

**Project Title:** *Competitive Assessment of The Specialty Crop Industry Utilizing Traditional SWOT Analysis*

**Abstract:** Specialty Crops are defined by the selection of a specialized group of crops, and the exclusion of others. While this provides a working definition, the key parameters of this market have never been assessed by viewing the specialty crop industry as a whole. In order to enhance the competitiveness of specialty crops, one must rigorously assess their definition and look for common elements, which will in fact define this sub-industry. We contend that a traditional SWOT analysis assessing the industry's strengths, weaknesses, opportunities, and threats will provide both short-term and long-term measurable payback as the specialty crop industry plans for continued growth. The benefit of this project will be both for the State of CT, as well as the industry nationwide. Deliverables will include: (a) the full unbiased competitive analysis with concrete measurable recommendations; and (b) a "pro-industry" marketing video documentary emphasizing the strengths and opportunities within the industry, with some subtle references to challenges within the industry.

**Partner Organization:** Bio-Investigations Ltd., 32 Country Way, Madison, CT 06443. Telephone: (203) 421-0028 or (203) 421-3697.  
(C-Corporation incorporated and registered in The State of CT in 1987 -- in continual operation for 22 years -- "small business".)

**Project Purpose:** This project is specifically focused to enhance the competitiveness of eligible specialty crops. The project will not be submitted to or funded by another Federal or State grant program. This project is critically important in that for an industry to understand how best to enhance competitiveness one needs to be fully aware of its' competitors. Michael Porter pointed out in *Competitive Strategy* (1980) that five strategic forces affect industry competition: (1) suppliers -- the bargaining power of suppliers; (2) customers -- bargaining power of customers ; (3) new entrants -- threat of potential new competitors; (4) substitute products -- threat of substitute products or services; and (5) industry competition -- rivalry among competing firms. While this industry is defined by its' specialty crops, competitiveness may be best maximized by assessing the overall strengths, weaknesses, opportunities, and threats. More specifically, we plan to address representative issues, including but not limited to the following, through extensive data research, assessment, and analysis, all typical parameters of a sophisticated SWOT analysis: **A. Strengths:** Does the specialty crop industry have a superior reputation? Are there strengths within its workforce? Does this industry enjoy strong financing? **B. Weaknesses:** Does this industry have inadequate R&D? Is this industry based on obsolete technologies? What are some of the past planning failures that have hindered this industry?

**C. Opportunities:** Are there possibly new markets or methodologies to distribute specialty crops? How does the economy at present provide opportunity for the specialty crop industry? Are there new biotechnologies that will enhance the stability of specialty crops? **D. Threats:** How do changing market tastes impact specialty crops? What is the impact of substitute products on specialty crops? What new regulations are pending at the federal and state level that may negatively impact the industry?

**Potential Impact:** The benefits of this analysis and supporting video production are extensive. The beneficiaries are individual businesses as well as commodity organizations within the industry. For the former, understanding one's strengths and weaknesses will allow for better planning, long-term. For the latter, a comprehensive assessment of the industry will allow for better planning at the local, state, and national level. In addition, the supporting documentary will be an excellent tool to further the goals and mission of the industry, and provide a marketing tool driven by hard economic (timely) data.

The potential economic impact of this project will be measured through dissemination of the deliverable report and accompanying video production. This project is focused on accomplishment of deliverables but also more importantly delivery of those finished products to the target market. Target markets include a full spectrum from purveyors of specialty crops to actual customers. Given the various methodologies we plan to disseminate the deliverable, and potential identification of key technologies that may benefit multiple crops, we envision an economic impact of increased sales, maximized efficiencies, improved product life, and early attention to competitive threats.

**Expected Measurable Outcomes:** There will be separate and distinct measurable outcomes from each of the complementary elements of this project. The SWOT analysis (OUTCOME) will be initiated by a careful assessment of the commonalities of all representative crops. We will identify, qualify, and quantify the three top opportunities and the three top threats to the industry (GOAL). By reference to quantification we will provide assumptions to allow for basic statistical analyses to measure growth or reduction in the industry, based on existing baselines of revenue. Based on our identification of opportunities and threats, we will develop and present models demonstrating how these external influences will impact sales.

We are not undertaking the SWOT analysis with any preconceived conditions. The first three months of the study will be focused on further identifications and definition of the specialty crop industry. From these findings both on a scientific / technology /product basis we will advance the identification of competitors / competitive forces, over the next three

months. At month seven we will conduct the actual competitive analysis, followed at month ten with the advancement of the formal recommendations. Hence, we will have **measurable outcomes** as evidenced by the elucidations of those positive and negative forces, all quantifiable. We will provide an in-depth analysis of the top three findings in each category, and through model assumptions, generate projections. The issue here is that no study to our knowledge being planned or already undertaken on the competitiveness of specialty crops has focused on further defining the industry and delineating the top strengths, weaknesses, opportunities, and threats. We will quantify our findings through market research, interviews, and selected questionnaires.

The associated video production will be much easier to quantify, in terms of results. We plan to provide it to purveyors, as well as end-use customers. We plan to quantify how many times it is utilized through commodity organizations, either through accessing it via the Internet, or through similar methodology (TARGET).

In short, we are starting with a BASELINE of zero competition for the specialty crop industry, as no sophisticated SWOT study has focused its' efforts on better defining the industry. A listing of specialty crops may encompass an industry, but by stepping back and looking at the entire industry one will be able to identify and quantify core competencies. We will commit to four core competencies (PERFORMANCE MEASURES) as to areas upon which we will quantify as exists today, and in which growth may occur: a. special knowledge or expertise; b. superior technologies; c. efficient manufacturing technologies; and d. unique product distribution. Our goal by conclusion of the study is to qualify and quantify at least four core competencies, and to utilize simple statistical analyses to determine acceptance or rejection of differences in means set for various variables, at different levels of significance. Of utmost importance, our goal is to interpret the simple statistical analyses in easy-to-understand language.

**Work Plan:  
SWOT ANALYSIS**

Project Activity	Who	Timeline	Budget
Determine Attributes Common To Specialty Crop Industry	Professor Rosenberg And Senior Market Analyst	October 2010 – December 2010	\$14250
Define and Identify Competition	Professor Rosenberg And Senior Market Analyst	January 2011 – March 2011	\$14250
Conduct Competitive Analysis	Professor Rosenberg And Senior Market Analyst	April 2011 – June 2011	\$14250
Assemble and Disseminate* Final Report, with Key Recommendations	Professor Rosenberg And Senior Market Analyst	July 2011 – September 2011	\$14250

## VIDEO DOCUMENTARY

Project Activity	Who	Timeline	Budget
Interactions with Specialty Crop Purveyors and Service Organizations; Preliminary Video Shots	Professor Rosenberg And Video Production Specialist	October 2010 – December 2010	\$4500
Decision on Documentary Vision and Alignment with Industry Attributes	Professor Rosenberg And Video Production Specialist	January 2011 – March 2011	\$4500
Advance Video Narrative and Advance Production	Professor Rosenberg And Video Production Specialist	April 2011 – June 2011	\$4500
Finalize and Disseminate* Final Documentary	Professor Rosenberg And Video Production Specialist	July 2011 – September 2011	\$4500

SWOT analysis will be conducted in three month segments. The first segment will focus on further crystallizing the Specialty Crops Industry, through extensive market research, telephone interviews, selected questionnaires, and literature searches. This is the most important phase of the project, because a clear definition of what is consistent within the specialty crop industry (GOAL) will serve as the basis for the competitive analysis.

The second phase of the SWOT analysis will identify the competitive forces, competitive industries, synergistic forces, synergistic industries, and potential opportunities and threats (GOALS).

The third phase of the SWOT analysis will focus on the actual competitive analysis, including setting of simple hypothesis tests where applicable, and/or incorporating quantitative measures of central tendency, notwithstanding the incorporation of qualitative analyses (PERFORMANCE MEASURES). This phase is the most difficult to predict as to outcome, given such an analysis has never been conducted, on this industry (BASELINE). Where applicable, we will in this section try to incorporate some analysis of the specialty crop industry within CT as compared to the other states. It is precisely in this step that we will be able to generate quantitative measures of the CT industry as there may be competitive forces or competitive “players” that are more prevalent in one state versus another state. While this study is being conducted by a Connecticut Corporation within Connecticut for the Connecticut Department of Agriculture, this is the step wherein we attempt to provide value for the United States Department of Agriculture, as our comprehensive findings are not limited to being geographic-sensitive.

The forth phase is what we consider our “deliverable” phase. This is the phase where we focus on completion of the deliverables and

dissemination of materials, with systems put in place to quantify the usage of our “products” (PERFORMANCE MEASURES) These may include tracking usage of the report by which groups, “hits” to a site where the report (and documentary) are accessible, etc. While we will clearly focus on disseminating our deliverables to the commodity groups focused in specialty crops (TARGET), we are allowing a full three months to address the positioning and utilization of our study.

Video creation will mirror the above schedule, in three month sectors. Video production will be sensitive to weather conditions and seasonal activity; hence there will be a routine ongoing planning period as well as more intensive “production” periods. All activities will be ongoing simultaneously. Hence, our market research will be maintained throughout the twelve months, as we will continue to refine our findings given the dynamic nature of our economy. It is important that what we deliver is as current as possible.

**Budget Narrative:**

- 1.) Personnel – **\$75,000**
  - a. Project Overseer and Industry Analyst – Professor Rosenberg (25 hours per month, at a rate of \$120 per hour. This equates to \$3000 per month.) 25% FTE -- (100% FTE = \$144,000)
  - b. Senior Market Analyst – (25 hours per month, at a rate of \$70 per hour. This equates to \$1750 per month.) 40% FTE -- (100% FTE = \$52,500)
  - c. Video Production Specialist – (30 hours per month, at a rate of \$50 per hour. This equates to \$1500 per month.) 50% FTE – (100% FTE = \$36,000)

*Fringe Benefits are fully included in above personnel hourly rates.  
Each individual will perform a percentage of non-billable services.*
- 2.) SWOT Analysis – Questionnaires; Assembling; Copying; Distribution - **\$1000**
- 3.) Documentary Videotaping Supplies - **\$2000**
- 4.) Travel to Purveyors and Commodity Organizations - **\$2500**

Bio-Investigations Ltd. is amenable to absorbing the costs of the above three items, and/or reducing its’ salary to the Industry Analyst. The President of Bio-Investigations Ltd. is amenable to contributing some time to the project without pay to cover the above three line-items. Depending on the final deliverables, it is conceivable that the above three costs may be less.

- 5.) Other – N/A
- 6.) Indirect Charges – Bio-Investigations Ltd. will absorb indirect costs
- 7.) Program Income: N/A **Total Budget: \$80,500**

**Total Requested Budget: \$75,000\*\***

\*\* (SWOT = \$57K); (DOCUMENTARY = \$18K)

**Project Oversight:** Stewart Rosenberg, President of Bio-Investigations Ltd., will oversee the project. With undergraduate and graduate degrees in biochemistry and business from The University of Connecticut, the University of Pennsylvania, and Wharton, he has been involved at the interface of business and technology since first conducting SWOT analyses in the mid 1970's on the first monoclonal antibodies discovered, leading a team of businessmen, scientists, consultants, etc., defining the products and the industry.

Over the past 22 years he has conducted competitive analyses of products and services encompassing multiple industries. His experience in competitive assessment is evidenced by many executed licensing agreements with companies by his firm, an example being that with DEKALB Genetics Corporation, a member of the Monsanto Global Seed Group, which at the time received an exclusive worldwide license to develop and market corn that may combat virus infection within poultry.

Stewart Rosenberg has served as administrator and/or participated in review committees for grants at both the state and federal level. Within the past two years he has served as Adjunct Professor, Central Connecticut State University, within three Departments, with a maximum of teaching two courses in any give semester: (1) School of Business, Dept. of Management and Organization; (2) School of Arts and Sciences, Dept. of Mathematics (Statistics); and (3) School of Arts and Sciences, Dept. of Chemistry and Biochemistry. Last semester (Fall 2009) Professor Rosenberg taught one course in Business Statistics focused in ANOVA, multiple regression, and hypothesis testing, as well as one course in Chemistry and Biochemistry, focused in inorganic chemistry. This semester (Spring 2010) he has limited his teaching commitment to one course in Chemistry, further developing the teaching model of science and technology intersecting with business.

**Project Commitment:** This project has the full commitment of Bio-Investigations Ltd. Two officers of the corporation will be actively involved in the organization, implementation, and execution of this project. While this project has two components and was capable of being submitted as two projects, our commitment to the integrity of the project and the importance of both elements being completed is evidenced by the fact that we are submitting one comprehensive project, with a commitment by Bio-Investigations Ltd. to contribute, if small overruns in the budget exist. Furthermore, we are prepared in subsequent years, even without committed funding, to *potentially* look at updating the analysis on a yearly basis, where enhanced quantifiable results may be obtained, as definitions of the industry, competition, and baselines are further established.

\*For dissemination of project deliverables, in addition to purveyors, the list of current specialty crop non-profit commodity organizations will be included after confirmation (i.e., CT Nursery and Landscape Association, CT Apple Marketing Board, CT Beekeepers Association, Farm Bureau Association, Maple Syrup Producers Association of CT, etc.)