



**International Efforts to Bring Sustainability to Feedstock and
Biofuels:
Imperium's Experiences**

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In case you don't know... Imperium Renewable Inc.

Biodiesel Production:

- Gray's Harbor (IGH), largest single-line biodiesel production plant in the world (continuous flow process) at 100 million gallons per year (MMGY)
- Seattle Biodiesel, testing and research facility (batch process) capable of 5 MMGY
- Deepwater port access
- Multifeedstock capability
- ASTM & EN spec

Research:

- Next-generation feedstocks: algae & jatropha
- Catalytic & process technologies
- Jetfuel



Imperium's Current Active memberships:

- 1. Roundtable on Sustainable Palm Oil (RSPO)**
- 2. Roundtable on Sustainable Biofuels (RSB)**

Imperium is in the process of obtaining Observer status in the Roundtable on Responsible Soy (RTRS)

Imperium's Considerations for Participation

It is our firm belief that although there are many worthy organizations trying to work towards making a difference in the way we produce biofuels and the feedstock on which it is based, it is vital that companies are selective, responsible, and realistic in their decisions to participate in different efforts.

Companies must consider:

1. The strength of the organization and their ability to actually effect change.
2. The founding members and principles on which the organization is based. There are plenty of organizations out there which are nothing more than the mouthpiece of the concerned industry.
3. The company's ability to actually make meaningful contributions to the organization. Is participation in the organization feasible and will it actually further the sustainability goals of the company?

The Roundtable on Sustainable Palm Oil

Organized in 2002 and in 2004, the Roundtable on Sustainable Palm Oil (RSPO), was formally established under Article 60 of the Swiss Civil Code with a governance structure that ensures fair representation of all stakeholders throughout the entire supply chain. The seat of the association is in Zurich, Switzerland, while the secretariat is currently based in Kuala Lumpur.

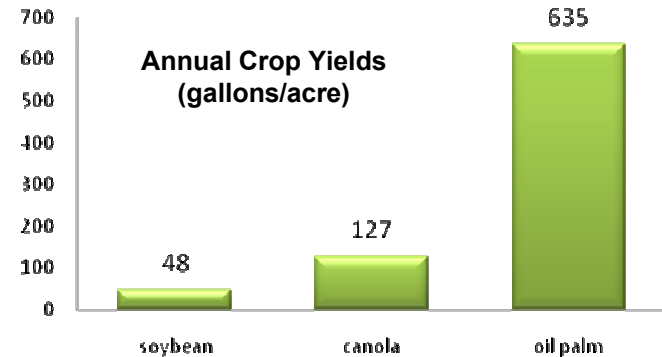
Founding members included major players throughout the palm oil supply chain as well as international environmental and social NGO's such as the WWF (formerly known as the World Wildlife Fund), Golden Hope Plantations, Unilever, Sainbury's, Migros, the Malaysian Palm Oil Association, and Aarhus United.

Players in the Sustainable Palm Oil Supply Chain



SUSTAINABILITY: Feedstock & the RSPO

- Oil palm is the most efficient feedstock grown today.
 - Palm oil accounts for 31% of total vegetable oil production...
 - ...but only 4.5% of the total planted area of vegetable oil crops
- Roundtable on Sustainable Palm Oil (RSPO) principle tasks:
 - Undertake practical projects designed to facilitate implementation of sustainable best practices;
 - Develop solutions to practical problems related to the adoption and verification of best practices for plantation establishment and management, procurement, trade and logistics;
 - Communicate the Roundtable's work to all stakeholders and to a broader public.



RSPO Most Recent Developments

RT5 - the 5th Roundtable gathering - was held in November of 2007 (always on Thanksgiving Day!)

After having finalized the Principles and Criteria which would define sustainable palm oil development at RT3, the process of bringing a method of auditing and certification by accredited bodies was to be decided at RT4 in 2006. At the last minute this process fell apart leaving the continued validity of the RSPO in question.

Fortunately during 2007, the multi-stakeholder committee tasked with providing the framework of a certification system was able to work through their differences and bring forward an agreed upon plan that was officially instituted at RT5.

Through the RSPO's collaborative efforts there is now a method apply metrics to sustainability principles in relation to the growth of palm oil and have independent, fully accredited organizations perform audits based on the principles and criteria. In 2008 we will see the first CSPO (Certified Sustainable Palm Oil) on the market.

The next challenges the RSPO must confront involve the tracking of the CSPO through the entire supply chain.

Current methods being evaluated and tested are:

1. Complete Segregation
2. Mass Balance Approach
3. Book and Trade System

More to come at RT6!

Roundtable on Sustainable Biofuels

The Roundtable on Sustainable Biofuels (RSB) is a key multi-stakeholder initiative to develop standards for the sustainability of biofuels. The Roundtable is an initiative of the Swiss EPFL (École Polytechnique Fédérale de Lausanne) Energy Center.

First Stakeholder meeting held in Lausanne, Switzerland, in November 2006.

Different approach to the process.

1. Completely open to all participants. No fees or application requirements.
2. Majority of work is done via conference calls and, more importantly, through a the BioenergyWiki (<http://www.bioenergywiki.net>)
3. Face to face meetings in different regions of the world are being organized as well.

The organization has a secretariat, a steering group, and four working groups:

1. GHG – Greenhouse Gas and Lifecycle Efficiency Analysis
2. ENV – Environmental Impacts
3. SOC – Social Impacts
4. IMP - Implementation

Roundtable on Sustainable Biofuels

The initiative is based on the following standards:

Simple - The standards should be accessible by small producers, inexpensive to measure, and easy to explain.

Generic - The standards should be applicable to any crop in any country, and allow comparisons across crops and production systems.

Adaptable - The standards should be easy to revise to take into account new technologies and their impacts on relative performance of different biofuels.

Efficient - EPFL aims to incorporate other standards and certifications to eliminate duplicative reporting and reduce inspection burdens on producers and processors.

The organizers state that "All standards development work will be done in an open and transparent way, with ample comment periods according to the ISEAL code of good practice.

Roundtable on Sustainable Biofuels

Currently working on the 2nd draft of the Global Principles for Sustainable Biofuels Production.

Get online and give them your input! Go to:

http://www.bioenergywiki.net/index.php/Current_Version_of_Principles_2nd_round

Imperium is an active member of the Implementation Working Group. Our group's goal is to take the information and recommendations that come out of the other three groups. The Implementation Working Group will then put forward recommendations and systems on how corporations and other entities can realistically implement and abide by the RSB's standards.

Roundtable on Responsible Soy

The goal of the Roundtable on Responsible Soy Association (RTRS) is to set up a multistakeholder and participatory process that promotes economically viable, socially equitable and environmentally sustainable production, processing and trading of soy.

Established as a civil association under Swiss law in November of 2007. Starting to see a pattern, it's all Swiss law, and they all occur in November!

Principles and standards are being developed as we speak. Great time to track the progress.

Imperium has decided to join as an observing member for the time being. Two fold decision:

1. Adequate time and resources to participate
2. Concern over the true goals of the organization
 - a. WWF is onboard now, and all indications are it is heading in the right direction
 - b. No buy in from N. America. Everything is centered around S. America.

Websites

1. Imperium Renewables: www.imperiumrenewables.com
2. Roundtable on Sustainable Palm Oil (RSPO): www.rspo.org
3. Roundtable on Sustainable Biofuels (RSB):
[www.bioenergywiki.net/index.php/Roundtable on Sustainable Biofuels](http://www.bioenergywiki.net/index.php/Roundtable_on_Sustainable_Biofuels)
4. BioenergyWiki: www.bioenergywiki.net
5. Roundtable on Responsible Soy (RTRS): www.responsiblesoy.org

Thank you!

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