

The Egg-Tech Prize

New Technologies for In Ovo Sex Determination



Program Summary: In early 2019, the Foundation for Food and Agriculture (FFAR) will launch the Egg-Tech Prize - a \$6 million initiative that seeks to revolutionize global egg production. The goal of the prize is to stimulate development of new technologies for accurate, high-speed and early-stage in ovo sex determination of layer chicks. Initial grants will be followed by a final stage that culminates in proof of a working prototype that meets the criteria determined by an expert Steering Committee.

What is the Challenge? Several billion layer chicks are hatched each year to supply the world's eggs, with demand expected to rise in coming years. Male chicks are culled on the day of hatch, as poor growth performance and meat quality makes them unsuitable for consumption. Unnecessary incubation causes the loss of millions of male chicks each year and is a major challenge to animal welfare, food waste, farm profitability and energy consumption.



The Search for Solutions: Approaches to solving this challenge have ranged from gene-editing to measurement of egg hormone levels. Use of new technologies to determine the chick's sex early in incubation would allow male eggs to be directed into the food supply or vaccine production. Recent advancements in sensor technologies, engineering and the biological sciences have poised the industry for a breakthrough that could be rapidly integrated into existing production systems.

Partnership: The Egg-Tech Prize will foster competition and build momentum to support scientific breakthroughs, from concept to prototype development, to provide practical solutions for the egg industry.

PRIZE PROCESS

- » **Phase 1:** Grants for concept development.
- » **Phase 2:** Proof-of-concept and prototype demonstration.

PRIZE TIMELINE

- » **October 2018:** Program announced.
- » **Early 2019:** Phase 1 - Ideation and Concept Development.
- » **Late 2019-2022:** Phase 2 - Proof-of-Concept / Prototype Demonstration.

JOIN FFAR

Learn more about the Egg-Tech Prize:

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FFAR welcomes discussions on this 'moonshot' and how this work can impact your organization.

ABOUT FFAR

 www.foundationfar.org

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The Foundation for Food and Agriculture Research (FFAR), a 501(c)(3) non-profit organization, builds unique partnerships to support innovative and actionable science addressing today's food and agriculture challenges. Established by bipartisan congressional support in the 2014 Farm Bill, FFAR complements and furthers the important work of the USDA. FFAR leverages public and private resources to increase scientific and technological research and innovation, critical to enhancing sustainable production of nutritious food for a growing global population.