment'). Intensive negotiations between the Council and the Parliament on the alignment of the current CAP regulations on the basis of a set of Commission proposals published in 2010 failed to reach agreement. As a result, the solution of this 'constitutional' issue has been rolled over into the negotiations on the CAP2020 reform, making already complex negotiations even more difficult.

The way in which the MFF negotiations have been pursued has also produced some surprises. In particular, many of the key financial parameters for the future CAP (e.g., the relative shares of Pillar 1 and Pillar 2 spending, the share of Pillar 1 direct payments allocated to greening, co-financing rates for Pillar 2 measures) which might be expected to fall within the competence of COMAGRI were included as part of the MFF negotiating box by the Danish Presidency. This implies that decisions on these key CAP parameters will be made by the EU General Affairs Council (and ultimately, the European Council) rather than the Agricultural Council, with a much more limited role for the Parliament. It also creates a much tighter link between the outcome of the MFF negotiations and the CAP negotiations than would otherwise be the case.

The objective of this paper is to discuss the role that these institutional changes and constitutional disputes have played and might play in determining the outcome of the CAP2020 negotiations. The paper will be divided into four parts:

Part 1. A brief description of the decision-making changes introduced by the Lisbon Treaty (MFF, CAP co-decision, comitology) and their significance for the CAP

Part 2. A review of the literature which assesses how these changes might influence the shape of CAP reform and operation of the CAP in future.

Part 3. A summary of how the new institutional arrangements have been implemented to date with respect to the CAP (the failure of the alignment process, the scope of the MFF negotiating box, the role of COMAGRI in the EP in responding to the Commission CAP2020 proposals)

Part 4. Conclusions and inferences from the current state of play for the timing and direction of the decisions on the CAP2020 package.

Do decoupled payments affect farm investment financing constraints? Evidence from Ireland

Conor M. O'Toole[a,b,*], Thia Hennessy[b]

[a] Department of Economics, Trinity College Dublin, College Green, Dublin 2, Ireland
[b] Department of Agricultural Economics and Farm Surveys, Teagasc, Mellows Campus, Athenry, Co. Galway, Ireland

Abstract

This paper empirically tests whether decoupled subsidies decrease investment financing constraints faced by farms. Using a panel dataset from Ireland over the period 2005-2010, we test whether the CAP decoupled subsidy payments reduce credit constraints by altering the risk profile of farm earnings. We test for financing constraints in a neoclassical Q model of finance using a measure of the financial composition of capital inflows as well as investment-cash flow sensitivities. Our econometric methodology controls for censoring, heterogeneity and endogeneity. We find that decoupled subsidies do reduce credit constraints and the result is robust to model selection and constraint measurement. The effect is greater for farms who face higher constrains: medium sized farms relative to large farms and middle age and older farm operators relative to younger farmers. This evidence suggests that over and above the direct effect on production indicated in previous research, decoupling affects farm investment through financial channels.

Keywords: Decoupling, Farm investment, Access to finance, GMM, Q model of finance

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The effect of policy changes on volatility in dairy markets[1]

E. Kelly[1*], D. O'Connor[1*] and M. Keane[2]

[1] Cork Institute of Technology
[2] University College Cork

Abstract

Volatility in dairy commodity markets has become a major concern for many in the dairy supply chain and is likely to remain so in the future. Changes to the Common Agricultural Policy (CAP) over the past decade have more closely aligned EU and World prices and their associated volatilities. The aim of this paper was to measure volatility at farm level in Ireland over time, identify possible reasons for the increased volatility and identify ways of reducing volatility. Statistical measures such as standard deviation and coefficient of variation (COV) were used to provide measures of past volatility and its evolution over time. Family farm income (FFI) data and farm gate milk prices were used to highlight historical farm level volatility. As farm level prices should be based on dairy commodity returns the links between these prices and the farm gate prices are explored. Monthly wholesale prices for Skim Milk Powder (SMP), whole milk powder (WMP) and butter between January 1997 and March 2012 were used for this analysis. The time period was divided into two sub periods to quantify changes in volatility pre and post the Luxembourg Agreement. The results highlight that both commodity price and farm gate volatility has increased dramatically post 2007. Volatility will become a more inherent part of the dairy industry as policy changes cause prices to become further aligned with world prices. Other potential factors associated with volatility include stock ratio, weather, supply and demand and seasonality. The findings of this research highlight that risk management strategies are desirable for the long term success of the dairy industry.

Keywords: Dairy, Volatility, Milk Price, Ireland

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Contributed Paper Session 3

Natural Resource Use

14.00-15.10

Room C

Chair: Danny Campbell

Nutrient Budgeting at farm level – Eco-efficiency of specialist dairy farms

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Controlling and managing nutrient transfers from agricultural land to watercourses represents a significant environmental policy challenge. The OECD (2001) estimate that agriculture in the EU contributes 40 to 80 per cent of the nitrogen (N) and 20 to 40 per cent of the phosphorus (P) entering surface waters. Consequently, the agricultural sector has a major challenge to curtail these losses in order to reach the EU target of good ecological status in all surface waters by 2015 as set down in EU Water Framework Directive.

This paper examines nutrient balances at farm level by investigating nutrient demand and supply schedules across specialist dairy farms using Teagasc national farm survey data.

Matching nutrient supply to demand has the potential to deliver a double dividend win-win scenario of reducing the risk of nutrient leaching and diffuse pollution from agricultural land while improving farm level economic margins.

Results will help policy makers identify a profile of farms where nutrient demand and supply are not in balance and hence where policy measures can most effectively be targeted.

Reference

OECD, 2001. Environmental Indicators for Agriculture; Methods and Results vol. 3, OECD, Paris, France (2001) 409 pp.

Acknowledgments

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Estimating the effects of land-use and catchment characteristics on lake water quality: Irish lakes 2004-2009

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Abstract

This paper presents a model of water quality in Irish lakes, providing estimates of the effect of within-catchment activities (such as human population, septic tanks, urban waste water treatment, livestock phosphorous, as well as catchment soil and geology) on lake water quality. The analysis uses spatial and administrative data to build a dataset covering 216 lakes with catchment-level data on a range of activities that are recognised as affecting water quality. Linear and non-linear quadratic panel data models were estimated, which attempt to account for point and non-point sources of pollution affecting water quality. The results show a clear link between activities within lake catchments (e.g. agriculture, population, septic tanks etc.) and lake water quality, finding that the relationship is neither simple nor linear.

The effect of socio-economic activity (e.g. population, agriculture, etc.) on water quality is well known. What is novel in this paper is that the analysis is conducted at catchment level on a cross-section of lakes. This approach facilitates estimation of the effect of changes of within catchment activity on lake water quality, for example, change in number of septic tanks, or livestock within a catchment. Among our findings are that the marginal impact of urban populations on lake water quality is disproportionately greater for smaller towns. An implication for water policy is that growth in small towns will have disproportionately greater impact on water quality given existing waste water treatment systems. Our results also show a clear relationship between the level of excreted nutrients from livestock and lake water quality. We find that the larger the nutrient loading from livestock within a catchment, the greater the marginal impact on water quality, i.e. a non-linear effect.

A spatial model of afforestation in Ireland

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Abstract

Since the early 1990s, afforestation has been conducted primarily by private landowners who are motivated and influenced by a range of factors. Competition with alternative agricultural enterprises has been identified as a primary factor in determining afforestation rates but this relates directly to site and soil quality. This paper outlines a spatial model developed at the electoral division level that describes how afforestation rates have been influenced by a range of physical and climatic variables. In addition, economic measures of agricultural profitability generated from the Teagasc SMILE model were incorporated in the model. Afforestation rates over time are shown to be influenced by agricultural profitability in the electoral division and by a number of physical factors including soil types. This model represents the most comprehensive examination of the factors influencing afforestation rates in Ireland to date.

Contributed Paper Session 3

Farm Economics

14.00-15.10

Room B

Chair: Eoin Kelly

Identifying determinants of efficiency using Data Envelopment Analysis for Irish suckler beef farms

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Introduction

Under the impending reform of the Common Agricultural Policy (CAP) it is proposed that direct support to farmers i.e. pillar one funding, be reduced. This will result in reduced single farm payment (SFP) for Irish farmers. Suckler beef farms are particularly reliant on SFP and other subsidies which comprise 202% of family farm income (FFI). Therefore, increased production efficiency at farm level is critical. The objectives of this study were to measure the economic efficiency of Irish suckler beef farms and to identify the primary variables determining efficiency.

Methodology

Data envelopment analysis (DEA) was used to derive economic efficiency scores for suckler beef farms (n=220) in Ireland for the year 2010 using National Farm Survey (NFS) data. These farms are categorised as 'cattle rearing' in the NFS. Model input variables were land, labour, livestock units (LU), fertiliser, concentrates, other variable costs and total direct costs. The model output variable was market net margin (MNM), calculated as FFI minus direct payment subsidies. An output oriented, variable returns to scale model was used to calculate DEA efficiency scores (ES) using FEAR in the R language. A bootstrap term to correct for bias due to statistical error was calculated. In the second stage analysis the farms were divided into three equal size groups, ranked on efficiency score as high, medium and low. A Mann-Whitney test was then conducted to test for significant differences in explanatory independent variables between the efficiency ranked groups.

Results

The mean efficiency score was 0.86 (bootstrap term 0.05). There were 26 farms classed as fully efficient (ES =1.00). These farms lay on the production frontier meaning that were maximising output for their set of employed inputs relative to their peers in the sample. Mean MNM was minus €235/ha (*SD €233/ha*) highlighting the poor profitability on cattle rearing farms in Ireland. In the second stage analysis LU, forage area farmed (ha), concentrate and fertiliser costs were negatively associated with ES. However, labour input (labour units/farm) was positively associated with ES, indicative of the high levels of unpaid labour. Low efficiency farms had greater fixed costs/LU, more rented land and were more fragmented. Investment in machinery and buildings was greater for the low efficiency group. AI expenditure (€/LU) was positively associated with ES indicating positive returns to improving genetic merit.

Conclusions

Increasing output from a profit negative suckler production system via land rental or increased stocking rate reduced economic efficiency due to increased concentrate and overhead costs. Analysis over a longer time period including increase in net worth as an output could show whether investment (e.g. in buildings or livestock) would improve long run economic efficiency in the absence of direct payments.

Acknowledgment: Thanks to the NFS and Anne Kinsella for providing data and feedback.

Modelling the effect of compensatory growth on the profitability of dairy calf to beef production systems

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Introduction

Feed represents approximately 75% of variable costs on Irish cattle farms (Connolly et al., 2010) and, therefore, reducing feed costs is a critical factor for improving farm profitability. This can be achieved by restricting nutrition levels (and growth) during periods indoors when feed is expensive and exploiting animal compensatory growth whilst grazing lower cost pasture (Finneran et al., 2011). The objective of this study was to determine the impact of the level of feed restriction during indoor feeding periods and compensatory growth during subsequent grazing seasons on production and financial indicators of performance for grass-based dairy calf to beef production systems.

Materials and methods

Analysis was conducted using the Grange Dairy Beef Systems Model (GDBSM), a whole-farm, single year, static, deterministic simulation model (Ashfield et al., 2012). To more accurately simulate the complexity of compensatory growth, for this study, the model was modified such that total energy requirement per animal was partitioned into energy required for maintenance and growth rather than using the multiple regression approach of the base model. The production systems evaluated were based on steer progeny of Holstein-Friesian dams and Charolais sires finished indoors at 24 months of age or off pasture at 28 and 30 months of age (Keane and Drennan, 1994). Three different live weight gains (LWG; 0.4, 0.6 and 0.8 kg day^{-1}), reflecting different levels of nutritional restriction, were simulated during the first winter indoor feeding period for the 24 month system and during the second winter period for the 28 and 30 month systems. Live weight gain during subsequent grazing seasons were modelled using regression equations from Keane and Drennan (1994) and Keane (2002). All scenarios were subjected to sensitivity analysis with respect to beef, calf, fertiliser and concentrate prices.

Results and discussion

Reducing LWG from 0.8 to 0.6 and from 0.6 to 0.4 kg day^{-1} during the indoor feeding period for steers finished at 28 and 30 months of age increased net margin farm^{-1} (NMF) by 29 and 16% and 45 and 17%, respectively. This is attributed to reduced feed costs. However, corresponding values for steers finished at 24 months of age were 18 and -3%. This is due to lower feed costs when LWG during the indoor feeding period reduced from 0.8 to 0.6 kg day^{-1} but additionally lower carcass output ha^{-1} when LWG reduced further, from 0.6 to 0.4 kg day^{-1}. For steers finished at 24, 28 and 30 months of age NMF were highest when LWG during the indoor nutritional restriction period was 0.6, 0.4 and 0.4 kg day^{-1}, respectively. Overall, NMF was highest for steers finished at 28 months of age growing at 0.4 kg live weight day^{-1} during the restriction period. Variation in beef price had the largest effect on NMF for all scenarios.

References

Ashfield, A., Crosson, P. and Wallace, M. (2012). Agric. Sys. (Under advanced review).

Connolly, L., Kinsella, A., Quinlan, G. and Moran, B., 2010. National Farm Survey 2009. Teagasc, 19 Sandymount Avenue, Dublin 4, Ireland.
Finneran, E., Crosson, P., O'Kiely, P., Shalloo, L., Forristal, D. and Wallace, M. (2012). J. Agric. Sci. 150, 123-139.
Keane, M.G. (2002). Occasional Series No 4. Teagasc, Grange Research Centre, Dunsany, Co. Meath.
Keane, M.G. and Drennan, M.J. (1994). Irish J. Agric. Food Res. 33, 111-119.

Assessing the role of incentives in the economic returns to discussion group membership

Thia Hennessy[1] and Doris Läpple[2]

[1] Teagasc & [2] NUI Galway

This paper examines the performance of farmers participating in dairy farm discussion groups. Under the auspices of the Dairy Efficiency Programme, financial incentives have been offered to dairy farmers to participate in discussion groups since 2010. The objective of this paper is to examine first, the characteristics of farmers that have joined groups since the incentive was introduced and second to evaluate their economic performance. The results show that the Dairy Efficiency Programme has led to greater participation in groups of farmers with smaller holdings and in more disadvantaged areas and as such it was successful in its objective of broadening the types of farmers participating in discussion groups. A review of previous research by the authors show that farmers that were members of discussion groups before the financial incentives were introduced were more likely to adopt new technology and achieve higher farm profit, even when controlling for self-selection bias. This paper compares the performance of new discussion group members, i.e. those that have only participated in groups since the financial incentive was introduced to longer-term members and to non-members. The results show that on average the economic performance of new discussion group members is better than that of non-members but poorer than longer members. However, when tests of statistical significance are conducted, the results show that the difference between new and non-members is not statistically significant. The paper concludes with a discussion of the effectiveness of incentive based knowledge transfer tools and the time-frame required for such tools to deliver quantifiable results.

Contributed Paper Session 3

Innovation and Food

14.00-15.10

Room E

Chair: Emma Dillon

Innovation and Skills: Implications for the Agri-food Sector in Northern Ireland

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Summary

The expansion of global markets has created many opportunities for Northern Ireland's manufacturing companies including those within the agri-food sector. The growth of emerging economies has presented opportunities in terms of the demand for both new and existing products. However, globalisation also creates challenges for firms. Participation in global markets increases competition and increasingly firms have had to maintain their competitive position, particularly against lower wage economies, through product, service and process innovation.

Innovation has particular links to skills as the level of available skills will affect the ability of firms to innovate and take advantage of technology transfer. Higher levels of skills, improve productivity as workers can adopt new technologies at a faster rate. In recent years, however, concerns have been raised about the levels of skills within the land-based and agri-food sectors due to a reduction in the supply of university and further education places in key subject areas and also the recognized need to attract a broad range of new entrants with a wider skills base. Moreover, links between universities, industry and government are now recognised as being important in addressing skills demand across the agri-food sector in the future.

This study seeks to explore some of the skills and training issues which the changing and more complex economic environment has created for the agri-food sector in Northern Ireland. It aims to establish a baseline for the skills levels currently required and expectations, from the employers' perspective, of what will be required in the future. The methodology involves a survey of senior company managers within the Northern Ireland food and drinks sector. The survey aims to identify future skills needs and training requirements. In particular, the main areas covered in the survey are: recruitment, training, skills gaps and vacancies. Key findings and results from the survey are discussed. The research provides an up-to-date analysis of industry requirements in the area of skills and training and enables policy measures to be developed that will underpin future growth within the sector.

Exploring the Role of Intermediaries in the Innovation Networks

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Abstract

It is well recognised that innovation is essential for competitiveness and sustainability (Yusuf, 2008; Cantner and Graf, 2006; Batt and Purchase, 2004; Hoang and Antoncic, 2003). However, innovation has become increasingly dependent not only on building internal capabilities within firms, but also on developing appropriate external relationships, which can be achieved through networks (Kirkels and Duysters, 2010; Pittaway, et al., 2004; Rosenfeld, 1996). In essence, situating in a network can help firms to access external resources and overcome internal constraints, as well as enabling survival and growth (Henchion and Sorenson, 2011; Lechner, et al., 2006).

As the variety of actors in innovation networks has increased due to the increasing attention on 'open innovation' thinking, research on the roles of the actors and the links within a network has earned prominence (Yusuf, 2008; Howells, 2006). This is particularly the case for intermediary organisations (public or private bodies) who execute a variety of roles within networks (Howells, 2006). Such roles may include one or more roles from within the broad classification of (1) co-development of innovation role, (2) facilitation roles and (3) advocacy roles in innovation networks.

The research project is investigating the role of intermediaries in innovation networks and the relationship between these intermediaries and firm level innovation for food processing firm with special attention to small and medium enterprises (SMEs) in the Irish food innovation system (FIS). Drawing on the literature in the areas of innovation intermediaries regarding their characteristics and different roles within networks, Irish innovation intermediaries will be examined in this paper. The purpose of the paper is to identify key concepts with regards to innovation intermediaries and illustrate these with reference to examples from Ireland in order to frame different types of innovation intermediaries; in connection with the existing literature.

Keywords: intermediaries, innovation, networks, SMEs, food innovation system (FIS)

References

Batt, P.J. & Purchase, S. 2004, "Managing collaboration within networks and relationships", *Industrial Marketing Management*, vol. 33, no. 2004, pp. 169-174.

Cantner, U. & Graf, H. 2006, "The network of innovators in Jena: An application of social network analysis", *Research Policy*, vol. 35, no. 2006, pp. 463-480.

Henchion, M. & Sorenson, D. 2011. "Formal Food-related Networks in Ireland: A Case Study Analysis", 5th International European Forum on Systemic Dynamics and Innovation in Food Networks. 14th February – 18th February 2011. Innsbruck-Igls, Austria.

Hoang, H. & Antoncic, B. 2003, "Network-based research in entrepreneurship: A critical review", *Journal of Business Venturing*, vol. 18, no. 2003, pp. 165-187.

Howells, J. 2006, "Intermediation and the role of intermediaries in innovation", *Research Policy*, vol. 35, no. 2006, pp. 715-728.

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Kirkels, Y. & Duysters, G. 2010, "Brokerage in SME networks", *Research Policy*, vol. 39, no. 2010, pp. 375-385.

Lechner, C., Dowling, M. & Welpe, I. 2006, "Firm networks and firm development: The role of the relational mix", *Journal of Business Venturing*, vol. 21, no. 2006, pp. 514-540.

Pittaway, L., Robertson, M., Munir, K., Denyer, D. & Neely, A. 2004, "Networking and innovation: a systematic review of evidence", *International Journal of Management Review*, vol. 5/6, no. 3&4, pp. 137-168.

Rosenfeld, S.A. 1996, "Does cooperation enhance competitivenes? Assessing the impacts of inter-firm collaboration", *Research Policy*, vol. 25, no. 1996, pp. 247-263.

Yusuf, S. 2008, "Intermediating knowledge exchange between universities and businesses", *Research Policy*, vol. 37, no. 2008, pp. 1167-1174.

Attitudes towards healthy eating; profiling the health oriented consumer in a representative sample of Irish adults

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Unhealthy eating is a major contributing factor to the rising prevalence of overweight and obesity in Western countries (CEC, 2007). Public health authorities have issued guidelines that emphasise the importance of a balanced diet, which includes a high intake of fibre (such as wholemeal products, vegetables and fruits) and limited consumption of saturated fat, confectionery foods and foods with high salt content (Food Standards Agency, 2009). Nevertheless, the food choices of the majority of Irish adults do not correspond with dietary guidelines (NANS, 2011). Studies have shown that segmenting people based on their attitudes towards healthy eating can identify differences in relation to food choice and consumption (Hearty *et al.*, 2007).

The National Adult Nutrition Survey (NANS) (2008-2010) was conducted with a representative sample of 1500 adults aged 18-90 years from the Republic of Ireland. In the survey, food consumption was measured using a 4-day food diary and a self-completion questionnaire was employed to obtain attitudinal information concurrently. The aim of this study was to determine if there are dietary discrepancies between consumers based on their attitudes towards healthy eating.

In general participants in the sample had positive attitudes towards healthy eating behaviour. People with strong positive healthy eating attitudes had better dietary profiles and were more likely to comply with dietary guidelines. The analysis showed that fruit and vegetable consumption was positively associated with healthy eating attitudes and consumption of foods high in fat, sugar and salt was negatively associated with healthy eating attitudes. Females and older adults were more likely to have strong positive attitudes towards healthy eating. Individuals most likely to have weak attitudes towards healthy eating were males and adults aged 18-35. These findings provide support for the premise that dietary attitudes affect food choices and eating behaviours. Therefore, public health policy must continue to devise strategies that promote attitude change.

Plenary Session 2: CAP Reform

Vincent Chatellier (INRA) – The October 2011 legislative proposals for CAP reform: a French point of view

&

Panel discussion from an island of Ireland perspective:
Kevin Hanrahan (Teagasc), Rowena Dwyer (IFA), Myles Patton (AFBI)

(followed by general discussion)

15.30-17.00

Room B

Chair: Ann Derwin, President AESI