

Sustainable Sourcing in Food: Palm Oil

Food Valley Innovation Insights



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Palm oil is an essential ingredient in a wide variety of food products but current production methods have negative impacts upon people and the planet. Given today's rapidly increasing demand for vegetable oils it is time for sustainable sourcing.

How to move sustainable palm oil from niche to mainstream? This was the key issue at the open innovation seminar *Palm Oil: Sustainable Sourcing* held 10 February 2011 in Zeist, the Netherlands. The event was organized by Food Valley, in close collaboration with Sime Darby Unimills, and hosted by the World Wide Fund for Nature (WWF).

In this publication you will find the seminar highlights: the importance of and guidelines for sustainable palm oil production, and best practices of emerging leaders. Representatives of a palm oil supplier, an ingredient supplier, a food manufacturer and a retailer explain how they convinced their supply chain partners that sustainable palm oil is possible and essential, and how they connect supply and demand.

We hope this publication inspires you to take the necessary steps towards sustainable sourcing. As one of the leading companies puts it: "We can only win this race together."

Roger van Hoesel
Managing Director Food Valley



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Why Sustainable Sourcing?

Palm oil is a popular ingredient in a wide variety of consumer products, offering excellent quality and low cost. However, production of palm oil has serious negative effects on both people and the planet if not conducted responsibly. Individual players in the supply chain must take immediate action to take sustainable palm oil from niche to mainstream, say Sandra Mulder of the World Wide Fund for Nature (WWF) and Frans Claassen of the Dutch Product Board Margarine, Fats and Oils (MVO).

“Palm oil, after rapeseed oil, is the most commonly-used vegetable oil in the world”, says Frans Claassen, Director of the Dutch Product Board MVO and member of the Dutch Task Force Sustainable Palm Oil. It can be found in a wide range of products, including dairy, bakery products and snacks, soap, cosmetics, animal feed and biodiesel. “Palm trees are an efficient crop. Breeding is easy, inexpensive and results in a high yield per hectare: 4-6 times higher than rapeseed”, Claassen explains. “Moreover, palm oil has exceptional functional properties. It has high oxidative stability and can replace trans fatty acids and animal fats in, for example, dairy and bakery products.”

Rainforest at Stake

There is, however, a downside to this success story. “Palm oil is not the problem - it is the production of palm oil”, says Sandra Mulder, Advisor Palm Oil and Soy at the WWF. “Palm oil plantations are significant contributors to rainforest destruction, according to a 2007 United Nations Environment Programme (UNEP) report. They lead to forest conversion, soil, water and air pollution, biodiversity loss and climate change.”

At present, the problem is concentrated in Malaysia and Indonesia, which account for almost 90% of global palm oil production. “We see Malaysian planters expanding aggressively in Indonesia, but there

is a significant threat of forest conversion for palm oil production in Latin America and Africa as well”, says Mulder.

Growing Demand

The production of palm oil has increased tenfold in the last 20 years and is expected to rise by another 25% over the next decade to meet the growing demand. World population is increasing, and so is prosperity – and thereby consumption – especially in densely-populated countries, such as China and India. “The Food and Agricultural Organisation (FAO) estimates that by 2050 the global population will exceed 9 billion people. If we do not move towards sustainable sourcing and production

our ecological footprint will be the size of 3 planets”, says Mulder.

The Round Table for Sustainable Palm Oil (RSPO) has been established to arrest development of this scenario. Founded in 2004 on the initiative of the WWF and six multinational companies, this multi-stakeholder platform has defined specific environmental and social principles and criteria for responsible palm oil production. These include commitment to long-term economic and financial viability, conservation of natural resources and biodiversity, maintenance and improvement of soil fertility and integrated pest management. The RSPO has around 500 members, including representatives of palm oil suppliers and buyers

who present annual action plans and review progress and results.

In cases where 100% segregated RSPO certified palm oil cannot be used, companies can implement combinations of sustainably and conventionally produced palm oil. More information on the RSPO approach can be found in the next chapter *Guidelines for Sustainable Production of Palm Oil*.

Current Knowledge

The RSPO guidelines reflect current knowledge, Mulder stresses: “We continuously improve the effectiveness of our platform and its standards. For example, we are now discussing how we can integrate greenhouse gas criteria into the existing framework.



In addition, work is in progress to get smallholders better equipped to participate, and the RSPO is reviewing the procedure for 'New Plantings' which is one of the WWF's crucial criteria."

Sustainable production of palm oil is growing rapidly, but still accounts for less than 10% of total palm oil production. In the short term this is creating bottlenecks in sustainable palm oil supply to processors and manufacturers. "This issue will be solved as soon as the supply chains are sufficiently filled with sustainable palm oil", says Claassen. "In the meantime companies have the opportunity to use combinations of supply chain options.

Fees paid for RSPO certified palm oil go to both small and large scale palm oil producers, rewarding their efforts to produce sustainably. "In this way, companies contribute to sustainable sourcing and make clear to their customers just how seriously they take this topic", says the Dutch Product Board MVO Director.

Task Force Sustainable Palm Oil

The message of Mulder and Claassen is clear: sustainable palm oil should move from niche use to a mainstream position and there is no time to waste. "The WWF strategy is to persuade market players to adopt sustainable procurement practices and adopt RSPO criteria. We also support the increase of certified and sustainable production in our field programs in,

for instance, Indonesia, and influence investors to finance the sector responsibly", says Mulder.

The goal of the Product Board MVO and the Taskforce Sustainable Palm Oil, set for the end of 2015, is for all palm oil used in the Netherlands to be sustainably sourced. "We want to inspire companies and support them in the certification process", says Claassen.

Big Elephant

According to Claassen, sustainable sourcing is like a big elephant that has to be pushed in a particular direction. "We're moving in the right direction but there is still much room for improvement. Only if all parties in

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Palm oil has exceptional functional properties. It has high oxidative stability and can replace trans fatty acids and animal fats.

the value chain accept responsibility can we raise worldwide sustainability standards. My advice to suppliers, manufacturers and retailers in the chain is: "Buy well and tell."

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We continuously improve the effectiveness of our platform and its standards.

Facts & Figures

- Palm oil and palm kernel oil are derived from palm trees. Palm oil is extracted from the fruit and palm kernel oil comes from the seed.
- Palm oil is naturally orange in colour due to its high beta-carotene content.
- Average yield per hectare: 4 tons per hectare (rape seed 0.6 tons per hectare; sunflower 0.4 tons per hectare; soy bean 0.4 tons per hectare).
- Palm oil has a high concentration of saturated fats compared to other vegetable oils.
- Palm oil is the second most consumed vegetable oil in the world after rapeseed oil.
- Annual production increased tenfold from 1989 to 2009 when production reached a level of 46.6 million tons. About 10% is imported by the European Union of which 4% comes into the Netherlands.
- Almost 90% of oil palm plantations are in Malaysia and Indonesia. The remainder are in West Africa, Latin America and other Asian countries.

- The palm oil supply chain is complex. It has a limited number of oil palm producers, many trading companies and an even higher number of (mainly small) farmers and producers.
- In 2008, the first palm oil producer was awarded RSPO certification.
- In 2010, 7.5% of overall palm oil production was RSPO certified.

Sources:

Dutch Product Board MVO; WWF; Dutch Taskforce Sustainable Palm Oil.



Guidelines for Sustainable Production of Palm Oil

Oil processors, ingredient suppliers, manufacturers and retailers, wishing to source sustainably, can purchase palm oil certified by the Roundtable on Sustainable Palm Oil (RSPO). How does this work in practice?

The Roundtable on Sustainable Palm Oil (RSPO) was established in 2004 to promote the growth and use of sustainable oil palm products through credible global standards and the engagement of stakeholders. The platform unites stakeholders from the palm oil industry in the development and implementation of global standards for sustainable palm oil. The current membership of 550 includes oil palm producers, palm oil processors and traders, consumer goods manufacturers, retailers, banks and investors and NGOs.

Eight Criteria

Recently the RSPO published eight principles and criteria for sustainable palm oil sourcing; these have become the only globally-accepted guidelines

for producing palm oil sustainably. No claims relating to sustainable palm oil production can be made without RSPO-approved third party inspection. In the summer of 2011, the RSPO will launch a trademark for on-pack communication, identifying products that meet its criteria. The RSPO criteria cover sustainable production, but the organisation has also developed guidelines for tracking palm oil in the whole supply chain, from palm plantations through manufacturing to transport.

Sustainable production addresses principles such as commitment to transparency; compliance with applicable local, national and ratified international laws and regulations; environmental responsibility;

conservation of natural resources and biodiversity (See text box at page 17 for detailed information).

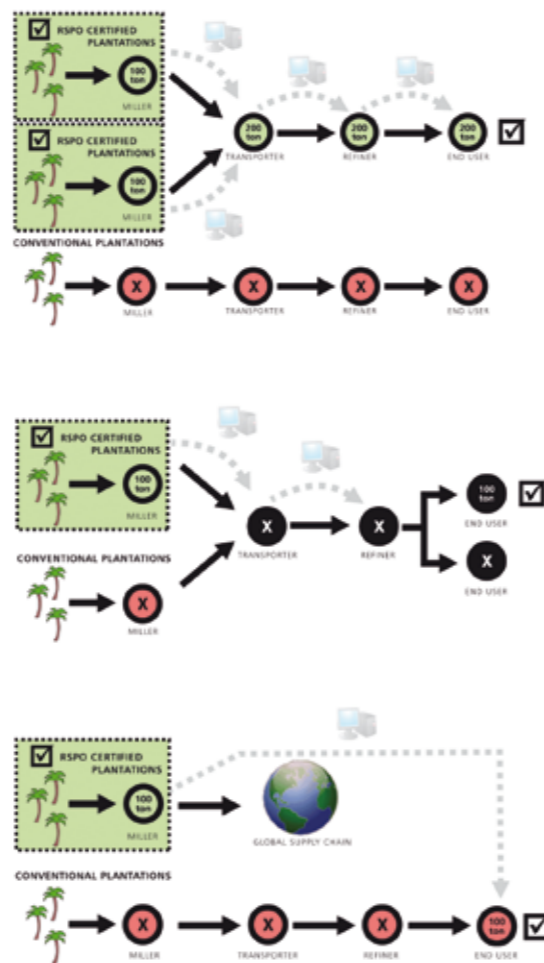
Three Supply Systems

Oil processors, ingredient suppliers, manufacturers and retailers can purchase palm oil and palm oil derivatives, certified by the RSPO, through three supply chain systems (See picture page 16). The three systems ensure that market claims about the production and use of sustainable palm oil remain transparent and accurate (www.rspo.eu/market).

In the *Segregation* system, certified palm oil is kept apart from all other oils throughout the supply chain. The *Mass Balance* system mixes certified

palm oil with conventional palm oil and monitors these processes administratively. *Book and Claim* (GreenPalm), the least strict system, allows suppliers to sell GreenPalm Certificates to users and the claimed volumes are matched retroactively.

Each of these systems comes with its own advantages and requirements. The *Segregation* system, for example, is attractive to companies wanting to claim the presence of pure RSPO certified palm oil, but is the most expensive. It is no surprise that *Book and Claim* has the lowest costs. If a company wants to be seen as being proactive in the development of a sustainable palm oil market, the *Segregation* and *Mass Balance* options are for them.



From top to bottom:
 1 Segregation system
 2 Mass Balance system
 3 Book and Claim system
 Source: www.rspo.org

RSPO Guidelines Listed

The RSPO has published 8 criteria for sustainable palm oil sourcing:

- 1 Commitment to transparency in order to allow stakeholders to participate in decision making on environmental, social and legal issues. Indicators include the accessibility of management documents, health and safety plans and pollution-prevention plans.
- 2 Compliance with applicable local, national and ratified international laws and regulations. Members must be able to provide evidence of issues such as compliance with relevant legal requirements, a documented system with written information on legal requirements, a mechanism for ensuring that they are implemented and a system for tracking any changes in the law.
- 3 Commitment to long-term economic and financial viability. Members should have an implemented management plan that aims to achieve long term economic and financial viability. Evidence of this will be a documented business or management plan (minimum 3 years) and an annual replanting programme, where applicable, projected for a minimum of 5 years and reviewed annually.
- 4 Use of appropriate best practices by growers and millers. This involves maintenance and improvement of soil fertility, integrated pest management, restricted use of agrochemicals, and the provision of safe working environments and training for staff, workers, smallholders and contractors.
- 5 Environmental responsibility and conservation of natural resources and biodiversity: conservation of 'high conservation-value habitats' and rare and threatened species; minimizing the negative impact of plantation and mill management; proper waste management and recycling; efficient energy use and reduction of greenhouse gases and other emissions.
- 6 Responsible consideration of employees and of individuals and communities affected by growers and mills. For instance, aspects of plantation and mill management,

management plan (minimum 3 years) and an annual replanting programme, where applicable, projected for a minimum of 5 years and reviewed annually.

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- 5 Environmental responsibility and conservation of natural resources and biodiversity: conservation of 'high conservation-value habitats' and rare and threatened species; minimizing the negative impact of plantation and mill management; proper waste management and recycling; efficient energy use and reduction of greenhouse gases and other emissions.
- 6 Responsible consideration of employees and of individuals and communities affected by growers and mills. For instance, aspects of plantation and mill management,

- 7 Responsible development of new plantings. For example, new plantings only take place after comprehensive and participatory independent social and environmental impact assessments. Plantings after 2005 do not replace primary forest and are not established on local peoples' land without their free, prior and informed consent.
- 8 Commitment to continuous improvement in key areas of activity. Growers and millers regularly monitor and review their activities and develop and implement action plans that allow demonstrable continuous improvement in key operations.

www.rspo.org



Pioneers: Challenges and Best Practices

Oil processors, food and ingredient manufacturers, and retailers play important roles in creating a sustainable palm oil supply chain. But how do you convince the value chain partners? And what do you do when the particular oil you need is not yet available in a sustainable version? Representatives of an oil processor, an ingredient supplier, a food manufacturer and a retailer share with you their best practices and their challenges.

The Oil Processor

Alexander van der Klauw: Managing Director, Sime Darby Unimills

We can only win this race together

“Sime Darby Unimills, a leading supplier of tailor-made vegetable oils for the European food industry, and its Malaysian parent company Sime Darby have been the pioneers in sustainable plantation management and palm oil sourcing for over 25 years. Sime Darby were the first to introduce the zero burning replanting technique, in 1985, which gained a United Nations Environment Programme (UNEP) Global 500 award. In addition, we are one of the founding members of the Roundtable on Sustainable Palm Oil (RSPO). We are committed to having all our Strategic Operating Units (SOUs) ready for RSPO certification by the end of 2011.

One hundred % certified sustainable palm oil already forms a significant part of our European refinery consumption. The pressure from the negative image of the industry and activists’ calls for sustainable sourcing presents us with a significant challenge. Although food processors and manufacturers are pushing for sustainable palm oil in products, there is, as yet, little demand from consumers. The vast majority are unaware that palm oil is a common ingredient in foods and non-foods. A more basic challenge, however, is to transform old, inherited ways of cultivation into modern, responsible agriculture practices.

Our continuous commitment to sustainable development reflects the shifting end game and we welcome and support initiatives to help us build a sustainable future, in particular communicating the importance of sustainable sourcing. To ensure total commitment to the sustainable option in the near future, producers, retailers, governments and consumers need to take the first step and switch to certified sustainable palm oil.

At Sime Darby Unimills we believe this is one contest we can only win together. Just like in a relay race, partners in the chain must define

their positions, move at the right speed and communicate well with each other, in order to achieve a perfect handover.”



The Ingredient Supplier

Jorrit de Bruin: Product Group Manager, Sonneveld Group

We've got our sector moving

"Monkey Sandwich (Broodje Aap) was the name of a symbolic bread, made in 2010, by Sonneveld together with Echte Bakker Visser (a Dutch Bakery) and the Dutch NGO, Monkey Business. This organisation focusses on protecting the habitat of the orang-utan by raising awareness among the Dutch people about who and what constitutes threats to the orang-utan and suggesting how people can take action. Companies changing to sustainably-sourced palm oil make a clear statement that they support the protection of highly-endangered species like the orang-utan.

The idea for the monkey sandwich came from the Monkey Business workshops on sustainable palm oil, where Sonneveld literally shared a table with other representatives in the bakery supply chain.

Monkey Business' aim was to make sustainable palm oil a priority for the Dutch food industry. We noticed that a number of producers were already seeking alternative raw materials, such as rapeseed, sunflower and soybean oils. This is, to a degree, counter-productive as palm oil offers not only the highest average yield but also has a unique food application functionality.

By working with Monkey Business we intend to accelerate our sector's move to sustainable palm oil production. In 2010 we became a member of RSPO and started compensating for our annual use of palm oil by purchasing GreenPalm certificates. Our aim is to use only traceable certified palm oil by 2013.

The main issue manufacturers are dealing with is how to communicate the importance of sustainable palm oil to their (business to business) customers. We believe that every business in the bakery chain must accept its own responsibility whether it be retailer, bakery or ingredients supplier.

The Monkey Business project has shown that it is not difficult to communicate a clear message. We prepared a key statement that we communicated to all our target groups: employees, suppliers, customers, ORKLA sister companies, and Nebafa and Fedima (federations of manufacturers and suppliers of ingredients to the bakery). They all use parts of our statement in their own communications. In this way, we have brought our sector closer to sustainable sourcing."

The Food Manufacturer

Anneke Assink: Category Group Procurement Manager, FrieslandCampina

Support of Higher Management

"FrieslandCampina wants to contribute to the rapid expansion of sustainable palm oil production and use in the world. We joined RSPO in 2007 and started implementing sustainable palm oil purchasing policies in 2010, in line with the ambitions of our sustainability strategy *Route 2020*. Our aim is to have all the palm (kernel) oil we use in our dairy and non-dairy applications – ranging from hydrogenated palm (kernel) oil to palm derivatives – replaced by sustainable alternatives. We want to establish this as soon as possible.

In 2010, our first food production plant (Kievit in Meppel, NL) was RSPO-Supply Chain Certification System (SCCS) certified and we started purchasing segregated palm oil for our production locations in Western Europe. In 2011, we will further roll out certification of relevant production facilities. We also started purchasing Mass Balance palm oil fractions and GreenPalm certificates for countries and products where the segregated product is not yet available.

Shifting to sustainable sourcing needs the support of higher management as it could increase costs. Their backing is fundamental to the global implementation of such a policy.

Furthermore, one needs to work with trusted suppliers who are open to change and believe in sustainability. Finally, internally in your company you need a multidisciplinary team, with representatives of purchasing, quality assurance, R&D and marketing, who can ensure swift, effective implementation.

We noticed that some oil suppliers do not consider sustainable palm oil to be a priority and that this lack of awareness is shared by customers.

This results in a situation where everyone is waiting for someone else to take the first step. We found that Asia has far fewer supply options compared to Europe and this makes the task in Asia more difficult. Another challenge is the management of our own supply chain: with so many production sites, products and suppliers, it takes time and good communication skills to implement changes.

In our opinion, companies should begin promoting and implementing sustainable palm oil, even though some supply options are still missing. It is the only way to convince the market that sustainable sourcing is a must-have.”

The Retailer

Hugo Byrnes: Director Product Integrity, Ahold

The key challenge is to connect supply with demand

“The supply chain is becoming more and more complex. To stay in control you need to understand the whole chain from farm to plate. Ahold is particularly concerned about the supply chain of its private label products, about 70% of our total product portfolio.

Asking suppliers to ensure their legal compliance is not enough in such a complex supply chain. Therefore we request that they provide us with certificates and audit reports, and they work according to Ahold’s *Standards of Engagement*. Our aim is

to source safe products, and to ensure our suppliers provide optimum working conditions and are environmentally responsible. We also want to balance international sourcing with buying locally to help communities develop.

Palm oil is one of the most critical commodities in our product portfolio and is present in a wide range of food and personal care products. Ahold joined the RSPO in 2007 and Ahold Netherlands was the first organisation to commit to introducing certified sustainable palm oil in its private label

products. All companies operating under the Ahold flag have followed the Dutch company's example.

The key challenge for us is to connect supply with demand. This requires a step-wise implementation of our new strategy. In April 2009 we sent a letter to our manufacturers asking them to buy palm oil from RSPO members only. As soon as certified sustainable palm oil becomes available all Ahold companies, including Albert Heijn and Etos, will use it in their private label products.

Sustainable palm oil should be fully implemented by 2015. We have asked all suppliers to submit their own implementation plans, including timing and key milestones. Until we reach 100% replacement, our palm oil usage will be offset by GreenPalm certificates."

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We want to balance international sourcing with buying locally to help communities develop.



From Niche to Mainstream

Major sustainability improvements in palm oil production can only be achieved if the whole supply chain is involved. A number of large suppliers, manufacturers and retailers from western countries have responded to this challenge. But how do we inspire smaller traders, purchasers and governments in the rest of the world to follow?

Sustainable palm oil production is growing rapidly yet still accounts for less than 10% of total global palm oil production. To maintain the growth momentum in sustainable palm oil production, demand must match or even exceed production. Until now, the majority of the demand for sustainably sourced oil has come from Europe. Companies are reluctant to invest in sustainable sourcing while their competitors do not. This leads to a stasis with every player in the supply chain waiting for someone else to make the first move.

Opportunity

Upscaling sustainable palm oil from its current small market share to a mainstream ingredient requires a mind shift in the supply chain. “Companies should consider sustainable sourcing as an opportunity for innovation rather than as a threat”, commented a delegate at the *Palm Oil: Sustainable Sourcing* seminar held 10 February 2011 in Zeist, the Netherlands. Sandra Mulder, Advisor Palm Oil and Soy at WWF, was more precise: “There are enough means available to take action. What is needed is the will to do so.”

Oil processors and the industry must engage with and develop responsible business partners, and connect moral obligations with long-term economical viability. Retailers have the power to define the price of sustainability, but they can choose for quality and sustainability rather than just the bottom line. “To improve the uptake of sustainable palm oil, retailers in particular have to act responsibly by listing sustainable products, rather than relying on informed consumer choice”, stressed Hugo Byrnes, Director Product Integrity at Ahold.

If the management has the will to create the necessary multidisciplinary project teams and take a step by step approach, companies of all sizes could adopt and implement targets in

sustainable sourcing. Successful initiatives by pioneers like Sime Darby Unimills, Sonneveld Group, Friesland-Campina and Ahold show what can be done. For example, Sonneveld’s *Monkey Sandwich* project shows consumers the effects of irresponsible palm oil sourcing and motivates them by providing funding to address the specific issues of destruction of local habitats.

“Companies should take the practical way. For example, if segregated palm oil is not available yet, simply move to a combination of segregation, GreenPalm certificates and/or Mass Balance options first”, stressed one of the participants. “It is important to get started in the transition process.

If everybody waits until the perfect solution is available the transition will take much longer.”

Guidance

It was suggested that, for the Netherlands, the Dutch Sustainable Palm Oil Task Force and the FNLI (Federation of Dutch Grocery and Food Industries) could offer member companies guidance in sustainable sourcing. This could, for example, be done by supporting them in establishing life cycle analyses and footprints, defining practical guidelines for purchasing policies and establishing milestones for sustainable palm oil sourcing in the sector.

These changes will need more than just the commitment of manu-

facturers: national governments and international organisations can play important roles in turning sustainable palm oil into a mainstream commodity. Financial subsidies and favourable trading conditions would stimulate companies to adopt sustainable sourcing. For example, the European Commission could set specific criteria for all palm oil entering the European Union, or agreements with producer governments to increase sustainability levels in their countries.

The Dutch government has reserved € 100 million to promote sustainable sourcing of palm oil, soy bean oil and other commodities over the next five years. Through national initiatives like the *Initiatief Duurzame Handel*

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There are enough means available to take action.
What is needed is the will to do so.

(Dutch Sustainable Trade Initiative, IDH) and by engaging producing countries in diplomatic discussions, it is raising the issue at the highest levels. However, it takes time to get things accomplished. “Local politics do not always produce immediate changes”, a representative of the Dutch government said.

The majority of seminar participants agree that governments, together with NGOs, are also responsible for communication to the consumer: explaining why sustainable palm oil is important, what criteria are used for sustainably sourcing of palm oil and how these criteria are chosen. In the short term, consumer opinion and consumer demand might not affect sustainability levels in the palm oil

supply chain, but they are crucial to a sustainable future.

Combine strengths

The message from the seminar is clear: investing in sourcing of sustainable palm oil by manufacturers, NGOs and governments makes real sense, but there is much room for improvement: “Doing the right thing is not rocket science, but we have to start now and take it step by step if we want to reach our goals by 2015.” As one of the participants put it: “There are many elephants on the road. Only if we combine strengths and start moving in the same direction we will be able to remove them.”

Websites

**Dutch Product Board for Margarine,
Fats and Oils (MVO)**

www.vettefeiten.nl/duurzaamheid

Dutch Taskforce Sustainable Palm Oil

www.taskforceduurzamepalmolie.nl

Food Valley

www.foodvalley.nl

Round Table on Sustainable Palm Oil

www.greenpalm.org

www.rspo.eu

www.rspo.org

Sime Darby Unimills

www.simedarbyplantation.com

www.unimills.com

www.yayasansimedarby.com

UN Environment Programme

www.unep.org

World Wide Fund for Nature

www.wnf.nl

www.wwf.org

Food Valley

Food Valley stimulates innovation in the Dutch agrifood sector by partnering knowledge with enterprise, based on the needs expressed by the business community.

We offer:

- Answers to questions from entrepreneurs
- Support for project development
- Assistance in establishing innovative food companies in the region
- Support for developing spin-offs and start-ups
- Opportunities for innovation through the Food Valley Society

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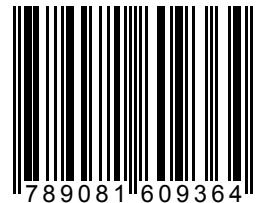
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