If you are responding on behalf of an organisation, please complete the online submission form and return to scconsultations@ncca.ie before Friday 17th April at 5pm.

Written submission: Consultation on the Draft Leaving Certificate Agricultural Science specification

NCCA is redeveloping Leaving Certificate Agricultural Science. The aim of this consultation is to obtain the open and honest views of all stakeholders: students, teachers, parents, and other interested parties. The feedback gained from the consultation will inform the work of the development group in preparing the final specification.

NCCA would greatly appreciate your feedback on the draft specification for Leaving Certificate Agricultural Science which can be found here: https://ncca.ie/en/senior-cycle/curriculum-developments/agricultural-science/

When providing feedback, observations or comments, please reference the specific section and / or relevant learning outcomes.

The closing date for this consultation is **Friday 17th April 2026 at 5pm.**

Data protection and open data section

NCCA is committed to protecting your privacy and does not collect any personal information about you through this survey, other than information that you provide by your own consent. Any personal information you volunteer to the NCCA will be respected in accordance with the highest standards of security and confidentiality in accordance with GDPR (2016) and the Data Protection Acts (1998 - 2018). Further information on the NCCA's Data Protection Policy can be found at https://ncca.ie/en/legal-disclaimer-and-data-protection/

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Should you have any questions in relation to the collection or use of data in this survey, please contact the NCCA's Data Protection Officer at dpo@ncca.ie

The feedback collected through this survey will be shared with the development group

responsible for the redevelopment of the Leaving Certificate Agricultural Science specification. This information will be used solely to support their work. All feedback shared will be handled in accordance with the GDPR.

Respondent's details

What organisation are you submitting on behalf of?

IDEA (Irish Development Education Association) Formal Education Working Group

Are you consenting to be listed as a respondent to this consultation?

- **Yes**
- No

If yes, please enter the name you wish to have published in the final report.

IDEA Formal Education Working Group

Are you consenting to have the submission published on ncca.ie?

- Yes
- **No**

Rationale, Aim, and Key Competencies [pp. 2-3, 8]

Rationale: The rationale, (p.2) outlines the nature of Agricultural Science and the role and importance of Agricultural Science in realising the purpose and vision of senior cycle.

Aims: The aims, (p.3) outlines the overarching purpose of the subject and the relevance and expected impact of the subject on student learning.

In your opinion, do the rationale and aim capture the overarching purpose and nature of Agricultural Science; the importance of the subject in realising the vision of senior cycle and the relevance and expected impact of this subject on student learning? Please provide specific feedback / observations / comments.

The rationale and aim capture well the overarching purpose and nature of Agricultural Science, with emphasis on wider context, systems and sustainability.

Rationale:
We welcome the rationale's mention of environmental, economic and social sustainability and "*sustainable production and resource management*". The emphasis on values also aligns with Global Citizenship Education: "*fosters care, legacy, and stewardship of the environment*."

It is unclear from the rationale whether the subject will focus only on the Irish context, or will explore agriculture from a global lens, which we would welcome and recommend. There are suggestions that the bigger picture will be looked at ("*Agriculture is one of humanity's oldest and most influential activities, shaping societies, economies, and cultures*"; "*drawing on practices developed by farmers and producers over time*") but reference to "*The agricultural sector*" confuses this message slightly as it implies only the Irish sector. A global lens (e.g. "*The **global** agricultural sector*") would support students to not only understand the legacy and cultural significance of agriculture across the world but also support them to learn about the current dominant agricultural models throughout the world, including in Ireland. Further applying a **global justice** lens would help students to understand the roots and effects of unsustainable extractive models vs. sustainable regenerative models. This would help engender empathy and solidarity with farmers and consumers experiencing the impacts of unsustainable agricultural practices at systemic scale, as well as climate shocks around the world.

Aims:
We welcome the goal to "*consider different perspectives, systems or interactions that influence agriculture*" which could be expanded to "*consider different perspectives, systems or interactions that influence agriculture* ***locally and globally***", and how global trends in agriculture affect Ireland and how Irish trends in agriculture affect the rest of the world. Although in the next section, it says "*recognise the importance of stewardship of the environment in local, national and international contexts*", it would be great to see the local and global dimensions included in the perspectives section too. This links well with the rationale which puts emphasis on the history and legacy of farming and its influence on societies.

There is an opportunity to state a clear linkage between this specification and the Leaving Cert Climate Action and Sustainable Development specification.

Key Competencies: Key competencies is an umbrella term which refers to the knowledge, skills, values and dispositions students develop in an integrated way during senior cycle. These competencies are linked and can be combined; can improve students' overall learning; can help students and teachers to make meaningful connections between and across different areas of learning; and are important across the curriculum.

The draft specification sets out examples of how key competencies can be developed in Leaving Certificate Agricultural Science (pp. 8 - 9).

In your opinion, does this section effectively capture the development of student key competencies in Leaving Certificate Agricultural Science? Please provide specific feedback / observations / comments.

This section clearly illustrates how Leaving Certificate Agricultural Science develops key competencies. We would recommend going one step further and naming certain essential dimensions of the key competencies, drawn from pedagogies of Development Education/Global Citizenship Education.

We welcome the emphasis on getting students to "*imagine sustainable futures and consider steps to achieve these futures*" and think this section weaves knowledge, skills and values well, ensuring that although this is a scientific subject, there is room for creativity and values education. Encouraging thinking about "*the motivations behind their beliefs*" supports this by exploring bias.

There are some opportunities to add emphasis on a more critical approach:

- Add critical to: "***critical*** *thinking and solving problems*"
- Emphasise including a variety of perspectives: "*They access, gather and process information from a variety of* ***local and global*** *sources*"
- "*differentiate between fact and fiction"* - could be expanded to include information discernment skills/interpreting mis/disinformation, critical media literacy

The terms "*listen to and appreciate other viewpoints*" and "*remain open to different perspectives*" are welcome but could be made stronger to include the active listening, deep reflection and critical thinking competencies that are embedded in Development Education/Global Citizenship Education, which help students understand and navigate our increasingly complex and interconnected world. We suggest the following rewording: "*listen to and* ***seek to understand*** *other perspectives,* ***exploring root causes and the origins of these differences with an aim to act with empathy and in solidarity with those experiencing challenges locally and globally".***

We welcome the note on "*contributing to a sustainable world …*" This could be strengthened by adding a global perspective and explicitly naming the need for a collective, mutually accountable approach. We suggest the following rewording: "*contributing to a sustainable world in their schools, communities, wider society,* ***and globally,*** *and through their own personal behaviours and choices* ***as well as through holding decision makers and those with power to account***" – or phrasing that emphasises collective responsibility and collective action and the need for those in power to make positive systemic decisions that enable regenerative agriculture at scale and therefore sustainability.

Strands of study and learning outcomes [pp.10-35]

Course overview: The course overview sets out the knowledge, skills, values and dispositions for students in three contextual strands and a unifying strand. The learning outcomes in the **unifying strand, Nature of Science**, identify the knowledge, skills, values and dispositions related to scientific practices which are essential to students' learning ***about*** science throughout the course, underpinning the activities and content in the other strands. The learning outcomes in the other three **contextual strands—Soils, Plants, and Animals**—identify the knowledge ***of*** agricultural science which includes its core concepts, models and theories that explain and predict agricultural phenomena. The specification emphasises a non-linear, integrated approach to learning throughout these strands.

The specification identifies five **crosscutting themes – Sustainability, Health & Safety, Policy & Economics, Technology, and Food Production**. These themes, illustrated as surrounding the contextual strands, permeate and provide contexts for the study of these strands. They act as lenses through which students explore the application of knowledge ***from*** agricultural science.

The overview of the course structure is provided on pp.10-11.

In your opinion, does the structure illustrate how students engage in agricultural science learning in an appropriate way? Please provide specific feedback / observations / comments.

Yes – the structure is logical and unified. We welcome the inclusion of the underpinning themes: Sustainability, Policy & Economics and Food Production and see a lot of potential for inclusion of Global Citizenship Education principles and values here, in particular principles 1, 2, 3, 4 and 8 of the IDEA Code of Good Practice for Development Education. We especially welcome the wording of "*They act as lenses through which students explore the application of knowledge from agricultural science. Through these lenses, students engage with contemporary issues in agricultural science as they pose questions and integrate and apply their learning from across the specification.*" We see learning about soil, plants and animals through these interconnected lenses as an essential component of the specification as they will allow students to understand the implications of different approaches and models on sustainability, food production, and policy and economic considerations (as they pertain to a nationwide food system that is interdependent on global food systems)

Unifying Strand: Nature of Science [pp.12 - 14]

Please provide your views on the learning set out in this strand with reference to

- clarity for planning for teaching and learning
- alignment with the rationale and aims
- opportunities for the development of key competencies and
- access and challenge for all students.

Please provide specific feedback / observations / comments.

This strand is clear and aligns with the rationale and aims. It highlights that understanding the nature of science underpins this subject.

We welcome U4 "*making connections between local and global contexts*"
We would encourage a focus on Global South contexts, highlighting that there is a lot to learn from regional and traditional agriculture, including agroecological approaches, and pastoralists who rely on ancient traditions. E.g. "*making connections between local and global contexts,* ***including low-income countries***".
This would also support links when looking at climate change/biodiversity etc. and would open up opportunities to explore different examples of agriculture adapting to a changing climate, such as agroecological and regenerative approaches. This links to the rationale which highlights a need for "*drawing on practices developed by farmers and producers over time*".

This also links to the "values and dispositions" of the key competencies, encouraging the formation of enriched, engaged and competent learners, as it helps tackle stereotypes and encourages thinking beyond the local by illustrating the world as an interconnected system.

Strand 1: Soils [pp.15 - 20]

Please provide your views on the learning set out in this strand with reference to

- clarity for planning for teaching and learning
- alignment with the rationale and aims
- opportunities for the development of key competencies and
- access and challenge for all students.

Please provide specific feedback / observations / comments.

In order to improve clarity for planning for teaching and learning, some sections on key concepts could be beneficial. For example, the crosscutting theme of 'sustainability' is evident throughout this section but is not explicitly mentioned as a concept to be taught. It could be beneficial to include this in the 'students learn about…' section as a basic understanding of sustainability at the start, would enable students to see this as a theme throughout their learning.
Example of content that would be challenging without a core understanding of sustainability first: "1.3 *the role of mycorrhizal symbioses between plants and fungi in promoting soil structure, water availability, nutrient cycling, biodiversity, and ecosystem sustainability*".

In order to "*consider different perspectives*" as in the aims, section 1.4 could read "*discuss trade-offs and synergies* ***for different stakeholders*** *resulting from soil management and functions*"

In section 1.5 "*analyse the results of a soil analysis report for a farm*" it would be an interesting addition to include farms from across the world - teachers could be encouraged to use case studies from both Ireland and other countries that rely on agriculture. This would support the aim: "*recognise the importance of stewardship of the environment in local, national and international contexts*"

Strand 2: Plants [pp.21 - 27]

Please provide your views on the learning set out in this strand with reference to

- clarity for planning for teaching and learning
- alignment with the rationale and aims
- opportunities for the development of key competencies and
- access and challenge for all students.

Please provide specific feedback / observations / comments.

We welcome the emphasis on: "*students are empowered to better understand the role of innovation in meeting the challenges of food security, climate change, biodiversity, and sustainable livelihoods through efficient and sustainable agricultural production.*" We see a lot of potential for teachers to approach this aspect using Global Citizenship Education principles and methodologies here, in particular principles 1, 2, 3, 4 and 8 of the IDEA Code of Good Practice for Development Education, as well as an opportunity for teachers to invite specialist organisations with expertise in the aforementioned topics, such as Trócaire, Concern Worldwide, Talamh Beo and Siolta Chroí.

The term "ecosystem services" is used but without specific direction for teachers on what depth of knowledge is required here. Further guidance would be helpful.

In section 2.2 "*research the role of innovation in crop production to address food security and sustainability using evidence from secondary sources*" – a push to use global sources would be useful to support the aim: "*recognise the importance of stewardship of the environment in local, national and international contexts*" and "*consider different perspectives, systems or interactions that influence agriculture*" – without a push for sources from outside of Ireland, the course may focus solely on a national context and the aim will not be met.

Strand 3: Animals [pp.28 - 35]

Please provide your views on the learning set out in this strand with reference to

- clarity for planning for teaching and learning
- alignment with the rationale and aims
- opportunities for the development of key competencies and
- access and challenge for all students.

Please provide specific feedback / observations / comments.

In order to align with the rationale ("*sustainable production and resource management*" / "*fosters care, legacy, and stewardship of the environment*."), we would welcome a greater focus on the impacts of methane production on the environment. It is mentioned in 3.2 "*role of symbiotic microorganisms in digesting cellulose, producing vitamins, amino acids, and methane in ruminant animals*", and climate change is mentioned in 3.7 "*unique features of the farm such as technology, breeding, economics, recent adaptations to influencing factors (market, climate change, etc.), engagement with relevant schemes*".

However, it would be important to see methane production explicitly linked to climate change and given more attention, as this is a significant political, social and economic issue for farmers in Ireland. Climate justice is the key term here – a climate transition that is fair for everyone, including farmers.

There could be an exploration into practices such as using alternative feed to reduce methane production, or other sustainable ways to decrease methane production that ensure a just transition for Irish farmers. One inspiring example that could be explored within class is the holistic planned grazing approach adopted by Future Oak Farm - https://futureoakfarm.ie/#one.

Additional Assessment Component (AAC) - Agricultural Science in Practice Investigation

The AAC in Leaving Certificate Agricultural Science, an Agricultural Science in Practice Investigation, provides an opportunity for students to display evidence of their learning throughout the course, in particular, the learning set out as outcomes in the unifying strand. It involves students completing a piece of work during the course and, in Year 2, submitting for marking to the State Examinations Commission (SEC), evidence of their ability to conduct scientific research on a particular issue and to conduct an

experiment on an aspect(s) of that issue by gathering appropriate primary data. The assessment has been designed to be naturally integrated into the flow of teaching and learning and to exploit its potential to be motivating and relevant for students, to draw together the learning outcomes and cross-cutting themes of the course and to highlight the relevance of learning in Agricultural Science to their lives.

An overview of the AAC and its associated descriptors of quality are provided on pp. 39-43 of the draft specification.

Please provide specific feedback / observations / comments on the AAC in Leaving Certificate Agricultural Science with reference to how the AAC might motivate students, how it aligns to the learning outcomes in the specification and how it facilitates the development of key competencies.

We welcome the inclusion of a practical component to the course that will allow students to apply their learning and develop key competencies.

Where the investigation brief will "*include stimulus material to set a context for the investigation*" we encourage the use of contexts outside of Ireland so students can illustrate that they can apply their knowledge to unfamiliar situations. For example, if students were given a case study from a different region, it would help them consider other perspectives, apply their learning and think beyond their local area, while building solidarity for the similar experiences of farmers across the world. This would also draw on Ireland's strong history of supporting farmers in the Global South by sharing knowledge and expertise (e.g. importing Irish potatoes to be grown in rural Zambia).

Supports for Successful Enactment

Please provide specific feedback / observations / comments on supports that might be needed for the successful enactment of this subject specification.

Support for applied learning by connecting schools with organisations and businesses with expertise in sustainable agriculture (such as Siolta Chroi, Talamh Beo, Future Oak Farm, Trócaire and Concern Worldwide) and providing incentives for active partnership between schools and these entities, who could help educate and inspire students on sustainable regenerative approaches to agriculture.