

Poultry Farming

Business Scenario

Founded in 1958, Poultry & Co. is a thriving poultry company.

It produces approximately 300 million live pounds of chicken per year with a product mix of primarily whole birds, bulk chicken parts and boneless chicken items. The company is also an important integrator and processor of broilers.

Poultry & Co. incurred qualified research expenses under IRC Section 41 relating to the design and development of various processes and systems during the 2017-2020 fiscal years. Its biggest R&D project was improving poultry yield gain.

In this project, Poultry & Co. sought to develop improved methods for increasing water retention and product weight in their chickens.

In order to qualify for the Research and Development Tax Credit, Poultry & Co. needed to determine the eligibility of its proposed R&D activities. The qualified research must meet four main criteria, known as the Four-Part Test. Poultry & Co.'s qualified R&D activities included the following.

Eligible R&D Activities:

Development of Protein Isolates

Poultry & Co.'s hypothesis for this activity stated that it was possible to develop protein isolates which could be combined with water and injected into poultry for weight gain and minimal liquid leakage.

In order to resolve the technical uncertainties, Poultry & Co. had to undertake a systematic process of experimentation. They spent a considerable amount of time experimenting with the variables present in this project with countless tests and trials completed to eliminate the technical uncertainties that existed.

Improvements to Yield Gain using Sodium Triphosphate (STP)

STP is a common functional additive used in meat products to increase their water-holding capacity and improve their textural properties.

In this activity, Poultry & Co. sought to determine if they could achieve the desired water retention in poultry using STP in a mass-production environment, without detrimentally impacting processing efficiency or product quality.

Different types of STP are also available and the team did not know which type would be most appropriate for maximizing liquid retention with consistent results.



Background research to evaluate current knowledge gaps and determine feasibility (background research of the development of the poultry yield gain).

There are countless formulations, methods and systems for plumping chickens and improving yield gain. With a lack of consensus and published findings on the best practices to employ, firms must experiment and explore the possible options themselves.

Poultry & Co.'s eligible R&D activities during this phase of experimentation included:

- Literature search and review, including maintaining up-to-date knowledge on relevant certification and standards.
- Consultation with industry professionals and potential customers to determine the level of interest and commercial feasibility of the product.
- Preliminary equipment and resources review with respect to capacity, performance and suitability for the project.
- Consultation with key component/part/assembly suppliers to determine the factors they considered important in the design and to gain an understanding of how the design needed to be structured accordingly.

The background research conducted by Poultry & Co. was directly related to the main objective of improving the poultry yield gain, therefore qualifying as R&D.

Ongoing analysis of customer or user feedback to improve the prototype design (feedback R&D of the poultry yield gain).

Poultry & Co.'s eligible R&D activities for this phase of its project included:

- Ongoing analysis and testing to improve the efficiency and safety of the product.
- Ongoing development and modification to interpret the experimental results and draw conclusions that served as starting points for the development of new hypotheses.
- Commercial analysis and functionality review.

These activities were necessary to evaluate the performance capabilities of the new design in the field and to improve any flaws in the design, therefore qualifying as R&D.

Commentary

Qualified research defined

Qualified research consists of research for the intent of developing new or improved business components. A business component is defined as any product, process, technique, invention, formula, or computer software that the taxpayer intends to hold for sale, lease, license, or actual use in the taxpayer's trade or business.

THE FOUR-PART TEST

Activities that are eligible for the R&D Credit are described in the "Four-Part Test" which must be met for the activity to qualify as R&D.

1. **Permitted Purpose:** The purpose of the activity or project must be to create new (or improve existing) functionality, performance, reliability, or quality of a business component.
2. **Elimination of Uncertainty:** The taxpayer must intend to discover information that would eliminate uncertainty concerning the development or improvement of the business component. Uncertainty exists if the information available to the taxpayer does not establish the capability of development or improvement, method of development or improvement, or the appropriateness of the business component's design.
3. **Process of Experimentation:** The taxpayer must undergo a systematic process designed to evaluate one or more alternatives to achieve a result where the capability or the method of achieving that result, or the appropriate design of that result, is uncertain at the beginning of the taxpayer's research activities.
4. **Technological in Nature:** The process of experimentation used to discover information must fundamentally rely on principles of hard science such as physical or biological sciences, chemistry, engineering or computer science.

What records and specific documentation did Poultry & Co. keep?

Similar to any tax credit or deduction, Poultry & Co. had to save business records that outlined what it did in its R&D activities, including experimental activities and documents to prove that the work took place in a systematic manner. Poultry & Co. saved the following documentation:

- Project records/ lab notes
- Innovation Log
- Conceptual sketches
- Design drawings
- Background research
- Records of changes
- Testing protocols
- Results of records of analysis from testing/trial runs
- Records of resource allocation/usage logs
- Staff time sheets
- Invoices
- Receipts

By having these records on file, Poultry & Co. confirmed that it was "compliance ready" — meaning if it was audited by the IRS, it could present documentation to show the progression of its R&D work, ultimately proving its R&D eligibility.

R&D Tax Credit Summary

Poultry & Co. shows continuous improvements through research and development in the following areas:

- Improvements to yield
- Improvements in reliability of products
- Decrease in labor and production costs
- Production innovation sourced from:
 - Internal ideas

Poultry & Co. eliminated uncertainty by:

- Testing on 300 birds to determine reliability
- Experimentation with possible fixes until an adequate solution was determined

Therefore, Poultry & Co. satisfies the four-part test and qualifies for both the Federal and Texas research and development tax credit. By filing both the federal and state research and development tax credits, Poultry & Co. was able to obtain a significant amount of credit for tax years 2017-2020.

Total QREs	Federal Gross Credit	State Gross Credit	Total Savings
\$852,865	\$51,172	\$30,530	\$81,702