



Commissioning of Biomass Pellet Manufacturing Facility in Ghana

Dear Readers,

The New Year of 2015 brought with it many reasons to celebrate

The first step in this direction came with the fulfilment of a long awaited dream, which was realized with the commissioning of our state-of-the-art pellet manufacturing facility in Ghana.

Ghana, and Africa as a whole, stand to gain significantly from harnessing their abundant forestry and agricultural waste for power and heat generation.

With our Ghana manufacturing facility now in place, and the response we are getting at trial stage for our pellets and pellet based equipment model, we are confident that this technology would rapidly become the alternative of choice for anyone seeking an abundantly available, economically viable, environmentally beneficial, and user friendly cooking/heating solutions.

We take this opportunity to thank all our readers and well-wishers. Your belief and support continue to feed our confidence in our vision and model, and strengthen our resolve to do work that helps make the world more sustainable, promotes healthier and greener lifestyles, and protects and nurtures the environment and our planet.

HIGHLIGHTS



Abellon @ Khadhya Khorak 2015

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Abellon @ Khadhya Khorak 2015



Abellon EcoEquipments participated in Khadhya Khorak 2015 - one of the premier food machinery sector trade shows in India, which was held at University ground, Ahmedabad, from 5th to 8th Jan 2015. Having more than 135 exhibitors, the exhibition showcased a vast range of food processing equipments, ayurvedic products, beverages, sweets and ice-creams, herbal products, edible flavors, refrigeration units, and others.

Covering an area of 36 sq.mts., Abellon's stand displayed a range of heating solutions including Continuous Feeding Stove, Continuous Feeding Stove with Attachment, Smart, Turbo and Green Burner, which were highly appreciated by visitors. The stand had 800+visitors over the four day event, helping to generate significant leads.

Abellon was awarded with a 'Star Participant Memento' by the event organizer, and our participation was also covered by a leading news channel.



Abellon @ Flower Show 2015

Abellon participated in the Ahmedabad flower show 2015, organized by Ahmedabad Municipal Corporation from 6th to 9th January at Sabarmati Riverfront. The exhibition was inaugurated by state Chief Minister Anandiben Patel who was joined by Minister Shankarbhai Chaudhary and city Mayor Minakshiben Patel. Covering a 65000 square meter area, the exhibition had more than 750 varieties of seasonal flowers, garden plants, trees, vegetables bonsai, cactus, palms varieties more than 3.5 lakh plants.

The company displayed its range of organic plants and soil nutrition products, including Guarden Angel and Mr. Prontos. The exhibition was a perfect platform to promote our products on a mass scale.

Abellon @ Vibrant Gujarat 2015

Abellon Agrisciences participated in the Vibrant Gujarat exhibition hosted by Government of Gujarat as part of the VGGIS 2015, in Gandhinagar from 11th to 13th January'15. The company exhibited its range of organic fertilizers, plant and soil nutrition products made for urban gardening, and agricultural R&D initiatives such as tissue culture, receiving very encouraging response from both delegates as well as other visitors.



Abellon @Aahar Exhibition 2015

Abellon EcoEquipments participated in Aahar International Food & Hospitality Fair 2015 - the largest fair for the Food & Hospitality Sector in India.

Held at Pragati Maidan, New Delhi from 10th and 14th March'15, the fair covered two separate but concurrent exhibitions: "Hospitality India" covering Hotel & Restaurant Equipment and Supplies and "Food India" covering Foods, Processed Foods, Food Processing & Beverages.

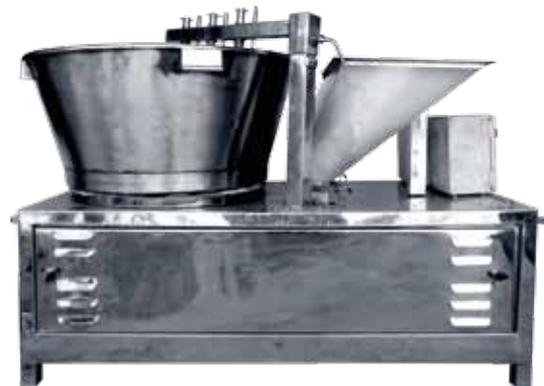
Abellon displayed its' range of biomass based cookstoves including CFS, CFA, Mawa machine – our recently launched stove exclusively for Mawa Preparations, and Smart. With a footfall of over 600 people, the company could successfully generate many valuable leads too.



Launch of Mawa Machine

With its continuous efforts to be leader in bioenergy sector and proving eco-friendly and cost effective solutions, Abellon EcoEquipments expands its product portfolio by launching one more product – "Mawa machine". The mawa machine is exclusively designed for large scale applications such as Mawa/Khoya making, Basudi making, Milk Boiling.

The machine has capacity to boil 18ltrs of milk.



Commissioning of Biomass Pellet Manufacturing Facility in Ghana

We are pleased to announce the successful commissioning of our biomass pellet manufacturing facility in Kumasi, Ghana. A state-of-the-art facility equipped with technology from world leaders, it is designed to produce high quality pellets, generating value out of waste from the abundant residue, which is an output of Ghana's thriving timber industry. The pellets from this facility would find a market both within Ghana and Africa as well as globally, helping to meet the need for a clean, cost-effective, carbon neutral fuel in the commercial, industrial and residential segments.



Abellon Invited to 22nd National Symposium on Catalysis

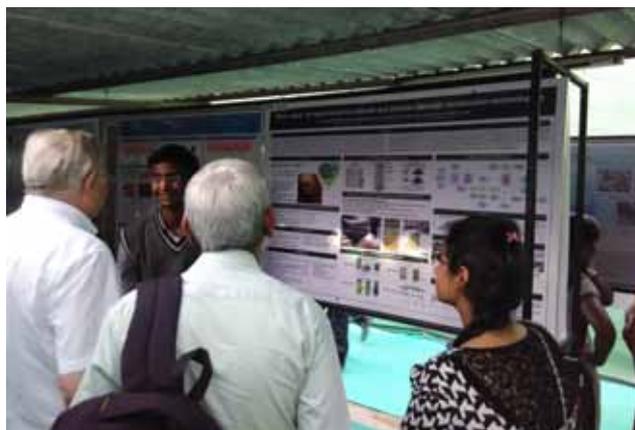
A National Symposium on Catalysis was organized at CSIR-Central Salt and Marine Chemical Research Institute (CSMCR), Bhavnagar during 7-9 January, 2015. The scope of this symposium was to emphasize the importance of catalysis for humanity by producing sustainable energy, making our living environment cleaner, making materials with lower energy cost and decreased carbon footprint quotient through diverse means.

The symposium covered a broad spectrum of topics encompassing homogeneous catalysis, heterogeneous catalysis, photocatalysis, electrocatalysis, organocatalysis and

biocatalysis.

Abellon was invited to speak on "Catalysis for biomass refining into chemicals and fuels". Our R&D Head represented Abellon and delivered a talk on "U.S.-India consortium for development of sustainable advanced lignocellulosic biofuel systems," focusing on the sustainable approach for biofuel production and policies involved in the process.

Apart from this, a poster presentation session was also organized to encourage budding scientists and students. One of our team members who is a research student presented a poster titled "Micro algae: An opportunity to cultivate and process through combination technologies" to highlight algae research carried out at Abellon.



Poster Presentation by Abellon R&D Team

Gujarat Science City and Gujarat Science Academy organized the XXIX Gujarat Science Congress at Science City Campus, Ahmedabad on 28th February and 1st March, 2015 to celebrate National Science Day.

The two day science congress titled "Scoping Future Challenges for Research and Education in Science and Technology" consisted of plenary lectures, invited talks, award lectures, parallel sessions for research paper presentation and poster presentation. Three members from our R&D team participated in the poster presentation session and presented posters titled

"Barriers for lignocellulosic biofuel production in India: an assessment to support feedstock production through marginal



ecology" discussing the findings of baseline survey carried out in US-India JCERDC-SALBS project.

"Computational sustainability: Preliminary lessons from the U.S.-India consortium for development of sustainable advanced biofuel production systems" discussing the computational models that can be used for LCA study supply chain management for US-India JCERDC-SALBS project.

"Bambusa balcooa salt and drought tolerance capacity measured by antioxidant cascade mechanism for its application in marginal land reclamation and carbon sequestration" describing the work done under high density biomass feedstock development for biofuel production of the US-India JCERDC-SALBS project.

A Student Visit from Technical University of Berlin to Abellon

BMZ-BIZ Funded Intercropping Research Project

A student from Technical University of Berlin, Germany visited Abellon for about a month in connection with the project titled "Intercropping of Banana and sweet sorghum in marginal lands of Gujarat, India to demonstrate socioeconomic and environmental benefits" which is a project supported under the "Small Grants for International Agricultural Research, Federal Ministry for Economic Cooperation and Development (BMZ) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH". The project is a collaborative effort between



ICRISAT-India, Abellon CleanEnergy-India and Technical University of Berlin-Germany.

As a part of the project, the student conducted interviews of farmers covering 4 villages in the region for assessment of socio-economic benefits of intercropping of Banana and sweet sorghum.

A farmers' meeting was organised at 2 villages to share the findings in terms of the agricultural, economic and social status of farmers. Dr. B.N. Satodiya, Horticulture department, Anand Agriculture University (AAU) and Dr. H. P. Parmar, Research Scientist, Forage Crops, AAU were also invited as agricultural experts to discuss the benefits of intercropping.



Collaborative Research Centre (CRC) Project

During his stay in Ahmedabad, the student from German Technical University also carried out a sustainability case study of Abellon's 9.9 MW bio-power plant.

The case study focused on multi-perspective modeling of the bio-power plant, value creation by interviewing managers, introduction into integrated enterprise modeling (IUM)



including the compilation of basic information about the company's objectives and organizational structure, compilation of management, sales, development, procurement and production processes through interviews with managers and takeholders along the value creation chain linking operational, strategic and tactic indicators with objectives of the functional team.



AGCL 2015



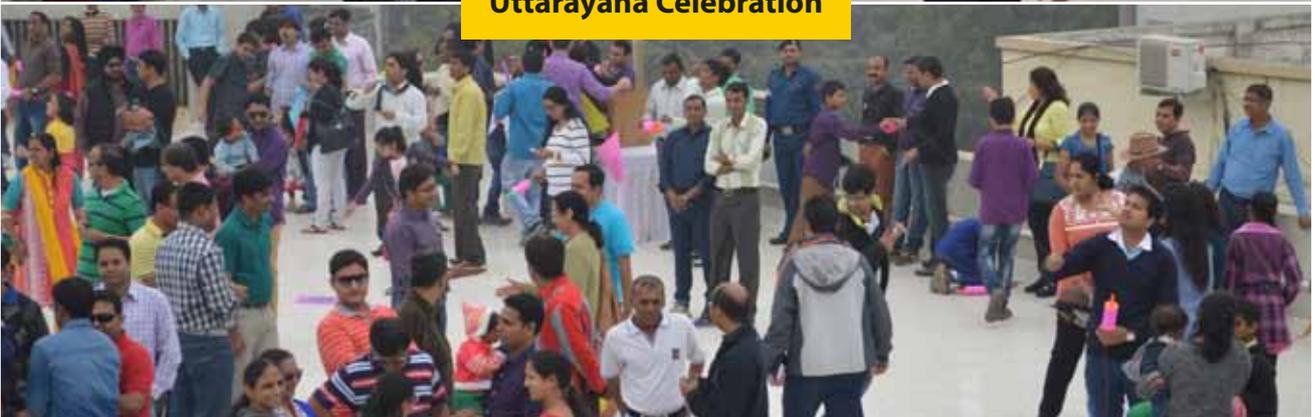
Engagement Events



Holi Celebration



Uttarayana Celebration

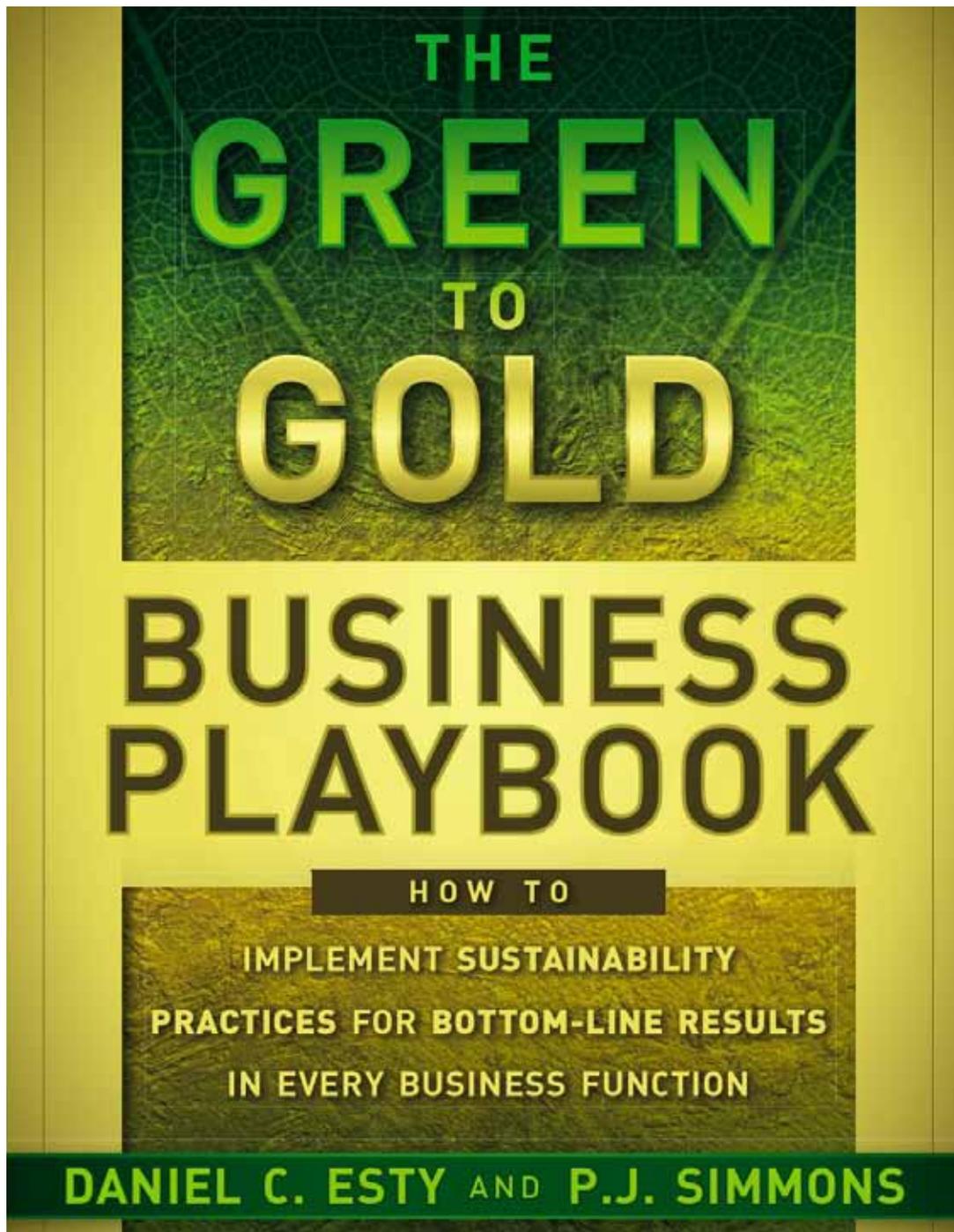


Green to Gold: How Smart Companies Use Environmental Strategy to Innovate, Create Value, and Build Competitive Advantage, by Daniel Esty and Andrew Winston

Based on the authors' years of experience and hundreds of interviews with corporate leaders around the world, *Green to Gold* shows how companies generate lasting value, cutting costs, reducing risk, increasing revenues, and creating strong brands, by building environmental thinking into their business strategies.

Daniel C. Esty and Andrew S. Winston provide clear how-to advice and concrete examples from companies like BP, Toyota, IKEA, GE, and Nike that are achieving both environmental and business success. The authors show how these cutting-edge companies are establishing an "eco-advantage" in the marketplace as traditional elements of competitive differentiation fade in importance. Esty and Winston not only highlight successful strategies but also make plain what does not work by describing why environmental initiatives sometimes fail despite the best intentions.

Green to Gold is written for executives at every level and for businesses of all kinds and sizes. Esty and Winston guide leaders through a complex new world of resource shortfalls, regulatory restrictions, and growing pressure from customers and other stakeholders to strive for sustainability.



Spoiled - Movie by Mark Mathis

SpOILed is a 2011 documentary film about energy myths, environmental issues with energy, the problems with alternative energy, and the global warming controversy associated with energy. Spoiled also discusses wind energy, solar energy, fossil fuels, green energy, alternative energy, and sustainable energy as a part of its renewable energy documentary scope..

Spoiled begins investigating energy myths by asking if people today believe we are "addicted" to oil and if oil is destroying our lives the way other addictions do. The energy movie documentary explores human relationship to oil addiction, and reveals a pattern of misinformation, disinformation, and deception about energy myths. The renewable energy documentary investigates what is likely to be the greatest challenge ever faced by humanity; that of trying to run the modern world on less oil addiction.

