



**THE NORTHERN IRELAND AGRICULTURAL RESEARCH AND DEVELOPMENT COUNCIL**

**ECONOMIC APPRAISAL OF IMPACT AND RETURN TO FARMER LEVY PAYERS  
OF AGRISEARCH'S RESEARCH PROGRAMME OVER THE LAST 20 YEARS**

**INVITATION TO TENDER**

**1. INTRODUCTION**

***1.1. Project Goals and Objectives***

The objective of this project is to determine the economic and non-monetary benefits of AgriSearch's research projects and related activities to the Northern Ireland ruminant livestock sector and in particular the return to farmers on the levy funds they have contributed.

***1.2. Purpose of this Invitation to Tender***

The purpose of this invitation to tender is to seek expressions of interest from organisations willing and able to carry out such a project.

***1.3. Procurement Timetable***

Tenders should be submitted by 5pm on Monday 11<sup>th</sup> July.

Tenders may be submitted by email to: [jason@agrisearch.org](mailto:jason@agrisearch.org)

Or by post to: Jason Rankin  
General Manager  
AgriSearch  
Innovation Centre  
Large Park  
Hillsborough  
County Down  
BT26 6DR

The tender will be awarded by the end of July and work should start in early August.

A draft report should be submitted by 30<sup>th</sup> September and the awarded party should be available to make a presentation to the AgriSearch Trustees at their meeting on 14<sup>th</sup> November. Following this the final report should be completed by the 1<sup>st</sup> December.

## **2. BACKGROUND**

### ***2.1. Organisational Background***

AgriSearch (The Northern Ireland Agricultural Research and Development Council) is an independent charity incorporated as a company limited by guarantee.

AgriSearch was formed in 1997 to help dairy, beef and sheep farmers become directly involved with production-oriented research. The funds contributed by farmers to AgriSearch (through a voluntary levy collected by Dairy and Red Meat Processors) are used to commission research that will improve and develop beef, sheep and dairy farming in Northern Ireland. The guiding principle behind all of AgriSearch-funded projects is to provide research that will be of practical benefit to farmers and provide them with tools to help reduce costs, increase performance, drive innovation and improve welfare.

In recent years AgriSearch's role has grown from solely being a co-funder of research to taking a much more active role in leading projects and acting as a liaison between researchers, advisors and the industry. It now has a pivotal role within the research and knowledge transfer functions for Northern Ireland's ruminant livestock sector.

### ***2.2. Previous Work***

A previous review of the impact of AgriSearch co-funded research was carried out in 2006. A copy is attached.

## **3. SCOPE**

The appraisal should examine all completed AgriSearch projects (a list of these are included in the appendix). This should include the monetary, non-monetary and social impacts on farms and the wider NI Agri-Food sector in terms of increased output, lower costs, improved animal health, environmental impact and food quality and security.

## **4. KEY REQUIREMENTS**

### ***4.1. Economic Appraisal***

- 4.1.1. The review should quantify the monetary and non-monetary benefits of AgriSearch co-funded research expressed as net present value and in a simple return ratio for the farmers' levy funds spent.
- 4.1.2. Other benefits including but not limited to AgriSearch's dissemination and ancillary activities should also be examined.
- 4.1.3. Wider industry benefits such as PhD's who have been funded and gone on to make a career in research or the agri-food sector should also be taken into account. In addition, the impact AgriSearch has had in maintaining and enhancing Northern Ireland's agri-food research capacity should be included.
- 4.1.4. The benefits should be aggregated for each sector and for AgriSearch as a whole.

### ***4.2. Stakeholder Engagement***

The contractor will be required to engage with farmers, industry, government and research organisations to get an understanding of the "hard" and "soft" impact of AgriSearch.

### ***4.3. Reporting Back***

In addition to making a presentation of findings to the Trustees of AgriSearch at the draft report stage we would also expect the contractor to present the final report at an industry event.

## **5. INFORMATION REQUIRED**

### ***5.1. Envisaged Work Plan and Reporting Format***

Tenders should include a work plan detailing how the contractor plans to tackle this task, the methods they will use to calculate returns and a proposed format for presenting this in the final report.

### ***5.2. Cost information***

Tenders should include information on the envisaged time commitment involved in the project and the hourly / daily rate charged.

### ***5.3. Staff Information***

Tenders should specify which staff will be responsible for carrying out the project and provide brief resumes for these staff.

### ***5.4. Proof of supplier's sound standing - financial and organisational***

### ***5.5. Evidence of Capacity to Deliver Contract Requirements***

This should include examples of similar such work undertaken.

## APPENDIX – LIST OF COMPLETED AGRISEARCH PROJECTS

### DAIRY

Project Code	Project title
D-01-97	Improving Milk Composition In The Dairy Herd
D-02-97	Development of Improved Methods For Rationing Dairy Cattle
D-03-97	Developing Improved Heifer Rearing Systems
D-05-98	A Comparison of Four Contrasting Milk Production Systems For Winter Calving High Genetic Merit Cows
D-06-98	Survivability of Dairy Cattle And the Factors Which Influence This On The Farm
D-07-98	Dairy Herd Fertility – Examination of Effects of Increasing Genetic Merit and Other Herd Factors on Reproductive Performance
D-08-98	On Farm Monitoring of Grass Growth, Grass Quality and Herbage Intakes of Dairy Cows in Northern Ireland - Grass Check 1
DCNI-D-09-99	The Effectiveness of a Range of Time-Temperature Pasteurisation Combinations
D-10-00	To Assess the Potential of the Norwegian (NRF) Breed as a Means of Improving the Fertility and Health Status of the Northern Ireland Dairy Herd (NRF Comparison)
D-11-00	An Examination of the Potential Contribution of Cross Breeding to Improve the Profitability of Dairying in Northern Ireland
D-12-01	Expanding Output Efficiently In Environmentally Friendly Systems
D-13-02	Achieving High Milk Production at Pasture ((Postgraduate Studentship)
D-15-03	Optimum Northern Ireland Milk Production Systems, with Milk Prices Between 16 and 21ppl
D-17-03	Developing Supplementation Strategies for Dairy Cows
MDC-D-18-04	Footbath Design and Use
D-19-04	Expanding output Efficiently in Environmentally Friendly Systems (Extension)
D-20-04	Alternative Forages for Dairy Cattle
D-21-04	Low Input Forages for Dairy Cow Production Systems
D-22-04	Grass Check II
D-23-04	Strategies for Reducing Lameness in Northern Ireland Dairy Herds
DCNI-D-25-04	Investigate if MAP can survive the spray drying process

D-27-05	Development of Methodology to enable prediction of actual Manure N output from Dairy Cows in NVZ's in Northern Ireland
D-28-06	Measurement of grass growth and utilisation and herd performance to enable the development and implementation of decision support systems to optimise performance in different regions in Northern Ireland
D-29-06	A comparison of three contrasting systems of milk production for spring calving dairy cows
D-30-06	Improving heifer rearing regimes on farms in Northern Ireland
D-31-06	The effect of protein levels in dairy cow diets on body reserves throughout lactation
D-32-06	Influence of breed, diet and body condition score on lameness in cattle
D-33-06	Increasing dairy cow intakes by optimising feeding system design
D-34-07	Grass Check 3 - Monitoring of grass and clover growth and sward quality across Northern Ireland
D-35-06	Effectiveness of different footbath solutions in the treatment of digital dermatitis in cows
D-35-07	Improving the efficiency of grass utilisation and nutrient use from slurry under rotational grazing by dairy cows
D-36-07	Health and immunity of dairy bred calves
QUB-D-37-07	Development of sustainable milk production systems designed to reduce environmental impact and maximise animal welfare
D-39-08	Improving the efficiency of grass and nutrient use from slurry under rotational grazing by dairy cows
QUB-D-40-08	Managing first lactation heifers to maximise welfare and productivity
VSD-D-41-08	Benchmarking the control of BVD in NI
VSD-D-42-08	Improving the diagnostics of Bovine Johne's Disease at the herd and animal level
D-43-08	Improving nutrient management within intensive grassland based dairy systems
D-44-08	The effect of dairy farming system on green house gas and ammonia emissions from farms in NI and the development of practical mitigation strategies
D-45-08	Comparison of the performance of two cow genotypes within a total confinement and low input grazing system
D-47-09	Management strategies for high yielding cows during the summer
D-48-09	Genetic Evaluation for the NI dairy industry
D-49-09	Robust Milking systems

D-50-10	Effect of nutritional management during the first 42 days post calving on 'lactational' performance, uterine health, and subsequent reproductive performance post partum
D-51-10	GrassCheck 4 - Targeting the improvement of grass utilisation under grazing through the monitoring of grass and clover growth across Northern Ireland
D-52-10	Managing dairy cows to reduce the development of lameness
D-54-11	Effect of three different concentrate build-up strategies in early lactation on production performance, health and fertility of high-yielding dairy cows.
RCF-03	RCF 03/2010: Reducing Greenhouse Gas Emissions from the Northern Ireland dairy sector through the development of (1) an on-line management tool, and through (2) an on-farm research programme targeted at improving dairy cow, health, reproductive efficiency and longevity, via the adoption of improved management strategies during the "transition period"
D-56-11	Develop concentrate allocation strategies which strategically target concentrates to meet the nutrient requirements of individual cows, or groups of cows, and in doing so reduce the costs associated with winter milk production.
D-58-12	The extent and impact of colostrum quality variability on calf health and performance on NI dairy farms and an exploration of strategies to improve calf survival
D-59-12	Identifying key drivers of production efficiency through the establishment and analysis of a database for the AFBI Hillsborough dairy herd
D-60-12	Assessing Global Research For Dairy Farmers Project Overhead Costs 01/01/15 - 31/03/15
D-64-13	Grass Check 5 - Grass growth monitoring and the provision of information to improve grassland utilisation efficiency
RCF-05/2012	Effect of early lactation nutritional strategies on the health, reproductive performance and milk production performance of lactating dairy cows.

## BEEF

B-01-97	Factors affecting the dirtiness of finished beef cattle
B-02-97	Effect of Housing System on Behaviour Welfare and Performance
B-03-98	Effects of Genotype of Beef Cows and Terminal Sires on Quality of Progeny and Suitability for Different Market Outlets
B-04-00	Effect of Slaughter weight on Efficiency of Lean Meat Production from Holstein Bull Calves and on the Quality of Processed Meat from Their Carcasses and its Suitability for Markets
B-05-01	Increasing the Lifetime Growth Rates of Beef Cattle
B-06-04	Maximising Beef Output From the Suckler Herd Through Production of Heavy Suckler Bulls.
B-07-06	Low input forages for beef production
UU-B-08-06	Contribution of meat from grass fed ruminants to the total human dietary intake of long chain n-3 polyunsaturated fatty acids.
B-08-07	Developing sustainable systems of beef production from the suckler herd - Funding Reallocated to BS-55-11
B-10-07	Development of genetics/ management recording system for the Northern Ireland beef industry.
B-11-09	Evaluation of efficiency of beef systems based on cattle sourced from the dairy herd
B-12-10	Environmental implications of livestock grazing on a range of differing LFA environments (QUB)
B-13-10	Environmental implications of livestock grazing on a range of differing LFA environments - project canceled due to no co-funding
RCF-02/2010	On-farm research to direct low carbon beef production in the Northern Ireland beef industry.
B-14-12	An evaluation of mid and late pregnancy feeding strategies for managing condition score of spring calving suckler cows and their subsequent reproductive performance and progeny performance
B-15-12	Pilot Study on Breeding Management

## SHEEP

S-01-97	Effects of Genetics of Cross-Bred Lowland Ewes and Terminal Sires on Lamb Output and Carcass Quality
S-02-99	Developing Low Cost "Natural Care" Systems of Sheep Production
S-03-01	Low-Cost Easy Care Lambing Systems II
S-04-01	Improved Ewes for the Hill Sheep Sector Through Cross Breeding
S-05-02	Low-Cost Easy Care Lambing Systems III
S-06-02	Improved Worm Control Strategies for Sheep in the Hill and Lowland Sectors
S-07-03	Improved Ewes for the Hill Sheep Sector Through Cross Breeding II
S-08-04	Improved Worm Control Strategies for Sheep in the Hill and Lowland Sectors II
S-09-04	Developing Management Systems for Easy Care Sheep Production
S-10-05	Long Term Economic Consequences of Maintaining Crossbred Ewes in the Hill Sector
S-11-05	Environmental Consequences of Maintaining Ewes in the Hill Sector
S-12-05	Selecting for Easy Care Traits in Lowland Sheep Flocks
S-13-07	Developing breeding and management strategies to reduce lameness in the NI sheep industry
S-14-07	Research to evaluate the factors influencing the rates of adoption of sheep research in the NI sheep industry
S-15-07	Development of sheep breeding strategies for sustainable sheep systems
S-16-08	Investigation of the relationship between carcass characteristics and lean meat yield and meat quality from a range of sheep breeds - Part 1 - merged into BS-55-11
S-17-08	Investigation of the relationship between carcass characteristics and lean meat yield and meat quality from a range of sheep breeds - part 2 - merged in BS-55-11
S-18-10	Developments in breeding strategies to further improve the production efficiency of hill and lowland sheep systems.
S-19-12	Investigation of the relationships between genotype, trace element status and gastrointestinal parasite infections in lambs, and the development of nutritional and management strategies to increase lamb output from grazed grass
S-21-13	Provision of a ewe-recording service to the Northern Ireland Sheep Industry (Hillsborough Recording Scheme)
S-22-13	Development of a Field Guide for lameness in sheep
S-24-14	Review and pilot study to assess the accuracy and robustness of an EID sheep tag reading system

## Cross Sectoral Projects

DB-14-03	Calf Growth Rates (Management and Nutrition of Calves during the Neonatal Period)
DB-16-03	Reducing Organic Nitrogen Output From Dairy Cows And Beef Cattle In Nitrate Vulnerable Zones (NVZ Study)
DB-24-04	Economic Evaluation of Holstein Bull Beef Production
DB-26-05	Maximising returns from Beef Progeny sourced in the Dairy Herd
DBS-04-97	Using Information to Reduce Costs (Covering Dairy, Beef and Sheep Sectors)
DBS-46-09	FGS McClure Watters - Appraisal of Research
VSD-BS-34-06	Avoidance of Botulism in Cattle
BS-53-10	A review on the effect of legumes on ewe and cow fertility
RCF-01	Study to determine the prevalence on Northern Ireland suckler and dairy herds with evidence of current or recent infection with BVD virus.
BS-55-11	Identifying the limiting factors in beef and sheep systems and undertaking research to underpin improved biological efficiency and financial performance to support, productivity, sustainability & competitiveness
BS-60-12	Development of beef and sheep systems for improved sustainability, biodiversity and delivery of ecosystem services within hill areas of Northern Ireland