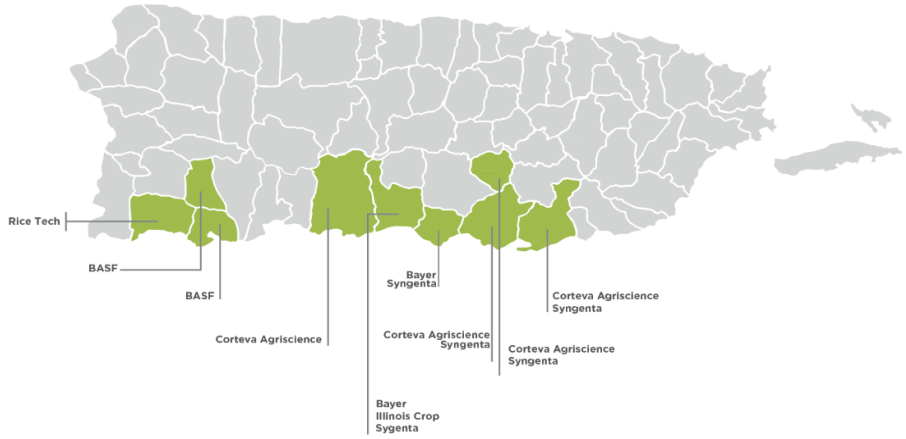
PUERTO RICO'S

DEPARTMENT OF ECONOMIC DEVELOPMENT AND COMMERCE
GOVERNMENT OF PUERTO RICO

Agrobiotechnology Industry

Puerto Rico's agrobiotechnology industry plays a significant role in global food production and the local economy. Consist of six major firms: **BASF, Bayer Crop Science, Corteva Agriscience, Illinois Crop Improvement Association, Rice Tec, and Syngenta**, each contributing to advancements in agricultural biotechnology and sustainable practices. **These companies conduct Research and Development (R&D) activities focus on seed production** (soybean, sunflower, corn, cotton, beans, wheat, and sorghum), **including genetic engineering, precision agriculture techniques and bioinformatics to develop crops with enhanced nutritional value, disease resistance and environmental adaptation.** They are in the southern region of the island, in Lajas, Sabana Grande, Guánica, Ponce, Juana Díaz, Santa Isabel, Salinas, and Guayama. These AgBio firms play a crucial role in addressing global challenges in sustainable food production[1].

AGBIO
IN PUERTO RICO



Economic Impact

Puerto Rico's AgBio industry supports regional economic activity through direct, indirect, and induced effects on demand and employment. In recent years, the government has focused on developing a regional ecosystem of AgBio companies in collaboration with industry participants to foster the bioscience industry. In 2023, the industry employed 1,539 workers, with a median wage of $62,894, paid $5.6 million in rent per leased acre and invested $588,254 in employee training. Also, Puerto Rico Agricultural Biotechnology Industry Association (PRABIA) invested $176,400 in community initiatives and worked with higher learning institutions like the **University of Puerto Rico Mayaguez, Pontifical Catholic University, and Interamerican University** developing specialized curriculums, internships, scholarship programs, agriculture fairs, and R&D initiatives. **The Annual Economic Impact of reporting firms includes $284 million in economic activity, 2,906 jobs, a payroll of $88.2 million, and approximately $9.3 million in taxes paid[2].**

[1] Sources: Estudios Técnicos, Inc., Economic Impact of the Agrobiotechnology Industry in Puerto Rico, 2024; https://www.investpr.org/key-sectors/biosciences/, 2025.
[2] Source: Estudios Técnicos, Inc., Economic Impact of the Agrobiotechnology Industry in Puerto Rico, 2024.

Key Players

BASF Agricultural Products of Puerto Rico - The manufacturing operations have been dedicated to the formulation of liquid herbicides since February 2009 (Source: https://www.epa.gov/hwcorrectiveactioncleanups/hazardous-waste-cleanup-basf-agricultural-products-puerto-rico-manati, 2025).

Bayer Crop Science - Bayer's products and services are designed to benefit people by supporting efforts to overcome the major challenges presented by a growing and aging global population. Headquartered in Juana Diaz, the Crop Science division focuses on advanced assisted breeding research and development. Corn, soy, and cotton seeds are developed for superior performance for farmers. The seeds produced in Puerto Rico are then sent to other Bayer sites for additional testing and for large-scale seed production, supporting the global farming and product supply (Source: https://www.bayer.com/en/us/bayer-in-puerto-rico, 2025).

Corteva Agriscience Puerto Rico - The company develops leading-edge crop protection and plant biotechnology solutions to meet the challenges of a growing world. The parental seeds grown at the sites (corn, soybeans, sorghum, and cotton) are sent to the United States and then distributed to Corteva Agriscience field stations all over the world (Source: https://www.corteva.com/our-impact/communities/puertorico/whoweare.html, 2025).

Illinois Crop Improvement Association - Is a non-profit organization focused on the improvement and development of crops. It plays a key role in the agricultural community by providing a variety of services including seed certification, variety testing, and agricultural research (Source: https://www.ilcrop.com/, 2025).

Rice Tec. - Sustainable rice production is embodied in RiceTec Seed and Rice Reach Services. These solutions naturally reinforce each other, creating a synergistic approach to sustainable rice farming that benefits growers, consumers, and the environment (Source: https://ricetec.com/, 2025).

Syngenta - Is a leading, science-based agriculture company, empowering farmers to meet the demands of modern agriculture. Using cutting-edge innovation, the company help farmers to grow resilient, healthy crops that can feed a growing global population, while promoting sustainable farming practices that protect and enhance the planet. Headquartered in Switzerland are a global agritech leader with more than 30,000 employees across over 90 countries (Source: https://www.syngenta.com/, 2025).

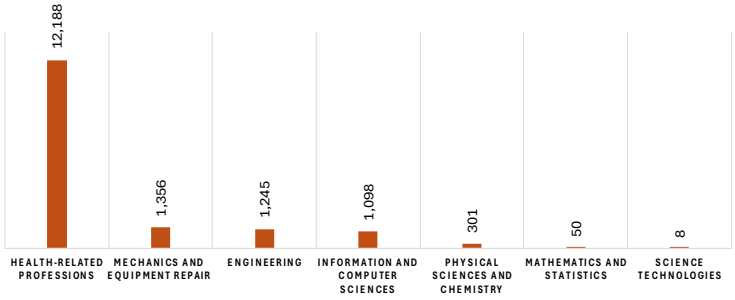
Universities

Leader In STEM Graduates
50% of university graduates hold a STEM degree
Top 25 in graduating Chemical & Industrial Manufacturing Engineers in the USA (according to the America Society for Engineering Education)
#1 in the US graduating Underrepresented Minorities in Engineering (According to the American Society for Engineering Education)

Source: https://www.investpr.org/why-puerto-rico/talent-academic-assets/,2025.

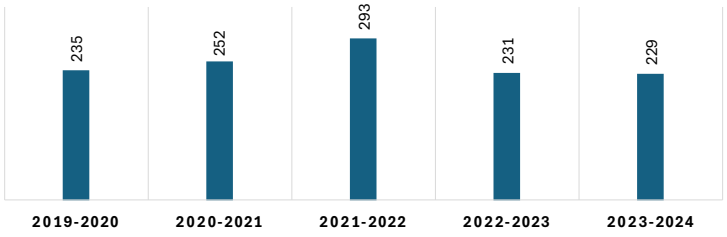
Puerto Rico develops its talented bilingual workforce through a rigorous and strong focus on Science, Technology, Engineering and Mathematics (STEM). The **University of Puerto Rico Mayagüez** is renowned for its **Agricultural Science Programs** and is a significant contributor to the STEM workforce on the island. Also, the **Pontifical Catholic University of Puerto Rico (PCUPR)** offers a biotechnology program that focus on **agricultural biotechnology**. The **Inter American University of Puerto Rico at Barranquitas**, offers bachelor's and master's degrees in **biotechnology**, and Ph.D. in **international biotechnology**[3].

DEGREES CONFERRED IN STEM (2022)
TOTAL 16,246



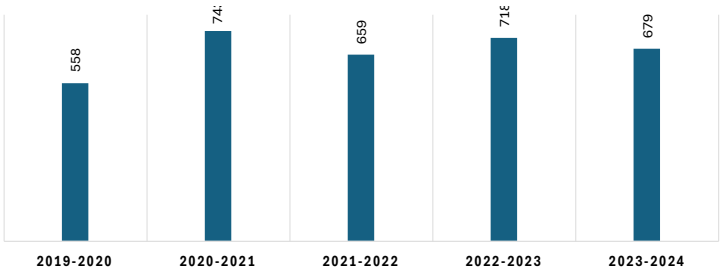
Source: Department of State Board of Postsecondary Institutions, 2022.

UPR MAYAGUEZ AGRICULTURAL SCIENCES DEGREES CONFERRED (2019-2024)
TOTAL 1,240



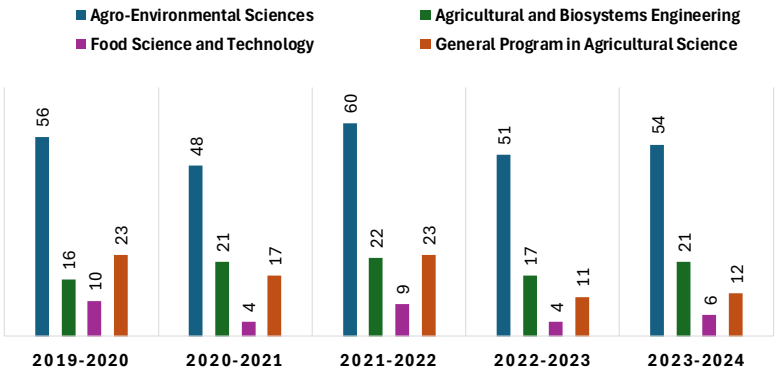
Source: https://www.upr.edu/datos-institucionales/datos-de-matricula/, 2025.
* Degrees conferred include Undergraduate and Graduate students.

UPR MAYAGUEZ ENGINEERING DEGREES CONFERRED (2019-2024)
TOTAL 3,357



Source: https://www.upr.edu/datos-institucionales/datos-de-matricula/, 2025.
* Degrees conferred include Undergraduate and Graduate students.

UPR MAYAGUEZ AGRICULTURAL SCIENCES DEGREES CONFERRED BY ACADEMIC PROGRAM (2019-2024)



Source: https://www.upr.edu/datos-institucionales/datos-de-matricula/, 2025.

[3] Sources: https://www.investpr.org/why-puerto-rico/talent-academic-assets/, 2025; https://www.pucpr.edu/oferta-academica/subgraduados/bachilleratos/, 2025. https://www.br.inter.edu/wp-content/uploads/2020/04/Brochure-PhD-International-Biotechnology-rev.-MFM-22abril2020.pdf, 2025.

Research Initiatives

Puerto Rico Science, Technology & Research Trust (PRSciSciTrust) - This organization, **located in San Juan**, plays a key role in promoting research and innovation, including biotechnology. They support the development of the biotechnology industry and the commercialization of research findings. The R&D programs have impacted diverse sectors like research, biodiversity, technology transfer, health, cultural heritage, agriculture, among others. Each program pushes to expand its field providing funding mechanisms, resources, and mentorship, to drive innovation. The four pillars of the Trust are: Research and Development, Entrepreneurship, Public Health and Education (Source: https://prsciencetrust.org/, 2025)[4].

Bioprocess Development and Training Complex (BDTC) - Located at the **Guanajibo Research and Innovation Park (GRIP) in Mayagüez**. BTDC cultivates and promotes communication between industry and academia to strengthen Puerto Rico's capacity in bioprocess development and improvement and provides guidance in cutting edge technologies for biotechnology manufacturing and bioprocess engineering (Source: https://www.prteconline.com/bdtc-2/, 2025).

Molecular Science Research Center (MSRC) - Is a nonprofit organization with state-of-the-art facilities for advanced research affiliated with the **University of Puerto Rico (UPR)**. They provide cutting edge laboratory spaces, the latest instrumentation, and scientific expertise. Promotes collaborations and partnerships with the academic and private sectors, and federal and local agencies. (Source: https://cicim.upr.edu/cores-facilities/, 2025).

Institute of Sustainable Biotechnology (ISBiot) (Interamerican University Barranquitas) - A hub for research, education, and innovation in biotechnology with a sustainability focus. By connecting academic research with real-world applications, foster a culture of learning that encourages students and faculty to think critically and act responsibly (Source: https://isbiot.br.inter.edu/, 2025).

The Research Institute (RI) - Leads the way in advanced applied research in integrative bioscience, with a special emphasis on decoding the fundamental biological processes, underlying diseases that impact the Puerto Rican population. Is part of the iniciatives of the **PRSciSciTrust** (Source: https://prsciencetrust.org/research-institute/, 2025).

[4] Sources: https://www.investpr.org/why-puerto-rico/talent-academic-assets/, 2025; https://www.pucpr.edu/oferta-academica/subgraduados/bachilleratos/, 2025. https://www.br.inter.edu/wp-content/uploads/2020/04/Brochure-PhD-International-Biotechnology-rev.-MFM-22abril2020.pdf, 2025.

Research Centers

There are **13 Science and Technology Research Centers in Puerto Rico**. Combined, these Puerto Rican Scientific Research Centers employ 228 people, earn more than $28 million in revenue each year, and have assets of $134 million. Large organizations are**:**

- **Puerto Rico Science Technology and Research Trust -** The Trust leads various initiatives fostering innovation, research, and economic development. The programs are divided into four main areas: Research and Development, Entrepreneurship, Public Health, and Education:

    - **Research and Development -** These programs focus on scientific innovation, technology transfer, and the advancement of clinical and environmental research.
        - **Puerto Rico Consortium for Clinical Investigation (PRCCI)**
        - **Technology Transfer Office (TTO)**
        - **Research Grants Program**
        - **Center for Tropical Biodiversity and Conservation**
    - **Entrepreneurship -** These programs support startups, small businesses, and innovators by providing funding, mentorship, and networking opportunities.

    - **Public Health -** Programs focus on strengthening Puerto Rico's healthcare system through research, innovation, and community initiatives.
    - **Education -** Educational initiatives aim to foster a culture of innovation and scientific knowledge among students, professionals, and the public.
        - **Science City** - A planned innovation district designed to foster scientific research, entrepreneurship, and economic development. Science City will serve as a hub for technology companies, research institutions, and startups, providing state-of-the-art laboratories, coworking spaces, and collaboration opportunities to drive Puerto Rico's knowledge economy.

- **Scientific Research Society -** Promotes scientific investigation and education in different academic institutions and community hospitals.
- **Science Puerto Rico** - Is a global community of over 15,000 scientists, students, educators, and allies who strive to empower people through science. Their programs promote STEM careers.
- **The Institute for Socio-Ecological Research -** Is committed to working directly with local communities by conducting participatory research and engagement.
- **Engine-4 Foundation** - Conducts engineering and technology research while providing related services[5].

[5] Sources: Puerto Rico Science, Technology & Research Trust, 2025; Scientific Research Centers in Puerto Rico | Cause IQ, 2025.

Advantages of Operating in Puerto Rico
U.S. Jurisdiction - FDA regulated, and protected by U.S. legal and intellectual property standards
Workforce & Talent Development - 2,500 post grads in STEM and health fields annualy
Advanced Academic Community - Opportunities for collaborative research projects with local universities and research institutions
Organizational Support - PRiMEX has focused on increasing the competitiveness of PR's industrial base by bridging the productivity gap for companies, identifying opportunities for growth, and encouraging technology deployment.
More than 714 Free Trade Zones (FTZ) of qualified facilities and more than 50 FDA approved pharmaceutical plants

Source: https://www.investpr.org/wp-content/uploads/2024/06/IPR_Bioscience-Bifold-2024-Web_Final.pdf; https://primexpr.org/, 2025.

The **logistics sector** in Puerto Rico plays a critical role in facilitating the efficient movement of bioscience products and materials, supporting the island's bioscience industries, international trade, and supply chain operations. Puerto Rico is adopting advanced supply chain technologies such as AI-driven predictive analytics, blockchain-based traceability platforms and temperature-controlled transportation solutions to optimize the storage, handling, and distribution of pharmaceuticals, medical devices, research materials and agricultural biotech products, ensuring product integrity and regulatory compliance[6]

[6] Source: https://www.investpr.org/key-sectors/biosciences/, 2025.

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Agrobiotechnology Industry Profile 2025

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