

**Lajas Agricultural Experimental Station Managed (Agriculture) Site**  
**Lajas, Puerto Rico 18.033N 67.066W**

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<http://estacion.cca.uprm.edu/lajas/infgen.aspx>

**History:** The Lajas Agricultural Experimental Station was founded in 1946 and is run by the University of Puerto Rico's Land Grant College in Mayaguez. Between 1955 and 1965 the Lajas Valley was part of an extraordinary effort to strengthen economic development in PR, mainly through the construction of an irrigation system. Since 1999, the Lajas Valley has been declared an Agricultural Reserve in perpetuity by PR Law 99-277, thus protecting the Valley's agricultural land from land developers and speculators, and ensuring its sustainable use for agricultural growth.

**Key Contribution to Domain and Continental issues:** The site is proposed for study of the effects of hurricane passage, global climate change, pathogen outbreaks, and invasive species on agricultural systems. The site represents a tropical dry landscape totally dominated by agricultural activity. It offers an opportunity to contrast this landscape with urban and forested landscapes in terms of the effects of hurricanes, invasive species, land use, disease outbreaks, and climatic change. Within the domain, this site is a contrast to wet sites on a precipitation gradient and dry sites along a land use gradient (urban, coastal, and forested). Gradient studies complemented by mobile unit campaigns, will be able to evaluate the relationships between climate, nutrient cycling, and management practices.

**Key Characteristics:** Elevation is 30 masl. Soils at the station are well known and mapped and comprised of Vertisols. Mean temperatures range between 18°C in winter (Dec-Feb), and 32°C (July-Sept). Irrigation is available to half the farm which produces pastures, rice, vegetables, pineapples and fruit tree orchards (mango, avocado and Spanish lime). The farm also has a small dairy farm with 100 head of cattle, a hog farm (70 sows), a chicken farm producing 15,000 birds per year, a small slaughter house, and 18 aquaculture ponds. A permanent 1<sup>st</sup> order stream runs its length and becomes one of the principal inflows to the nearby Cartagena Lagoon (CAR-PRNEO). Approximately 2/3 of this watershed lies within the farm boundaries

**Existing Infrastructure:** Education is an important component of the Lajas AES's mission. There are 9 full-time researchers stationed at the farm: two animal scientists, four horticulturalists, a soil scientist, an entomologist, and a weed scientist. The Lajas AES farm has had National Weather Service station since its creation in 1946. The stream is gauged. Currently, there are 16 multi-institutional, multi-disciplinary research and academic projects conducted here in collaboration with U.S. universities, non-profit institutions, and companies.

**Facilities:** The farm has 2,000 ft<sup>2</sup> of laboratory space, distributed in four laboratories (i.e., dairy sciences, aviculture, horticulture and entomology-phytopathology) plus infrastructure typical to working farms. Most facilities on site have internet DSL connections, the main office has a Wi-Fi hot spot.

