THE DUTCH OILS AND FATS INDUSTRY
AN INTERNATIONAL AND SUSTAINABLE CHAIN
WORKING TOGETHER

The companies in the Netherlands that form the chain for oils and fats:

- combine to represent one of the largest agrofood sectors in the Netherlands;
- operate in a highly international environment and have a leading position in Europe and the world;
- have invested heavily (€ 2 billion) in recent years in a strong competitive position;
- work together to give the Netherlands a strong economic position in the global oils and fats sector;
- work for sustainable growth with responsible production processes and products;
- do this together with partners in other sectors, with the government and with knowledge institutes;
- believe strongly in taking responsibility for societal problems and self-regulation.

In 2013 the margarine, oils and fats companies in the Netherlands took the initiative to establish MVO - Dutch oils and fats industry. MVO represents 95% of all trade in and production of oils and fats in the Netherlands. This publication has been realised in collaboration with Berenschot and the members and partners of MVO.

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All data represent 2013, unless otherwise stated.
A modern chain with a wide scope

All the links in the oils and fats chain, except for the growing of the crops, are located in the Netherlands. The chain includes importers, specialised storage and transshipment companies, crushing and refinery companies, animal fat companies, fat compounders, transport companies (road and inland waterways), food companies, feed businesses, the oleochemical industry, biofuel manufacturers, specialised service providers, surveyors, laboratories and knowledge institutes.

Key international players have one or more branches in the Netherlands. Together with its size, this scope and diversity ensure that the Dutch chain is unique in the world. The companies forming the chain employ more than five thousand staff. With their knowledge and expertise, they are the true force and character behind the chain. This is why the companies invest in the development and transfer of knowledge through e-learning, workshops and courses.
Every day, often without even being aware of it, we use products containing vegetable and animal oils and fats. Oils and fats play a key role in our daily life and our economy. This role will only increase in the near future due to the rising world population, increased prosperity and the increasing importance of a biobased economy. Vegetable and animal oils and fats are renewable resources.

Natural oils and fats have roughly four key applications. The first and most significant application is in our food. Oils and fats are an important basis for many products: from margarines, cooking products and frying oil to bakery products, chocolate, baby food, soup, sauces and ice cream. Oils and fats provide energy and are important for the taste, consistency, texture and shelf-life of foodstuff. But also, and above all, they provide our body with important nutrients through essential fatty acids and vitamins. Health authorities throughout the world, such as the WHO and the FAO and the Dutch Health Council, recommend that between 20 and 35% of our necessary daily calories consist of fats. Oils and fats are essential elements of our food.

In feed, too, oils and fats are an important component. Just as they do people, they provide animals with nutrients and energy and they ensure the taste and texture of the feed.

Approximately half the products sold in supermarkets contain oils or fats. In addition to foodstuff, they are also used in all kinds of consumer products that have nothing to do with food. Examples include cosmetics (skin care), shampoo, laundry and cleaning products, candles and paint. This application field is called the oleochemical industry.

Finally, oils and fats are increasingly being used as raw materials for the manufacture of biofuels (specifically biodiesel of biokerosene) and they thus offer an alternative to fossil fuels.

Oleochemicals are substances made from vegetable and animal oils and fats. They have diverse unique functional qualities and are an alternative to mineral oils. Renewable oils and fats are also increasingly being used for the manufacture of paints, varnishes, lubricants, glue, insulation materials and biodegradable plastics.
A LEADING POSITION IN EUROPE

The Netherlands has been strong in the processing of vegetable and animal oils and fats for many years. This is because of our geographic location, but also because of our agricultural background and our entrepreneurial spirit. As early as the Middle Ages there were many oil mills in the Netherlands and butchers melted animal fats. In 1871 the first margarine factory in the world was built in the Netherlands. Since then we have taken maximum advantage of the excellent logistic possibilities in the Netherlands. The major development of the Rotterdam and Amsterdam ports and the good connections with the European hinterland offered opportunities. The scope of the chain and the accumulated expertise is exceptional and valuable.

OILS AND FATS REACH THE VERY CAPILLARIES OF OUR SOCIETY AND OUR ECONOMY

The products of the OILS AND FATS CHAIN can be found in a wide range of (consumer and industrial) products and economic sectors. The Netherlands has played a key role in this exciting, diverse and growing economic sector for many years. Industry, trade and service providers form a powerful and professional chain. To maintain a good position within this capital and knowledge-intensive chain, companies invest in sustainable development, expertise and innovation and we work together well. In collaboration with chain parties, knowledge institutes, universities, government authorities and social organisations, we work for a sustainable and internationally competitive chain.
A GLOBAL PLAYER

The figures show the production volumes in the country of origin. The import figures are shown on page 12.

Global production of oil seeds, oils and fats

X 1,000 TONNES
The Dutch oils and fats industry is traditionally internationally oriented. Mainly soybeans, rapeseed and sunflower seeds and tropical oils (palm oil, coconut oil, and palm kernel oil) are processed. The crops are grown in different parts of the world depending on climatic conditions. Soybeans are grown primarily in North and South America, palm oil comes from Southeast Asia (especially Indonesia and Malaysia), sunflower seeds from Eastern and Southern Europe, and rapeseed comes mainly from the European Union, but also from Canada, China and Australia. Olive oil, linseed oil, peanut oil, rice oil, castor oil and sesame oil are also examples of oils that are processed and marketed in the Netherlands. Crude vegetable raw materials usually arrive by boat in Dutch ports as seeds or after initial processing in the country of origin. Given this global field, it is not surprising that our companies have a strong interest in an unrestricted import of raw materials to the European Union, the abolition of export duties and barriers, and trade liberalisation.

The second flow of raw materials is formed by animal fats. Slaughter by-products (mainly from Dutch abattoirs which slaughter, for example, cattle and poultry for human consumption) and imported fish oil (e.g. sardines or herring) are processed by rendering plants, refineries and fat compounders (for compound fats).

**Import into the Netherlands*  
X 1,000 TONNES**

<table>
<thead>
<tr>
<th>Raw Material</th>
<th>Tonnage (1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOYBEANS</td>
<td>3,628</td>
</tr>
<tr>
<td>SOY OIL</td>
<td>85</td>
</tr>
<tr>
<td>PALM OIL</td>
<td>2,834</td>
</tr>
<tr>
<td>RAPESEED</td>
<td>1,598</td>
</tr>
<tr>
<td>RAPESEED OIL</td>
<td>320</td>
</tr>
<tr>
<td>SUNFLOWER SEEDS</td>
<td>632</td>
</tr>
<tr>
<td>SUNFLOWER OIL</td>
<td>358</td>
</tr>
<tr>
<td>COCONUT OIL</td>
<td>411</td>
</tr>
<tr>
<td>PALM KERNEL OIL</td>
<td>181</td>
</tr>
<tr>
<td>OTHER OIL SEEDS</td>
<td>296</td>
</tr>
<tr>
<td>OTHER VEGETABLE OILS</td>
<td>249</td>
</tr>
<tr>
<td>ANIMAL FAT</td>
<td>317</td>
</tr>
<tr>
<td>USED COOKING OIL (UCO)</td>
<td>207</td>
</tr>
<tr>
<td>FISH OIL</td>
<td>19</td>
</tr>
<tr>
<td>OTHER</td>
<td>706</td>
</tr>
<tr>
<td><strong>TOTAL IMPORT VOLUME</strong></td>
<td><strong>11,756</strong></td>
</tr>
</tbody>
</table>

**DOMESTIC PRODUCTION**

<table>
<thead>
<tr>
<th>Raw Material</th>
<th>Tonnage (1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIL SEEDS</td>
<td>9</td>
</tr>
<tr>
<td>ANIMAL FAT</td>
<td>189</td>
</tr>
<tr>
<td><strong>TOTAL RAW MATERIALS</strong></td>
<td><strong>11,954</strong></td>
</tr>
</tbody>
</table>

*Transit is not included.
The Dutch oils and fats chain represents a production value of € 6.1 billion (2013) and is important for the Dutch economy. It is one of the largest agrofood sectors in the Netherlands. The Netherlands is a leading producer of refined oils and fats and of natural oils and fats processed in other ways. The Dutch oils and fats chain has a leading position in Europe and is a key world-class player.

With an import of 11.8 million tonnes and an import value of € 7.1 billion in 2013, the Netherlands is Europe's second largest importer of oil seeds, oils and fats. 98% of our raw materials are imported and more than 2/3 of this originates from outside the European Union.

In Europe the Netherlands is the largest exporter of oils and fats. After China and India, the Netherlands is the world's largest importer of palm oil. In the past decade the export of oil seeds, oils and fats has increased by 50% to more than 6 million tonnes. The export value of oils and fats has more than doubled in the same period, from € 2.2 billion to € 4.8 billion. Oils and fats therefore belong to the most important agricultural export products in the Netherlands. Our most important sales markets are principally located within the EU (92%).

On a world scale, in terms of volume the Dutch oils and fats sector is the sixth importer and the fifth exporter. Our capacity for crushing (pressing) oil seeds puts us at number four in Europe. In the past decade the refining capacity in the Netherlands has increased by 50% to more than 3.2 million tonnes, making our refining activities the largest in Europe.

The largest margarine factory in Europe is located in Rotterdam. The Netherlands is the fourth largest producer of margarine in Europe. The Netherlands occupies third place in Europe for the production of biodiesel with 1.4 million tonnes. The Dutch storage and transshipment companies form the key logistic link for oils and fats in Northwestern Europe. Of the 2.5 million m³ storage capacity 1.5 million m³ is located in the Netherlands. With its 1.3 million m³, the port of Rotterdam is by far the largest in Europe for the storage and transshipment of vegetable and animal oils and fats and biodiesel. 50% of all European import goes through the Dutch ports.
SUSTAINABILITY ON ALL FRONTS

Sustainability and sustainable development have a high priority for our companies. We achieve this through practical actions and policy. Indeed, social responsibility goes hand in hand with a key national and international economic position. We are happy to take the initiative and ask chain partners to join in. This applies for fields such as the environment, food safety, healthy eating and the sustainability of our raw material chains at a national and international level.

We have highlighted several examples to the side that illustrate how we are engaged, both nationally and internationally, in making the oils and fats chain more sustainable.

The oils and fats chain is actively involved in international Round Tables for the sustainability of palm oil (RSPO) and soy (RTRS, ISCC). Our companies are the initiators of the Task Force Sustainable Palm Oil and are actively involved in the Foundation for the Transition to Responsible Soy. By the end of 2015 we aim to ensure that all palm and soy oil intended for the Dutch food market originates from sustainable sources. In 2013 61% of the palm oil processed in the Netherlands and 50% of the soy oil was produced sustainably.

In recent years the Dutch crushing companies have invested heavily in converting the processing capacity of soybeans to rapeseed. As a result the dependence on the import of vegetable (soy) protein from South America has declined and the supply of European (rapeseed) protein for the intensive cattle farm has increased.

For our chain sustainable development also means the responsible use of oils and fats in a healthy life-style. On the initiative of our industry, the Task Force for Responsible Fatty Acid Composition has been actively engaged in improving the fatty acid composition of food since 2003. With result, the content of trans fatty acids in the Dutch diet has fallen to very low levels. The Task Force is recognised nationally and internationally as the epitome of a well-functioning form of self-regulation. An initiative under the Task Force is the Healthy Frying campaign launched together with Royal Dutch Catering (Koninklijke Horeca Nederland) in 2004. In 10 years the use of liquid fat or oil in cafeterias increased from 51% in 2003 to 85% in 2013.

We lead the way in improving the energy efficiency of our manufacturing processes. Since its start in 1993, the oils and fats chain has signed up to the covenant with the Dutch government as part of the Multi-Year Agreement Energy-Saving (MJA3). In the past 20 years, the chain has succeeded in improving its energy efficiency by an average of 2% each year. Currently, in total approximately 40% less energy per processed volume of oil or fat is used than in 1993.
We encourage the recycling of oils and fats. The collection of used fats contributes to a better environment. On the one hand because used frying fats don’t end up in the sewers where they can cause damage, and on the other hand because used frying fat and cooking oil can be given a second life as biofuel. In 2012 the campaign ‘Recycle Frying Oils’ was launched, which aims to reclaim 10 million kilogrammes of used frying fat from consumers in 2020. This is half of all the frying fat used in homes. Currently 40% of this target has already been achieved.

4,000,000 KILOGRAMMES OF USED FATS COLLECTED

Biodiesel production contributes to achieving the government’s sustainability objective of obtaining 10% of all energy for transport from renewable sources in 2020. The total Dutch biodiesel production in 2013 was 1.4 million tonnes. All raw materials meet the sustainability requirements set by the EU. 75% of the biodiesel for the Dutch market uses raw materials that are residues of other industrial processes. These are mainly used cooking fat or oil from the industry, the catering sector or from consumers, and animal fat. In addition to a strong increase in the use of oils and fats for biofuels, the use of oils and fats by the Dutch food industry has also increased in the past decade (+17%).

In 2012, additional production capacity for biodiesel became available in the Netherlands for the European market. We invest heavily in new applications for oils and fats in the biobased economy. In this way we are helping to reduce dependence on mineral oil. Good examples are the investments in algae oil and the market for biodegradable plastics, where vegetable oils and animal fats play a growing role. Because of their properties, oils and fats are very suitable for use in the automotive industry, for example.

Use of oils and fats in the Netherlands

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The growing demand for oils and fats will continue in the coming decades. Up to 2050 global demand for oils and fats is expected to increase by approximately 35% to over 250 million tonnes. It is an enormous challenge to meet this increasing demand in a sustainable manner.

The driving forces behind this development are world population growth and increased prosperity in emerging economies. The growing need for biofuels and developments and new applications for energy, chemical and technical products within a more biobased economy also play a role.

The Dutch oils and fats industry has thus anticipated the growing demand. We look to the future with confidence. In addition to higher imports, we see opportunities for increasing exports in the EU market. We also exploit opportunities for exporting the knowledge and experience gained in the past decades in our country.

The 4 main vegetable oils collectively account for 76% of world production.

Food safety
A major responsibility lies with the individual companies, but food and feed safety can only be guaranteed by a chain approach. The oils and fats sector develops risk analyses and codes and coordinates safety and quality systems that form the basis for safe food production.

In addition to European and Dutch regulations, the chain takes private initiatives in the field of food and feed safety. For example, our training programme Food & Feed Safety of Oils and Fats annually attracts participants from home and abroad and the programme has become the international standard for training in this area.

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Confidence and investing in the future
In the past decade, the industry has invested over EUR 2 billion in expansion, modernisation and sustainability.

Anticipated growth in global demand
250 million tonnes

Year
2013
2050

+ 35%
The oil seeds, oils and fats sector is facing the enormous challenge at a global level to provide the growing world population with sufficient food while minimising the impact on nature and the environment through maximising yield per hectare, per cubic meter of water, per kilogramme of fertilizer, and per gram of pesticide.

New techniques are badly needed for this. The development and approval of new varieties in Europe lags behind the rest of the world. It is important that civil dialogue about genetic modification takes place in a transparent manner and on scientific grounds.

Investments in innovative and good agricultural practices (GAP) are needed. The knowledge and expertise of the Dutch knowledge institutions and universities are of great added value.

**GOOD COMPETITIVE POSITION**

The competitiveness of the Dutch MVO chain is good: our excellent geographical location, good infrastructure and logistics, modern factories, international orientation and great capacity for innovation together with our knowledge and expertise and the presence of global players in all the chain’s links are valuable. We have everything in place to capitalise on the opportunities and challenges that the future presents us. The challenges are mainly in the field of enabling world production to grow sustainably to meet growing world demand and further developing a biobased economy.

Partly because of the economic crisis we are seeing growing support for protectionist measures. Free trade and a level playing field are of paramount importance to the position of the Netherlands. In the Netherlands, too, there are challenges we have to face together with our partners: clear information about the role of oils and fats in a healthy diet and the supply of well-trained technical personnel are examples of this. The physical infrastructure and investments in innovative developments also require constant attention.

**COLLABORATION AS A STARTING POINT**

The companies in the Netherlands that collectively form the chain for oils and fats believe strongly in collaboration and taking responsibility. This is why in 2013 they took initiatives for a private relaunch of the Product Board for Margarine, Fats and Oils in MVO. Within the chain organisation for oils and fats, parties work together for a more sustainable and internationally competitive position of the Netherlands in the global oils and fats sector. We want to achieve this together with our partners in other sectors, the government and with knowledge institutions.
**PRECONDITIONS AND ACTIONS**

1. The industry needs a consistent government policy at national, European and international level to make investments yield and to create confidence in the Netherlands as a business location. This applies in particular for the development of a biobased economy (including biofuels). European guidelines for waste act as a hindrance rather than a stimulus.

2. Constant investment in physical infrastructure in the Netherlands is needed. An internationally competitive burden on our ports and investments in the training of technical personnel are necessary preconditions for keeping the investment climate in the Netherlands up to standard.

3. We call for an honest international playing field. The Dutch oils and fats chain (and thus the Dutch economy) will benefit from the liberalisation of trade, including the unrestricted import of raw materials in the European Union and the abolition of export duties and barriers by Argentina, Russia, Ukraine, Indonesia and Malaysia. In a time of economic recession, we see the rise of protectionist sentiments and laws and regulations. It is essential that (implementing) legislation in Europe is more harmonised and that no additional national regulations are introduced.

4. We are convinced that genetic modification can contribute to a sustainable world food production and increased food security. We strongly believe that decisions on the market authorisation of new GMOs must be taken on scientific grounds. We call for political courage to break the ideological impasse in this area.

5. We see the government as a key partner in making our chain sustainable. We call for continued support of our sustainability processes, at a national level for example through the MJA3, and internationally through, for example, IDH, the Sustainable Trade Initiative.

6. Close collaboration in the field of risk assessment and management by exchanging trade and production details between organised business and government is an absolute necessity to ensure food and feed safety. The government must ensure that the detailed insights into the trade and production flows of our chain do not disappear with the disconnection of the Product Board MVO.

7. Safeguarding food and feed safety remains a key priority for our chain and the government. We must continue to invest in the quality and quantity of supervisory bodies, fewer and clearer rules, and harsh penalties for companies that do not follow the rules.

8. We are well underway with the recycling of used frying and cooking oils. To substantially increase the share of fats collected from households, (local) governments and industry must work together and come up with an action plan.

9. The oils and fats chain is against mandatory country-of-origin labelling. Companies recognise the importance of transparency, but believe that mandatory country-of-origin labelling does not provide consumers with clarity. The indication of the country of origin of an ingredient is meaningless for the consumer and the indication of the place of origin is unworkable in practice.

10. In collaboration with the government and chain parties, the oils and fats chain wants to work for a healthy diet amongst consumers and specifically the youth. Cooperation between the Dutch Nutrition Centre (Voedingscentrum) and MVO can play an important role in this.