



Indoor Agriculture

GEORGIA: A GREAT ENVIRONMENT FOR INDOOR AGRICULTURE

Why Georgia for Indoor Agriculture?

- Growing population center with strong buying power
- Robust and established agriculture industry
- Excellent accessibility to market and transportation infrastructure
- Abundant and affordable workers
- Skilled technical talent
- Growing entrepreneurial talent with technology forte
- World-class research and development resources
- Available venture capital
- Business-friendly environment
- Clean, safe, reliable and affordable electricity
- Growing demand for local and organic products
- Expanding wholesale and retail customer base
- Growing food processing industry customer base
- Growing bioscience industry
- Available buildings suitable for indoor agriculture enterprises

\$14.1 billion

the value of Georgia's agriculture production reached in 2014

50,000

number of farms in Georgia

Farm Gate, 2014

Indoor Agriculture: Poised for Growth

Georgia is at the heart of the super-charged Southeast. With its economic vitality fueled by robust population growth and a pro-business climate, Georgia is an attractive destination for businesses, including pioneers in indoor agriculture.

Home to 680 food processing companies and 50,000 farms which together account for \$26 billion in GDP, Georgia has an exceptional agricultural and food production infrastructure. These resources, when applied toward the establishment and nurturing of a new indoor agriculture industry cluster, will benefit indoor agriculture operations that make Georgia home.

Momentum for Indoor Agriculture in Georgia

Georgia's reputation for being the most business-friendly state in the U.S. certainly extends to indoor agriculture. Over the past year, initiatives in Atlanta have reinforced city leadership's commitment to fostering indoor agriculture operations in the

area. The City of Atlanta is especially dedicated to enhancing a sustainable food supply for its residents while Georgia consumers are increasingly demanding products that are locally grown.

- Atlanta mayor appoints first ever Urban Agriculture Director, October 2015
- Atlanta establishes an Urban Agriculture Task Force to study "Controlled Environment Agriculture", March 2016
- The Atlanta Local Food Initiative continues to partner for a sustainable food system in Metro Atlanta
- Georgia Tech participates in FEWS initiatives, Nexus of Food, Energy and Water Systems
- Utilities get creative with cost-cutting rate plans for qualified customers
- Georgia's Center of Innovation for Energy provides research, business planning and market support for indoor agriculture companies

Growing Population Center

Georgia is the ninth fastest growing state in the nation. With 10 million residents, Georgia is a major population center in the Southeast and is expected to add an additional 1 million residents over the next five years. (*Moody's*)

Georgia is also the dominant economic center in the region. The Atlanta MSA added roughly 85,000 jobs in 2015, exceeding job creation totals in 41

states. This performance ranks Atlanta fourth for job creation among U.S. metros – behind New York, Los Angeles and Dallas. Georgia overall also has experienced significant job growth, ranking fifth overall in job creation. Georgia businesses added 109,000 new jobs in 2015. (*Moody's*)

- Median disposable income: \$39,301 (second highest in the SE)
- Median HH income: \$49,210 (highest in the SE)

Robust Agricultural Environment

Existing agriculture industry is beneficial to new indoor agriculture businesses.

Georgia Grown

Georgia Grown is a marketing and economic development program of the Georgia Department of Agriculture. The program's number one goal is to aid agricultural economies by bringing together producers, processors, suppliers, distributors, retailers, agritourism and consumers in one powerful, statewide community. Georgia Grown is here to help new agribusinesses grow, and established agribusinesses thrive.

Georgia Grown is also a brand with deep roots in sustainability, quality and integrity. The Georgia Grown brand is desired by business and consumers who want to buy and promote Georgia's locally grown products.

www.georgiagrown.org

Atlanta mayor names urban agriculture director

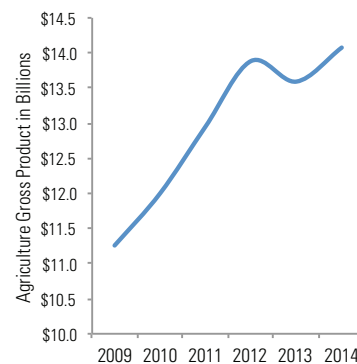
Mayor Kasim Reed announced Thursday, Oct. 22, 2015 that Mario Cambardella has been named urban agriculture director and will join the administration on Dec. 3. As the first so named director, he will be responsible for a wide range of activities related to urban agriculture, including policy development and facilitating the conversion of brown fields into urban gardens. Cambardella also will work to realize the city's sustainability initiative goal of bringing local food within a half-mile of 75 percent of all Atlanta residents by 2020.

"We are pleased to have Mario Cambardella join the City of Atlanta as the urban agriculture director," said Mayor Reed. "With strong collaborative partners like Georgia Organics, the Atlanta Local Food Initiative, Food Well Alliance, the Atlanta Community Food Bank and the Atlanta Beltline Inc., this position will be integral to making continued progress in growing Atlanta's urban agricultural community."

Atlanta Journal Constitution, October 23, 2015

Indoor agriculture operations in Georgia will benefit from the well-established agribusiness ecosystem that has served Georgia growers so well. The value of Georgia's agriculture production reached \$14.1 billion in 2014, a 3.6 percent increase from the previous year. With 9.4 million acres of agricultural land and 50,000 farms, the state's agriculture industry produces a wide range of commodities. Vegetable production is a \$1.7 billion business in Georgia, with production of several commodities growing at more than 11 percent annually. Strawberry production has grown at a rate of 21.5 percent annually, more than tripling in value from \$5 million to nearly \$16 million over the last six years. (Source: Farmgate)

Georgia's Agriculture Industry
Up 4.6% Annually, 2009 to 2014



Source: Farm Gate, 2014

Organic Farming in Georgia

Consumer demand for organic foods has grown by double digits since the 1990s. According to the Organic Trade Association, sales of organic products reached \$39 billion in 2014, up from just \$3.6 billion in 1997. *Consumer Reports* cites that 84 percent of American shoppers purchase organic food. The Organic Trade Association reports that supply is not keeping up with demand. According to the 2012 Census of Agriculture, Georgia has around 50,000 farms, but only a fraction of a percent—approximately 70 farms—are Certified Organic.

Indoor agriculture operations with a desire to grow organic produce have a viable market in Georgia as demand for organic products continues to increase. Additionally, state and local governments are increasingly supportive of locally and organically grown products.

Farmers Markets in Georgia

While Georgia produce is distributed to customers around the world, it is also available at the local level through vibrant neighborhood markets. Georgia is home to 120 farmers markets located around the state. Many of the markets are concentrated in the metro Atlanta counties and serve the state's most populated urban centers. These population centers are also home to available industrial buildings suitable for indoor agriculture. Indoor agriculture operations locating close to consumers will provide the freshest produce and the most competitive prices.

84% of American
shoppers buy organic

World-Class Product Distribution Infrastructure

Agricultural commodities are easily transported to markets around the world.

Georgia has long been the transportation center of the Southeast. With well-maintained highway systems connecting areas around the state to the rest of the nation, products grown in Georgia are never far from their markets. Two major rail systems serve customers across Georgia. Two major ports, Savannah and Brunswick, enable producers to quickly ship to domestic and global customers. For growers, reliance on the U.S. transportation infrastructure is critical. Agricultural commodities account for roughly 30 percent of all ton-miles moving across the country either by rail, truck or ship. Georgia's world-class transportation infrastructure provides exceptional product to market reliability.

AIR: 80 percent of the nation's major consumer markets are within a two-hour flight of Atlanta. Hartsfield-Jackson Atlanta International airport has 1.2 million square feet of cargo handling space, two miles of mechanized conveyors and a 42,000 square-foot temperature-controlled perishables center.

HIGHWAY: 80 percent of the nation's consumer markets are within a two-day drive time of Georgia businesses. Regions throughout Georgia, whether urban or rural, are connected to important consumer markets by 1,200 miles of interstate highways and 20,000 miles of state and federal highways.

RAIL: With rail service to 500 communities via 4,700 miles of track, Georgia businesses are well served. CSX and Norfolk Southern each operate more than 80 freight trains in and out of Atlanta daily. Georgia is home to six major intermodal facilities: four in Atlanta, one in Brunswick and one in Savannah.

Georgia is a logistics gateway. Some of the state's largest warehouse distribution operations support the food and agriculture industry. Every year, such operations locate in the state, taking advantage of existing infrastructure and growing consumer markets in the area. Below is a listing of Georgia's largest food warehouse facilities.

PORTS: As the nation's fourth largest and fastest growing port, Savannah is well suited to serve the nation's agriculture and food processing industries.

- Food items, including fresh and frozen poultry and pet and animal feeds, are the port's top exported items.
- Savannah is the busiest U.S. container exporter on the East Coast.
- Savannah is the largest single container terminal in North America.
- Savannah is the number one refrigerated cargo port on the East Coast.
- The port is served by two railroads, Norfolk Southern and CXS, which are on terminal.
- Interstates 16 and 95 are immediately accessible to the port.
- The port is within a four-hour drive to major southeastern markets like Atlanta, Orlando and Charlotte.
- Colonel's Island in Brunswick is equipped with a multi-purpose agribulk facility.

Source: The Georgia Ports Authority



The Savannah Harbor Expansion Project (SHEP)

The Savannah Harbor deepening project, now underway, will result in an estimated customer savings of nearly \$9 billion over a 50 year period according the Army Corps of Engineers. The deeper harbor will accommodate larger containerships traveling through the Panama Canal. These ships are capable of carrying an additional 3,600 containers, representing a 78 percent volume increase.

Food Exports

Georgia's world-class transportation infrastructure has enabled farmers and food processing companies around the state to efficiently get their products to consumers around the world. In 2014, Georgia food and beverage manufacturers exported \$3.3 billion in products destined for international markets. Export growth is strong, with increases of 11.8 percent annually over the past four years.

Warehouse / Distribution Operation	Square Feet	City	Employment
Exel/General Mills Southeast Distribution Center	1,500,000	Social Circle	112
Publix/Distribution & Manufacturing	1,200,000	Dacula	1,600
Wal-Mart/Food Distribution Center	1,100,000	Monroe	700
Kraft Foods Inc Distribution Center	980,000	Union City	350
Quaker Oats Co/Gatorade/Distribution	913,000	Lithia Springs	115
DSC Logistics Inc/Kellogg's	903,000	College Park	100
Nestle Logistics	784,000	McDonough	175
Del Monte Fresh Produce Distribution Center	780,000	Atlanta	200
Georgia Cold Storage Inc	620,000	Americus	20
Nordic Cold Storage LLC	600,000	Doraville	200
DSC Logistics Inc/Smuckers	556,800	Fairburn	60
SYSCO Food Services of Atlanta	502,616	College Park	600
Georgia Crown Distributing Co	500,000	McDonough	200

Source: Georgia Power Community & Economic Development Warehouse and Logistics Database, 2016

Abundant and Affordable Workers

Skilled workers at low costs keep Georgia businesses competitive.

Georgia Wages Typically Below the U.S. Rate

■ Median Hourly Earnings in Georgia
■ Median Hourly Earnings in the U.S.



Source: EMSI 2016.2

Georgia is home to 10,000 crop production workers. Skill sets are varied, with most occupations categorized as requiring less than high school education and short-term on-the-job training. Wages for workers in this category are typically below the national average. Following are some of the dominant occupations for farming and crop production in Georgia:

Description	Employed in Industry in Georgia (2016)	Median Hourly Earnings in Georgia	Median Hourly Earnings in the U.S.
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	5,113	\$9.66	\$10.35
Farmers, Ranchers, and Other Agricultural Managers	794	\$28.76	\$31.30
Farmworkers, Farm, Ranch, and Aquacultural Animals	604	\$10.55	\$11.89
Agricultural Equipment Operators	505	\$11.55	\$13.63
First-Line Supervisors of Farming, Fishing, and Forestry Workers	272	\$25.28	\$22.53
Graders and Sorters, Agricultural Products	266	\$10.56	\$10.82
Heavy and Tractor-Trailer Truck Drivers	203	\$19.00	\$19.15
Landscaping and Groundskeeping Workers	151	\$11.47	\$12.01
Packers and Packagers, Hand	113	\$9.66	\$10.19

Source: EMSI 2016.2

Farmworkers and laborers account for more than 50 percent of total agricultural industry employment. In Georgia, there are nearly 11,000 farmworkers and laborers working in all industries, with a median hourly wage of \$9.66. Additionally, hiring these types of workers in Georgia is very easy, with monthly hires of nearly 2,600 workers. Industries hiring farmworkers and laborers include:

- Crop production
- Animal production and aquaculture
- Postharvest crop activities
- Cotton ginning
- Farm labor contractors



Skilled Technical Talent

Colleges and universities produce talent for state-of-the-art agriculture operations.

Indoor agriculture operations rely on technology-savvy experts for the success of the business. In Georgia and contiguous states, nearly 7,900 scientists, engineers and technical staff work in agriculture-related disciplines.

Technical Agriculture-Related Occupations in Georgia and Contiguous States

Description	Georgia	Alabama	Florida	Tennessee	North Carolina	South Carolina
Agricultural and Food Science Technicians	693	162	472	505	649	167
Agricultural Inspectors	572	490	775	279	609	150
Soil and Plant Scientists	221	105	424	125	951	67
Agricultural Engineers	141	33	164	25	52	25

Source: EMSI 2016.2

Additionally, colleges and universities in the Southeast provide a continuous pipeline of talent. In 2014, regional institutions granted more than 5,600 certificates and degrees in agriculture, agricultural engineering, biotechnology and botany disciplines.

Schools with the Greatest Number of Graduates in Specified Fields

School	Degree Program	Total Degrees
North Carolina State University at Raleigh	Agriculture Sciences	665
University of Florida	Agriculture Sciences	656
Seminole State College of Florida	Biotechnology	554
University of Georgia	Agriculture Sciences	354
Clemson University	Agriculture Sciences	310
Auburn University	Agriculture Sciences	287
The University of Tennessee-Knoxville	Agriculture Sciences	264

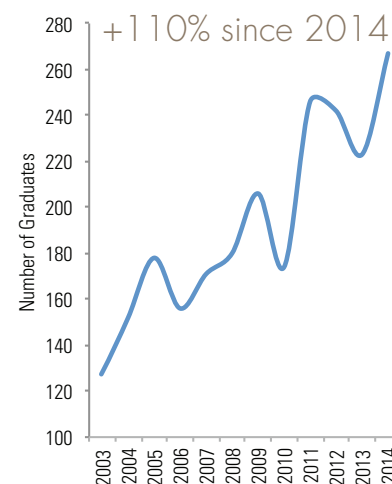
Source: IPEDS Database, 2016



Innovations at the Nexus of Food, Energy and Water Systems: FEWS project at Georgia Tech

Innovations at the Nexus of Food, Energy and Water systems (INFEWS) is a program sponsored by the National Science Foundation (NSF). The NSF has tasked researchers with developing multi-disciplinary partnerships to explore efficient resource utilization, natural processes, biological processes and behavioral processes as they relate to food production and sustainability. Georgia Tech's FEWS Fellows explore sustainable community-building through the integrated lens of food, energy, and water systems, touching on issues such as sociotechnical systems, civic engagement, and safety and security.

Agriculture-Related College Completions at Georgia Colleges & Universities



Source: IPEDS Completion Data

Largest Agriculture-Related Disciplines in Georgia in 2014:

- Agribusiness and Agricultural Economics, 138 graduates
- Agriculture, Agriculture Operations, 53 graduates

Innovative Technology Resources for Food and Agriculture

Network of cutting-edge researchers support innovative entrepreneurs in Georgia.

Venture Capital Availability

Venture capital investment in Georgia companies reached \$836 million in 2015, up from \$491 million in 2014. (*PWC Moneytree Report*).

Georgia's technology incubators connect entrepreneurs with capital. Georgia Tech's Advanced Technology Development Center (ATDC) has helped its 150 graduates collectively attract more than \$2 billion in investment.

Over the past five years, Atlanta startups have raised \$1.2 billion in venture capital funding. In more recent years, more than 50 percent of that funding has come from Atlanta-based venture firms. (*CrunchBase data 2015*)

\$2.7 billion

total venture capital funding
in Georgia (last 5 years)

374

number of venture capital deals in
Georgia (last 5 years)

Source: PWC MoneyTree Report, 2016

Indoor agriculture businesses locating in Georgia will have access to a highly developed network of technology resources. The state's research universities acquire funding from the National Institutes of Health, the National Science Foundation and a host of private foundations. Supporting federal and state organizations are engaged in business development and committed to fostering the success of companies locating in Georgia.

Agriculture and Food Research and Technology Support

The University of Georgia:

Research at the University of Georgia plays a vital role in supporting Georgia's agricultural and food processing industries:

- The Food Product Innovation and Commercialization Center
- Center for Agribusiness and Economic Development
- University of Georgia, Food Science Extension and Outreach
- C.M. Stripling Irrigation Research Park
- Vidalia Onion and Vegetable Research Center

The U.S. Department of Agriculture:

The U.S. Department of Agriculture sponsors a variety of programs in cooperation with the University of Georgia in Athens:

- Richard B. Russell Agricultural Research Center (RRC)
- J. Phil Campbell Sr. Natural Resource Conservation Center (JPC)

Other Supporting Organizations

Georgia Centers of Innovation:

- The Georgia Center of Innovation for Agribusiness connects Georgia's agribusiness companies to innovative research, state-of-the-art technology and potential investor networks vital to success in today's marketplace.
- The Georgia Center of Innovation for Manufacturing helps manufacturing companies stay competitive in the global market place. The Center offers state-of-the art manufacturing training in robotics, programmable control systems, lean manufacturing and plant safety.
- The Georgia Center of Innovation for Energy Technology helps businesses explore new energy solutions. Agribusiness companies can benefit from the center's expertise in business model design and sustainable energy generation systems.

Georgia Department of Agriculture, Business Development:

The office of business development focuses on marketing Georgia's agricultural commodities both nationally and internationally and serves as an excellent resource for the state's agribusiness community.

Business-Friendly Environment

Georgia is the nation's top state for doing business.

Georgia is a pro-business state. Favorable tax rates, favorable conditions for employers and programs to accelerate the permitting and development process make Georgia the right place to start and grow a business. Georgia's current corporate income tax is 6 percent, ranking it the lowest in the nation. Georgia's corporate income tax is based on a single-factor apportionment, weighted solely on sales receipts in Georgia.

Right-to-Work State

Georgia has been a right to work state since 1947.

Employment-at-Will State

Georgia has no employment laws which are more stringent or restrictive than those at the federal level. Georgia is an employment-at-will state. In the absence of a written contract and in compliance with federal employment laws, employers in Georgia are able to exercise their own hiring and dismissal decisions; state laws make no provisions for wrongful discharge.

Rapid Permitting

One-Stop Permitting: Georgia offers a consolidated state environmental program with delegated authority from the U.S. Environmental Protection

Agency (EPA) for issuance and enforcement of federal permits. The Georgia Department of Natural Resources issues or denies all permits required by state and federal environmental protection legislation when a facility is being located in the state. One-stop permitting enables prospective industries to obtain expedited required permits.

Urban Agriculture-Friendly Zoning and Permitting

The City of Atlanta recently passed a streamlined, highly permissive urban agriculture ordinance that will help make the city one of the nation's leaders in local food systems. The Atlanta Office of Planning is also taking steps to reduce permitting fees for urban agriculture projects.



SITE SELECTION

"Top U.S. Business Climates"

1. **GEORGIA**
2. North Carolina
3. Kentucky
4. Louisiana
5. Ohio

Source: "2015 Top State Business Climate Rankings," *Site Selection* magazine, November 2015

AREA DEVELOPMENT

"Top States for Doing Business"

1. **GEORGIA**
2. Texas
3. South Carolina
4. Tennessee
5. Alabama

Source: "Top States for Business 2015: Site Consultant Survey," *Area Development* magazine, September 2015

Potential Incentives and Funding for Indoor Agriculture Projects

The City of Atlanta offers several project funding options and incentives that may be available to companies seeking to establish indoor agriculture operations in Georgia.

- Help with brownfield remediation
- Industrial revenue bonds
- Tax Allocation District dollars for non-movable infrastructure
- PACE funding for projects that improve property values through green infrastructure
- ACE loans, low interest loans available for startups
- AEMI loans for an urban agriculture project that has patented technology
- New Market Tax Credit incentives for startups of over \$5 million in value

Powering Your Manufacturing Facility

Reliable, low-cost energy keeps Georgia's businesses competitive.

AREA DEVELOPMENT

"Top States for Doing Business"

Energy Reliability / Smart Grid Deployment

1. Texas
2. North Carolina
- 2T. Tennessee

3. GEORGIA

Source: "Top States for Doing Business 2015: Site Consultant Survey," Area Development magazine, September 2015

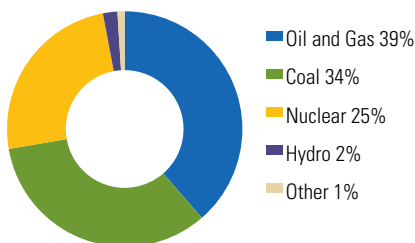
Renewable Electricity Generation at Georgia Power

Solar: 900 megawatts of capacity by the end of 2016

Wind Energy: 250 megawatts of capacity in 2016, with additional capacity possible over the next few years

Georgia Power Generation Sources in 2015

Georgia Power customers are often surprised to see that coal is no longer the main source of the company's power generation. Oil and gas are currently the cheaper alternative while nuclear generation is efficient and cost effective. With advances in clean coal technologies, coal-fueled power generation remains a viable option as the company continues to diversify its power generation portfolio.



Georgia Power Services for Businesses

Georgia Power helps businesses across the state find energy savings and technology solutions. From energy efficient lighting and air conditioning systems to state-of-the-art equipment upgrades, Georgia Power's team helps customers identify opportunities to improve the bottom line.

Georgia Power's Customer Resource Center in Atlanta offers hands-on demonstrations of new technologies aimed at increasing energy and manufacturing efficiencies.

Experience The Electric Advantage®

- Commercial Cooking Equipment
- Infrared Heating Systems
- High-Efficiency Lighting
- Electric Lift Trucks, Cranes, Conveyors & More

About Georgia Power

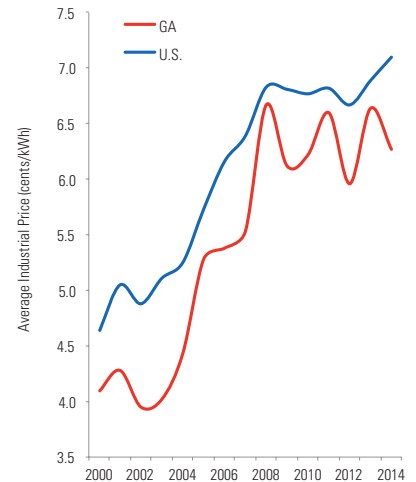
Georgia Power is the state's largest utility with a gross plant investment of more than \$37 billion. The company serves 2.4 million customers in Georgia, including 320,000 businesses and industries.

Georgia Power is a unit of Southern Company, which owns generating capacity of nearly 43,000 megawatts (MW) and provides electricity to nearly

Southern Company Smart Power Highlights

- Southern Company is the first U.S. utility in more than 30 years to build new nuclear-powered generation, adding more than 2,200 megawatts of capacity at Georgia Power's Plant Vogtle. Currently, Vogtle's two existing units have more than 2,400 megawatts of capacity.
- Southern Company is the industry leader in carbon capture and sequestration. A 582 megawatt transport integrated gasification (TRIG) plant is being built in Mississippi with technology that will capture 65 percent of the carbon dioxide emissions from the plant.

Georgia industrial pricing remains below the national average.



Source: Total Electric Industrial Average Retail Price, EIA

4.4 million customers in the Southeast. Reserve margins and planned capacity additions ensure that the supply will continue to meet the growing needs of customers.

Helping Customers with Creative Pricing

Georgia Power's flexible rate plans enable customers to effectively manage their energy costs and increase productivity.

- Southern Company invests billions of dollars in environmental technologies that reduce emissions from coal generation. Since 1990, the company has reduced sulfur dioxide emissions by approximately 60 percent and nitrogen oxide emissions by approximately 70 percent, while increasing electricity generation by more than 30 percent.
- Southern Company operating subsidiaries are evaluating opportunities to convert existing fossil units to biomass over the next decade.
- Southern Company is partnering with Turner Renewable Energy, First Solar and SunEdison on a 30 megawatt solar photovoltaic (PV) power plant in Cimarron, New Mexico, and on two solar facilities totaling 50 MW in Nevada.

Wholesale and Retail Food Trade

Georgians demand locally-grown produce.

Locally-grown foods are in high demand in Georgia. Specialty food stores continue to provide excellent locally-grown and organic food choices, and major chains like Publix and Kroger are now stocking from local suppliers.

Nearly 5.2 million Georgians report that they eat organic foods at least occasionally, while 1.9 million say they eat organic foods frequently. Relative to the national level of organic food consumption, Georgia is slightly below the U.S. with an index ranking of 95, but is the top consuming state in the Southeast. Demand for locally-grown organic foods will continue to increase and will be more widely available at local grocery stores. (ESRI)

Southeastern State Organic Food Preference Index

State	Index of Organic Food Consumption
U.S.	100
Georgia	95
Florida	94
North Carolina	92
Tennessee	88
South Carolina	85
Alabama	83

Source: ESRI Community Analyst, 2016

Georgia is home to 3,000 grocery and specialty food stores and more than 800 grocery wholesalers. These operations employ nearly 108,000 workers and are expected to increase employment by 7.4 percent by 2025, outpacing the national increase of 6.6 percent. Additionally, Georgia is the ninth largest retail food market in the U.S. and the fifth fastest growing market through 2020.

Major Grocery Store Chains in Georgia

Chain	Number of Stores	Focus
Publix	181	Grocery
Kroger	167	Grocery
WalMart SuperCenter	113	Discount Department/Grocery
Ingles	62	Grocery
Piggly Wiggly	48	Grocery
IGA	42	Grocery
Aldi	40	Discount Grocery
Target	36	Discount Department/Grocery
Harveys Supermarket	33	Grocery
Food Depot	28	Discount Grocery
BI-LO	21	Discount Grocery
Food Lion	20	Grocery
Save-a-lot	18	Discount Grocery
The Fresh Market	13	Premium Grocery and Locally Grown Farmer's Market
Whole Foods	11	Premium Grocery and Locally Grown Farmer's Market
CostCo	11	Discount Department/Grocery
Sprouts Farmers Market	10	Grocery and Farmer's Market
Walmart Neighborhood Market	10	Grocery
Trader Joe's	7	Grocery
Earth Fare	5	Organic Food Supermarket
Savi Provisions	3	Organic and Gourmet Foods
Harry's Farmers Market	2	Grocery and Farmer's Market

Source: Business Wise 2016 and company websites

"The big business behind the local food"

Fortune Magazine, August 21, 2015

Consumers' appetite for local foods is exploding. Overall, local foods generated \$11.7 billion in sales in 2014, and will climb to \$20.2 billion by 2019, according to Packaged Facts, a market research firm.

Not only has there been huge growth in the number of farm-to-table restaurants and farmers' markets, but grocery chains and big box retailers, including Wal-Mart, are elbowing their way in, aggressively expanding and marketing their locally grown offerings for sale.

Wal-Mart sells \$749.6 million of "locally grown" produce annually, while Supervalu, owner of the Jewel-Osco, Albertsons, and Lucky chains, buys between 25 and 40 percent of its produce locally, according to ATKearney, a consulting firm. "We've reached a tipping point for local foods," Packaged Facts research director David Sprinkle said in a release, noting sales of local foods could eclipse organic food sales.



The Georgia Restaurant Market

Restaurants in Georgia offer locally-grown menu options.

\$10 billion

size of Georgia's restaurant market

+3.7%

annual increase in Georgia's restaurant market over the next 5 years

Source: ESRI Community Analyst 2016

Interest in eating organically and locally extends to meals away from home. In 2015, top restaurant menu trends included locally grown produce, environmental sustainability, farm-branded items and nutrition, according to the National Restaurant Association. Organic produce and unusual/uncommon herbs also made the list of top restaurant trends.

Georgia is home to 95 farm-to-table restaurants in 10 cities around the state. Atlanta alone has 82 farm-to-table establishments vetted by Atlanta's Farm Star Living website. As consumer demand continues to grow for locally-grown and organic foods, more restaurants will offer expanded menu choices. And Georgians like to eat out. Based on an index of expenditures for meals at restaurants, Georgia ranks third in the nation behind Virginia and Texas, so the restaurant business in Georgia is booming. Georgia households spend an average of \$2,790.24 per year eating out.

Southeastern State Meals Eaten Out Preference Index

State	Index of Meals at Restaurants
U.S.	100
Georgia	94
Florida	92
North Carolina	88
Tennessee	84
South Carolina	84
Alabama	80

Source: ESRI Community Analyst, 2016

Restaurants in Georgia generate \$10 billion in GDP, the eighth largest market in the U.S. The Georgia market is expected to grow 3.7 percent annually for the next five years, exceeding the U.S. growth rate overall. By 2020, Georgia's restaurant industry will contribute \$12 billion to the economy, and the state will represent the sixth largest restaurant market in the nation.



Supplying Georgia Schools

Georgia's schools are providing students with locally-grown, fresh produce.

Schools in Georgia are embracing farm-to-school programs aimed at improving the health and well-being of students across the state. Georgia Organics, Georgia's lead organization for National Farm to Schools Network, founded the state's first farm-to-school program in 2007 and works with school districts and state-wide partners and agencies to promote the program.

Georgia is home to 181 public school districts, with 2,200 schools and 1.6 million students. Of schools participating in a recent USDA survey on purchase of local food, 65 percent said they plan to buy local foods in the future.

Food Processing in Georgia

As mentioned previously, Georgia is home to 680 food processing companies that employ nearly 70,000 workers. These companies are excellent customers for the state's farmers and represent potential customers for indoor agriculture operations as well.

Georgia's food processing industry is quite diverse in terms of products and operation size. Global icon Coca-Cola is headquartered in Atlanta and employs thousands of workers around the state. However, the majority of Georgia's food and beverage producers employ fewer than 100 workers. This diversity lends strength and sustainability to the industry and has enabled Georgia to maintain its position as one of the nation's top food processing states in terms of employment and output.

Over the past few years, food processing locations and expansions have added 10,000 new jobs at locations across the state. Food processing represents \$2.4 billion in GDP, making Georgia the fifth largest food processing state in the U.S. Over the next five years, the industry is expected to grow 3.8 percent annually, the third fastest growth rate in the U.S. and 3.2 points above that of the U.S. overall. By 2020, Georgia will be the third largest food processing state, behind North Carolina and California.

Food Processing in Georgia:
\$12.4 billion in gross product

Georgia Schools Invest \$40 Million+ in Locally-Grown Food

Three Georgia school districts—Atlanta Public Schools, Floyd County and Wilkes County—recently received top marks in the U.S. Department of Agriculture's 2015 "Farm to School Census." Designed to increase the availability of local food in schools by connecting students with local farmers and food producers, the Farm to School project has led to an \$800 million investment in local food in schools nationwide, including \$40 million annually in Georgia.

During the 2014–2015 school year, 62 percent of Georgia schools participated in farm-to-school activities ranging from field trips to local farms and orchards, to cultivating school gardens, to exploring new foods in school curriculums and lunchrooms. The average Georgia school now spends 17 percent of its budget on local food products, giving more than 1.2 million Georgia students access to fruit, vegetables, milk, meat, and other products from local farmers and purveyors during school hours.

Source: OnGeorgia website, April 14, 2016



Bioscience in Georgia

Georgia's bioscience community is constantly pursuing new drug development technology.

Training Center for BioScience Workers Opens in Newton County

Educating 1,500 workers needed to operate the Baxalta (Shire) facility, which will produce plasma-derived therapies for immune deficiencies medications, is paramount to the company's success in Newton County. In April 2015, the company's \$14 million training facility opened. The facility is operated by Georgia's Quick Start program, a unit of the Technical College System of Georgia, and includes a variety of labs that provide hands on training for Baxalta (Shire) employees.

"I walked in and the first thing I thought and said is wow. It is such an inspiring facility. First of all, it's beautiful. I'm also impressed about what it's going to mean for our community. I think it's a key symbol of what we're committed to for our patients that we serve and also for the state of Georgia."

Jacobi Leonardi, Executive Vice President, Immunology, Baxalta (Shire)

Georgia Celebrates BioScience Training Center, The Convington News, September 12, 2015

New advances in biotechnology make it possible to turn plants into "factories" that produce therapeutic proteins for use in the manufacture of medicines. With world-renowned public health organizations, like the Centers for Disease Control and Prevention, and colleges and universities sponsoring 30 plus research centers focused on biologic and therapeutic studies, Georgia is fertile ground for indoor agriculture operations focused on drug development.

While some plant-based vaccine production could compete directly with existing traditional drug producers, synergy between Georgia's growing bioscience cluster and the entrepreneurial community may facilitate inclusion of indoor agriculture in the state's biosciences ecosystem. In addition to Georgia's 570 bioscience companies, employing 24,000 workers, the state is home to prospering bioscience incubators, including the state's premier Advanced Technology Development Center (ATDC) located on the Georgia Tech Campus in Atlanta. The ATDC is committed to life science commercialization and company formation. Additional incubators advancing bioscience innovation include:

- The Georgia BioBusiness Center (Athens)
- CollabTech (Atlanta)
- Life Sciences Business Development Center (Augusta)
- The Innovation Factory (Atlanta)

Other Bioscience Research and Innovation Facilities:

- Georgia Bioscience Commercialization Center
- Saint Joseph's Translational Research Institute
- The Global Center for Medical Innovation
- Emory Vaccine Center
- Center for Drug Design, Development and Delivery

Source: Metro Atlanta Chamber of Commerce web site, Bioscience Industry; Georgia Home of one of the Nation's Leading Bioscience Clusters; Georgia Power Community & Economic Development

Major Pharmaceutical and Therapeutics Companies in Georgia

Company	Category
Meril Select Inc.	Animal Health/Pharma
Elanco	Animal Health/Pharma
Baxalta (Shire)	Biotechnology
MiMedx Group Inc.	Biotechnology
Dendreon Corp	Biotechnology
Mikart Inc.	Pharmaceutical
UCB Inc.	Pharmaceutical
Alkermes LLC	Pharmaceutical
DSM Chemicals North America Inc.	Pharmaceutical
Noramco Inc.	Pharmaceutical
Pharma Tech Industries	Pharmaceutical

570 bioscience
companies in Georgia

Available Buildings

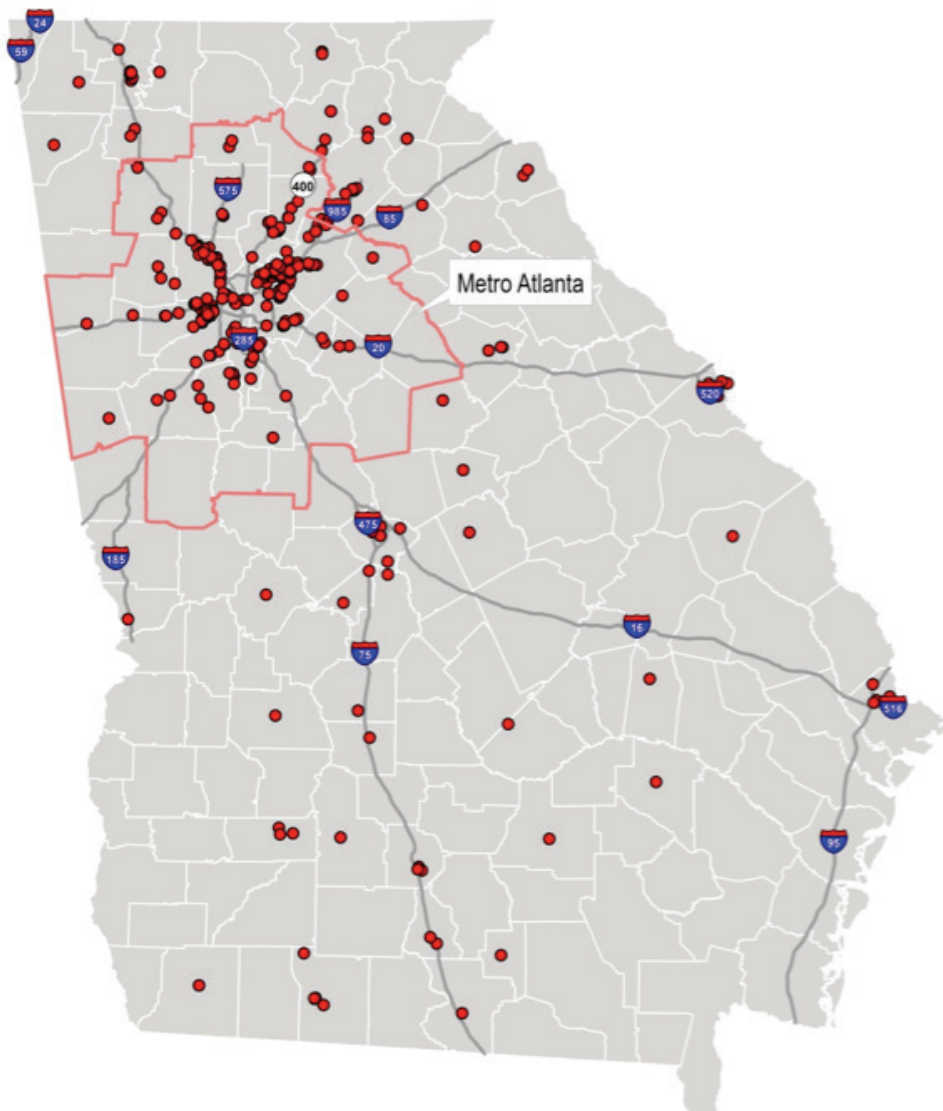
Available industrial buildings in Georgia are ready for indoor agriculture.

Nearly 300 buildings suitable for indoor agriculture operations are available in Georgia.

Qualifying criteria include vacant buildings with:

- Industrial or warehouse distribution zoning
- Available space of 50,000 square feet or less
- Ceiling height of 16 feet or more
- Office space of 1,000 square feet

Buildings Suitable for Indoor Agriculture



Creative Uses for Vacant Buildings

A byproduct of Georgia's growing business environment is the increasing inventory of older, smaller distribution and manufacturing buildings that are no longer suitable for state-of-the-art systems and equipment. City planners and developers are repurposing many of these older buildings, creating exciting work spaces that are especially attractive to Atlanta's burgeoning entrepreneurial community.

300

Available buildings good for indoor agriculture

Georgia Power has been helping companies locate in our state for nearly 90 years. We offer a full array of products and services available at no cost. To receive confidential, proven assistance, please contact one of our experienced professionals:

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