Research Stimulus Fund

Final Report

Joint Ventures to Enhance the Demographic Profile and Socio-Economic Sustainability of Irish Farming (Join to Farm)

DAFM Project Reference No: 11/F/151

Start date: 01/10/2013

End Date: 31/07/2016

Principal Coordinator and Institution: Áine Macken Walsh, Teagasc
Email: Aine.MackenWalsh@teagasc.ie

Collaborating Research Institutions and Researchers: NUIG, Dr Anne Byrne
UCC, Dr Olive McCarthy

Please place one "x" below in the appropriate area on the research continuum where you feel this project fits

<table>
<thead>
<tr>
<th>Basic/Fundamental</th>
<th>Applied</th>
<th>Pre Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4 X</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please specify priority area(s) of research this project relates to from the National Prioritisation Research Exercise* (NRPE) report:

| Priority Area (s) | i. Sustainable Food Production and Processing |

Key words: (max 4) cooperation; demography; farm structures; sustainability
1. **Rationale for Undertaking the Research**

   *This section should outline the rationale for carrying out the research and identify the need/problem to be addressed*

A diverse farming population in terms of age, gender and skill is critical for the innovative and economic performance of the agri-food sector, as well as for social sustainability in rural areas. There is an officially acknowledged need at the EU level to encourage greater representation of younger farmers in the farming demographic, informed by statistical data showing that farmers in younger age cohorts have higher levels of educational attainment and economic performance. Equally, the importance of maintaining female farmers in agriculture is argued to be critical for enhancing innovation and growth in the agri-food sector (COPA, 2011) and quality of life in rural areas (Byrne and Shortall, 2009; Coveney, 2011). Maintaining age and gender diversity in farming is strategic to enhancing ‘Knowledge, Training and Skill’ in the farming sector, which is ranked by Food Harvest 2020 and FoodWise 2025 as a critical factor for future growth. An issue that has been highlighted particularly in the context of increases in dairy production in the post-quota period (Kelly et al., 2017) is the critical issue of supporting new entrants to agriculture to service the rise in demand for farm labour corresponding to increases in production.

Joint Farming Ventures (JFVs), such as farm partnerships; share farming; share milking; and producer groups/clusters are mechanisms that support farmers to work together in business arrangements, both land-owners and non land-owners. Not only do JFVs support new entrants to agriculture to work in partnership with existing landowners but they can support greater efficiencies in production processes (e.g. milk production partnerships and contract rearing). As distinct from schemes that offer short-term incentives, JFVs are conceptualised in this project as *organisational innovations*, entailing the development of new collaborative behaviours (new institutions). Internationally, these new institutions have proven to be popular among farmers because they offer organisational improvements that are valued by farmers and because they are sufficiently flexible to allow farmers’ adaptation of them to suit their own needs and circumstances.

While relatively new mechanisms such as Milk Production Partnerships (MPPs) have demonstrated success thus far in Ireland, the potential of a broader range of joint farming ventures in bringing about sustainable change in Irish agriculture was under-exploited and under-researched at the time the Join to Farm project was initiated. The Join to Farm project was an inter-disciplinary, applied research project to explore a range of joint farming ventures that may possibly have potential in the Irish context, considering the capacity of the ventures to improve population diversity in terms of age, gender and skills; prospects of Irish farmers’ uptake of joint ventures; and how joint ventures can be effectively promoted through *extension and policy*.

2. **Research Approach**

   *Specify the research methodologies employed, emphasising novel techniques and also outline any modifications from the original approved project proposal*

The project’s research approach was structured according to three main tasks, for which different methodological approaches were employed:

1. **State of the Art**

   **Benefits of population diversity:** A *review of the literature and existing secondary data* was undertaken to identify the types of advantages associated with a diverse farming population, paying attention to specific advantages associated with representation in the farming demographic of (i) young farmers; (ii) female farmers; and (iii) farmers/entrepreneurs with diverse skills. The implications of having a diverse population in terms of age, gender and skills for achieving the goals set out in Food Harvest 2020 were discussed.

   **Identifying and profiling the range of joint farming models:** A variety of examples of joint farming ventures are operating internationally and are directly instrumental for achieving population diversity in different ways. *Joint farming ventures, such as farm partnerships, share milking, labour sharing, share farming, producer groups/farm*
clusters in addition to facilitating enhanced scale and productivity, facilitate collaboration between farmers of different age, gender and skill. The potential of joint farming ventures was explored and the particular benefits associated with each type was identified, paying attention to how they are instrumental to realising benefits for improving population diversity in terms of age, gender and skill.

**International state of the art in policy and extension promotion:** International state of the art in how different joint ventures are supported by policy and extension was examined. Particular attention was paid to the policies, measures and extension methods that have been used to promote and support the formation/establishment of joint farming ventures. The following novel examples of policy/extension approaches were included in the analysis: Beginning Farmer Center’s ‘Farm-On’ Programme (Iowa, US); Beginning Farmers ‘Finding Land to Farm’ initiative (US); Farm-link’s Farm Entry-Exit Programme (Wisconsin, US); The Small Farms Industry Clusters Project (SFIC) (Pennysylvania State University, US); and the ‘Fresh Start’ initiative (Cornwall, UK).

2. **Survey and Spatial Tool to Identify the Potential of Joint Farming Ventures in Ireland**

Two surveys were completed. The first survey, which is nationally representative, was implemented by phone and provided an overview of the general farming populations’ awareness of, and attitudes towards joint ventures. Based on these findings, the second survey was refocused on joint venture participants only, and using a qualitative methodology, sought in-depth information on the experience of joint ventures from a purposive targeted sample. Given its approach, this second survey provides generalisation on key issues around joint venture participation rather than statistical generalisation to the broader population of joint venture participants.

The static spatial tool identifies, at county level, those areas of the country with potential for the development of joint ventures.

The development of the spatial tool was informed by discussions with Knowledge Transfer advisors. Whilst the original idea of an interactive map at the scale of the Electoral Division was thought to be interesting and engaging it was felt that the interactive element would only be used by a very small number of farmers. Furthermore it was felt that such a map would be interpreted as highlighting places that were classified as having ‘low’ potential for JFVs. This could have a negative effect, particularly on those in areas with moderate or low potential, if it suggested to those supporting the adoption of JFVs or farmers, that there were limited opportunities to develop JFVs in specific places. Alternatively, the production of a county scale map was developed to highlight spatial variation between different parts of the country. This facilitated informed discussion as to why there is such variation and engagement of farmers as to the benefits and risks of JFVs. The spatial tool is static as the level of detail is limited to the county scale. However, it is interactive in the sense that it is accessible on an interactive web interface. The results from this task provided a profile of farm structures and enterprises, and drawing on the results of Survey 1, the assessment of potential for partnerships within the county.

3. **Participatory Design of Extension Template**

A Participatory Action Research (PAR) methodology was designed for each of five focus group sessions convened as apart of the methodology in 2016. The first two focus groups were largely investigative while the final three focus group sessions were generative and involved a co-design process.

The five focus group sessions were transcribed and analysed and informed the co-design of extension resources. The extension resources are research-informed communication and facilitation tools to effectively promote the greater inclusion of women and youth in agriculture; and to facilitate farmers to consider gender, age and compatibility issues when establishing Joint Farming Ventures. The extension resources are published online with the spatial tool, which enhances the navigability and accessibility of the tools for advisors and other professionals working with farmers. The url for the tool is: www.farmappvice.com

### 3. Research Achievements/Results

**Outline main results achieved**

The results of the research are presented under the headings below, which are consistent with the headings used under ‘Research Approach’, above.

1. Review and State of the Art
The overarching outcome from this task is that there now exists a comprehensive state of the art, drawn from international sources but specifically relevant to Ireland, in relation to the following key topics: the contributions (economic and societal) of women and youth to agriculture; the diverse means by which women and youth may become involved in agriculture; and the extension and policy approaches that may be followed to encourage the participation of women and youth in agriculture. A comprehensive range of JFVs operating internationally were also reviewed. The sociological review supported a nuanced understanding of the diversity of ways in which women and youth may participate in agriculture: integrative, substitutive, progressive, competitive and reconstitutive. A main lesson arising from the review is that it is insufficient for policy initiatives to simply increase the number of women and youth involved in agriculture ‘on paper’, but for initiatives to foster the meaningful participation of women and youth so that their skills and knowledges are leveraged for the benefit of agriculture. Within this context, it is important to note that although adequate remuneration of women, youth and men is important to those seeking careers in agriculture, having an ownership stake in the farm business is an important mid and long term goal (Deming et al., 2017). Therefore, JFVs that provide farmers with a genuine ownership stake have most potential in the Irish context. The framework we developed allows an understanding of the different ways youth and women can become involved in agriculture – some of which should ideally be avoided and others that should be pursued.

<table>
<thead>
<tr>
<th>Role category</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration</td>
<td>Women/youth integrate to roles deemed to be appropriate for them by society (whether consciously or unconsciously)</td>
<td>Women/youth as carers; casual labourers; unremunerated workers/investors</td>
</tr>
<tr>
<td>Substitution</td>
<td>Women/youth undertake roles that are rejected/disdained by men. Or, women youth/ inherit farms because there is no male heir/premature death or incapacitation of male patriarch</td>
<td>Women/youth excluded from decision-making and/or undertaking farm work that is ‘not serious farm work’ e.g. dairying before it became big business</td>
</tr>
<tr>
<td>Competition</td>
<td>Women and youth undertake roles similar to men, become ‘serious farmers’ in their own right</td>
<td>Women/youth accessing land through farm management positions; formal ag. education and becoming e.g. large dairy farmers</td>
</tr>
<tr>
<td>Progression</td>
<td>Women / youth undertake roles that are different to roles typically held by men. They follow a path that has been associated specifically with women /youth.</td>
<td>Farm diversification, bioactive and organic farming are movements that are specifically associated with women. More women in these types of agriculture/business than there are in conventional agriculture, dominated by men.</td>
</tr>
</tbody>
</table>
| Reconstitution| Women and men on farms have transformed relationships, where roles are more equal. Needs and opportunities of each party are more likely to be met. Men’s ‘buy in’ to these relationships is a necessary condition. | Farm partnerships involving men and women. Farm households where women may not be directly involved in the farm (they may work-off farm, for example) but the woman has a say in farm decision-making because it
impacts on the family. Another example is female heirs ‘chosen’ over male heirs.

Framework developed from Barberis (1972); Ventura (1994); Byrne et al. (2014).

Such a nuanced understanding is a crucial basis for approaching the policy problem of increasing the demographic problem in a more targeted way: we must not only seek to encourage the participation of women and youth in a general sense but encourage their participation in targeted ways that optimise outcomes for both agriculture and for youth, women, and men in the long term.

2. Survey and Spatial Tool to Identify the Potential of Joint Farming Ventures in Ireland

The outcomes of this task provide for the first time insight into the attitudes towards, and awareness of, joint ventures by the general farming population in Ireland. The analysis also identifies both types of joint ventures and geographic areas with more potential for joint ventures. This is a valuable baseline. This information and analysis will help farming organisations, extension agents and policy makers customise messages and KT events about the benefits of specific joint venture opportunities to the farming population. In addition, efforts to promote joint ventures may be more effectively spatially targeted. The targeting of messages both in terms of content and geography will help increase the number of joint ventures and also contribute to an effective and efficient use of extension resources (in the broadest sense).

Analysis of the survey indicates that there is high awareness among farmers of different types of JFVs (86% of respondents in the survey) with farm partnerships, family partnerships and producer groups being the types of JFV’s that farmers in general were most aware of. At the same time a large proportion of farmers (49%) are not sure that a JFV would definitely benefit their farm, although dairy farmers are more optimistic about the potential benefits of a JFV compared to farmers in other farming systems.

Given the large percentage of respondents who think that JFV would definitely not or probably not be of benefit to their farm it is not surprising that 71% of respondents stated that they were unlikely to establish a JFV in the future and only 10% stated that were ‘quite likely’ or very likely’ to do so. Looking at farming systems, those with a Mostly Cattle enterprise suggested that they are not likely not to establish a JFV in the near future whilst there are higher proportions of Mostly Dairy (19%) and Mostly Tillage (27%) farmers that will consider doing so.

Based on these data, it is possible to conclude that the JFVs with most potential are farm partnerships, family partnerships and producer groups among dairy and tillage farmers. Overall, 29% of all farmers reported that they thought that JFVs would be of benefit to them and 10% of all farmers reported that they were quite likely or very likely to consider establishing a JFV in the future. Notwithstanding this, there remains a substantial segment of the remaining farming population (22%) who responded that they did not know whether or not a JFV would be of benefit to them, so the potential for JFVs could be increased if this segment of the farming population is convinced of their value.

From a spatial perspective the distribution of areas with higher potential are those with higher concentrations of, particularly, dairy enterprises, i.e. Cork county, north Kerry, Tipperary, and east Donegal. This reflects the survey results which established that at 46%, Mainly Dairy enterprises stood out in terms of the percentage of respondents who thought that a JFV could possibly or definitely benefit the development of their enterprise. This contrasted with 27% - 30% amongst the other enterprise types. Areas with concentrations of tillage producers, e.g. north Dublin, Wexford and Waterford, also stand out as having higher potential. These data need to be treated with caution given that only 4% of the sample were classified as ‘Mainly Tillage’ enterprises.

With respect to those areas classified as having ‘lower’ potential there are a number of important points worth noting; firstly all areas have potential regardless of how low that potential is; secondly, whilst these areas are the most likely to benefit from JFV they are unlikely to engage in such initiatives due to the combination of age profile of the population of farmers and high proportions of smaller, drystock enterprises; finally, the wider policy context needs to be considered as individual farmers weight up the potential risks and rewards associated with engaging in a JFV compared to, for example, long term leasing or afforestation.
3. Participatory Design of Extension Template
The findings of focus groups highlighted that in order to enhance the demographic profile of agriculture it is more important to focus on how Joint Farming Ventures (JFVs) can be strategically used to enhance the participation of women and youth rather than focusing on the JFVs themselves (JFVs do not necessarily deliver greater participation of women and youth unless they are strategically used to do so). This is confirmed by research internationally that JFVs can be entered into tokenistically to access extension/financial benefits rather than improving the meaningful participation of women and youth in agriculture. The remaining three focus groups sessions therefore focused on how women and youth may be better represented in agriculture and how JFVs may be used as instrumental in achieving better representation rather than JFVs sui generis.

Using a capacity-building Participatory Action Research (PAR) methodology, advisory tools and a flexible extension template for the promotion and development of joint farming ventures were developed, contributing to capacity building among farm advisors. The flexible template/resources – the navigability and accessibility of which are been enhanced by online publication - provide guidance to practitioners using group-based and other extension methods (Teagasc advisors and private advisors) in promoting the key benefits of joint ventures and in addressing the key challenges to success. Farmers, as participants in this learning process, will be the ultimate beneficiaries of the enhanced extension resources.

4. Impact of the Research
A summary of the tangible impact of the research project should be provided under the outcomes’ and ‘outputs’ heading below. In addition, please provide a short narrative synopsis of the benefits / improvements the research has made to the area under investigation particularly as regards end users, e.g. industry, consumers, regulatory authorities, policymakers, the scientific community, etc

The Join to Farm project was an applied research project that served a broader strategic public good in strategising to improve economic and social gains to farmers. Increased involvement and enhanced participation of women and youth leads to crucial benefits necessary for the sustainability of Irish agriculture, as the Join to Farm project has evidenced. Research findings have been already used by policy-makers in the context of CAP reform (research evidence provided to milk policy division of DAFM, Kildare St.) and in the context of KT discussion groups (research evidence provided to Innovation Unit, DAFM, Portlaoise). Research findings will also inform Teagasc’s advisory service and other farmer organisations (particularly members of the Join o farm Stakeholder Group) in targeting supports for the establishment of joint farming models.

Learning arising from the project informs extension and policy approaches to encouraging the participation of women and youth in agriculture. The research outcomes provide a greater understanding of ways in which contributions from women and youth to agriculture may be optimised for the economic and social sustainability of agriculture. Research outcomes are currently being used to inform pilot extension approaches within Teagasc and in partnership with Aurivo dairy cooperative for example. The research contributed to a case-study of research impact selected as one of Teagasc’s Research Impact Highlights of 2015 (see p. 13 of: https://www.teagasc.ie/media/website/publications/2016/T-Research_Highlights_2015.pdf ).
4 (a) Summary of Research Outcomes

(i) Collaborative links developed during this research

A National Stakeholder Group for the Join to Farm project was assembled, including representatives from the National Rural Network, ICOS, Teagasc, IFA Women’s Branch, Macra na Feirme, IOFGA, and DAFM. A Join to Farm seminar took place in NUI, Galway in October 2013 and Stakeholder Group meeting took place in Teagasc in February 2014, to discuss the issue of gender and joint farming ventures specifically. The results from Task 2 were presented to the National Stakeholder Group on 11th March 2015. Multiple ad-hoc stakeholder interactions took place in the final year of the project as project researchers iteratively communicated with stakeholders in discussing emerging insights emerging from the focus group processes of Task 4. The final national stakeholder group, contributing to the co-design process of Task 4, took place on in Teagasc, Athenry, Co. Galway on 27th April 2016.

(ii) Outcomes where new products, technologies and processes were developed and/or adopted

A spatial tool in the form of county scale maps have been developed to highlight spatial variations between different parts of the country. It facilitates informed discussion among professionals such as advisors as to why there is such variation and engagement of farmers as to the benefits and risks of JFVs. The spatial tool is accessible on a dedicated interactive web interface.

Advisory tools for the promotion and development of joint farming ventures were developed are also accessible on a dedicated interactive web interface. The resources provide guidance to practitioners using group-based extension methods (Teagasc advisors and private advisors) in promoting the key benefits of joint ventures and in addressing the key challenges to success. Farmers, of both genders and at all stages of the lifecourse, will be the ultimate beneficiaries of the enhanced extension resources.

(iii) Outcomes with economic potential

N/A
Outcomes with national/policy/social/environmental potential

Outcomes with national/policy/social potential are presented in the impact section of this report.

4 (b) Summary of Research Outputs

(i) Peer-reviewed publications, International Journal/Book chapters.

Cush, P., Macken-Walsh, A., Byrne, A. (under review) Male Farmer Identity and Joint Farming Ventures in Ireland, Sociologia Ruralis


(ii) Popular non-scientific publications and abstracts including those presented at conferences


(iii) National Report


(iv) Workshops/seminars at which results were presented


Meetings/workshops with the Join to Farm National Stakeholder Group took place in February 2014, March 2015, & April 2016.

(v) Intellectual Property applications/licences/patents
Spatial tool and extension resources published on dedicated web interface: www.farmappvice.com

(vi) Other

N/A

5. Scientists trained by Project

Total Number of PhD theses: 1

Please include authors, institutions and titles of theses and submission dates. If not submitted please give the anticipated submission date.


Total Number of Masters theses: 0

6. Permanent Researchers

<table>
<thead>
<tr>
<th>Institution Name</th>
<th>Number of Permanent staff contributing to project</th>
<th>Total Time contribution (person years)</th>
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</thead>
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<tr>
<td>NUIG</td>
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<td>UCC</td>
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<tr>
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7. Researchers Funded by DAFM

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<tbody>
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<td>Post Doctorates/Contract</td>
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<tr>
<td>Researchers</td>
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<tr>
<td>PhD students</td>
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<tr>
<td>Masters students</td>
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<tr>
<td>Temporary researchers</td>
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<td>Other</td>
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<tr>
<td>Total</td>
<td>5</td>
<td>4.133</td>
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8. **Involvement in Agri Food Graduate Development Programme**

<table>
<thead>
<tr>
<th>Name of Postgraduate / contract researcher</th>
<th>Names and Dates of modules attended</th>
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<tbody>
<tr>
<td>Peter Cush</td>
<td>Hot Topics – Future of the Agri-Food Sector (AFGDP)- 5 ECTS February 19-21st 2014 (Stillorgan Park Hotel)</td>
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<tr>
<td>Teresa Hooks</td>
<td>Environmental Considerations for the Agri Food Sector (AFGDP)- 5 ECTS 12-14th May 2014 (UCC)</td>
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<td></td>
<td>The PhD II: PG 7003 (5 ECTS)- UCC-4th-6th March 2015</td>
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9. **Project Expenditure**

**Total expenditure of the project:** €196,848.56

**Total Award by DAFM:** €198,817.35

**Other sources of funding including benefit in kind and/or cash contribution(specify):** €

**Breakdown of Total Expenditure**

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<tr>
<th>Category</th>
<th>Name Teagasc</th>
<th>Name NUIG</th>
<th>Name UCC</th>
<th>Name Institution 4</th>
<th>Total</th>
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<tr>
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<td>Travel and subsistence</td>
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<td><strong>Sub total</strong></td>
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<td>(Consumables/Other)</td>
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<td>37,020.43</td>
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<td><strong>Total</strong></td>
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<td>20,150.28</td>
<td>18,771.25</td>
<td></td>
<td>196,848.56</td>
</tr>
</tbody>
</table>
10. Leveraging
Summarise any additional resources'/funding leveraged by this award from other sources e.g. Additional Staff, National/EU funding secured, EI Commercialisation Fund, etc.

The Project Coordinator is a partner on two successful H2020 funding applications (2016-2019). These projects focus on cooperative arrangements in agriculture, particularly values-based supply chains.

Furthermore the Principal Investigator is secondary a Teagasc supervisor of a successful Teagasc Walsh Fellowship application focused on bio-security in the context of contract rearing.

11. Future Strategies
Outline development plans for the results of the research.

This project currently has three papers under review and a further two papers in complete draft pre-submission.

Future research strategies include joint efforts with policy-makers to promote farmers’ uptake of farm partnerships in particular.