Global Vegetable Oil & Biodiesel Feedstocks: New Challenges Ahead
A Multi-Client Study Proposal

**Highlights**
- Impact of global recession, financial crisis, and the Obama administration
- Potential for palm oil production to expand under tighter environmental standards
- Link between vegetable oils, animal fats and energy and risk management opportunities
- The role of animal fats and spent restaurant grease as feedstock for biodiesel
- Transition away from trans-fat oils and expansion of corn fractionation
- The impact of the 10% biodiesel mandate passed by the EU during December 2008
- Jatropha, algae, and camelina under a more aggressive investment environment
- Challenges of distributing and using 1 billion gallons of biodiesel in the US by 2012
- 10-Year outlook for vegetable oils and biodiesel
- Challenges ahead for the US biodiesel industry under a mandated environment
- Consolidation ... which biodiesel plants are best positioned
- Appetite for investment and financing in oilseed crushing or biodiesel
Global Vegetable Oil & Biodiesel Feedstocks

The unprecedented commodity price increases that ended in mid 2008 had a significant influence on global renewable fuel policies and agribusiness’ strategies. Subsequently, several factors have created new challenges; consider the following:
- dramatic reversal of vegetable oil prices,
- weakening oilseed crush margins,
- narrowing vegetable oil price premiums,
- volatile global economic outlook,
- EU’s tough biodiesel standards for palm oil use,
- global biofuel policy shifts in response to earlier record high prices,
- distributing and use one billion gallons of biodiesel in the US,
- 20% of the biodiesel feedstock came from animal fats and greases in 2008,
- large food service companies (KFC) plan to turn restaurant grease into biodiesel,
- exclusion of co-process renewable diesel from the excise tax credit, and
- end of “splash and dash.”

The culmination of these developments have resulted in an uncertain market environment for prices, trade flows, and investment in production and processing expansion in the US, Europe, Southeast Asia, Latin America and others. Additionally, in the past twelve months, the use of animal fats and restaurant grease has grown rapidly and greater investment and attention has been given to alternative feedstocks/technologies, which today offer a real opportunity for development.

Participants across the vegetable oil, animal fats, biodiesel/energy and the related marketing chains are confronted with the need to recalibrate their strategies. In these turbulent economic times, it is critically important to have a thorough analytical base and knowledge to understand how existing and emerging drivers will affect various market segments or regions. The current economic crisis, which has affected almost every agribusiness segment, is also a unique opportunity for those with the right knowledge and strategy to be well positioned to take advantage of the recovery.

In March of 2008, Informa completed its first “Global Vegetable Oil Multi-Client Study.” Now, as market conditions have evolved, there is a need, as expressed by our clients, to examine the new critical issues mentioned and update the previous ten–year global vegetable oil and biodiesel outlook.

New and Expanded Issues in this Study
- Implications of the financial crisis, global recession and the Obama administration
- Palm oil production growth under tightening environmental standards for biodiesel
- Link between vegetable oils, animal fats and energy and risk management opportunities
- New EU 10% biofuels mandate and other global energy policy shifts elsewhere
- Jatropha, algae, and camelina after an aggressive investment environment in 2008/09
- Mandate to distribute and use 1 billion gallons of biodiesel in the US by 2012
- Animal fats and restaurant grease use for biodiesel; impacts of renewable diesel
- Restructuring … which biodiesel plants/firms in the US are best positioned
- The appetite for new investment in oilseed crushing, biodiesel and alternative feedstocks

Updated Issues in this Study
- Ten-year global vegetable oil and biodiesel supply/demand and price outlook
- Global biodiesel policies and incentives
- Transition away from trans-fat oils and expansion of corn fractionation
**Key Topics**

**Impact of Global Recession, Financial Crisis, and the Obama Administration**
The economic growth of developing economies, particularly China and India, has been a major driver for vegetable oil demand. However, the current financial crisis and global recession are likely to impact food demand growth and limit access to capital for new production/processing capacity. In fact, expectations of the global gross domestic product already have been lowered for the next two to five years. Critical issues include the following:

- Economic outlook for the US and other countries/regions; how long before a recovery
- Implications of the economic outlook on vegetable oil consumption
- The Obama administration and its impact on biofuels and investment

**Closer Analysis of the Malaysian and Indonesian Palm Oil Industry**
With 41.3 million metric tons produced in 2008 after a twofold increase over the past decade, palm oil produced primarily in Indonesia and Malaysia, is now the leading vegetable oil worldwide. Critical issues include the following:

- Potential of Malaysia and Indonesia to continue their aggressive palm oil industry expansion
- Impact of environmental/sustainability standards for palm oil use in biodiesel production
- The relative potential to expand palm oil production outside of Malaysia and Indonesia

**The Link Between Vegetable Oils, Animal Fats and Energy Prices and Risk Management**
Diesel and heating oil prices influence the price of vegetable oils and animal fats. After the highs reached in the summer of 2008, prices fell precipitously in the autumn. Hence, it is critical to analyze and measure these relationships and examine the corresponding price risk management alternatives. Critical issues include the following:

- Price forecast for soybeans, canola, corn, cottonseed, palm, sunseed, animal fats and related products
- Factors that could affect oil future oil prices
- Price correlations between energy and biodiesel feedstock prices
- Cross correlations across animal fats and energy prices
- Potential to manage price risk through hedging, tooling agreements, and other methods

**Alternative Feedstocks and Technologies for Biodiesel**
A greater level of investment and interest for alternative feedstocks has been observed: (i) British Petroleum invested $160 million in jatropha production, (ii) Solazyne raised $45 million in 2008 for algae development; (iii) US and EU biofuel policies passed in 2008 are incentivizing a more rapid development of alternative feedstocks and technologies; and (iv) a sharp decline of biofuel margins. These events have placed algae, jatropha, and camelina in the spotlight. Critical issues include the following:

- Technological, capital, and cost hurdles to be overcome
- Product lifecycle of second-generation feedstocks and regional perspectives
- Potential impact of alternative feedstocks on conventional vegetable oils
- Case studies: profile projects developing algae, jatropha, or camelina

**Growing Use of Animal Fats for Biodiesel: Market Perspective and Outlook**
In 2008, animal fats and greases accounted for 20% of the feedstocks used in biodiesel production. This has shifted the dynamics and
Global Vegetable Oil & Biodiesel Feedstocks: New Challenges Ahead

pricing of these markets. It is critical to assess the outlook of animal fats in the US as animal fats and restaurant grease will likely play a significant role in the further development of the US biodiesel industry either as a feedstock blend with other vegetable oils or as a blend of fats. Critical issues include the following:

- Animal fats production outlook
- Future use of animal fats for biodiesel
- Exclusion of co-process renewable diesel from the excise tax credit
- Implication of the full tax credit for restaurant grease
- Technical and structural challenges of using animal fats
- Impact of EU’s biofuel policies
- Potential for food service companies such as KFC to turn restaurant grease into biodiesel
- Influence of biodiesel production on animal fats pricing

**Update: Transitioning from Trans-Fat and Corn/DDGS Fractionation**

The food industry has continued to transition from trans-fats; however, price premiums of healthier oils have declined faster than anticipated. The growth of fractionation technology has slowed primarily due to lack of funding, a downturn of the ethanol industry and lower corn oil prices. However, some investments did materialize as in the case of GreenShift which received $38 million to invest in corn oil from distiller grains. Informa will review the factors driving the transition from trans-fats and the outlook for corn oil production.

**Challenges Ahead for the US Biodiesel Industry**

Biodiesel margins have been under pressure as a result of high feedstock costs, significant overcapacity, high price volatility, and dependence on exports to the EU (i.e., net exports of 55% of production in 2008). Going forward, the industry will face new challenges that will be examined in this comprehensive view of the biodiesel industry:

- Relative competitiveness of the US biodiesel industry
- Challenges to blend, distribute and use 1 billion gallons of biodiesel by 2012; a threefold increase from 2008
- Barriers to export biodiesel to the EU and its impact on biodiesel producers and vegetable oil trade
- The end of splash-and-dash and its implications on potential biodiesel imports from South America
- Appetite for new investment in biodiesel
- New ASTM standards and implications for biodiesel producers
- Overcapacity … how long will idle producers last?
- The case for industry consolidation and restructuring; where are the best-positioned biodiesel plants

**Update: Renewable Fuels Policies and Global Outlook for Biodiesel**

Recent renewable fuel policy shifts across the world have altered the outlook for biodiesel production and vegetable oil usage. The EU passed a renewable energy target for 2020 in December of 2008 which mandates the use of renewable energy in ten percent of transport fuels. The US closed the so-called “splash and dash” loophole, but extended the excise tax credit only for 2009. Brazil expanded its biofuel mandate, and Argentina once again changed its export tax structure. These developments, along with ongoing margin pressures in most countries, will change the outlook for the industry and naturally will have significant impact on the supply and prices of vegetable oil for food uses. Critical issues to be examined include the following:

- Biodiesel use/mandate policies across major countries including US, EU, Indonesia, Malaysia, Canada, Brazil, Argentina, China, India, and others
- New capacity construction and related developments across countries
- Ten-year outlook for biodiesel output and vegetable oil and animal fats use
Global Vegetable Oil & Biodiesel Feedstocks: New Challenges Ahead

- Implications of the EU’s new renewable policy to its biodiesel industry
- Impacts of the elimination of the “splash and dash” loophole and EU policies on the South American biodiesel industry
- Outlook for the Brazilian biodiesel industry after the Real's sharp depreciation and the new renewable fuel policies in place

Update: Ten-Year Global Supply and Demand Outlook for Vegetable Proteins and Oils

Within the global vegetable oil sector, there is a complex interaction of factors that influence supply/demand, trade and price.

The global vegetable oil outlook will be a comprehensive analysis based on Informa’s global fundamental supply/demand models that include the summation of grain and oilseed complex supply/use analyses from 27 individual countries/regions. Oilseed and vegetable oils and some of the main regions for review are shown below.

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<th>Oils</th>
<th>Regions</th>
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<td>Soybean</td>
<td>US, Canada</td>
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<tr>
<td>Canola/rapeseed</td>
<td>European Union</td>
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<tr>
<td>Sunflower</td>
<td>China, Ukraine</td>
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<tr>
<td>Corn</td>
<td>Argentina, Brazil</td>
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<tr>
<td>Cottonseed</td>
<td>Malaysia, Indonesia</td>
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<td>Palm</td>
<td>Others</td>
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The outcome of this analysis is the foundational supply, demand and trade balances for the various oilseeds crops and for the main producing and trading regions.

Join Us For This Vital Study!
Participating companies and organizations will gain insightful information that will be critical to future strategy.

Study Time Line, Deliverables, and Costs

**SCHEDULE**
- Sign-up and Comment Submission: May of 2009
- Study Kick Off *: June, 2009
- Study Report: September 2009
- Study Report Presentation Seminar **: October 2009 – Memphis
- Individual presentations at client offices: October – November

* A conference call will held for the kick off meeting; input received from subscribers prior to or at the kick off meeting will be shared with the study team via email and phone.
** Participants can attend the presentation in Memphis or join the meeting via conference call.

**DELIVERABLES**
- * Comprehensive written study and presentation materials.
- * On-site client presentation at no additional professional fee except for travel.

**COSTS**
- 2008 Global Vegetable Oil Study Participants: $9,750
- Informa Economic Clients: $11,750
- Non-Clients: $14,750

* Half of fee billed upon subscription; balance due upon delivery of final report.
Global Vegetable Oil & Biodiesel Feedstocks: New Challenges Ahead

About Informa Economics

Informa Economics, Inc., formerly Sparks Companies, Inc., is the world leader in broad-based agribusiness consulting and commodity market analysis. Founded in 1977, the company now serves more than 750 firms and institutions worldwide. In December 2003, Sparks was acquired by T&F Informa plc, a global business information group. Informa Economics is part of T&F Informa’s AGRA division, which also includes F.O. Licht, Agra Europe, Agra CEAS Consulting Agra FNP and Agra USA, creating an international network of services and clients with offices in the US, Canada, the United Kingdom, Belgium and Germany.

Informa Economics offers several broad categories of services and Multi-Client Studies such as the one described in this prospectus are a regular feature of Informa’s overall product offerings.

- Agricultural Commodity Market Analysis
- Management Consulting for Agribusiness
- Education and Training
- Newsletters and Other Publications
- Energy Market Analysis

The Informa Economics Business Consulting Group provides management and economic consulting services to organizations in the agriculture, renewable fuels, food processing and foodservice sectors. Clients include corporations, cooperatives, trade associations and government agencies in the United States, Canada and overseas. Informa Economics advises clients on a broad range of economic, marketing, financial, strategic planning and regulatory issues. In order to meet client objectives, Informa Economics utilizes a suite of services to clients worldwide.

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<td>Business Plans</td>
<td>Agribusiness</td>
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<td>Feasibility Studies</td>
<td>Food Companies</td>
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<td>Due Diligence Reviews</td>
<td>Renewable Fuels Companies</td>
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<td>Strategic Planning</td>
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<td>Site Selection Studies</td>
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<td>Econometric Analyses</td>
<td>Input Providers (Seed, Equipment, Fertilizer)</td>
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<td>Risk Management Strategies</td>
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In addition to business-related services, the Informa Economics Business Consulting Group conducts analysis of government policies and regulations. Informa Economics consults with government agencies, non-government organizations, multinational organizations, and agribusinesses regarding the impacts of policies and regulations on agricultural markets and industries. Informa Economics consultants also participate in a variety of international economic development projects.
Informa Economics Project Team Biographies

Bruce A. Scherr, Chairman of the Board and Chief Executive Officer. Dr. Scherr has been with Informa Economics, Inc. (formerly Sparks Companies, Inc.) since 1987 in several executive capacities including President and CEO. In addition, he is an Advisor for Metalmark Capital LLC, a private equity fund. Formerly he was president of Sparks, Jacobs, Scherr, Inc. (SJS), a sister company to Sparks, and president of Agri-Commodities, Inc., an agriculture consulting firm based in Andover, Massachusetts, which was acquired by SJS. Prior to forming Agri-Commodities, Dr. Scherr was a divisional vice president at Data Resources, Inc., where he developed and utilized for the public and private sectors the first commercially available econometric model for US agriculture. Dr. Scherr received his bachelor's degree from Rutgers University and his master's and doctorate degrees from Purdue University, all in agricultural economics. Currently, he is a member of the Board of Trustees of the North American Electric Reliability Corporation (NERC) and serves as a member of the Global Strategy Institute Advisory Council of the Center for Strategic and International Studies. He served as a member of the Board of Directors for Desert STAR Inc., an electrical transmission Independent System Operator for the Desert Southwest from January 2000 through February 2002. In addition, Dr. Scherr has served as a member of The University of Tennessee's (UT) Institute of Agriculture Agricultural Development Board and UT's Committee for the Future. He was recently named a 2007 Distinguished Agriculture Alumni from Purdue University and he is a member of several honorary research and agricultural societies, a member of the National FFA Foundation Sponsors' Board 2000 through 2001 and a former advisor to the President's Council of Economic Advisers and National Aeronautics and Space Administration.

Thomas P. Scott, President and Chief Operating Officer. Mr. Scott has been with Informa since 1989 with the majority of that time being the head of the Informa Economics Memphis-based Project Consulting Group. Mr. Scott's specialized work has included business strategy, agribusiness economic development, feasibility and site selection work, as well as various market analyses. In addition to his work in North America, Mr. Scott has extensive experience in the agribusiness sectors of Central Europe, Southeast Asia and South America. He has been involved in many training programs developed and delivered by Informa Economics. Prior to joining the company, he had various assignments in management, trading, logistics and merchandising with Continental Grain Company. He received his bachelor's degree in agricultural economics and business from Cornell University and a master's degree in business administration from the Amos Tuck School of Business Administration at Dartmouth College where he was an Amos Tuck Scholar.

PROJECT DIRECTOR: Juan E. Sacoto, Senior Vice President. With Informa Economics since 1997, Mr. Sacoto is the leader of Informa's Financial Consulting and heads the Biodiesel Consulting practice with his primary responsibility including research and analyses for international and domestic consulting clients. His work often involves market assessment, financial and competitive analyses, economic modeling, strategy, international economic development, and economic impact and risk management studies. Mr. Sacoto has extensive experience working in the renewable fuels industry, in particular biodiesel and oilseeds, and across several agricultural, food and related markets including grains, livestock, fisheries, fertilizers, and fruits and vegetables. He also has extensive practical experience working on evaluating agribusiness and renewable fuel projects across several regions including Latin America, Europe and Africa. He is fluent in Spanish and has broad cross-cultural training. Prior to joining the company, he worked as a financial and equity analyst. He received his bachelor's
degree in finance from Jacksonville State University and his master's in international business administration from The University of Memphis.

Rob M. Westmoreland, Executive Vice President. Mr. Westmoreland is co-executive of the Informa Economics grains, oilseeds, and other crop and food ingredient research and analyses functions and client services. His many food and agribusiness consulting assignments include commodity planning, price risk management and business strategic planning for a wide spectrum of US and international food and agribusiness companies. Previously, Mr. Westmoreland was group vice president and general manager of Pillsbury Industrial Foods. His management experience includes economic analyses and commodity risk management, business strategic planning, marketing, and general management in food processing. He is an economics graduate of Rice University and of the Stanford University Graduate School of Business.

John L. Eustice, Vice President. With the company since 2000, Mr. Eustice heads up Informa’s Eagan, Minnesota, office and is editor of several Informa Economics’ feed ingredient publications: The Feed Ingredient Daily, Feed Ingredient Weekly, Feed Ingredient Forecaster, and Feed Ingredient Desktop Reference. Mr. Eustice provides economic consulting expertise on the feed ingredient markets to a broad range of Informa clients and is a regular presenter on these sectors at Informa conferences and training seminars as well as other industry conferences. Prior to joining Informa Economics, he spent over 20 years in the feed industry in several positions including North American manager of agricultural products, director of purchasing, product manager, and area sales manager. He also served twice as chairman of the purchasing committee for the American Feed Industry Association. Mr. Eustice majored in dairy science and agricultural journalism at the University of Wisconsin-Madison.

Bradley C. Anderson, Senior Vice President. Mr. Anderson is a co-executive of Informa’s Crops Group and is primarily responsible for oilseeds, protein and vegetable oil research. Mr. Anderson has served as Informa's feed grain analyst and the research coordinator of data and technology. Prior to joining the company, he was a feed grain analyst in USDA's Agricultural Stabilization and Conservation Service. He also served as legislative assistant to US Senator Rudy Boschwitz and US Representative Vin Weber, both of Minnesota. Mr. Anderson received his bachelor's degree in agronomy from North Dakota State University and his master's in agricultural economics from the University of Minnesota.

Scott A. Richman, Senior Vice President. With Informa Economics since 1991, Mr. Richman is the leader of Informa’s Commercial Consulting. Among Mr. Richman's responsibilities for services to commercial clients, he directly manages the ethanol and biotechnology consulting practice areas. Mr. Richman has extensive experience conducting financial feasibility studies, preparing business plans, directing economic impact studies, constructing market forecasts and advising companies on the positioning of products within specialized markets. In addition to work throughout the United States and Canada, he has participated in consulting projects in Western Europe and Poland. Mr. Richman was selected to serve on the panel developing the North America and Europe assessment for the International Assessment of Agricultural Science and Technology for Development (IAASTD), an intergovernmental effort cosponsored by the World Bank and other international institutions. He received his bachelor's degree in economics from Vanderbilt University and his master's degree in international affairs at Columbia University, where he specialized in international business and was an Honorary International Fellow.
Global Vegetable Oil & Biodiesel Feedstocks: New Challenges Ahead

Chuck G. Penner, Market Analyst. Mr. Penner works in the Winnipeg office of Informa Economics and is primarily responsible for project consulting and market analysis within the Canadian grains, oilseeds and special crops sectors. Prior to joining Informa Economics, Mr. Penner was the director of marketing strategy with Blacksheep Strategy Inc. where he undertook major brand and strategic planning initiatives with numerous clients. Prior to Blacksheep, Mr. Penner spent 15 years with Agricore United (previously United Grain Growers) where he held numerous roles in grain marketing, marketing research, sales and marketing and web strategy. Mr. Penner has an agribusiness diploma and a bachelor’s degree in agricultural economics from the University of Manitoba.

Mark D. Jekanowski, Senior Vice President. Dr. Jekanowski is co-executive of Informa’s Washington, D.C., office and is primarily responsible for economic analyses and agricultural policy research. Prior to joining the company, Dr. Jekanowski was an agricultural economist in the Food Markets Branch of USDA’s Economic Research Service where his research focused on the changing structure of the food manufacturing and retailing industries as well as trends in consumer demand. Dr. Jekanowski was raised on a family owned tobacco and vegetable farm in Massachusetts. He received his bachelor's degree in resource economics from the University of Massachusetts at Amherst and his master’s and doctorate degrees in agricultural economics from Purdue University.

Pierre P. Ganiere, Senior Consultant. Mr. Ganiere’s primary responsibilities with Informa Economics, Inc. include research and analyses for international and domestic consulting clients. He has experience in a number of domestic and international projects involving market assessment, financial, economic and competitive analyses studies. Most recently, Mr. Ganiere primarily has been involved in projects dealing with the renewable fuels, livestock and food industries. Mr. Ganiere received a master’s degree in agribusiness and food science from the Institut National Supérieur de Formation Agroalimentaire, an agri-food engineering school located in France, and a master’s degree in agricultural, environmental and development economics from The Ohio State University. Mr. Ganiere also is familiar with survey design and consumer behavior-related analyses. He is fluent in French.

J. Alan Barrett, Senior Consultant. Mr. Barrett’s primary responsibilities have been futures and cash market commodity projects, including feasibility studies of soybean crushing plants, grain elevators, flour mills and other processing facilities. Mr. Barrett also has directed the company’s review of crop insurance policies administered by USDA’s Risk Management Agency. Commodity analysis work has included studies of various fruit and vegetable markets and technologies that impact these markets. He also has considerable experience in conducting industry analysis efforts including studies in the areas of fertilizers and micronutrients. Mr. Barrett came to the company from Refco, Inc., one of the world's largest futures commission merchants headquartered in Chicago with a branch office in Memphis, Tennessee, where he advised clients on futures markets. Prior to his work at Refco-Memphis, Mr. Barrett was sole owner and president of Prophet, Inc., a registered commodity trade advisor. He also was a principal in two corporations that assisted in cotton merchandising. In addition, Mr. Barrett worked for the Tennessee Extension Service where he developed new enterprise budgets for different cropping practices. Mr. Barrett received both his bachelor's and master's degrees in agricultural economics from the University of Tennessee.
Enrollment Confirmation

☐ Yes, I want to be a part of this special multi-client study, entitled: “Global Vegetable Oil and Biodiesel Feedstocks: New Challenges Ahead”

Please complete the form below and return to:
Via Fax: (901) 766-8158 or email to Juan.Sacoto@informaecon.com

☐ Please have someone contact me to provide further information

Name: _______________________________ E-mail _______________________________

Company: ___________________________ Title _________________________________

Address: _____________________________ City __________ State ___ Zip ______

Telephone: __________________________ Fax: _________________________________

Signature: __________________________________________________________________

Cost of the Study

☐ Client ($11,750) ☐ Non-Client ($14,750) ☐ First Edition Participant ($9,750)

Please feel free to contact us with questions

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