Proposal for the Establishment of

The Food Product Innovation and Commercialization Center

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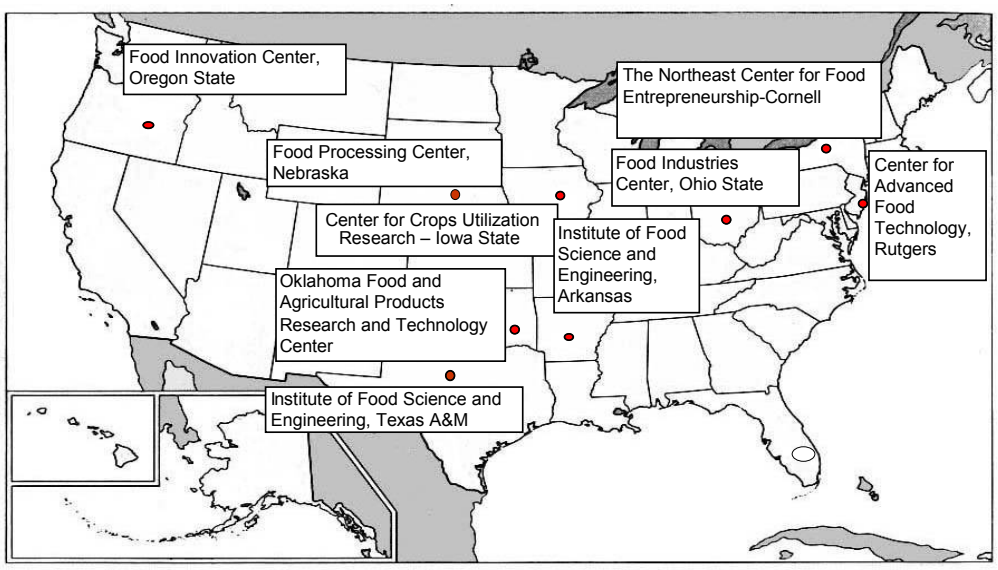
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Introduction and Background

The food industry in the US is large and diverse with total annual sales of about one trillion dollars (1). Likewise in Georgia, the food and allied industries are a major component of the economy. In a detailed analysis published by Georgia Power in June 2003 (2), the Georgia food processing industry was characterized as employing over 70,000 people in about 600 companies, and contributing $5.77 billion (inflation-adjusted 1996 dollars) to the state's Gross State Product. The food processing industry's employment grew 15.1% between 1990 and 2002 compared to a national growth rate of 1.64%. A more recent analysis by the Center for Agribusiness and Economic Development (CAED) at the University of Georgia (3) cites similar employment totals, but values the sector at nearly $30 billion in current dollars. This report concludes that within the manufacturing sector, the food product industry is the single largest category, and further divides production and value among four regions as follows: Northwest (includes most of metro Atlanta) - $19 billion or 66%; The Northeast (major poultry producing area) - $5 billion; Southeast - $2 billion; Southwest - $3 billion. Thus, unlike production agriculture which (except for poultry) is concentrated in South Georgia, food processing and related industries are distributed throughout the state with a preponderance in the Atlanta Metro area.

The introduction of new products is the life-blood of all consumer-driven industries. Nationally each year some $5 billion are spent developing and introducing new food products. However, 80% of these are withdrawn from the market within two years of introduction, representing a loss of $4 billon annually (4). It is unlikely that the Georgia Food Industry is more successful than the national industry with respect to new product development. This inefficiency in developing sustainable new products emphasizes the need of the industry for assistance to increase the probability of success. In response to this need, a number of university-based research and outreach centers have been established in the U.S in the Northeast, the Midwest, and Pacific coast regions as shown in Figure 1. Appendix I summarizes the very significant economic impact these centers have in their regions. It is notable that no such center exists in the Southeast.

Figure 1. University-Based Food Innovation Centers in the U.S.



In 2001, the five full time Griffin Food Science and Technology (FST) faculty initiated the Food Product Innovation and Commercialization (FoodPIC) Program. Participation by regular and adjunct faculty in the Department of Food Science and Technology, as well as other Departments at the University; faculty from other universities; and private sector individuals and companies whose mission is to provide specific services to the industry was solicited (See Section 4). The goal of this program and the proposed Center is to nurture and support the Georgia Food Industry via efforts and expertise attributable to the University of Georgia. By bringing together such a wide range of expertise, it will be possible to address essentially any need or problem of the Georgia (and Southeastern) food industry, not currently being addressed by the College and University through existing Extension and other outreach programs. The FoodPIC program is an outgrowth of the traditional research role of Griffin FST faculty who hold ~90% research appointments and have supported their programs with a combination of State and Federal agency funding and private contracts with numerous food companies. For example, in 2005 (2006 data forthcoming), these five full-time and one part-time FST/FoodPIC faculty published 23 refereed research papers, presented 31 oral and poster presentations, and were supported by $1.7 million in grant and contract funds. In spite of this level of academic success, this group concluded that initiating a consolidated program which could become identified by the Georgia (and regional) food industry as the primary source of innovation assistance would support the University's mission and be greatly beneficial to the industry. Many of small to medium sized firms do not have R&D functions, providing both a need and an opportunity for FoodPIC to assist them in improving existing and developing new food products and processes. Existing and projected FoodPIC projects already address many food processing areas including muscle foods, confections, beverages, fruit products, spreads, dressings, nutraceuticals, snacks and baked products. Thus, a successful FoodPIC Center will facilitate the University's role in the success of this important economic engine in the State and region. The existing program and proposed Center are complementary to and collaborative with existing extension and outreach programs within the Department of Food Science and Technology, the Georgia Center for Agribusiness and Economic Development, and elsewhere in the University. It anticipated that FoodPIC will serve as a vehicle for outreach to the food industry by both extension and research faculty. It will provide an opportunity for additional funding for faculty members and invaluable experience for faculty, staff, and students to work on real-world problems with food companies.

In addition to academic and support-industry participants, The Griffin-Spalding Development Authority, which has provided great impetus and support, is also a partner in the FoodPIC program. The Authority is currently leading an effort to acquire $5-6 million to construct a Food Industry Incubator facility (building and additional equipment) to be located on the UGA Griffin campus adjacent to the existing Food Science and Technology (Melton) Building. This building will house the FoodPIC Center's industry outreach research and training functions. The Authority has voted to contribute at least $1 million from their own budget to this project and has, with the close cooperation of UGA faculty and administrators, extended proposals and requests for the remainder of the funds. This is discussed in more detail in Section 2.

Besides the close relationship with local business, civic, and political leaders, an advantage of locating a University Center for assisting and promoting the Georgia Food industry on the Griffin Campus, is our central location within the state on the southern edge of the Atlanta metro area. This places the Center in convenient proximity to the city, to Hartsfield-Jackson International airport, and to much of the State's food industry. Additionally, Griffin is also in a Tier 2 county, eligible for OneGeorgia funding. Further, the unusual degree of collegiality that

exists among the group of FST faculty on the Griffin campus, who have for some time functioned largely as a team to pursue a variety of research projects, and which will help coordinate the Center activities in future, indicates solid commitment by this group of nationally and internationally-recognized food scientists.

1. Statement of Operating Procedures and Policies

Management Structure: Centers have Directors appointed by University (College, Department) Administrators to provide administrative contact and continuity. However, Section 4.a. of "Academic Affairs Policy Statement No. 7: Centers and Institutes" directs that they shall have *"... the most decentralized administrative level consistent with meeting the center or institute mission…"*. In keeping with this directive and the wishes of the founding faculty members, we propose a Center that is governed by its members as described in the following sections. The management structure consists of the Director, a Governing Board (GB), an Industry Liaison Officer (ILO), a Board of Advisors (BOA); and most significantly, Full and Associate Members. The proposed Center will report directly to the Dean of the College of Agricultural and Environmental Sciences through the College's senior administrator on the Griffin Campus where the Center is located. Faculty members who are members of the Center will retain appointments in their respective Academic Units (Departments), and continue to report to Unit Department Heads for all academic matters.

The FoodPIC Governing Board: The Center Governing Board (GB) will develop, approve, and propose policies to the Membership for their action. Initially, the GB shall consist of the Charter members, who will nominate a Center Director for consideration by the Administration. Beginning with the first Annual Meeting and continuing thereafter, the GB, consisting of four members, shall be elected from among ***Full Members*** by majority vote of Full, and Associate (one vote per company) Members. Board Members shall take office January 1 following the meeting at which they were elected. At least two GB members must be from the Department of Food Science and Technology. The Assistant Dean of the Griffin Campus and the Head of the Department of Food Science and Technology will serve as Ex Officio (advisory, non-voting)[a] members. The Industry Liaison Officer (ILO) shall serve as an ex officio member. Members shall be elected to one and two year terms to provide continuity. Length of term of the first elected GB shall be determined by number of votes with the two candidates receiving the first and second most votes serving 2 years, and the two receiving the 3rd and 4th most votes serving 1 year. Each year thereafter, two GB members will be elected to two year terms. The existing GB shall serve as the election committee, working with the Director who solicits and receives nominations from the membership. When there are a sufficient number of Full Members to allow it, a member will be required to be off the board for at least one year before being eligible to serve again. The Annual Meeting and called meetings shall include an opportunity to discuss policy whenever warranted. The Board assists the Director in making operating decisions within the framework of Center Policy. This includes the designation of candidate projects as FoodPIC projects[b] by majority vote. The FoodPIC GB (including the ILO but not necessarily including the other *ex officio* members) shall meet with the Director regularly. The GB will require assistance from the membership to conduct Center business. Membership at all levels implies a willingness to serve on committees and undertake *ad hoc* tasks on behalf of the GB and the Director.

The Director: The Director will be appointed by College/University Administration with recommendation from the GB. The Director's performance will be reviewed periodically as stipulated by University/College administrative guidelines. In addition, the GB will review the Director's performance not less often than every three years and communicate their findings to responsible administrators. He/she is responsible for overseeing operations of the Center and for the following duties:

- Publicize and market FoodPIC
- Organize the Annual Center Meeting
- Establish and maintain the Board of Advisors
- Make appropriate presentations to clients
- Identify potential projects
- Manage the Center facilities and resources.
- Write project reports for administrative purposes with inputs from PI's
- Exercise fiscal oversight over the FoodPIC operational budget.

It is specifically agreed by the Charter Members that the Director must place the overall good of the Center before any competing professional interest and that he/she should not compete with Center members for projects or funding, rather should assist them in garnering such support for the Center program.

Industry Liaison Officer
An Industry Liaison Officer (ILO) may be identified and appointed by the GB. The Industry Liaison Officer will assist the Director by making contacts with potential clients arranging planning meetings with them and assisting with drawing up research agreements, and performing other duties at the request of the GB or Director. If the ILO is not a full-time employee of the University, he/she will be compensated for his/her efforts in a manner agreed upon by the ILO and the GB as allowed by University policy.

Board of Advisors (BOA)
A Board of Advisors shall be comprised of persons who are knowledgeable about the needs of the Food Industry in Georgia, and about Governmental and University programs related to the Food Industry. These might include representatives of the Food Industry (whether clients of the Center or not), the Chairman of the Griffin/Spalding Development Authority, the Director of the Georgia Agribusiness Alliance, and the heads of Georgia Commodity groups. The BOA shall receive a detailed Annual Report of FoodPIC activities by December 1 of each year and will be expected to meet semi-annually, to review the activities and progress of the FoodPIC Center, and to offer critiques and advice as they see fit. While not bound by these actions, the Center shall be obligated to address each one in a formal response to the BOA by March 30 of each year, and explain how it is being implemented or why it is not being implemented.

Responsibilities and Privileges of Members:
Full Members alone may serve on the Governing Board. They shall have first option (right of first refusal) to lead (be PI of) all FoodPIC projects, originating from their own efforts and from the efforts of the Director. If no Member chooses to head a project, ***Associate Members*** shall be given the option of heading a project according to their appropriate expertise as determined by the GB and Director. If no Member or Associate Member chooses to head a project, the Director will seek expertise outside the membership, with the intention of recruiting that researcher or company to join the Center.

FoodPIC Projects are those projects administered through the University of Georgia and designated as such by the Governing Board. Specifically, FoodPIC projects are those supported by grant, contract, or gift from the Food Industry; by funding from State Commodity Commissions; or by State-supported industry-enhancing programs such as FoodPAC; and which are conducted by two or more FoodPIC members. Other projects (e.g. Federal – USDA, USAID; industry projects conducted by one or more member(s)) may be designated as FoodPIC projects upon request of the PI (and concurrence of his/her collaborators) and by vote by the Governing Board.

Industry Membership
Repeat business is expected from successfully assisted companies. As this pattern develops, a membership structure will be evolved by which the payment of annual fees will enable these clients to receive additional services at reduced cost or as part of the membership. These clients would also be expected to be given priority as members of the BOA.

Sustainability
For this Center to be sustained over the long term, it will be necessary for members to remain dedicated to its success and to solicit and conduct projects that will provide significant income. Membership must be expanded to additional faculty members both within and outside of the Department of Food Science and Technology. The core faculty in the Food Science and Technology Department in Griffin will bear major responsibility for the Center's initial success. To remain sustainable, it is anticipated that as more funding becomes available from industry contracts, grants, and fees, non-tenure track faculty, and other personnel will be recruited to expand the Center's ability to meet industry needs and provide much of the necessary staffing requirements. As specified in Policy Statement 7, the Center will be sustained only as its performance proves it to be a valuable component of the College's and University's mission.

General Outreach Activities

Annual Meeting[d]
The Annual Meeting shall consist of:

1) A meeting of the GB with the BOA to receive recommendations from that group
2) A meeting of the GB to consider matters arising and BOA recommendations.
3) A general business meeting of all members where matters requiring votes will be considered.
4) An outreach/informational program.

It is expected that the first two of these shall take place in the day(s) prior to the general meeting which shall consist of the business and informational meetings.

General Outreach Activities
Web site
Under development. It should serve as the interface between the Center and all clients, colleagues, and administrators

News Letter(s)
Published at least once yearly (June 30) with news and updates from the Center

Annual Report.
A detailed report to the members of the year's activities including marketing information and 'success stories (while protecting confidentiality) will be distributed prior to the Annual Meeting.

Short Courses
Short courses will be organized and offered in response to industry needs.

2. Description of amounts and sources of anticipated income

The FoodPIC program has, to date, been an informal association of like-minded UGA and other scientists, engineers, economists, etc. There has been no formal budgetary designation for the program, nevertheless substantial resources are in place to support the effort. University support has been through the salaries of UGA faculty members and technical personnel, and the provision of many existing physical and virtual facilities. Very recently, a Laboratory Manager I position was approved by the College and University, the purpose of which is to coordinate pilot plant activities arising from FoodPIC industry projects. There will be continued efforts to attract substantial funding from grants and contracts.

In addition, members are working diligently with University Administrators, the Griffin Spalding Development Authority, and local political and civic leaders to identify significant State and private funding for construction, equipping, and staffing of the Industry Incubator facility projected to cost $5-6M. These funds are being solicited from local, state, and federal governmental agencies as well as a private foundation. The present status is $1M firmly committed, $1M verbally promised by a state agency, a $2M proposal to a foundation; a $1.5M proposal in preparation to a federal agency with assurances of a favorable reception. Future expansion, and research and outreach activities of the Center are expected to be largely self-sustaining, aside from ongoing state support in the form of salaries for faculty and some staff, and operating funds assigned to the participating units. This will be achieved by the aggressive solicitation of contracts and grants to assist in the development of innovative food products and processes from ideation to marketing. The proposed Industry Incubator will facilitate this process on a for-fee basis. The gross income to the Center is expected to include actual costs (supplies and other consumables), space and equipment use fees, personnel costs, and University indirect costs. Revenue generated from grants, contracts, and fees for services will cover costs for personnel time and space and equipment usage will be used to support soft-money personnel positions, part of operating expenses, and acquisition of needed additional equipment. While specific details are still being developed, an example of a Revenue Generating Services List is shown in Appendix II. In addition, FoodPIC will continue to solicit substantially funded projects from medium to large food companies capable of supporting such research and outreach efforts.

3. Description of Formal Procedures for Faculty Participation

Membership:
***Members (Full Members*)**:
a. **Charter Member**s are the 5 Griffin FST Faculty who have initiated and/or continue to support this Center. (One Charter member has retired, and one faculty member has transferred from the Center for Food Safety to the FoodPIC program.) Charter Members will have specific rights, privileges and responsibilities during the first 1-1.5 years the Center is in existence as

specified in this Charter. Thereafter, Charter Member will be an honorary designation without special privileges.

b. **Center Members*** are all Charter Members plus other UGA faculty who participate in FoodPIC projects, who request membership by letter to the Director, and are approved by the GB.

c. Center Associate Members (Affiliates) are non-UGA researchers who participate in FoodPIC projects and who request membership. These might include researchers from other universities or other research institutions (for example USDA) and private companies whose business it is to provide service to the food industry, compatible to the goals of FoodPIC. Associate Members must agree to work with the Center by identifying at least one project per year as a FoodPIC project. Certain independent programs within UGA that wish to affiliate with the Center may also be designated as Associate Members by action of the Governing Board.

4. List of Participating Faculty and other Collaborating Personnel

Full Time Faculty, Department of Food Science and Technology- Griffin Campus

Jinru Chen, Associate Professor - Microbiologist, Microbial geneticist
Manjeet S. Chinnan, Professor – Engineer, Edible films, frying
Yen-Con Hung, Professor - Engineer, Physical properties
R. Dixon Phillips, Professor – Chemist, Extrusion specialist, *Acting Coordinator*
Anna V.A. Resurreccion, Professor – Sensory and Consumer Science

Emerita/Emeritus Food Science Faculty

Kay H. McWatters, Agricultural Research Scientist – Ingredient technology, functionality
Estes Reynolds, Professor – Extension, meats

Full Time Faculty, Department of Food Science and Technology- Athens Campus

William Hurst, Professor – Extension
Sharon Kane, Public Service Associate, Extension

Adjunct Faculty, Department of Food Science and Technology

Aaron Brody (also President of Packaging Brody, Duluth, GA) – Food Packaging, Industry Liaison

Partner Centers within the College or University of Georgia

National Center for Peanut Competitivenes: Stanley Fletcher, Director
The Center for Agribusiness and Economic Development, John McKissick, Director; Kent Wolf

Industry Partners

Morgan Consultants*, Atlanta, GA, - Food Process Engineering, Plant Design*
Traci Morgan, President

***MDT, Ltd.**, Atlanta, GA,*
Mark Thomas, Research Chef

***Dixon & Parcels Associates, Inc., New York, NY,** Strategic package design, brand name creation*
J. Roy Parcels

Moskowitz Jacobs, Inc, White Plains, NY, .Food product ideation and development
Howard R. Moskowitz

5. Letters of Support (See Appendix III)

To be solicited

6. Acquisition of Unavailable and Necessary Resources

The existing Melton Building offices, laboratories, and pilot plant provide resources for initiating the FoodPIC program. Additional space has been made in other buildings on campus and is being renovated at present. This space a temporary solution to the need for adequate food processing space until an incubator building can be constructed. As described in section 2, funds for the construction and staffing of such an Industry Incubator Facility on the Griffin Campus are being solicited. Sources for the funds to accomplish this goal are the Authority itself, one or more private foundations identified by the Authority. Additional possible sources include the Georgia Research Alliance and the Georgia Department of Economic Development.

7. Additional Faculty and Staff

It is anticipated that the Center will grow based on its own success and that several 'soft-money' positions will be established and sustained. A Pilot Plant Manager position has recently been approved by the College. This individual will be familiar with food processing operations and will coordinate the use of equipment and personnel for various projects that might be ongoing simultaneously. Recently, an additional half-time administrative proessional was added to the program by the College of Agricultural and Environmental Sciences to assist with growing extramural accounts. Additional state funded personnel will be justified by a successful and vigorous program of demonstrated benefit to food industry clientele within the state and region and derived through the normal budget process.

8. Responsibilities of Participating Units

UGA faculty who are members of the Center will have their promotion and tenure association within academic departments. Administrative agreement will be solicited and received for any faculty member wishing to participate in the Center. It is anticipated that Department faculty and administrators will recognize the Center's potential to make a very positive contribution to their Department's Mission.

9. Recommendations for Courses or Degrees

As a Center, FoodPIC would not be a degree granting unit.

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Explanatory Notes

[a.] These administrators have authority over the FoodPIC program as a part of their duties. They have no need to vote on specific decisions of the GB. Further, it unlikely that they would be able to regularly attend GB meetings.

[b]. The GB shall not have the authority to reassign leadership of a project from the member responsible for obtaining it. However they may make suggestions as to potential research partners for a given project should the PI request it.

[c.] This report will be edited to remove sensitive information to avoid compromising proprietary research to BOA members who may be employed by firms who are competitors of clients.

[d]. All members of all categories may vote for GB members. Only Full Members are eligible to vote on other matters.

References

1. Food & Beverages Industry Statistics (2007) Plunkett Research, Ltd. http://www.plunkettresearch.com/FoodBeverageTobacco/FoodBeverageTobaccoStatistics/tabid/248/Default.aspx

2, Anon. June, 2003. Food Processing in Georgia. Georgia Power Community & Economic Development, Georgia Power Company, Inc.. 52 pages.

3. Anon. February, 2007. Georgia's Food Products Industry in "Georgia's Agri-Economy" – The Newsletter of the University of Georgia Center for Agribusiness and Economic Development. Vol. 11, No. 1.

4. Brody, A.L. and Lord, J.B. 2000. Developing New Food Products for a Changing Marketplace. Technomic Pub. Co. Lancaster.

Appendix I. The Economic Impact of Food Innovation Centers-Incubators

Compiled by Harvey Witt, Agricultural and Applied Economics, UGA

The collaboration between private industry and University-based food development centers has had many obvious benefits. New products, new processing methods as well as tastier and safer food are just a few. Less obvious is the economic impact Food Centers have had. Food Centers have led to business start-ups, increased revenue for existing firms, increase tax income for communities and employment gains.

Nine food centers in the United States and one center in Canada were contacted by email and then by telephone if needed. It was found that although all have benefited their clients and communities, only three centers, those at Cornell University (in collaboration with the University of Vermont), Rutgers University and Oklahoma State University, have done formal, economic impact studies. Of these three, Rutgers is current building an Incubator; therefore, this paper will focus on that center.

Rutgers' Food Innovation Center during 2003-2005, had over 250 clients who will experience a cumulative impact of $84 million in new revenue from 2006 to 2010. In addition, these clients will create over 200 new jobs over the same time period. The Food Innovation Center projects the Incubator, once complete, will help increase its impact. According to their estimates, by 2010, the center will have had 875 clients, created over $200 million in cumulative new revenue (at an annual rate of $85 million in 2010), created thousand of jobs and generated over $14 million (annual rate of $5 million in 2010) in local tax revenue.[1]

The Northeast Center for Food Entrepreneurship (NECFE), a collaboration between Cornell University and the University of Vermont, has had similar positive, economic impact. It surveyed 540 of its past clients that worked with NECFE from 2000 to 2004. Approximately, 48 percent of NECFE clients reported business growth (including start-ups) because they worked with the center. One third of those surveyed had started their business while working with the NECFE.[2]

This business growth spurred employment. The NECFE clients surveyed hired 809 new, part-time employees and 1,061 new, fulltime employees during the time studied. NECFE used the survey results and projected that the total estimated number of jobs created and supported by NECFE services was 13,116.

The Food and Agricultural Products Center (FAPC) at Oklahoma State University found that of its clients surveyed, there was a 12 percent increase in fulltime employment, a 32 percent increase in payroll, and a 144 percent increase in total sales due to working with the center.[3]

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[1] "The Innovator" Food Innovation Center Newsletter, Rutgers University, Summer 2006.

[2] Cranwell, Michele R., Jane M. Kolodinsky, Catherine W. Donnelly, Donald L. Downing, and Olga I.Padilla-Zakour**,** "A Model Food Entrepreneur Assistance and Education Program: The Northeast Center for Food Entrepreneurship" Journal of Food Science Education, Vol. 4, 2005, pages 56-65.

[3] "Annual Report 2005" Food and Agricultural Products Center, Oklahoma State University, 2006.

According to the study FAPC, firms assisted by the center accounted for about 21 percent of the food processing jobs in Oklahoma.

As stated, since the Food Innovation Center at Rutgers is building an Incubator, it will be used for comparison. The Center is located near the large population centers of New York, Philadelphia, Baltimore and Trenton. In 2002, New Jersey, alone, had 1,591 food and beverage manufacturers according to a Rutgers study.[4]

Even though the University of Georgia Food Product Innovation and Commercialization Program (FoodPIC) is located in a less populated area, it is reasonable to use Rutgers' estimates to project economic impact of FoodPIC. First, FoodPIC is near Atlanta and the city and the region is growing at a faster pace than that of the Northeast. Also, an internal FoodPIC study found more than a thousand food processing and food related businesses in Georgia, a figure similar to the number in the Rutgers study. Finally, there is no other food center in the Southeast while the NECFE and the center at Ohio State also serve the Northeast.

The location of a new manufacturing/logistics facility in a community traditionally translates to the creation of new jobs. There is often an expansion or several expansions as the company experiences growth and success. Ultimately, the number of jobs will grow to a certain point of final capacity. The University Food Technology Center would be about the business of creating several new manufacturing/logistics companies as they graduate or finish the incubator program. These companies also create new jobs with the resulting expansions(s). The difference in job creation with the Technology Center is that, as long as the Center is operating and successful, there will always be the creation of new jobs with the resulting expansion(s). The potential of the Center to create new jobs over a extended period of time is tremendous. The multiplier effect is even greater.

There are 15,000 new products introduced into the market place in the United States each year. Eighty percent of these new products fail. With the establishment of the Center, existing jobs in the food and food-related industry will be saved. Rutgers' Food Innovation Center predicts that by 2010 their Center will have "retained tens of thousands of jobs via its programs in quality assurance, food safety, food security, and new technology integration." Rutgers' Center is starting construction in early 2007.

Rutgers also estimates that over the next five years, each of its clients will generate, on average, $230,000 in cumulative revenue. Each client will create an additional $16,000 in cumulative tax revenue. Using NECFE survey results and assuming 1,500 jobs generated by Food Innovation Center clients (it claims "thousands" of jobs will be generated), each client is estimated, on average, to create approximately 1.84 fulltime jobs as a consequence of working with the Center.

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[4] Schilling, Brian J. and Kevin P. Sullivan. "The Importance of New Jersey's Food System in 2002", Food Policy Institute, Rutgers University, June 2006

Based on the above estimates, even if FoodPIC serves a fraction of the clients that either NECFE or the Food Innovation Center has, it will have a large economic impact. For example, if FoodPIC has 200 clients over the next five years, much less than either of the other two centers, it will help generate $46 million in revenue, $3 million in tax revenue, and 368 fulltime jobs. Projecting out to 10 years, approximately 800 new jobs would be created. Moreover, these are the estimated gains of just FoodPIC's clients. Additional sales revenue, tax revenues (e.g. sales , property, and income) employment gains, and will be generated by suppliers and retailers as FoodPIC's impact multiplies through the food system.

Appendix II. Revenue-Generating Services

SERVICES

Food Product Innovation and Commercialization clients benefit from out assistance and expertise in the following areas:

FOOD PRODUCT DEVELOPMENT
Experienced food technologists and product development experts help you create new products and find solutions to production problems. Technical assistance involves basic analytical work, bench-top testing, product formulation, line extension, scale-up, nutrition labeling, and process review.

PACKAGING AND PROCESSING ENGINEERING
Packaging and food processing engineers collaborate to develop and design packaging systems. From a primary food package to complex transportation, shipping and inventory control management systems, **Food Product Innovation and Commercialization** helps our clients carry innovative food products to market.

STORAGE AND SHELF-LIFE EVALUATION
Assuring product quality over extended periods of time requires proper storage practices, packaging and facilities. The **Food Product Innovation and Commercialization** provides test chambers, analytical assessments and innovative solutions to food processors that are committed to product safety and excellence.

SENSORY AND CONSUMER TESTING
Sensory and consumer science professionals help you learn from consumers by designing, conducting and analyzing data from flavor tests, focus groups and surveys. The **Food Product Innovation and Commercialization** has extensive consumer testing facilities and capabilities, including a focus room, testing booths and off-site portable testing equipment.

MARKET PLANNING
Plan a new product launch with an understanding of suppliers, market conditions, trends and income/expense projections. **Food Product Innovation and Commercialization** provides assistance from evaluating market opportunities to quantifying consumer preferences and characterizing buying habits.

BUSINESS DEVELOPMENT

Food Product Innovation and Commercialization can assist with business development issues, funding issues, and facilitate relationships that will enhance the success of your project. **Food Product Innovation and Commercialization** is well equipped to provide a vast array of business-related problem solving services.

LOCAL, NATIONAL, INTERNATIONAL MARKET ACCESS AND DEVELOPMENT

Take advantage of marketing and "buyer introduction" services. **Food Product Innovation and Commercialization** assists processors to identify target markets connect with foreign and domestic buyers, certify food products, and resolve industry transportation and distribution issues.

PRACTICAL EDUCATION/CONSULTING SERVICE FEES

FOOD ENTERPRISE APPRAISAL

Product, business or marketing concepts brought forward by the client will be reviewed and analyzed using The **Food Product Innovation and Commercialization** appraisal method that assess all aspects of the proposed concept. The concept will be evaluated utilizing current state of the industry knowledge and practical experience. Reviewers will offer recommendations for further actions.

NOTE: This service is limited to 1-1/2 hours of meeting time. An optional report detailing the finding of The **Food Product Innovation and Commercialization** (including brief analysis of markets and competition) is available from the Food Innovation Center staff for an additional fee of $350. Fees for complex projects that require extended time from staff will be determined on a case-by-case basis.

PRODUCT DEVELOPMENT PACKAGE

This educational service provides technical support for the entrepreneur with a food product. It offers product formula and process review, including basic analytical work including pH, A_w, Brix; kitchen time and one-on-one bench top work. Also included is nutritional labeling as required.

NOTE: This service is limited to 10 hours of time. Fees for projects that will require more time from staff will be determined on a case-by-case basis.

PACKAGING SELECTION/DESIGN PACKAGE STRUCTURE

This educational service provides technical support and guidance for food business entrepreneurs with respect to selection of a single package for a product that is intended for a single target market.

The Package offers clients an opportunity to work one-on-one with a food packaging technologist to understand the process and importance of packaging, and potential costs involved. It also provides clients with illustrations of conceptual ideas using samples from **Food Product Innovation and Commercialization** packaging experience.

Included in the package is a report with recommendations for primary, secondary, and distribution packaging, and, if appropriate, a configuration of secondary packaging and pallet cube design. Clients are also provided with information about supplier selection utilizing a Packaging Supplier Database and offered guidelines about how to collaborate and work with supplies.

NOTE: This service is limited to 10 hours of time. Fees for projects that will require more time from staff will be determined on a case-by-case basis.

PRODUCT IDENTITY PACKAGE

This educational service is intended to provide business development and marketing information and tools to early stage, micro enterprise scale entrepreneurs who work with **Food Product Innovation and Commercialization** to develop or package a food product or service. It includes basic materials needed for a brand identity package and development of a marketing budget.

Client entrepreneurs will learn about product branding, trademarking and product launch practices. They will be provided with appropriate documents and referrals for graphic design services.

NOTE: This service is limited to 10 hours of time. Fees for projects that will require more specialized assistance from staff will be determined on a case-by-case basis.

TECHNICAL SERVICE FEES

MARKETING RESEARCH/CONSUMER SURVEY
Fees to be determined on Basis of Service Required

Fees for consumer surveying required for market research activities will be determined on a case-by-case basis with a member of the Sensory Science Staff or, if appropriate, by a member of the Marketing Research Staff. **Food Product Innovation and Commercialization** limits this service to large projects.

PACKAGE PERFORMANCE TESTING
Fees to be determined on basis of service required

Package performance testing provides the standard tests for package materials/films and containers, including gas transmissions/permeation tests, water vapor transmission tests, strength of materials, and food shelf life tests. Fees for the tests vary depending on the type of tests package materials, films, equipment, and technician time required, testing conditions, and professional service time required to design and perform the proposed tests.

SHELF LIFE AND ENVIRONEMENTAL TESTING

Fees to be determined on basis of service required

Shelf life testing of food products can include environmental chambers, sensory testing, texture testing, analytical laboratory testing, and package permeability testing. Depending on the quantity of products, length of shelf-life and specific laboratory testing required all factors will be taken into account to determine the costs necessary for a safe and acceptable market introduction.

SENSORY AND CONSUMER TESTING

Fees to be determined on basis of service required

Sensory and consumer tests of products for market research and product development purposes are designed with clients' involvement. These are then carried out at **Food Product Innovation and Commercialization**'s Sensory Testing Laboratories, in Food Product Innovation and Commercialization's Focus Room, or at sites identified by clients. Data from these tests is made available to clients and a report analyzing the finding is prepared and reviewed.

Appendix III. Letters of Support

To be solicited from Industry and College representatives

Mr. Gary Black, President
Georgia Agribusiness Council, Inc.
Post Office Box 119
Commerce, Georgia 30529
Phone: 706/336-6830 or 800/726-2474
Fax: 706/336-6898

Mr. David Luckie, Executive Director
Griffin-Spalding Development Authority
109 East Solomon Street
Suite 100
PO Box 1009
Griffin, Georgia 30224-1009
770.412.9200 voice
770.412.9222 fax
Email: Emily@gsda.net

Mr. Bruce Kotz, Vice President of Specialty Products
Golden Peanut Company, LLC
100 North Point Center East, Suite 400
Alpharetta, GA 30022

Mr. Chris Paulk
Muscadine Products Corporation
1788 Satilla Rd
Wray, GA 31798
p: 229.468.7873
f: 229.468.7876
mpc@musprocorp.com

To be solicited from College Administrators

Dr. Rakesh Singh, Head
Department of Food Science and Technology
College of Agricultural and Environmental Sciences
University of Georgia
Athens, GA 30602

Dr. Gerald Arkin
Assistant Dean
College of Agricultural and Environmental Sciences
Assistant Provost

The University of Georgia

College of Agricultural and Environmental Sciences
Department of Food Science and Technology

CAES
SEP 10 2007
OFFICE OF DEAN & DIRECTOR

September 7, 2007

Dr. Scott Angle
Dean and Director
College of Agricultural and Environmental Sciences
University of Georgia
Athens, Georgia 30602

Dear Dean Angle:

I am writing is support of the attached proposal for creation of a Food Product Innovation and Commercialization (FoodPIC) Center as an official University Center. As outlined in the proposal, the food industry in Georgia is a major component of the overall agribusiness sector providing employment for thousands of individuals and contributing billions of dollars to the state's economy. University-based Centers designed to work directly with commercial clients to develop new food products and processes may be found in many parts of the U.S. However there is not a comparable center in Georgia or the Southeast.

The FoodPIC program was initiated several years ago by Food Science and Technology faculty and is increasingly successful in attracting industry projects and contracts. It also enjoys strong support from the local community to the extent that the Griffin-Spalding Development authority has pledged to raise $5-7M to construct an incubator building to facilitate its work with the industry.

It is important to point out the intention for FoodPIC to work seamlessly with Food Science Extension to provide a broad and in depth program of research, development, and outreach to the Georgia and Southeastern food industry.

Thank you for considering this proposal.

Sincerely,

Rakesh K. Singh, Head
Food Science and Technology

RKS:bk

1785
The University of Georgia

Office of the Assistant Dean

College of Agricultural and Environmental Sciences
Griffin Campus

1109 Experiment Street
Griffin, Georgia 30223
Telephone (770) 228-7263
Fax (770) 467-6081
garkin@uga.edu

MEMORANDUM

To: Dean Scott Angle

Copy: Joe Broder
Bob Shulstad
Beverly Sparks

From: Gerald F. Arkin

Subject: Support Letter for Center for Food Product and Innovation Center

Date: September 12, 2007

The Georgia food industry is a very large, diversified and growing industry. There is enormous potential for the University of Georgia, and in particular, the College of Agricultural and Environmental Sciences, to play a more integral and leadership role with this industry, especially in the area of Food Product Innovation and Commercialization.

Partnering with the food industry in discovery of new knowledge, new products and new processes, combined with the College's expertise in Outreach and Extension, is a powerful combination for creating new businesses, new jobs and helping the bottom line of existing food businesses and their sustainability. To this end, a proposal to establish a formal center for Food Product Innovation and Commercialization has been prepared. The proposal has my full support. I believe that a Center for Food Product Innovation and Commercialization will be a beacon to the food industry that helps attract new clients to work with our College's faculty. I believe the center will better position the University and the College to be the recognized leader in this arena in Georgia, and possibly in the southeast. It is clear to me that if we do not establish a Center of Excellence in this field, one will be established soon somewhere else in the southeast.

An Equal Opportunity/Affirmative Action Institution