Pearl Mussel Project EIP

eip-agri
AGRICULTURE & INNOVATION

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Department of Agriculture, Food and the Marine

'The European Agricultural Fund for Rural Development: Europe investing in rural areas'.

PEARL MUSSEL PROJECT

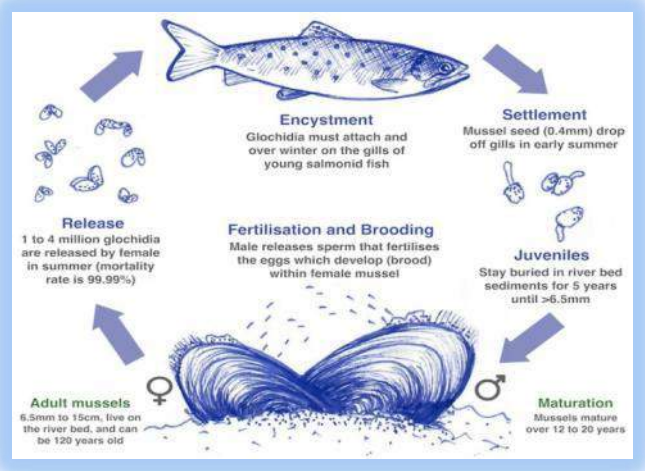
Project background

- *European Innovation Partnership (EIP)*
- *Funded by DAFM through the Rural Development Programme*
- *Design and implement an innovative farm programme*
- *Long term conservation of critical Freshwater Pearl Mussel populations in Ireland*
- *Work with rural farming communities to support local economy*

Freshwater Pearl Mussel

Margaritifera margaritifera

- Biology
  - Complex life cycle
  - Live to 120 years
  - Indicator of exceptionally clean and healthy environment
  - Endangered, nearly all Irish populations on verge of extinction
  - Top 8 catchments are best remaining
- Pressures
  - Flow
  - Sediment
  - Nutrients
- Conservation
  - Concentrating efforts on top 8 catchments, 80% of national population



Top eight catchments

(*c.884* eligible farmers)

	Number of farmers				
	Total farmers	Private farms	Commonage only	Area (ha) farmland	Average farm size (ha)
Glaskeelan	49	12	37	582	11.9
Bundorragha	141	14	127	4397	31.2
Dawros	79	37	42	4680	59.2
Owenriff	118	88	30	4459	37.8
Ownagappul	100	47	53	1968	19.7
Caragh	163	143	20	10449	64.1
Currane	115	87	28	5927	51.5
Kerry Blackwater	119	108	11	8255	69.4
TOTAL	**884**	**536**	**348**	**40717**	

http://bit.ly/PMPcatchments

Pearl Mussel Programme

- Farmers in 8 priority catchments
- Total project budget of €10 million, €8 of which is to be paid to farmers
- 4 to 5 year programme starting 2019
- Opportunity for farmers to gain an income for delivering environmental benefits
- Results based approach
  - Better the result the higher the payment
  - Focus on Freshwater Pearl Mussel will lead to:
    - Clean water
    - Natural landscapes
    - Climate (carbon storage)
    - Flood regulation
    - High levels of biodiversity
    - Improved soils

Expected number of participants budget

- Maximum number of eligible farmers = 884 farmers (herd numbers)
- Target to recruit 450 (50%) – 650 (75%) participant farmers
- Approx half participants in year 1 – priority basis of recruitment
- Budget of approx 8 million to be distributed to participating farmers

Participants	Budget / participant / annum (based on 5 year scheme)
650	€2,460
450	€3,560

Indicative average figures

Will vary considerably

Lower in 1st Year

Lower or higher depending on results

Payment streams

Results Payments

Environmental target is measured (scored 1-10)

Better quality = Higher scores = Higher payments

+

Supporting Actions Payments

Payment to complete measures to help improve result

What are results-based payments?

- Payments are linked to the quality of the biodiversity (habitats &/or species)
- Result indicators are used to determine a quality score verified at field level
- A range of quality and scores exist, where higher quality = higher payment level
- Increased cost-effectiveness with money saved on poorer ecological quality

Creating a market

- Apply market value on the services that High Nature Value farmland provides

PMP design approach

- Locally adapted, practical and results focused
- Incentivise higher quality results
- Minimise complexity
- Flexible and adaptive management on farm
- Build local trust and capacity
- Account for factors outside farmers control

How to Measure Results?

- Indicators of results
  - Key habitats in target catchments
    - Grassland
    - Peatland
    - Scrub
    - Drainage and watercourses
- Measure results
  - Develop a scoring system
  - Scale of 1 (low) - 10 (high)
  - Determine a score for each field
  - Score card system is used

Scorecard

Guidance documents

RBAPS Wet Grasslands Assessment Sheet

Landowner _____ Townland: _____

Herd Number: _____ Surveyor: _____

Field name & No. _____ Date: _____

Current grazing and feeding management (*Circle as appropriate*)

Grazing				Livestock			
Winter	Summer	Year round	Other	Cattle	Sheep	Horses	Other
Mowing				Feeding			
Not mowed	Hay	Silage	Other	None	Conc.	Large bale	Other

A. Ecological Integrity and species

A.1 Number of positive indicator species well represented through the field — Species code: _____

No. of positive species	0	2	4	6	8	10
Score	0	2	4	6	8	10

A.1.2 Number of High Quality positive indicator species occurring throughout the field — Species code: _____

No. of high quality species	0	2	4	6	8	10
Score	2	2	4	6	8	10

A.1.3 Cover of negative indicator species &/or 'weeds' occurring throughout the field — Species code: _____

Cover scale	High >50%	Med-High <50%	Medium <20%	Low-Med <10%	Low <5%	None
Score	0	2	4	6	8	10

A.1.4 What is the cover of most dominant species? — Identify species code: _____

Cover scale	High >80%	Med-high 60-80%	Medium 40-60%	Low-Med 20-40%	Low 10-20%	Very Low <10%
score	0	2	4	6	8	10

B. Site management

B1.1 Grazing levels

Comment	Intensive or abandoned	Negligible	Moderate		+/- optimum	Optimum
	0	2	4	6	8	10

B1.2 What is the litter level? — Identify main species (code): _____

Comment	High >80%	Med-High 60-80%	Medium 40-60%	Low-med 20-40%	Low 10-20%	Negligible <10%
	0	2	4	6	8	10

B1.3 Level of encroaching scrub/bracken?

Comment	High >30%	Med-High <30%	Medium <20%	Low-Med <10%	Low <5%	None
	0	2	4	6	8	10

B1.4 Is there bare soil or erosion? — Due to animals and/or machinery? _____

Comment	High >30%	Med-High <30%	Medium <20%	Low-Med <10%	Low <5%	None
	0	2	4	6	8	10

B1.5 Is there damage to natural water sources? — Identify water feature: _____

Comment	High	Med-High	Medium	Low-Med	Low	None
	0	2	4	6	8	10

B1.6 Are there any damaging activities in the field (cumulative score)? — Identify: _____

Comment:	High	Med-high	Medium	Low-med	Low	None
	0	1	3	7	9	10

Note: Where a grassland scores in two or more red categories, or red score in B1.6, it will automatically not qualify for the RBAPS wet grassland payment scheme

Biodiversity habitats (enter length/area):

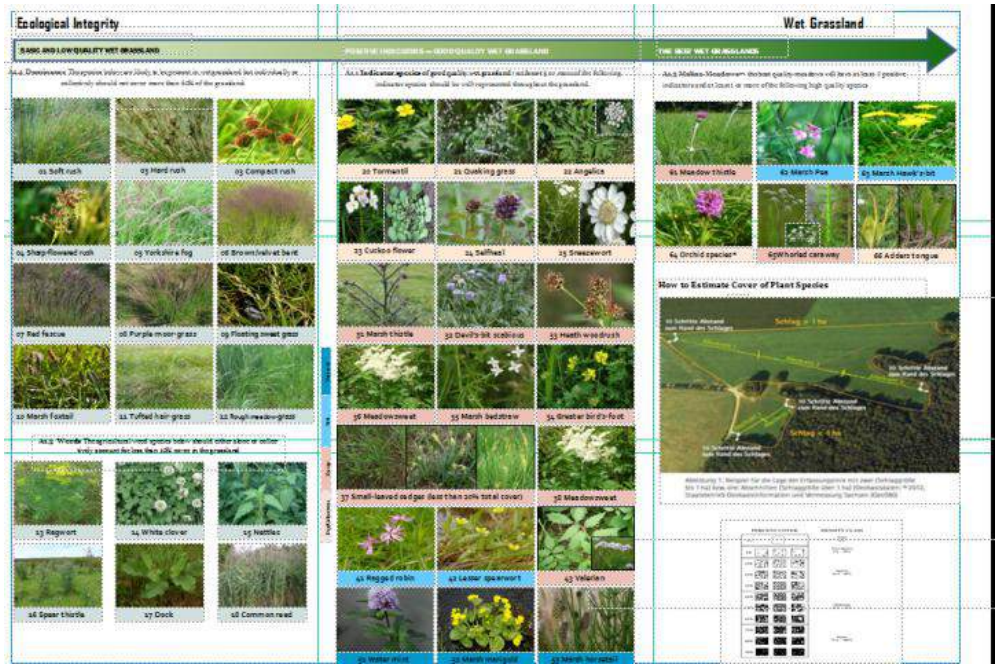
Stone walls _____ Hedgerows _____ Pond _____

Earth bank _____ Scrub _____ Ditch _____

Other (identify) _____

Comments and Management Actions (if any):-

10/10

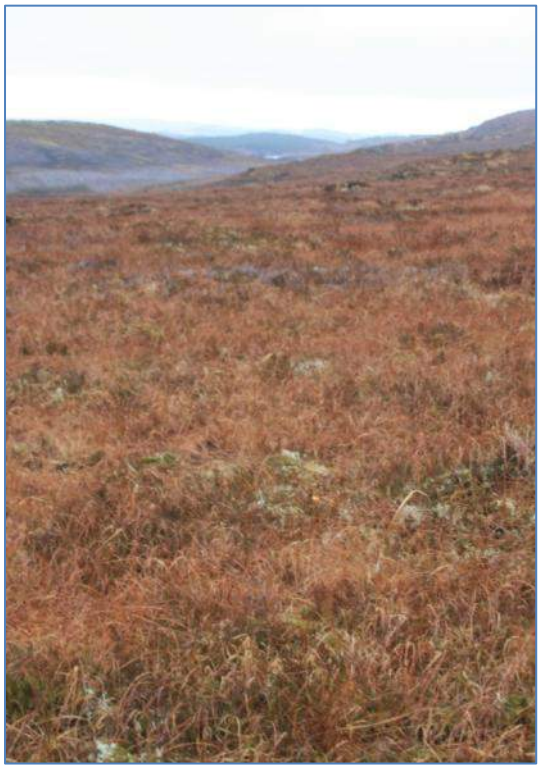


Detailed Guidance Document tbd...

Sample habitat quality
Blanket bog / Wet Heath

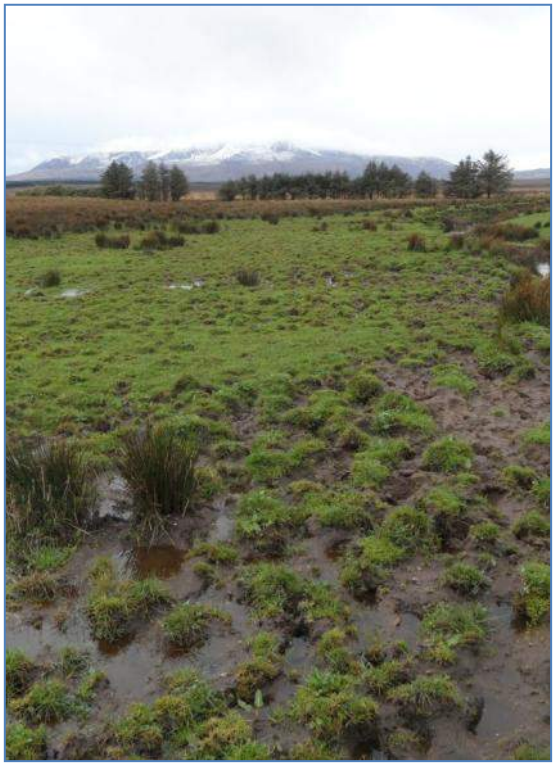
Low quality
(Score 0-3)
€ 0

Moderate quality
(Score 4-6)
€ € €



High quality
(Score 8-10)
€ € € €

Sample habitat quality
Wet grassland

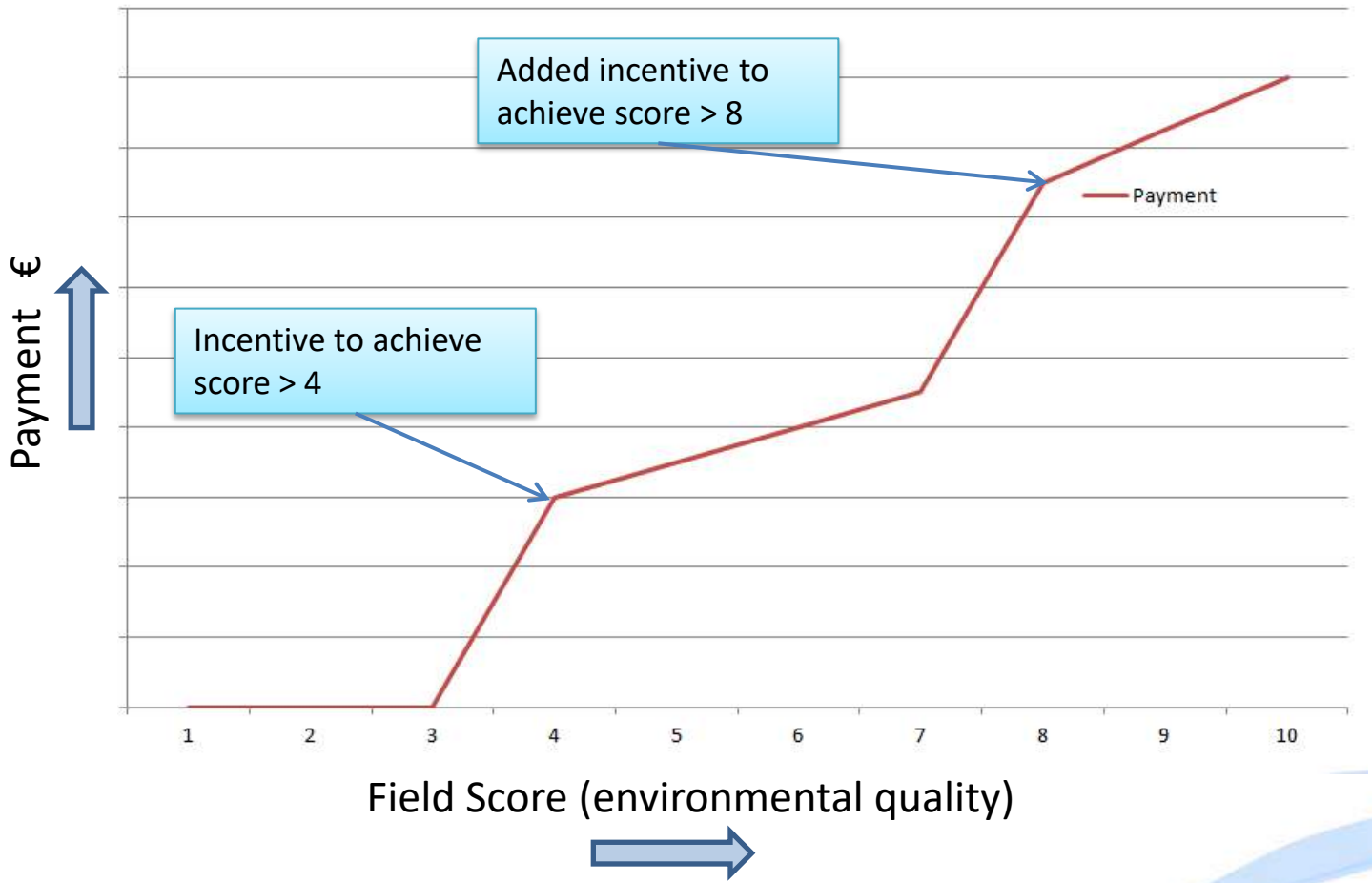


Low quality
(Score 0-3)
€ 0

Moderate quality
(Score 4-6)
€ € €

High quality
(Score 7-10)
€ € € €

Result based payment scale



Connectivity with target

- Watercourses: streams and drains
- Whole farm approach
- Farm score adjusted based on result of assessment

Result based payment (before watercourse assessment)	**€1000**
Watercourse Assessment	**Final payment**
Excellent (x 1.3)	€1300
Good (x 1)	€1000
Inadequate (x 0.6)	€600
Poor (x 0.3)	€300

Concept of Supporting Actions

- Voluntary actions at field and farm level
- Aim to help farmer improve results based score / payment
- Co-funded with the farmer
  - Level of funding depends on extent of agricultural benefit
- Opportunity to fund innovative solutions



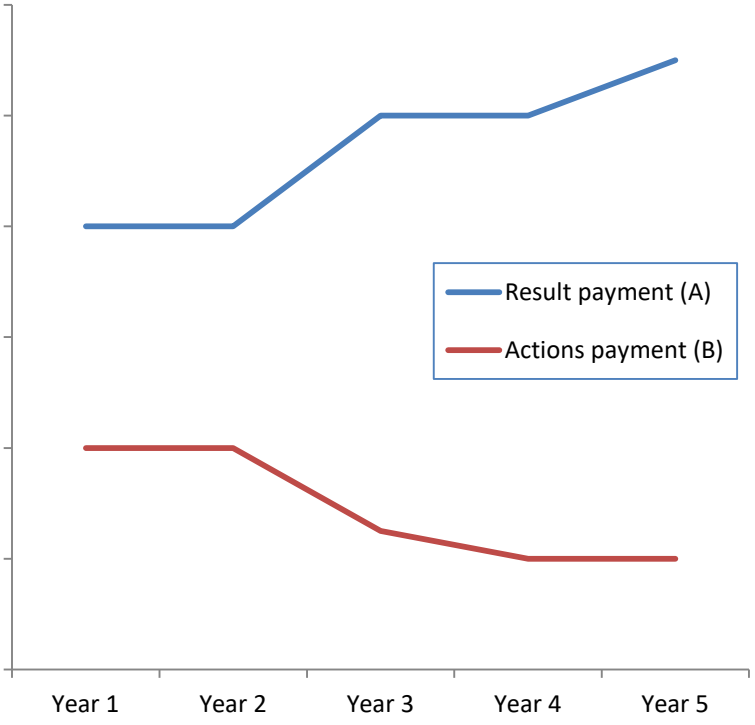

Potential Supporting Actions

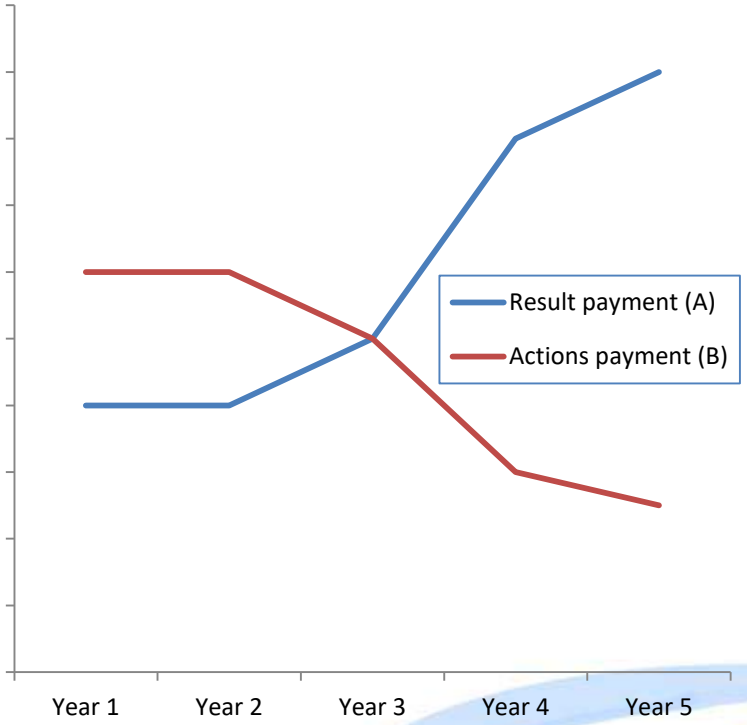
- Examples of options
  - Water troughs
  - Drain management
  - Measures to regulate flow
  - Farm access (bridging, culverts etc.)
  - Conversion to lighter breed
  - Fencing
  - Shepherding (priority commonages)
- Nutrients and pesticides etc
  - Certain requirements on joining scheme
    - MCPA, pesticides, sheep dip
  - Application of artificial P
  - Split applications
  - Slurry / spread land balance

Sample payment profiles

Farmer 1
High environmental score year 1

Farmer 2
Low environmental score year 1






Field-based training
Indoor sessions
Scoring guidance
Farmer supports
Guidance & training for completing supporting actions
Advisor support
Best practice management guidance

Next steps

- Finalise programme
- Information meetings - early 2019
- Recruit participating farmers – spring 2019
- Advisor and farmer training

Thank You!