



# **CAP Eco-Schemes: Proposals by ICOS**

**May 2021**

## EXECUTIVE SUMMARY

The reformed Common Agricultural Policy (CAP) is setting the bar higher in terms of environmental ambition with the new Green Architecture including three core elements; Conditionality, Pillar 1 Eco-Schemes and Pillar 2 interventions.

The Farm to Fork and EU Biodiversity Strategies augment the direction of travel at EU level. At national level, the Programme for Government, the Ag Climatise Roadmap and the Climate Action Bill all set out very ambitious environmental targets for Irish agriculture and the wider economy.

The Eco-Schemes under Pillar 1 provides a new opportunity to policy makers at EU and national level to tailor interventions to the specific needs of farmers and agricultural systems at local level.

In this context, ICOS wants to proactively contribute to the debate on the design of Eco-Schemes under Ireland's CAP Strategic Plan, which is currently under development.

We have set out proposals for Eco-Schemes for consideration by DAFM, accepting the requirements of the draft legislation relating to their design.

In this regard, we understand that Eco-Schemes must be annual agri-environmental schemes that farmers can voluntarily choose to participate in. Furthermore, payments can only be made for measures that go beyond conditionality or existing legislative requirements and must be coherent with Pillar 2 interventions.

ICOS is concerned that the 6,000 to 7,000, mainly dairy farmers under the Nitrates Derogation will have fewer choices available to them as Eco-Schemes, due to the increased level of conditionality associated with the nitrate regulations introduced in recent years. We are also concerned that non participation in Eco-Schemes may lead to unspent monies under the CAP and direct more CAP funds away from full-time farmers.

Bearing this in mind, ICOS recommends the introduction of the following Eco-Schemes, which are arranged under three broad headings:

- Productivity & Efficiency Eco-Schemes
- Soil Fertility & Environmental Eco-Schemes
- Biodiversity, Carbon Sequestration and Conservation Eco-Schemes

We have used three principles throughout when considering our proposals:

- They must be **simple** in their design and operation
- They must be **accessible** to all farmers including dairy farmers
- They must deliver **effective** environmental improvement

The dairy co-op sector is fully committed to a sustainable and low carbon future. The combination of public and private sector actions must be joined up in order to fully support farm families. We believe that delivering simple, accessible and effective CAP Eco-Schemes is essential, so as to provide farmers with a clear roadmap for the next decade to 2030.

## SUMMARY OF ICOS PROPOSALS

### 1. PRODUCTIVITY & EFFICIENCY ECO-SCHEMES

- ES 1: Milk Recording
- ES 2: EBI & DBI
- ES 3: Sexed Semen
- ES 4: Genotyping
- ES 5: Herd Health Plan

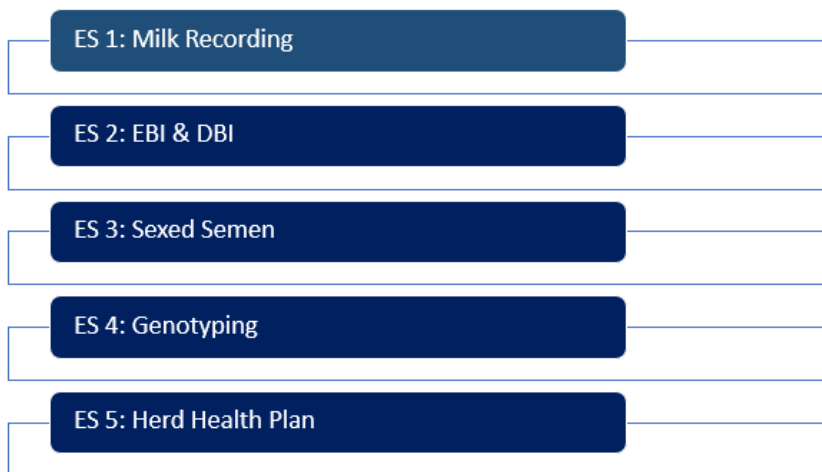
### 2. SOIL FERTILITY & ENVIRONMENTAL ECO-SCHEMES

- ES 6: Liming
- ES 7: Protected Urea
- ES 8: SDAS/SBLAS certified
- ES 9: Grass measurement & management
- ES 10: Grassland Reseeding

### 3. BIODIVERSITY, CARBON SEQUESTRATION AND CONSERVATION ECO-SCHEMES

- ES 11: Tree Planting
- ES 12: Biodiversity
- ES 13: Water & Electricity Conservation

## 1. PRODUCTIVITY & EFFICIENCY ECO-SCHEMES



### ES1: MILK RECORDING ECO-SCHEME

The promotion of milk recording will support management decisions that will result in fewer greenhouse gas (GHG) emissions, tackle antimicrobial resistance (AMR) and improve animal health indicators, while underpinning farm level profitability.

The provision of dedicated support for milk recording under the new CAP strategic plan will bolster wider efforts by industry to promote the uptake of milk recording. Milk recording empowers farmers to make key management decisions that will improve the quality of stock and the overall environmental footprint of the national dairy herd. Milk recording data is needed to make the correct decisions when implementing Selective Dry Cow Therapy (SDCT). The responsible use of antibiotics is a key societal challenge. The greater use of milk recording is necessary to enable the dairy sector to contribute to an overall reduction in antimicrobial usage over the coming decade. Milk samples collected when recording can also be used for a range of additional benefits including disease screening and to diagnose pregnancy.

ICOS recommends the establishment of a “Milk Recording Eco-Scheme” under the new CAP Strategic Plan. A “Milk Recording Eco-Scheme” should provide support to farmers engaged in milk recording at least four times per year.

### ES2: EBI & DBI ECO-SCHEME

Teagasc research demonstrates that increasing genetic merit through the use of the Economic Breeding Index (EBI) will reduce GHG emissions per unit of product by 2% for every €10 increase in EBI. The promotion of EBI will deliver both environmental and economic improvements, including the following benefits: EBI will reduce emissions by improving fertility, which reduces calving intervals and replacement rates, thus reducing enteric methane emissions per unit of product; EBI will result in an earlier calving date and thus increase the proportion of grazed grass in the cow’s diet; and EBI will improve survival and health, which increases efficiency and reduces emissions. The Teagasc

Greenhouse Gas MACC curve predicts that increased usage of EBI will result in a reduction of 0.43 Mt CO<sub>2</sub>-e yr<sup>-1</sup> over the period 2021 to 2030<sup>1</sup>.

Additionally, the Dairy Beef Index (DBI) is a valuable tool for Irish dairy and beef farmers to promote high quality beef cattle bred from the dairy herd that are more saleable as calves and profitable at slaughter yet, they have minimal consequences on the calving difficulty or gestation length of the dairy cow.

In short, ICOS recommends the establishment of an “EBI and DBI Eco-Scheme” under the new CAP Strategic Plan, providing support to farmers that use EBI AI genetics and the DBI to select suitable beef AI sires in order to reduce GHG emissions and support improved animal health, breeding and welfare outcomes.

### **ES3: SEXED SEMEN ECO-SCHEME**

The establishment of a new sexed semen laboratory in Ireland from 2022 is a welcome and important development.

Sexed semen can be successfully used to increase the number of dairy female replacements born and thus reduce the number of dairy male calves born. The value of the beef output from the dairy herd will increase by using beef sires, once the required number of dairy female replacements are generated.

The new laboratory should facilitate the wider selection of bulls available under this technology. We believe that sexed semen should be supported under the CAP strategic plan, given potential risks associated with male dairy calf welfare and the uncertain future of live exports. Maximising conception rates with sexed semen requires careful animal selection, appropriate timing of AI, and attention to detail regarding straw handling.

ICOS recommends the establishment of a “Sexed Semen Eco-Scheme” to support its use in Ireland, contributing to improved animal welfare and environmental outcomes.

### **ES4: GENOTYPING ECO-SCHEME**

ICOS believes that support should be provided to farmers to incentivise genomic testing by having each calf genotyped at birth as a means of registration. The allocation of Eco-Scheme funding in this area would significantly help the DBI, as every beef calf would have a genomic carcass value at birth, especially seeing as over 50% of beef calves born into the dairy herd don't have a sire recorded. The introduction of a “Genotyping Eco-Scheme” will complement the target outlined in the Ag Climatise Roadmap to genotype the entire national herd by 2030 to underpin the development of enhanced dairy and beef breeding programmes that help achieve a reduction in our overall GHG output at national level.

### **ES5: HERD HEALTH PLAN ECO-SCHEME**

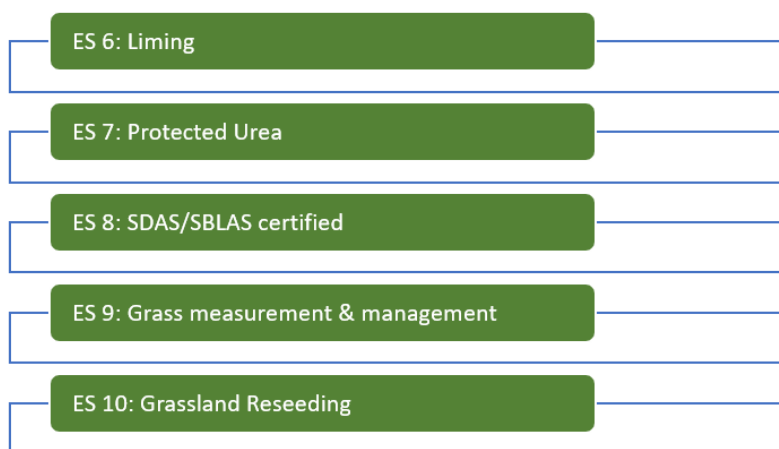
Animal health has been recognised under Ag Climatise as a significant contributor to production efficiency and overall carbon footprint. The concept of herd health planning supports good animal health and will deliver better economic returns at farm level. ICOS is calling for the establishment of

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<sup>1</sup> Teagasc Greenhouse Gas MACC Curve 2021-30, Page 57 [Link](#)

a “Herd Health Plan Eco-Scheme” that will support a farmer that completes a Herd Health Plan document, through a co-operative led programme. ICOS is recommending that the dairy co-operative structure should be fully utilised to support herd health planning, as they are ideally positioned to run comprehensive herd health programmes, given the detailed information and data available to them through their milk supply agreements and associated conditions, advisory programmes, milk quality and herd health data, joint advisory programmes, and integration with AHI, Teagasc and other programmes. In summary, a “Herd Health Plan Eco-Scheme” should provide support to farmers that completes a herd health plan document.

## 2. SOIL FERTILITY & ENVIRONMENTAL ECO-SCHEMES



### ES6: LIME & SOIL PH ECO-SCHEME

Lime is one of the most effective fertilisers available to farmers. Despite its proven benefits (€7 return on each €1 invested), lime application remains below the levels previously achieved in the 1970’s and 1980’s, when public support was made available.

The dairy co-operative sector participates in the promotion of lime through individual soil fertility programmes and Teagasc joint programmes and we are proactively looking to develop local partnerships with lime suppliers and quarries in co-op regions. The inclusion of a “Lime Application Eco-Scheme” will significantly support private and public sector actions needed to increase lime application resulting in improved soil pH and nutrient use efficiency.

The Teagasc Greenhouse Gas MACC curve analysis concludes that while targeting a similar grass yield, by increasing the soil pH from 5.5 to 6.3 with lime application, the N fertiliser required could be reduced by up to 70kg N ha<sup>-1</sup> yr<sup>-1</sup>. Additionally, increasing the soil pH with lime application led to on average 5.3 kg ha<sup>-1</sup> additional P uptake by the grass sward<sup>2</sup>.

ICOS recommends the establishment of a “Lime & Soil pH Eco-Scheme” under the new CAP Strategic Plan. A “Lime & Soil pH Eco-Scheme” should provide support to farmers that apply lime, as part of a fertilisation plan.

<sup>2</sup> Teagasc Greenhouse Gas MACC Curve 2021-30 Page 59 [Link](#)

We believe that a “Lime & Soil pH Eco-Scheme” should be open to all farmers, including farmers operating under the Nitrates Derogation, given that lime application is a new condition of the Nitrates Derogation. In this regard, we propose that if a farmer can demonstrate that a proportion of their soil analysis results are at the optimum pH level, they should equally qualify for an Eco-Scheme payment.

#### **ES7: PROTECTED UREA ECO-SCHEME**

Teagasc research has proven that switching to a form of urea fertiliser known as protected urea, can significantly cut GHG emissions, notably nitrous oxide (N<sub>2</sub>O) by 71% when compared to the use of CAN. The Teagasc MACC curve for GHG emissions has identified the use of protected urea, as the single largest abatement measure in the MACC with mean N<sub>2</sub>O reductions of 0.52 Mt CO<sub>2</sub>-e yr<sup>-1</sup> between 2021 and 2030 and a maximum mitigation potential of 0.75 Mt CO<sub>2</sub>-e yr<sup>-1</sup> based on a 50% replacement of CAN<sup>3</sup>.

The wider use of protected urea will achieve a double dividend by reducing ammonia emissions, as well as GHG emissions from agriculture. The Teagasc Ammonia MACC curve states that 80% of the ammonia mitigation potential can be achieved by the rollout of protected urea and low emission slurry spreading (LESS). With both protected urea and LESS, greater value is achieved from the fertiliser or manure as less of the nitrogen is lost up into the atmosphere and therefore fertiliser usage and bills can be cut. Based on the substitution of 50% of CAN fertilizer with protected urea, the average amount of ammonia (NH<sub>3</sub>) abated over the period 2021 to 2030 is potentially 3.11 kilotonnes of NH<sub>3</sub> per annum<sup>4</sup>.

A “Protected Urea Eco-Scheme” will support the national objective to increase the use of protected urea, as quickly as possible, during the first half of the coming decade. Notably, it is vital that the ongoing research trials are completed, as a matter of urgency to enable the greater use of protected urea.

#### **ES8: SDAS & ORIGIN GREEN CERTIFIED ECO-SCHEME**

The Bord Bia Sustainable Dairy Assurance Scheme (SDAS) and the other pioneering quality assurance schemes for each production sector should be supported under the new CAP. SDAS for the dairy sector is an essential component in meeting global customer expectations and maximising returns from the marketplace. The scheme is designed to assess and record sustainability data that can be used to demonstrate improvements at individual farm level, therefore providing the necessary proof to customers that milk has been produced to the highest sustainability and quality assurance criteria. The farmer undergoes an independent audit every 18 months, with each participant in SDAS subject to a carbon assessment using the carbon navigator tool. ICOS believes that participation in SDAS and other Origin Green programmes should be rewarded by the development of an Eco-Scheme.

#### **ES9: GRASS MEASUREMENT & MANAGEMENT ECO-SCHEME**

Ireland benefits from a temperate climate that enables a long grazing season. This provides advantages in terms of climate mitigation, carbon sequestration and animal welfare. Grass based livestock systems have an important role to play in addressing global food security and sustainability challenges. The Teagasc GHG MACC curve recommends that increasing the proportion of grazed grass in the feed budget will reduce the proportion of grass silage in the diet thus improving feed digestibility

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<sup>3</sup> Teagasc Greenhouse Gas MACC Curve 2021-30 Page 62 [Link](#)

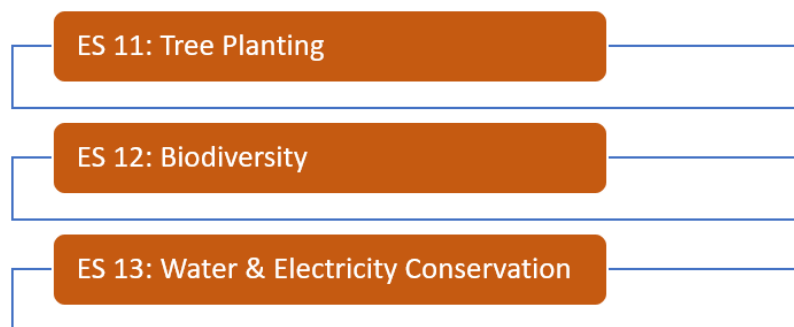
<sup>4</sup> Teagasc Ammonia MACC Curve 2021-30 Page 36 [Link](#)

and quality. This results in reductions in the proportion of dietary energy lost as methane. Extended grazing will also reduce emissions associated with slurry management. Teagasc analysis carried out on dairy farms show that for every one day increase in the grazing season, the IPCC and LCA emissions reduced on average by 0.14% and 0.17% per unit of milk and reduced costs to the extent of €3.24/cow<sup>5</sup>. In summary, ICOS is proposing the establishment of a “Grass Measurement and Management Eco-Scheme” to support farmers that regularly record and measure grass growth. This will improve grass quality, enhance animal performance and match grass supply with demand.

**ES 10: GRASSLAND RESEEDING ECO-SCHEME**

Additionally, ICOS is calling for an Eco-Scheme that will support farmers when reseeded to increase grassland productivity and management including the incorporation of clover or multi-species swards. ICOS supports a “Grassland Reseeding Eco-Scheme” in this context. Grassland reseeded will result in many environmental benefits including greater nitrogen use efficiency. The incorporation of clover and or multi-species swards will result in lower nitrogen use, while maintaining DM production per ha.

**3. BIODIVERSITY, CARBON SEQUESTRATION AND CONSERVATION ECO-SCHEMES**



**ES11: TREE PLANTING ECO-SCHEME**

ICOS in its 2018 Report “Positive Steps towards a low carbon future for Irish dairy farms”, recommended the establishment of a worthwhile agro-forestry initiative for livestock farmers using native broadleaf trees to increase forestry cover, provide shelter belts, offset emissions and increase biodiversity.

A “Tree Planting Eco-Scheme” should be developed to support all farmers by planting a small number of native broadleaf trees (5-10 trees) in any one year.

The measure will help improve farm biodiversity, capture carbon and improve the visual appearance of the landscape. The measure can be supported by the co-op sector by providing access and advice on tree planting through their extensive branch network.

<sup>5</sup> Teagasc Greenhouse Gas MACC Curve 2021-30 Page 58 [Link](#)



## **ES12: BIODIVERSITY ECO-SCHEME**

Irish farmers are proud custodians of the countryside and our natural environment. Biodiversity rich areas on Irish farms are an integral part of the Irish rural landscape.

For example, hedgerows have been used to determine field and land boundaries for many years. Recently, there is a much greater recognition of their immense value to biodiversity and carbon sequestration. Teagasc research has shown that we have over 689,000 km of hedgerows in Ireland, almost double the previous estimates<sup>6</sup>. Every Irish farm includes an area, rich in biodiversity including hedgerows, water landscapes, tree-lines, transitional grassland areas and greenways etc.

Policy makers need to fully recognise these important stocks of carbon and rich habitats by supporting farmers that maintain existing biodiversity on their farms. ICOS supports the development of a “Biodiversity Eco-Scheme” that will support farmers in this regard. This must incorporate hedgerows and all areas currently deemed ineligible for direct payment purposes.

## **ES13: WATER & ELECTRICITY CONSERVATION ECO-SCHEME**

In a global context, water conservation, alongside food and energy security are central to sustainable development. Ireland is fortunate to benefit from a temperate climate, ideal for growing grass and livestock production. Nevertheless, given the nexus of global sustainability challenges affecting our planet, we all have a responsibility to use our valuable resources such as water and electricity, as efficiently as possible.

In this context, ICOS supports the development of a “Water & Electricity Conservation Eco-Scheme” that will support farmers that installs either a smart water or electricity meter. Smart meters provide individuals with feedback on their usage of water and electricity, enabling changes in habits that will cut down on unnecessary usage. The measure should be available to those that have installed either a smart electricity or water meter.

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<sup>6</sup> Teagasc article [Link](#)

## **PAYMENT OPTIONS**

The European Commission has outlined that Member States can choose to pay participating farmers in CAP Eco-Schemes based on either:

1. Payment based on environmental benefit, or
2. Payment based on cost incurred and income foregone

Payments can be based on a per ha basis or Livestock Unit (LU) basis. However, payments based on a LU basis must be based on payment option 2.

We recognise that due to WTO implications, some of the proposed Eco-Schemes may be based on payment option 2. However, the ICOS position is that as far as possible, payment option 1 should be used under Ireland's CAP Strategic Plan.

The measures proposed by ICOS are all relatively straightforward from an administrative and compliance perspective.

## **CONCLUSION**

The CAP Eco-Schemes proposed by ICOS are based on three main principles; they are simple in their design and operation, accessible to all farmers including dairy farmers; and they will deliver effective environmental improvement. We have put forward a menu of options, so as to allow a farmer to decide the most suitable CAP Eco-Scheme(s) that will work for their individual family farm.

The proposals put forward by ICOS are consistent with the recommendations contained in the Ag Climatise Roadmap, the Farm to Fork Strategy, the European Commission's list of potential eco-schemes and the CAP SWOT and needs assessments prepared by DAFM.

It is anticipated that the final budget allocated to CAP Eco-Schemes under Pillar 1 will be between 20% to 30%. There is a genuine risk that CAP Eco-Schemes may result in unspent CAP funds due to their voluntary nature. We strongly recommend that DAFM fully considers the proposals we have put forward, as we believe that these proposals will benefit Irish agriculture from an economic, social and environmental perspective.