nutreco

'09

sustainability report

feeding the future

About this report

The Nutreco Sustainability Report 2009 is complementary to the Nutreco Annual Report 2009, which includes coverage of management aspects such as corporate governance and risk profile.

In this report we describe the Nutreco approach to sustainability in the sense that covers environmental, employee and social issues. Sustainability in economic terms is addressed in the Annual Report. The report was prepared with attention to the principles set out in the Sustainability Reporting Guidelines (G3) of the Global Reporting Initiative and further relevant data is published on the Nutreco website (www.nutreco.com) together with a GRI index. Nutreco applies its own internal criteria and guidelines for reporting on sustainability, as described on the Nutreco website. The criteria and guidelines, where relevant, are based on the G3 reporting guidelines of the Global Reporting Initiative. The report covers those parts of the value chains where Nutreco has control and those over which it has influence. The data covers those parts of the organisation where Nutreco is active and not the activities of suppliers or customers. Further information on the internal guidelines and reporting criteria will be published with the remaining data in the Sustainability section of the Nutreco website. A Millennium Development Goals index is given on page 54. Sustainability data will be published on the Nutreco website by mid 2010.

There are no major changes in the scope of the report from the previous year. Acquisitions in Brazil (a joint venture) and Spain (acquisition of Cargill Animal Nutrition) are the only major events affecting the operations of Nutreco in 2009. In terms of Nutreco structure, the Executive Board was extended to five members. In addition to the CEO and CFO it now has three Executive Vice-Presidents that head the business divisions of Nutreco. We have sought independent assurance on the contents of this report from KPMG Sustainability. Its assurance report can be found on pages 52–53. The report is published by Nutreco, Amersfoort, the Netherlands, March 2010.

Contents

Overview

Creating sustainable value

"The challenge from now until 2050: doubling food production while halving the footprint."

Wout Dekker, CEO Nutreco

Continuous sustainability programme

Addenda

In this report, these symbols indicate relevance to Millennium Development Goals

Profile & financial highlights

Nutreco is a global leader in animal nutrition and fish feed

Our advanced feed solutions are at the origin of food for millions of consumers worldwide.

Quality, innovation and sustainability are guiding principles, embedded in the Nutreco culture from research and raw material procurement to products and services for agriculture and aquaculture. Experience across 100 years brings Nutreco a rich heritage of knowledge and experience for building its future.

Nutreco employs almost 9,700 people in 30 countries, with sales in 80 countries. Nutreco is listed on the Euronext stock exchange in Amsterdam with annual revenues of EUR 4.5 billion in 2009.

We want to achieve growth by:

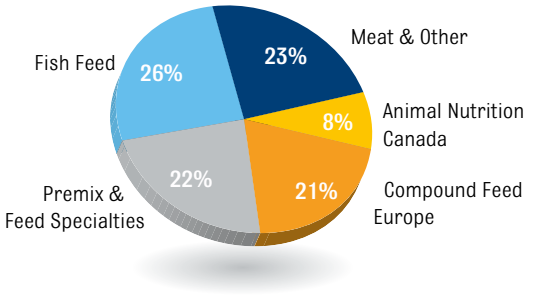
1. Focusing on geographical regions and markets that have the prospect of structural profitable growth; for example countries such as Brazil, China, Russia and Vietnam

2. Participating in the industry consolidation process in markets where Nutreco has leading compound feed positions (for example Canada/North America, the Netherlands and Spain)

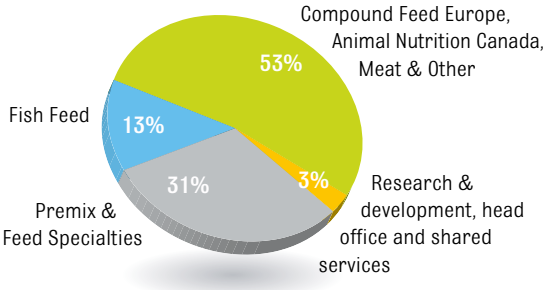
3. Further strengthening our market positions in feed specialties and fish feed, by organic growth and acquisitions

4. Executing Nutreco's science and innovation strategy and developing new sustainable products and feed solutions to add value to our customers' businesses and grow Nutreco's products portfolio of higher margin products

Revenue third parties by segment 2009

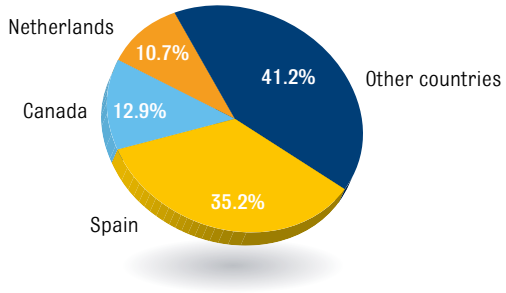


Employees per activity segment



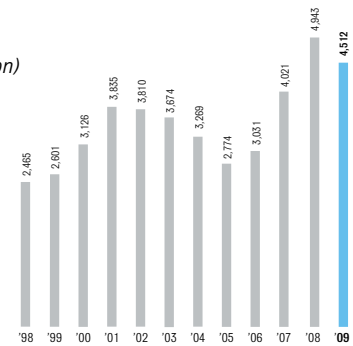
This pie chart is not part of the audited 2009 Group financial statements of Nutreco.

Geographical allocation of employees



Revenue[1]

(EUR x million)

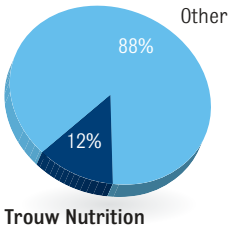


1 2005-2009 revenue from continuing operations (2004-2009 figures based on IFRS, 1998-2003 figures based on D-GAAP)

Nutreco: the company behind strong animal nutrition and fish feed brands

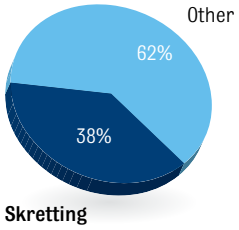
Nutreco ranks in the top three of the global animal nutrition industry in revenues.

Nutreco's Trouw Nutrition has a global number two position in premix.



The premix and feed specialties industry is relatively consolidated with four players having a joint global market share of about 50%.

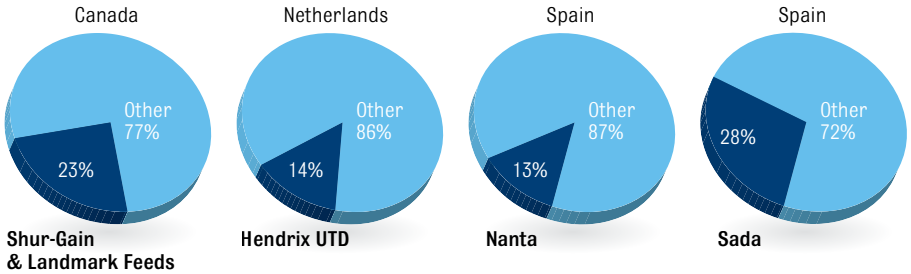
Nutreco's Skretting is the number one salmon feed producer.



The global salmon feed industry is concentrated with three players having a joint global market share of approximately 90%. Skretting has a leading position in fish feed for other species.

We have leading local positions in the compound feed and meat industry.

Market shares of Nutreco:



Sustainable progress: Nutreco's springboard for the new decade

Wout Dekker, Chief Executive Officer

This is the tenth Corporate Social Responsibility (CSR) report from Nutreco. Our first report, at the beginning of the decade, made Nutreco a pioneer in our market sector and our reporting activities (see inside back cover) have helped raise the profile of CSR and its relevance to our industry. It is appropriate in this tenth report, as we enter the next decade, that we are able to describe a significant advance in our long and sometimes challenging sustainability journey. In 2009, Nutreco made a strategic choice to embed sustainability throughout Nutreco operations. We began by formulating a sustainability policy, set targets for the managers and initiated a programme to facilitate the embedding process and ensure it is change that lasts.

Growing awareness

Over the past ten years CSR reporting has become commonplace among suppliers, competitors and customers. Throughout that time, sustainability has been an important component of our CSR approach. Gradually, as other aspects of corporate social responsibility, such as reputation and risk management, were brought into good order, sustainability emerged as the central concern. That status is emphasised by the challenge we all face of sustainably feeding the world in the coming decades. To mark the evolution, we are now reporting under the title of 'sustainability'. It is important to note that we interpret the term sustainability to include harmony with our environment and having good relations with our employees, our neighbours and wider society as well as economic sustainability.

Reporting on these topics increased our awareness of issues relating to our activities, partly because it attracted attention from environmental and social pressure groups, trade bodies and regulators. Some of these contacts led us to enter constructive dialogues such as the Round Table on Responsible Soy and discussions with Peruvian fishmeal producers in efforts to make a difference in parts of the value chain where we have influence but not control. These activities also helped to shape the topics and programmes of the AquaVision and Agri Vision multi-stakeholder conferences that we organise alternately each year. We believe it is vital that all players in the value chains, from farmers to retailers, can come together and debate the options for successfully overcoming the obstacles in our path.

In turn, these conferences bring a wealth of fact and opinion that has helped shape our strategy and relationships with the wider world. Since they began in 1996, these conferences attracted over 4,000 delegates. In closing our

Agri Vision conference in 2007, I estimated that three extra planets would be needed if nine billion people were to have a Western lifestyle while addressing the concerns of Europe on climate change, animal welfare and sustainability.

"We need three additional planets to allow nine billion people to have a Western lifestyle while addressing concerns on climate change, animal welfare, sustsainability and biodiversity."

Strategic choice

Never have we discussed a more important topic than at Agri Vision 2009, where we debated the potential for feeding the world in 2050. The outcome was strongly positive. With the knowledge and technology we have in hand and investment in the right areas, geographically for example in Africa and technically for example in sustainable precision farming, we can produce the food that will be needed. The conference is described in more detail further in this report and the conclusions are endorsed in the Nutreco booklet 'Feeding the Future', published in March 2010, with contributions from world leaders in science, agriculture and commerce; all with a close interest in the food value chains.

The outcome of Agri Vision 2009 emphasised the opportunities and the responsibilities in fulfilling the ambition expressed in our slogan *Feeding the Future*. Based on the feedback in over 500 questionnaires from internal surveys, the slogan was introduced in March 2009. If we are to succeed, actions to improve sustainability are essential.

In our report last year I committed to raising the profile of CSR inside Nutreco, the development of a Nutreco CSR policy and the implementation of this within Nutreco businesses through the performance contracts of managers. This year, I am proud to say that we have fulfilled these commitments and embarked on the next stage of our sustainability journey through the development of a sustainability policy, setting of targets and initiation of our Feeding the Future Programme that will include embedding sustainability in all Nutreco operations. These initiatives combine with a far-sighted vision towards resolving the issues we all face in feeding the world of 2050. In 2009 we reviewed and consolidated the sustainability focus areas of Nutreco. The first is 'Responsibility towards natural resources', including climate change. The two other focus areas are 'Feed-to-food quality' and 'Nutreco people and investing in the community'. Together they represent the way in which we must address our challenges in the decade ahead.

Feeding the Future

Our company slogan, *Feeding the Future*, is the essence of Nutreco, expressing a purpose to align and inspire our activities of today. We will develop advanced feed solutions that contribute to feeding a growing world population with wholesome, nutritious meat, fish, milk and eggs.

Throughout 2009 the world in general and Nutreco people in particular have been very aware of the upcoming food security challenge of doubling the supply while halving the footprint. Also, despite over-consumption in some regions, many regions still suffer under-nourishment and

malnutrition. In meeting the challenge we must develop a more equitable distribution of food resources. Agriculture and aquaculture must increase production substantially, rapidly and sustainably over the coming 40 years if the predicted population of nine billion in 2050 is to be fed adequately. Further, as incomes rise, people switch diets to preferred protein sources, mainly meat and fish. That alone is a substantial challenge.

Simultaneously, the picture becomes more complex because the availability of water is becoming an issue.

Also the demand for energy is growing while consumption of non-renewable resources prompts a search for renewable alternatives. Producing biofuels from agricultural crops is a renewable option with widespread support from governments. Competition from energy for agricultural products leads to higher costs for raw materials and contributes to increased price volatility. These economic pressures and fluctuations are reflected in food prices.

Exacerbating these challenges, we are entering a period of climate change. Droughts mean many regions face shortages of freshwater. Rising temperatures lead to rising seawater levels, covering land currently used for agriculture. By 2050 global warming could reduce the yields of today's crops in areas such as Asia and Latin-America by 20 to 40%. Greenhouse gases are believed to be one of the drivers of climate change and agriculture generates greenhouse gases. In preparing to feed the world of 2050, therefore, care is required to reduce factors such as carbon emissions from farm to feed to food.

The end conclusion is that we, together with all other players in the value chains from field to fork, must provide more sustainably from less. As a global animal nutrition company, Nutreco has chosen to take a proactive role in stimulating value chain developments, discussions and solutions for this balanced and sustainable future. Nutreco has the right credentials; as an animal nutrition company maximising efficiency in our operations and in the delivery of nutrition from our raw materials is a fundamental principle and continuous process.

We invest substantially in research and development to drive increases in efficiency. Research delivers a better understanding of the nutritional requirements of farm animals and fish through all stages of the life cycle. Developments in feed formulation and manufacturing technology then help the feed companies meet those requirements precisely, maximising production on the customers' farms and minimising waste of nutritional content.

Additionally, precision in nutrition reduces the loss of nutrients such as minerals into the environment. Other formulation developments, for example with feed additives, can reduce greenhouse gas production by ruminants. Feed additives can increase the availability of nutrients by making them more readily digestible or by protecting them until they reach the optimum location in the digestive tract. Additives can also support the health status of the animals and fish, thereby increasing productivity and reducing the need for veterinary intervention and medication. All these advances contribute to improved sustainability.

Developing a sustainability policy

Progress towards embedding sustainability into the business model of Nutreco benefited from developments at board level in Nutreco. Following the appointment of new members to our Supervisory Board, an Innovation and Sustainability Committee was formed. Forming the Innovation and Sustainability committee demonstrates two important points about Nutreco. First, sustainability is viewed as an essential characteristic for Nutreco and progress towards it is endorsed from the very top. Second, innovation is seen as essential in achieving progress towards sustainability through the products and technical advice we offer our customers.

Nutreco's Executive Board also underwent changes in 2009. The three divisions of Nutreco, which are Agriculture, Specialties and Aquaculture, are now represented on the Board by Executive Vice-Presidents. Their appointments link the Executive Board more closely to the businesses

and bring it direct operational involvement. This Board made a priority of progress in sustainability and the development of a policy.

To gather input from across Nutreco a Sustainability Group was brought together in 2009 to help develop the policy. Members represented various functions from the three Nutreco divisions and key corporate functions and came from six countries. Before the first meeting each member received a questionnaire on sustainability, its value to Nutreco and to them personally. The response rate was 100% and support was universal, though naturally there were individual caveats. Typical comments expressed in the questionnaires and at their first meeting stressed the importance of preserving the environment for future generations and the desire to work for a sustainable company. They also pointed out that a positive approach to sustainability is inherently good for Nutreco's reputation and that it wins a positive response from young people, which is good for recruitment.

Given these views, it is gratifying to see the policy they prepared and to commit Nutreco to it. The ethos is substantiated by the many sustainability initiatives that were already present in Nutreco companies, a selection of which are described in this report. Implementing the policy will provide a structure and direction for such sustainability actions at all levels in Nutreco, helping to make them as productive and relevant as possible and enabling Nutreco to maintain continuous improvement in sustainability.

Sustainability targets

At the end of 2009, the Executive Board took a further step by setting specific targets for the businesses. While leading us towards the vision contained in the policy, these targets must be valid, achievable and have a bearable cost. The targets are listed in this report. For example, we have a vision to make Nutreco carbon neutral and we challenged the operating companies to achieve a reduction of 50% of the carbon footprint from Nutreco plants in 2009 by 2015. It is a valid sustainability goal and it is achievable at a cost we can accept. The programme begins now. Although Nutreco activities generate only a small part of the greenhouse gas emissions of the full value chains, this target is important for two reasons. First, it is a contribution to reducing greenhouse gases and, second, it is an initiative that everyone in Nutreco can relate to, helping to create awareness of sustainability objectives and commitment in Nutreco.

As with greenhouse gas emissions, sourcing of sustainable raw materials requires coordinated actions along the value chains. All stakeholders must agree on definitions of sustainability for key raw materials and apply them collectively, supporting those farmers that responsibly meet these criteria. If Nutreco were to act in isolation, selecting sustainable raw materials, the less sustainable raw materials would be consumed elsewhere. That is why we also set targets to initiate and participate in value chain actions aimed at raising sustainability throughout the chains and targets for Nutreco Purchasing to develop a vendor policy. We also set targets for each individual operating company: by the end of 2010 they each have their own sustainability plan based on the global sustainability policy, but with local implementation and actions. R&D in the meantime will be focusing on developing sustainable products. Linking progress towards these targets with the variable component of the remuneration of Nutreco managers marked a significant advance in 2009 in the sustainability journey of Nutreco.

Feeding the Future Programme

Having formulated a sustainability policy and set targets, the next and essential step is to embed sustainability in Nutreco operations. To achieve this, sustainability is an important part of our Feeding the Future Programme that we began developing in late 2009. The sustainability objectives are to create a global sustainability matrix in Nutreco in the form of people in all parts of the company with sustainability as a recognised part of their tasks. Acting as sustainability champions, and supported by internal communications, these people will help build engagement with sustainability objectives among Nutreco employees. Indicators will be identified to measure progress towards the sustainability targets and facilities for knowledge exchange will be developed, including an IT platform and opportunities for training.

Having the Sustainability Policy and Feeding the Future Programme gives us greater confidence when pushing for the coordination that is essential along the value chains.

Time for action

The world economies are emerging from recession, which is good. Rising incomes in addition to the rising population means a rapid rise in the demand for animal protein food: meat, fish, milk and eggs. We must act now to set the rules and criteria that we can all agree to as we respond to this food production and sustainability challenge. I am confident it is possible and that, with its sustainability strategy in place, Nutreco can fulfil a core role in sustainably feeding the world of tomorrow.

On behalf of the Executive Board: Cees van Rijn, Knut Nesse, Frank Tielens and Jerry Vergeer

Wout Dekker, CEO
1 March 2010

Growing awareness

Throughout ten years of reporting on matters relating to sustainability we have had contact with many stakeholders and opinion leaders. Our first report, at the beginning of the decade, made Nutreco a pioneer in our market sector and our reporting activities helped raise the profile of sustainability and its relevance to our industry. Since then sustainability reporting has become commonplace and is widely expected; we now see regular reporting from suppliers, customers and competitors. This is in response to increasing concern in society and among investors that all businesses should implement measures to improve their sustainability. For example, the Top of Mind survey of CIES 'The Food Business Forum' published in February 2009 shows corporate responsibility at number three in the list of 12 topics, with food safety at number two.

Because of the nature of our activities, in the feed-to-food value chains, we face increasing sustainability challenges with the need to feed the growing world population. This prompted the European Feed Manufacturers' Federation (FEFAC) to prepare its first sustainability report, during 2009, when it identified sustainability of feed resources, climate change and energy use, and feed safety as the key topics.

The trend to greater attention to sustainability is highlighted by the existence of sustainable investor groups and stock market sustainability indexes. The Association of Investors for Sustainable Development, VBDO, in the Netherlands, observed that the focus of sustainability has shifted from reputation and risk management towards value creation as part of a company's values and vision.

It is for these reasons that in 2009 the Nutreco Executive Board decided that fully embedding sustainability in the Nutreco business model was the right strategic choice.

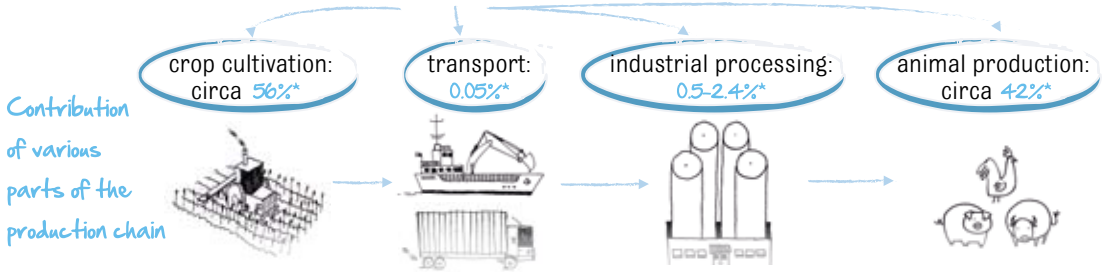
Reducing the footprint in the value chain

Greenhouse gas emissions (GHG) from livestock activities —
All figures are based on estimates published in 'Livestock's Long Shadow', see pages 13 and 47 of this report.

18% of total anthropogenic (from human activity) GHG emissions are from livestock activities

13% are from EXTENSIVE livestock production systems (e.g. grazing cattle, sheep and goats)

5% are from INTENSIVE livestock production systems (e.g. pork, poultry and dairy production)



** Contribution to total greenhouse gas emissions from intensive livestock production systems, including deforestation.*

Animal nutrition at a critical junction

"More food will have to be produced over the next decades than has been produced during the past 10,000 years combined." (FAO)

Stakeholder dialogues

Throughout 2009 Nutreco continued its participation and organisation of stakeholder dialogues. The information and opinions gathered from these activities influence policies and actions in Nutreco. In some instances, the knowledge of Nutreco is shared with other participants to facilitate progress across the value chains. The major dialogue event in 2009 was in June when Nutreco organised the multi-stakeholder agribusiness conference, Agri Vision. The theme was the challenge of feeding the world sustainably in 2050. The outcome was a positive view and served as a driver for the Feeding the Future sustainability process in Nutreco as described on pages 16–25.

Stakeholder dialogues	Page
Agri Vision multi-stakeholder agribusiness conference	12
Nutreco participated in preparing the first Sustainability Report of the European Feed Manufacturers' Federation (FEFAC), published in 2009	27
Nutreco is a member of the Round Table on Responsible Soy and the Dutch Soya Task Force and the Round Table on Sustainable Palm Oil	28
Nutreco, through its fish feed business Skretting, is a member of the steering committee of the Salmon Aquaculture Dialogue organised by WWF USA	37
Nutreco, through its fish feed business Skretting, participates in the Seafood Summits organised by the Seafood Alliance	37
In 2009 Nutreco formed a Sustainability Group, which comprises 16 representatives from all business sectors of Nutreco and key corporate functions and from six countries. The group helped to steer the Feeding the Future sustainability process in Nutreco through which a global sustainability matrix will be developed in Nutreco in the form of people in all parts of the company with sustainability as a recognised part of their tasks	16

Nutreco Agri Vision and AquaVision: > 4,000 participants

Themes AquaVision

1996: The Nutreco Aqua Business Conference
1998: Managing a sustainable annual growth
2000: Seafood opportunities in the new millennium
2002: Take hold of the future
or the future will take hold of you
2004: The sustainable Blue Revolution
2006: Oceans of opportunities
2008: Know the fundamentals – Create your future
2010: Open your eyes – Oceans of opportunities

Themes Agri Vision

2000: Future scenarios for animal food production in Europe
2003: Inspired by Consumers, Endorsed by Society
2005: Empowering Partnerships
2007: Balance the Challenge – Feed, Food & Fuel
2009: Shifting Horizons

Vision

In a world with limited natural resources and a growing population, Nutreco plays a leading role in developing and supplying the most efficient and sustainable feed solutions.

feeding the future

Mission

Nutreco is a global leader in animal nutrition.
We deliver high-quality and sustainable feed solutions and add value to our customers' businesses by developing and supplying innovative products and concepts that support the best performance of farmed animals and fish.

Challenges and dilemmas

While making progress towards sustainability, there inevitably are challenges to overcome and dilemmas to resolve. Several relevant to 2009 are discussed in this report. The following table gives an overview with an indication of where more information can be found.

Challenges and dilemmas	Section and page(s)
The need to double food production sustainably to feed nine billion people in 2050 with many having higher expectations for animal proteins in their diets	CEO introduction, 4–7 Agri Vision, 12–15
Embedding sustainability in Nutreco	CEO introduction, 4–7, Growing awareness, 8, Nutreco Sustainability Policy, 18, Ambitions and actions, 22–25
Responsible sourcing of feed raw materials while remaining competitive	Responsibility towards natural resources, 28–29, 36
Animal nutrition and greenhouse gases	Responsibility towards natural resources, 31–36
Implementing feed quality and safety measures while remaining competitive	Feed-to-food quality, 38–40
Establishing harmonised product quality and safety procedures in a diverse company	Feed-to-food quality, 38–40
Restrictions on feed raw materials that apply only in the European Union	Feed-to-food quality, 41
Establishing appropriate workplace health and safety standards in a diverse company	Nutreco people and investing in the community, 44
Harmonising career management in a diverse company	Nutreco people and investing in the community, 45–48

AgriVision 2009
Shifting Horizons

Global agribusiness leaders discuss ways to double food production by 2050

Each year Nutreco organises a multi-stakeholder business conference alternating between agriculture and aquaculture. Agri Vision and AquaVision conferences provide neutral platforms for debating issues facing the animal nutrition industry and bring valuable insights from around the world. The outcome of the 2009 conference underlined the value of changes in Nutreco that integrated R&D more closely with the businesses to enhance its ability to develop and supply innovative products and concepts that support the best performance of farmed animals and fish.

At Agri Vision 2009 375 leaders of agribusinesses from 44 countries heard from 20 top business managers and agricultural scientists in three half-day sessions. Opening the conference, Nutreco CEO Wout Dekker reminded delegates that when closing the previous Agri Vision conference in 2007 he estimated that three extra planets would be needed if nine billion people were to have a Western lifestyle while addressing the concerns of Europe on climate change, animal welfare and sustainability. Speakers at the conference delivered a positive message that sustainable food production can be increased adequately and that Nutreco can contribute through advanced animal nutrition solutions. The message, the challenges and potential role of Nutreco are described in the booklet, Feeding the Future, published by Nutreco in March 2010. The theme and outcome of the conference also were drivers for the Feeding the Future sustainability process in Nutreco, as described on pages 16–25. The following extracts give an indication of the most relevant presentations at AquaVision.

A selection of Agri Vision 2009 speakers


Graham Plastow


Wout Dekker


David Hughes

"We can feed the world of 2050"

Responding to the question "Will we be able to feed and fuel the world in 2050?", the great majority of Agri Vision 2009 delegates answered "Yes". They agreed that current knowledge and technology can increase productivity substantially and targeted research can boost it further; doubling production while halving the footprint. The major challenges lie in consumer attitudes, political decision making and in guiding investments and knowledge to those places and people where they will have the greatest benefit.

Inspiration for sustainable growth

David Hughes, Emeritus Professor, Imperial College London, said the future for agriculture is attractive. Humans respond successfully to challenges. However, the 'green bar' is rising. Food producers must increase their sustainability and gain the approval of society for the new technologies they need.

Karl Rose, Chief Strategist, Shell International B.V., said that scenario planning prepares leaders to anticipate and manage uncertainty, challenges assumptions and provides a measure by which to judge corporate aspirations.

Sipko Schat, Executive Board Member, Rabobank Nederland and Vice Chairman Rabobank International, reported the bank's study on the impact of the financial crisis on agribusiness. Price volatility will continue and as agribusinesses adapt there will be further consolidation. Rabobank is the co-organiser of Agri Vision.

Olivier Kerr, Corporate Vice President Agricultural Supply Chain Platform, Cargill, told delegates that markets involving raw materials and food have become more complex than ever. The value of knowledge sharing is increasing and co-developments are becoming normal.


David Orrell


Karl Rose


Sipko Schat


Olivier Kerr


Jason Clay

Innovation — potential to gain

Jason Clay, Senior Vice President, Market Transformation, World Wildlife Fund, said we must freeze the footprint of agriculture. To produce more food and retain the wildlife of the world, we cannot ignore any means for raising productivity, including genetics and rehabilitating abandoned or degraded land.

André Faaij, Professor of Energy System Analysis, Copernicus Institute for Sustainable Development, Utrecht University, noted it is important to act now; lead times to achieve change are long. Good land management, efficient agriculture and second generation biofuels can deliver enough food and bio-energy.

Robert Berendes, Global Head of Business Development, Syngenta International AG, said although genetic modification is an important technology, it is not the only and ultimate solution to growing more food. If we agree on using the complete range of technologies, we can double production, progressing at 2% per year.

Graham Plastow, Director Alberta Bovine Genomics Program, University of Alberta, said yields from animal production have increased substantially, mainly through classical breeding. Genomics — the study of genes and their function — can accelerate progress and increase productivity by more than 50%. We can improve traits that contribute to overall health and welfare, food safety and food quality, even environmental impact.

Leo den Hartog, Director R&D and Quality Affairs, Nutreco, stated the production of food from livestock can be increased substantially by raising the quality of farming to high levels everywhere and by gaining optimum productivity from a combination of breeding and feeding technologies. With full system control and farm automation, these techniques will lead to Sustainable Precision Livestock Farming. Nutreco is developing sustainable feed solutions to fit with this approach to livestock farming.


André Faaij


Robert Berendes


Leo den Hartog


José Antonio do Prado


Margareta Helander

Impact — proven progress

Margareta Helander, Feed Development Manager of Lantmännen Lantbruk, reported that the group is owned by 40,000 farmers, operates in 19 countries and has a presence from farm to fork. It has a strong commitment to environmental sustainability and in 2008 became the first animal feed supplier to give greenhouse gas data on its labels.

Volkert Claassen, Vice President White Biotechnology, DSM, told delegates innovating in DSM requires openness with external partners, entrepreneurial behaviour, vision and discipline. It involves a culture in which great ideas flourish and are rewarded, calculated risks are permissible, entrepreneurship is stimulated and people are driven by a passion for real innovation.

Huiyi Cai, General Director, Feed Research Institute, Chinese Academy of Agricultural Sciences, told delegates the government and the agricultural industry of China are keen to see continued growth in the animal feed sector, which has grown at around five million tonnes a year for ten years. With 20% of the world population and 7% of its arable land, securing feed raw materials is China's greatest challenge.

Thorleif Enger, Chairman of the Yara Foundation and former CEO of Yara International ASA, explained the objective of the Yara Foundation is to improve agriculture in Africa. Africa has a tremendous potential in land and productivity but can only fulfil that potential if African farmers are helped to farm more efficiently.

Jerry Vergeer, Executive Vice-President Agriculture and member of the Executive Board of Nutreco, closed the conference. Reminding delegates of the question "Can we feed and fuel the world in a sustainable way?", he said success requires a combination of technology and talent.

Innovision 2009: potential for animal nutrition

On the day before Agri Vision, the Nutreco R&D and Quality Affairs team organised a meeting of top agriculture and food scientists from four continents — Europe, Africa, North America and Asia. Their discussions explored and shared current progress in a wide range of scientific disciplines that relate to animal nutrition.

Animal nutrition can gain important knowledge from new science disciplines being rapidly developed by the pharmaceutical and food industries. These disciplines seek to identify the relationships of nutrition, the microbial population of the intestine and genetics. For example, current developments in fermentation technology are creating new opportunities with functional feed ingredients that support animal health and final product quality. Further topics ran from the assessment of new raw materials, coming as by-products from advances in food and fuel technologies, to nutrigenomics, which is the impact of nutritional ingredients on the expression of individual genes.


Volkert Claassen


Gordon Crichton


Huiyi Cai


Thorleif Enger


Jerry Vergeer

Embedding sustainability in Nutreco

The previous pages (4–15) describe the circumstances, the influences and the events that convinced the Nutreco Executive Board that the time was now right to embed sustainability more deeply in Nutreco.

Strategic choice

Although actively reporting on sustainability, Nutreco did not have a clear sustainability policy that could be embedded within its business processes. A commitment to achieve that was made in 2008 and it was addressed in 2009. During the year the Supervisory Board of Nutreco formed an Innovation and Sustainability Committee and the expanded Executive Board made the strategic choice to initiate the process of embedding sustainability in the business model of Nutreco. This provided the basis and stimulus to develop the Sustainability Policy.

Sustainability policy

To gather input from across Nutreco, a Sustainability Group was brought together in 2009 to help develop the policy. Members from six countries were nominated by the Executive Vice-Presidents, the Chief Purchasing Officer and the Director of R&D and Quality Affairs to represent various functions from the three Nutreco divisions and key corporate functions. Their views and ideas provided the basis for formulating a sustainability policy that was approved by the Executive Board in November 2009. Implementing the policy will provide a structure and direction for sustainability actions at all levels in Nutreco, helping to make them as productive and relevant as possible and enabling Nutreco to maintain continuous improvement in sustainability.

Sustainability targets

In line with the policy, the Executive Vice-Presidents set sustainability targets for Nutreco. For example, operating companies have been challenged collectively to reduce carbon dioxide emission from Nutreco operations by 50% from 2009 levels by 2015. To emphasise commitment, in the performance contracts of Nutreco managers for 2010 sustainability action plans contribute to the variable component of their remuneration. By the end of 2010 there should be around 120 local sustainability plans in Nutreco.

Feeding the Future Programme

At the end of 2009 a project began that will develop a process to facilitate the embedding of sustainability in Nutreco operations and deliver a lasting change. This is the Feeding the Future Sustainability Programme, reflecting Nutreco's ambition to be a contributor in sustainably feeding the nine billion world population of 2050. The immediate challenges are to raise internal engagement, to create a structure within Nutreco with sustainability champions, training and knowledge transfer, and to identify indicators and tools to monitor progress.

The Nutreco Sustainability Policy

The Nutreco Sustainability Policy sets out commitments for Nutreco. Progress towards fulfilling these commitments will enable Nutreco to increase its level of sustainability.

Nutreco will attain a high standard of sustainability by fulfilling the following commitments.

1. Nutreco invests in understanding the impact on the environment, including climate effects, associated with its activities and products. It strives to mitigate negative impact, either by reduction or an equivalent positive action. The key drivers are:

- Improvement of feed efficiency; i.e. the conversion of feed into animal products, in order to optimise the use of resources and to reduce the loss of nutrients
- Changes in diet patterns and composition of feed formulations for farm animals and fish to reduce the emissions attributed to livestock production systems taking into account economic viability
- Further development of the use of co-products from the food, beverages and biofuel industries, biomass and non-organic raw materials to alleviate the pressure on natural resources
- Reduction of CO_2 emissions in its own operations
- Work with value chain partners to establish sustainability criteria and to implement control and management systems for sourcing of feed raw materials within Nutreco and encourage their application throughout the value chain. These criteria cover both agricultural resources, including land use change such as deforestation, and marine resources.

2. Nutreco shall deliver high-quality and sustainable feed solutions that support the best performance of farmed animals and fish and puts assurance of feed-to-food safety ahead of risk-carrying opportunities to win quick profits.

3. Nutreco shall provide safe working environments, fair and equal employment in all its operations, regardless of gender, race, colour, creed or sexual orientation. All employees have access to training and opportunities for advancement in line with their talents and ambition. Nutreco shall be a positive presence in communities where it is located and in wider society by acting as an enabler in social and economic development.

Attention to these topics is essential for Nutreco to be a sustainable business economically, environmentally and socially and to fulfil its ambition of being a major contributor in Feeding the Future. It is intended that the Sustainability Policy will contribute to the pride that employees can take in the work they do and the company they work for and that it will contribute to the pride of communities in having Nutreco among them and of investors in the company in which they choose to invest.

Nutreco will implement this Sustainability Policy in its management and reporting systems.

Implementing the policy

The Sustainability Group (see page 16), led by the Nutreco Sustainability Manager, is preparing the process for implementing the Sustainability Policy in Nutreco, as described on pages 20–21.

Targets set by the Executive Board to drive sustainability in Nutreco

A. Reduce and mitigate greenhouse gas effects of Nutreco operations	B. Create internal and external awareness and build a global structure for sustainability
▪ Reduce CO_2 emissions of the Nutreco plants by 50% by 2015	▪ Make a yearly sustainablility action plan per operating company. Global sustainability policy with local implementation, actions and targets
	▪ Initiate industry (chain) wide sustainability actions
	▪ Link Nutreco Purchasing to sustainability targets and vendor policy
	▪ Develop sustainable products

To emphasise commitment, in the performance contracts of Nutreco managers for 2010 sustainability action plans contribute to the variable component of their remuneration.

Feeding the Future: Sustainability Programme 2010–2015

The Feeding the Future Sustainability Programme is built to translate the sustainability targets set by the Board and the three focus areas into more specific objectives and concrete and measurable activities. The programme aims to enable in an effective way sustainable value creation and inspired business all through the organisation. It addresses the conditions needed to improve our own organisation as well as those needed to integrate our sustainability role within the industry chain.

The programme starts with building the global sustainability structure and systems needed as foundation for an increased and more measurable sustainability performance based on continuous improvement, active learning and inspiring knowledge exchange. We will involve, engage and train people at all levels of the organisation and will install cross-organisational communities of practice to build on the best practices already existing. Each operating company will develop its own sustainability action plan in line with the targets and challenges addressed in the Feeding the Future Sustainability Programme. At all levels we will continue to take innovative actions to improve and sustain our business along the way.

The Feeding the Future Sustainability Programme will become effective in 2010. Some activities planned for the next two years are:

- Developing CO_2 footprints and CO_2 reduction plans for all Nutreco plants; each contributing to the overall reduction target of 50% in 2015
- Structuring our external engagement activities within the industry chain to become more effective, both on a global and a local level
- Extending current nutrition models for use in sustainability assessment in new product development, based on an integrated sustainability and efficiency approach
- Creating more internal and external awareness and knowledge transfer about sustainability ambitions and best practices already existing
- Development of a sustainable sourcing strategy aimed at integrating relevant sustainability elements and criteria in Nutreco's sourcing policies and processes
- Addressing all the above in the sustainability action plan per operating company

Ambitions and actions

In the 2008 report we listed a series of ambitions. On these pages we indicate how we have followed up on each ambition in 2009 and we list some further sustainability actions that took place in 2009.

Responsibility towards natural resources

Ambition: As an industry leader, Nutreco wishes to contribute globally — in cooperation with its partners in the production chains for meats, farmed fish and dairy products and with other stakeholders — to a sustainable use of natural resources and the conservation of the environment and its biodiversity. Nutreco will work towards ensuring its key raw materials such as fishmeal, fish oil, soya meal, soya oil and canola (rapeseed) oil are obtained from sustainable resources.	**Action 2009:** Nutreco maintained and developed its programmes focused on sustainable use of natural resources, including responsible sourcing, more efficient use of raw materials and energy and attention to greenhouse gases. See pages 26–37.
Ambition: Nutreco aims to contribute to the fulfilment of the UN Millennium Development Goals. The main focus for Nutreco is on the goal to integrate the principles of sustainability into policies and programmes that will reverse the loss of environmental resources.	**Action 2009:** A sustainability policy was developed and the Feeding the Future process initiated to embed sustainability in Nutreco. See pages 16–21.
Ambition: Nutreco will use feed production technology and feed formulation knowledge to increase the conversion of low-value by-products of other agri industries into animal nutrition that will then provide high-value protein for human consumption.	**Action 2009:** Nutreco's Feed Ingredient Research Centre became fully operational. Its objective is to identify opportunities to use novel by-products from food and biofuel processing as feed ingredients. See page 29. By-products considered to be potential raw materials are assessed for nutritional value and processing practicality in the Nutreco species research centres and feed technology centres.
Ambition: R&D projects in Nutreco research centres aim to make more efficient use of raw materials and to identify and optimise the use of more sustainable raw materials including new by-products such as those from biofuel production.	**Action 2009:** Nutreco research centres continued to develop more efficient use of raw materials. Details are given in the chapter 'Responsibility towards natural resources', pages 26–33 and in the Annual Report section on research and development.
Ambition: Nutreco will help reduce greenhouse gases that add to the problem of climate change.	**Action 2009:** Nutreco has a continuing research project assessing the greenhouse gas emissions related to its raw materials and its activities. Additionally, individual Nutreco companies took measures to reduce their emissions and Nutreco has set a target to reduce the direct CO_2 emissions of the Nutreco plants by 50% by 2015. Details are given in the chapter 'Responsibility towards natural resources'.

Ambition: More than aiming solely for the reduction of carbon dioxide (CO_2), methane and nitrous oxide emissions, Nutreco will invest in R&D to convert by-products of the biofuel industry into nutritious animal feeds. In this way, Nutreco can provide animal nutrition without increasing demand for scarce raw materials for feed, food and fuel.	**Action 2009:** The Nutreco Feed Ingredient Research Centre became fully operational. Its objective is to identify opportunities to use novel by-products from food and biofuel processing as feed ingredients and thus expand the choice of raw materials available. See page 29.
Ambition: By increasing efficiency in production and logistics, Nutreco will reduce energy requirements per tonne of product.	**Action 2009:** Examples of actions in 2009 to increase the efficiency of production and transport of feeds are given on pages 32, 33.
Ambition: By increasing the efficiency of feeds, Nutreco will help reduce the direct and indirect greenhouse gas production of livestock.	**Action 2009:** Examples of actions in 2009 are given on pages 30–33.

Feed-to-food quality

Ambition: Nutreco aims to enhance the nutritional quality of final food products through the quality of the feed, while remaining competitive in the market.	**Action 2009:** Progress includes the development of the sustainability policy and greater harmonisation of feed ingredient risk assessment and management, which in turn leads to higher and more uniform standards. See page 40.
Ambition: Nutreco will contribute to consumer reliance on safe food. Safe food requires safe feed, which also contributes to good animal welfare and health.	**Action 2009:** Progress includes the development of the early warning system between Nutreco operating companies. See page 40.

Nutreco people and investing in the community

Ambition: Nutreco aims to have a positive influence in the communities in which its operating companies are located. The operating companies are present in 30 countries on five continents: North and South America, Australia, Europe and Asia.	**Action 2009:** Progress includes the development of the sustainability policy, see page 18. Relevant community activities will gain official endorsement within Nutreco and recognition as a valid part of Nutreco activities.
Ambition: As the company grows, Nutreco will maintain its employment policies, including consistent standards of health and safety for employees in all production and processing facilities in all countries.	**Action 2009:** Audits and inspections of Nutreco production facilities to assess health and safety standards continued through 2009. See page 44.
Ambition: Nutreco will maintain a competitive remuneration policy.	**Action 2009:** Nutreco maintained its remuneration policy and further developed and unified its career management capabilities.

Further sustainability actions 2009

Nutreco-wide

- Nutreco made the strategic choice to embed sustainability in its business model.
- The Nutreco Supervisory Board established an Innovation and Sustainability Committee.
- Nutreco established an international Sustainability Group to represent all Nutreco business sectors and Nutreco Corporate. The Sustainability Group was key in developing the Nutreco Sustainability Policy and will facilitate its implementation. Pages 16–21.
- Nutreco developed a sustainability policy, prepared for its implementation and set Nutreco sustainability targets. Pages 18–19.
- Nutreco organised the multi-stakeholder agribusiness conference Agri Vision 2009, where feeding the world in 2050 was a main topic of discussion. Pages 12–15.

Responsibility towards natural resources

- Better coordination and more efficient transport for feed raw materials and finished goods are reducing greenhouse gas emissions and waste. Pages 32, 33.
- Advances in understanding of nutrition make better use of a wider choice of feed raw materials and reduce environmental impact on the farm. Pages 28–31.
- The MicroBalance™ feed concept provides for effective fish feeds with far lower levels of fishmeal. Page 29.
- Nutreco cooperated in and provided information for the first Environmental Report of the European Feed Manufacturers' Federation. Page 27.
- Packaging development provided more compact, lighter and fully-recyclable packs for poultry products. Resultant savings in storage and transport reduce environmental impacts.
- Nutreco actively participated in value-chain-wide initiatives to improve sustainability. Pages 28, 37.

Feed-to-food quality

- A key performance indicator (KPI) was agreed for each of the five Nutrace® standards in 2009. Page 39.
- In 2009 the process of harmonising the risk assessments of all raw materials and feed additives progressed and by the year end the database contained details on 140 products, representing over 90% of feed raw materials. Page 40.
- The Nutrace early warning and rapid alert system, introduced in 2008, developed during 2009 into an effective communications platform on feed-to-food quality and safety. Page 40.

Nutreco people and investing in the community

- The Nutreco Health, Safety, Environment and Quality team audited and inspected Nutreco operating companies with the health and safety of employees as a top priority. Page 44.
- The Nutreco-wide standard software tool, known as P@CT (People and Career Tool), was implemented globally during the first months of 2009, in 29 countries. By 31 December 2009 there were around 2,500 employees with access to P@CT. Pages 45–46.
- The August edition of the Spanish financial magazine Actualidad Económica ranked Nutreco España at number ten in its annual survey of the best companies to work for. Page 47.
- Nutreco supports an integrated agriculture project to raise living standards in the delta region of Bangladesh. The project developed in 2009 and two Nutreco businesses are providing knowledge of animal nutrition, feed production and feed management. Page 49, together with further examples.

Responsibility towards natural resources

Nutreco invests in understanding the impact on the environment, including climate effects, associated with its activities and products. It strives to mitigate negative impact, either by reduction or an equivalent positive action.

Nutreco Sustainability Policy

As a world leader in the development and production of high-quality animal nutrition products, we believe we have a responsibility to take a lead in addressing the sustainability issues associated with our value chains. With respect to natural resources, this means giving attention to the sustainability of our raw materials and ensuring they are used efficiently. Additionally, it includes the environmental impact from the production and use of our products. As Nutreco only has direct control over a limited section of the value chains, we believe it is also important to stimulate and participate in value chain initiatives that address these issues at an industry level.

Animal nutrition plays an important role in the farm-based production of highly nutritious protein products — meat, fish, milk and eggs — by upgrading raw materials into feed for farm animals. Virtually all the raw materials come either directly from agriculture and fisheries or via other users of these resources. In addition, the animal nutrition industry uses energy in producing and delivering its products. Finally, the consumption of animal nutrition products has an associated potential for pollution.

In tonnage terms, animal and fish feeds form the great majority of our production in Nutreco — the combined total in 2008 was over 9.5 million tonnes. Animal and fish feeds are made up of proteins, mainly for growth, and fats or oils and carbohydrates mainly for energy, with essential micro-nutrients such as vitamins and minerals. Apart from feeds, we produce premixes of important nutrients such as vitamins and minerals for convenient addition to animal feeds and feed additives to bring various further benefits such as enhanced digestibility. Production of these products in 2008 was around 1.5 million tonnes.

Ensuring our use of natural resources is sustainable is essential in our quest to feed the world of tomorrow.

On the following pages in this chapter we describe the contribution of animal nutrition to human nutrition and give examples of how, as an animal nutrition company, Nutreco is addressing the challenges of sustainability, efficiency and impact on the environment.

FEFAC Environment Report

In 2009 Nutreco provided information and cooperated in the production of the first Environment Report of the European Feed Manufacturers' Federation. The report examines the environmental impact of feed production and use under three headings: sustainable management of feed resources, climate change and energy use, and feed safety. It can be downloaded in English, French or German at www.fefac.org/news.aspx?EntryID=6449.

Animal nutrition and human nutrition

Meat and fish are the preferred food products for many people. These animal proteins are efficient sources of many essential human food nutrients such as amino acids. They are also important sources of minerals and vitamins. For example iron in meat is more easily absorbed than iron from vegetables and meat contains vitamin B12, which is difficult to obtain from other sources. Oily fish such as salmon provide long-chain polyunsaturated omega-3 fatty acids known to have multiple health benefits.

As economies around the world develop, incomes are rising. With more money, people choose to consume more protein as meat, fish, milk and eggs. Combined with the growth of the earth's population, this is driving demand. Globally, animal protein consumption is predicted to almost double in the first half of this century, to more than 465 million tonnes of meat and fish and more than one billion tonnes of milk. We believe that animal nutrition has a vital role in feeding the world of tomorrow and beyond and that it must do so sustainably. Simultaneously, urbanisation is increasing the ratio of food consumers to food producers, which means producers must produce more on a narrowing resource base in terms of labour, land and water. That requires greater efficiency in converting input to output, whichever agricultural or aquacultural system is used. It also requires minimum impact on the environment, to preserve the productivity of the land and water employed and to preserve the biodiversity of the planet. Finally, it requires everyone involved in food production and distribution to develop a more equitable sharing of food resources to eliminate the under-nourishment and malnutrition still prevalent in many regions.

Feed raw materials

The major feed raw materials for animal feeds come from three broad categories, listed here in decreasing order by volume.

1. Agricultural raw materials that are surplus to demand for food or do not reach the specified quality standards, such as wheat and barley not suitable for baking or brewing.
2. By-products of the food, drinks and biofuel industries, such as beet pulp, brewers' grains and rapeseed meal.
3. Raw materials produced for feed such as fishmeal and crops that are part of a sustainable rotation, e.g. beans and lupins.

The major raw materials for fish feeds are the marine resources of fishmeal and fish oil combined with vegetable proteins such as soya meal and wheat, and vegetable oils.

The challenges of responsibility

Sustainability

There are three main sustainability issues concerning raw materials for animal nutrition. 1) Potentially, raw materials might be used in feed when they could be used directly for human consumption. 2) The cultivation of a crop such as soya can have environmental and social impacts if it displaces another land use or primary forest. 3) Over-consumption of a raw material such as fishmeal could exceed nature's ability to replenish resources, i.e. wild fish populations.

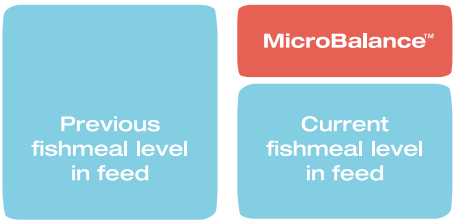
1) In the vast majority of instances, the prices that farming or fishing businesses can obtain by selling for human consumption substantially exceed the prices when sold for animal feed. For example, maize of milling quality will command a premium of at least € 9 per tonne over feed grade maize (UK market Feb 2010). Fish sold for human consumption will generally bring in 50–100% more revenue than selling to make fishmeal and fish oil. This market mechanism effectively ensures raw materials are used for food rather than feed whenever possible.
2) Where the cultivation can have environmental and social impacts if it displaces another land use or primary forest, the issue is best addressed by a joint action of members of the value chain. For example, Nutreco is a member of the Round Table on Responsible Soy and the Dutch Soya Task Force and the Round Table on Sustainable Palm Oil. The Round Table on Responsible Soy is an international multi-stakeholder initiative that brings together those concerned with the impacts of the soya economy. It is working to define responsibly grown and processed soya and to promote the best available practices to mitigate negative impacts throughout the value chain. Responsible soya includes specifications such as no forced labour and not buying soya from illegally cultivated land. Draft principles and criteria were evaluated in the field in 2009 (www.responsiblesoy.org).

3) Fishmeal is a good example of a raw material where over-consumption would lead to sustainability problems, in this case with wild fish stocks. For this reason, governments and many participants along the value chain, including Nutreco, are working to ensure fishing is controlled and to purchase from responsibly managed sources and not from illegal, unreported or unregulated fisheries. The sustainability of fishmeal, and related sustainability issues for aquaculture, are part of the SEA Programme discussed on page 36.

Another means of reducing demand pressure on limited raw materials is by finding alternative raw materials. This is an important activity in the R&D programmes of Nutreco.

The nutrition in Nutreco feeds always matches the needs of the animals as closely as possible. However, there is great flexibility in the way feeds can be prepared. Many different combinations of raw materials will provide a feed that matches the nutritional specification prepared by our animal specialists. The Nutreco people who formulate the feeds select from available raw materials to devise the least-cost combination that provides the nutrition specified. These least-cost formulations help to keep food prices down as well as winning and keeping feed customers. Identifying new raw materials increases the options and helps to take pressure off those raw materials where the sustainable supply may be limited. Therefore Nutreco has a research centre dedicated to identifying alternative raw materials, especially among the by-products of other industries such as food, beverages and biofuels. For example, a plant converting wheat into bio-ethanol will also produce by-products that can be used in animal feed; over 800 tonnes DDGS (dried distillers grains with solubles) for every million litres of fuel. Nutreco R&D is investigating how to make the best use of these new by-products, for example by analysis for nutritional content and the presence of antinutrional factors.

The raw material purchasing team uses the formulation flexibility brought by research to avoid raw materials in short supply, and therefore expensive, and to buy those in surplus, which minimises dumping or destruction of unwanted agricultural produce. Thus the animal nutrition industry is central in the efficient use of agricultural resources.



MicroBalance™ increases fishmeal flexibility

Fishmeal is an important ingredient in fish feeds for species such as Atlantic salmon. Feeds for Atlantic salmon represent a major proportion (about 75%) of the feed produced by Nutreco fish feed business Skretting, which has around 35% of the global market. In 2009 Nutreco research showed that, in addition to protein and amino acids, fishmeal contains micro-nutrients that are important in performance and health. Adding those separately to the feed from alternative sources, they were able to almost halve the level of fishmeal from previous typical levels of 25–30%. This advance means the sustainably available fishmeal can be used to produce far more fish from aquaculture to meet the growing demand. Introduced under the concept name of MicroBalance™, the approach is being applied commercially in a new generation of salmon and trout feeds in the early months of 2010, first in Norway and then in the UK. The progress achieved to date in this R&D programme demonstrates that Nutreco addressed the criticism at the beginning of this century that 5 kg of fish caught off the coast of Peru were needed to grow 1 kg of salmon and Nutreco now has the nutritional knowledge to make an 80% reduction of that ratio possible.

Efficiency

In addition to aiming for sustainable raw materials, we must find ways of getting the greatest nutritional benefit from them while maintaining high levels of animal welfare and feed-to-food safety. Motivated by commercial and sustainability considerations, our research and development teams aim to increase the efficiency with which raw materials are processed into feed and the efficiency with which the animals can use that feed. Nutreco has three pilot-scale feed plants to explore feed processing options, to optimise processing of new raw materials and to provide experimental feeds. These are located in the Netherlands, Spain and Norway.

One way to increase the efficiency with which animals utilise their feed is to match nutritional content as closely as possible to their nutritional needs. Nutreco researchers are continuously investigating the optimum nutrition at every phase of the life cycle. Their research shows that correct feeding greatly improves productivity and health, especially at what we refer to as the transition phases. These are phases such as preparation for insemination, gestation, birth and lactation, also weaning and early feeding stages for the young animals. The effect is equally valid for fish as for land animals. Nutreco has a growing number of feeds and specialty products formulated to provide optimum nutrition at these phases, such as Milkiwean for young piglets. The specific nutritional needs at transition phases are also being incorporated in the models used to advise customers on feeds and feeding, such as the Optifeed model for pigs described on page 30.

Finding ways to increase the nutritional benefit that farm animals get from their feed, for example through the use of feed additives to aid digestion, is another research theme. On a broader scale, the potential for further progress was discussed by leading scientists at the Innovision conference organised by Nutreco prior to Agri Vision 2009, see page 15.

Models of precision

From R&D we know what nutrition is needed for a category of farm animals, e.g. dairy cows or gestating sows, and our feed companies can provide it. We can make better use of the raw materials by matching feed to need more precisely; taking account of individual farm circumstances and objectives and even the characteristics of individual animals. This is done by developing models that include as many of these factors as possible. For example, in 2009 the swine researchers and animal feed businesses of Nutreco shared a massive volume of data in preparing the Optifeed model and range of sow feeds for launch in Spain at the beginning of 2010.

The Optifeed model shows the costs and predicted benefits from several feeding options and it takes factors such as the time of year into account. For example, a more concentrated feed is recommended in summer when high temperatures mean the sows tend to eat less. The range includes feeds for gestation, for the transition period in the final week of gestation, and for lactation. Where farms have the appropriate equipment and electronic tagging, the feed and feeding is specific for each sow.

In a further contribution to improving sustainability, environmental optimisation parameters will be introduced into Nutreco nutrition models.

Protecting nutrition

In 2009, a Nutreco specialty business introduced a high-performance mould inhibitor, Fylax® Forte. Fylax Forte is used on finished feeds and raw materials such as grains to prevent moulds from developing while they are in storage and it is significantly more effective than other currently available inhibitors. It reduces waste, improves feed safety and contributes to gaining maximum benefit from agricultural resources.

Boosting the benefit

Nutreco researchers are investigating ways of getting the greatest nutritional benefit from the raw materials being used. They are making progress, for example, by the addition of feed additives such as Optimin® chelated minerals. These specially produced molecules effectively protect a trace mineral such as zinc and escort it through the digestive system until it reaches the location where it should be released and absorbed. The zinc content of the feed can be closer to the animal's needs, with much less wasted in the manure. Optimin chelated minerals are supplied by Trouw Nutrition International for ruminant, pig, poultry and fish feeds.

Environment

Matching feeds to needs precisely, increasing productivity from feeds and extracting maximum nutritional benefit from feed raw materials all make animal protein production more efficient. Progress also brings an environmental benefit. Utilising nutrients more efficiently reduces pollution of the environment from excreta. For example, the Optimin chelated minerals described above reduce the loss of zinc into the environment.

The second environmental challenge is the production of greenhouse gases that may lead to climate change.

Climate focus

Greenhouse gases contribute to climate change and the agricultural industry produces greenhouse gases. That much is clear. However, reliable data is lacking and methods to determine emissions vary. That is why Nutreco dedicated resources to a research project that is collecting and developing data on greenhouse gases at stages of the value chain, from feed raw materials through to feed manufacture and delivery. For Nutreco the main concern is the sequence from raw material purchase to delivering feed on the farm where we have direct control. However, we recognise that the other stages are important in greenhouse gas terms and we are actively cooperating in industry-wide initiatives to get the facts and to find ways of reducing the impact.

Environmental groups, governments and major retailers are asking questions and making demands for the animal protein industry to reduce its greenhouse gas production. The knowledge that is being generated by Nutreco and like-minded organisations will in future enable the industry to respond positively, with information and actions.

Moderating greenhouse gases

According to the Food and Agriculture Organization (FAO), livestock account for 18% of greenhouse gases produced by human activity: 13% from extensive production, such as cattle kept on pastures, and 5% from intensive production, such as most pig, dairy and chicken farming in Western Europe and North America. One of the objectives of the Nutreco greenhouse gases data project is to find the details behind these numbers and identify where Nutreco can influence them.

Initial analyses show production and delivery of compound feeds represent a small proportion of the total greenhouse gas output of the full chain from crop cultivation to the milk and meat in the consumer's fridge (see chart page 33). Although reducing emissions from Nutreco activities will have limited impact on the emissions of the complete value chain, it is a tangible contribution and will help raise sustainability awareness within Nutreco. For example, the approach to reducing emissions from transport looks at the following opportunities: move transport of e.g. raw materials from road to water or rail, progress from delivering products in 25-kg bags to big bags and on to bulk, optimise routes driven, consolidate transport within Nutreco and with outside companies, and use vehicles that are more efficient with lower emissions. All of these steps bring economic and emission benefits.

Cutting costs, fuel and emissions

Underlining the point that good sustainability is often good business, two important transport projects ran through 2009 with the aim of cutting costs by reducing truck kilometres, especially empty ones. Success effectively reduces fuel consumption and CO_2 emissions. These projects continue into 2010 with further benefits to be won.

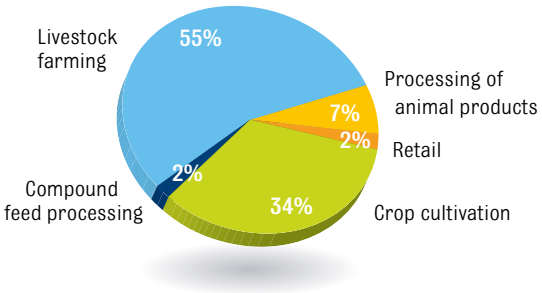
Nutreco animal feed company Hendrix UTD in the Netherlands is working with its three transport providers to make bulk deliveries more efficient. As these amount to around two million tonnes and 16 million kilometres a year, any reductions can be significant. Cooperation between Hendrix logistics specialists and their opposite numbers in the transport companies is combining the movement of feeds out with raw materials in. Strict protocols were developed to avoid problems of cross-contamination between raw materials and feeds. Further than this, cooperation is extending to rival feed companies and other customers of the transport providers to further reduce empty kilometres. Additionally, almost the entire transport fleet is now running with the clean Euro 5 low-emission engines.

Wireless monitors in the feed silos of customers are providing improvements in one area of the Netherlands where there are few opportunities to collect raw materials. Hendrix is running a joint project with one transport provider to coordinate deliveries better by monitoring the feed silo contents. The information enables them to predict upcoming delivery requirements and route them as efficiently as possible. A pilot study with monitors in 700 feed silos began in 2009. A 10% fuel saving will make the project self financing.

The Hendrix logistics team is now looking at options to increase the proportion of raw materials arriving by the more environmentally friendly water and rail transport.

Bags as well

In 2009 the Nutreco procurement team initiated a project to combine transport of bagged products (predominantly 25-kg bags) from all Nutreco companies in the Benelux region. For the most part, this is Hendrix and Trouw Nutrition International. As part of the project one transport supplier was chosen for all bag transport. This includes bringing in raw materials as well as taking out finished goods. A pilot scheme that began in October 2009 validated the new bag transport scheme. It was introduced in January 2010 with full implementation due by March 2010, which is when the real fuel and emission benefits will start to accrue. Optimisation is organised by the transport provider because it has the best overview of what is to be delivered where and when. As Trouw Nutrition is a major supplier to Hendrix, a significant saving is being achieved by using the trucks that deliver feed in the region around the Trouw Nutrition plant to bring Trouw Nutrition products back to the Hendrix plants. Further options are being explored in 2010.



Relative contribution to total greenhouse gases output of steps in the production chains from pork, poultry and dairy in the Netherlands, excluding emissions from land use and land use change. From Blonk et alia 2009

On-farm contribution

While working to improve the efficiency of our feed performance with customers' livestock, we are also effectively helping to reduce their emissions per unit of production. Improvements include greater productivity and better methane and manure management. Beyond this, we are looking at changes in diet patterns and feed formulations that can influence the output of greenhouse gases such as methane from ruminants, without reducing feed performance. Exploring these possibilities offers an additional way in which animal nutrition can mitigate the environmental effects of livestock production systems. The result can be either reduced greenhouse gases from the food value chain or increased food production without increasing greenhouse gas production. That is a choice for society as a whole.

Video cuts travel

In 2009, Nutreco invested widely in video-conferencing facilities in its businesses. This brought two benefits. First, it reduced the need for travel, and therefore the related emissions. Second, ease of personal contact through video links has increased the sense of belonging to one organisation.

Bulk fish feed delivery lowers environmental impact

In 2009 Skretting Norway began using a boat that delivers feed in bulk, referred to as silo–silo deliveries. Finished feed from its Averøy plant is held in a silo battery at the feed plant, transferred into small silos on the boat and then transferred directly into silos at the fish farms of customers. This replaces delivery in bags. The switch to silo–silo delivery also involved investment in new silos at the feed plant.

Silo–silo delivery by boat reduces the energy required, through efficient boat transport and reduced use of forklift trucks in loading and unloading. It is estimated this form of delivery will reduce packaging by more than 200,000 bags over a full year when it is in full operation.

Cutting consumption

In Chile, Skretting installed a high-efficiency wood-burning (biomass) boiler at its Osorno feed plant. The fuel used is wood by-products from the Chilean timber industry. The industry is well developed and regulated in Chile, with a certification system to protect primary forest. External analyses (by SGS) indicate the boiler has cut carbon dioxide emissions per tonne of feed produced by one-third of the previous system and produces low levels of particulate matter. It is 84% energy efficient compared with 57% previously. Further information can be found on www.berkes.com.uy.

Sloten, a Nutreco operating company, supplies dairy-based products. In 2009 it committed to invest in a new heater drying system that will substantially reduce the consumption of natural gas while maintaining the same level of production. The net effect will be to reduce the gas consumption of Nutreco in the Netherlands by 20%; three million cubic metres a year.

One link in the chain where Nutreco can influence greenhouse gas reduction is sourcing feed raw materials. For the initial phase of the climate project we limited investigations to five groups of major raw materials: wheat and barley, maize (corn), soya, palm products (by-products from palm oil) and rapeseed (canola). The emission sources taken into account are cultivation and processing and transport between these stages and to the compound feed factory.

Early conclusions

Two clear conclusions come from the information gathered so far. The first is that it will be far more effective, in terms of true corporate responsibility, for Nutreco to work with other participants in the value chain to reduce emissions relating to specific raw materials rather than directing its purchasing towards those suppliers demonstrating the lowest emissions. Doing that would simply force other purchasers into buying the less sustainable supplies and will not have any significant impact on global emissions.

The second conclusion is that that there is a need for a harmonised methodology accepted by all stakeholders and for more reliable data. For any individual raw material there are many variables, such as yield and amount and type of fertiliser used, and when data is available there are several methods for estimating emissions. These lead to widely differing results. The Dutch animal feeds product board is running a parallel study in this area and Nutreco is sharing information with the board on the difference the methods can make. We are also looking into variations, within one raw material and one methodology, as a result of factors such as country of origin and best and worst practices. There is significant potential to reduce emissions by promoting best practices but, again, that requires a coordinated effort by many participants in the value chain. This is a continuing project.

Land use

Land use and land use change, including deforestation, are further complex factors with wide variations in estimated impact and optimum allocation. Estimates of emissions resulting from land use change indicate that it can be a substantial share of emissions from the value chain. There is some guidance on how to allocate this to a crop now grown on the land. The current PAS 2050 (publicly available specification for assessing greenhouse gas emissions) specifies that if the crop was cultivated on land where its use was changed after January 1990, the estimated impact for each year of crop production should be allocated as

one-twentieth of the total. However, there is no answer for a sequence such as deforestation for timber followed by pasture, maize then soya, and these questions are very much under discussion. In the Nutreco project land use change is reported separately, using an alternative, indirect method based on records of expansion in land use in a region for all crops.

Data to date

To help us navigate our way through these complexities, we brought in a consultancy specialised in the subject, already acting as an advisor to the Dutch government and the Dutch 'Product Board: Animal Feed'. The consultant's report was delivered in August 2009 and we now have assessments of greenhouse gas emissions for our selected raw materials and know which parts of their supply chains lead to the greatest emissions. We also know where data is lacking and where further discussion is needed to agree on methodology.

The data means Nutreco is informed for future discussions. It also provides a good basis for continuing the project with further raw materials and other parts of the value chain.

Currently the project team is investigating the feasibility of obtaining greenhouse gas data relating to the production and use of feed additives.

What are greenhouse gases?

Greenhouse gases are a natural part of the atmosphere and help to keep the surface of the earth at a habitable temperature. The current problem is that we have too much and the excess comes from human activity. Agricultural activities can result in the production of three, namely carbon dioxide (CO_2), methane and nitrous oxide. The greenhouse gas consequences of an activity are sometimes referred to as its carbon footprint. In other instances carbon footprint may only relate to the carbon dioxide emissions.

Packaging progress

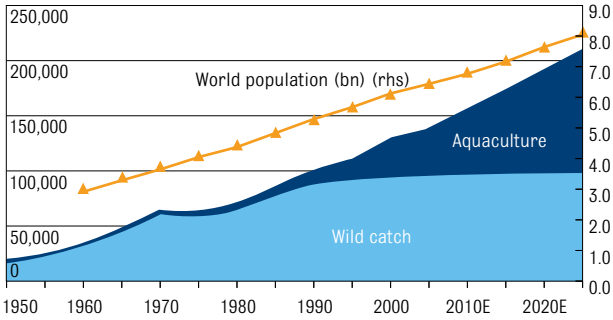
The Nutreco meat business in Spain together with the Nutreco Food Research Centre, also in Spain, collaborated in a packaging development with the objective of reducing environmental impact. The innovative project led to totally recyclable meat packaging that reduces carbon footprint, increases convenience, saves time and cuts costs. It was introduced in Spain in 2009. The modified atmosphere packs for chicken and chicken portions were introduced in Mercadona supermarkets in Spain on a trial basis in April and by mid November could be found in all stores; close to 1,300.

The packs are lighter and less than half the height of the previous generation, yet they hold the same weight of meat and retain the same product shelf life. This means they can be stored and transported more efficiently, reducing the number of truck miles required in distribution. With 21% more packs per box, retail display cabinets are restocked faster and the chicken products take up less space in shopping bags and domestic refrigerators. At the same time, the packs reduce environmental impact as fewer resources are needed to make them and they are 100% recyclable, even as food packs again. If they are not recycled, incineration yields only carbon dioxide and water or they degrade to carbon, hydrogen and oxygen.

SEA Programme

Nutreco's fish feed business Skretting introduced an international programme of action-based activities to ensure that our commitments to sustainability in aquaculture are delivered. It is called the SEA Programme, standing for Sustainable Economic Aquafeeds. First introduced in the UK in 2008, it has since been rolled out to Norway, Chile and most recently in Italy in October 2009, where it immediately attracted attention and enquiries from leading retailers.

Global production of seafood (1950–2025) (1,000 mt)



The SEA Programme gives attention to the sustainability of marine and agricultural raw materials, for example by requiring suppliers of marine raw materials to document that fish used have been responsibly sourced. This excludes any from illegal, unreported or unregulated fisheries. The SEA Programme also includes attention to greenhouse gas emissions and waste. Participating in stakeholder dialogues, as described below, is an essential part of the SEA Programme.

Joint initiatives for sustainable aquaculture

The aquaculture industry is subject to close scrutiny from many environmental and social NGOs for possible impacts on coastal communities and the environment. Concerns include inappropriate fishing to provide marine raw materials for fish feed. Skretting and other companies take initiatives to ensure correct information is available and meet with these groups to seek mutually acceptable ways of developing the industry.

Skretting is a member of the steering committee of the Salmon Aquaculture Dialogue organised by WWF USA and established in 2004. Other organisations and companies represented on the steering committee include environmental NGOs from Europe and the Americas, aquaculture companies and WWF. Skretting participated in the Dialogue meeting held in Boston, Massachusetts, in March 2009.

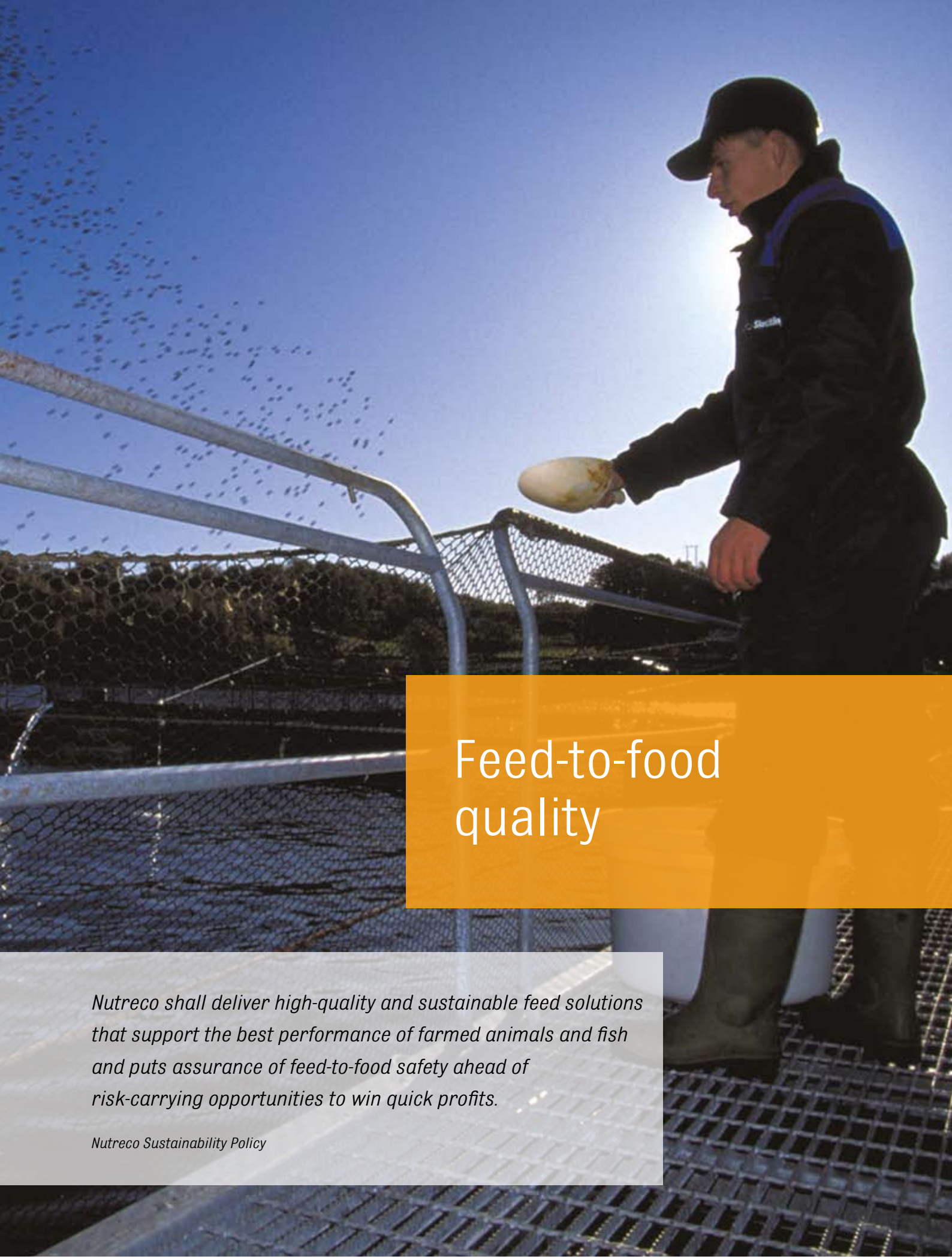
The objective is to develop and implement verifiable environmental and social performance levels that measurably reduce or eliminate key impacts of salmon farming and that are acceptable to all stakeholders. The final draft principles and criteria, available in English and Spanish, were created by the Dialogue's steering committee and are based on input received during two public comment periods and at Dialogue meetings held in 2008 and 2009. The full suite of principles, criteria, indicators and standards are scheduled to be posted for public comment in early 2010 (www.worldwildlife.org/what/globalmarkets/aquaculture/dialogues-salmon.html).

Nutreco supported WWF in 2009 in its formation of the Aquaculture Stewardship Council, which will be responsible for working with independent, third-party entities to certify fish farms that are in compliance with the global standards for responsible seafood farming developed by the various aquaculture dialogues initiated by WWF.

Skretting sponsored and attended the Seafood Summit organised by the Seafood Choices Alliance in San Diego, California, in February 2009. The theme was 'Sharing Responsibility for Real Change'. The summit brings together representatives from the seafood industry and the conservation community for in-depth discussions with the goal of making the seafood marketplace environmentally, socially and economically sustainable (www.seafoodchoices.org).

Skretting also supported the 2010 conference in Paris in January and made a joint presentation with the International Fish oil and Fish Oil Organisation on sustainability of marine raw materials.

Skretting UK joined with other fish feed producers, an animal health company and industry media in supporting a two-day conference in April 2009 on sustainability in aquaculture. Gatherings such as this provide an opportunity to agree on the criteria to assess what is sustainable.



Feed-to-food quality

Nutreco shall deliver high-quality and sustainable feed solutions that support the best performance of farmed animals and fish and puts assurance of feed-to-food safety ahead of risk-carrying opportunities to win quick profits.

Nutreco Sustainability Policy

The taste, texture and nutritional value for humans of food products such as meat, fish, dairy products and eggs are directly influenced by the nutrition of the animal concerned. As a major animal nutrition company we therefore play an important role among other factors in the value chains that supply consumers with these forms of safe, tasty and nutritious food.

We have a unique feed-to-food quality strategy called Nutrace®, with five standards and protocols that can be applied across all Nutreco businesses. The standards are Certified Quality, Ingredient Assessment and Management, Monitoring, Risk Management and Tracking & Tracing. As Nutrace is a dynamic strategy, we are continuously developing it in line with changing legislation and customer demands relating to the feed-to-food value chains and from our own expanding experience.

There is always a risk of quality and safety incidents in a business such as ours, with hundreds of raw materials from even more suppliers. The purpose of Nutrace is to prevent as many risks as possible and to react quickly and positively to any incidents that do occur.

The development of Nutrace is guided by a group of quality assurance and food safety specialists known as the Nutrace Platform. These people work in all parts of Nutreco. The Platform is a forum for discussion and helps Nutreco companies share their knowledge and best practices, and the work of safeguarding the quality of our products. In 2009 the Platform updated the long-term Nutrace plan and devised a clear strategy that indicates the way ahead for the coming years. One of the most important elements in Nutrace strategy is a commitment to more synergy and added value across all businesses, bringing together expertise and best practices in quality assurance and food safety. The Nutrace Platform also agreed the immediate action plan, including the developments described on the following pages. Again, the main focuses are safety and harmonisation to enhance efficiency in quality and safety activities.

During the year progress was achieved in three particular areas: establishing key performance indicators for the implementation of Nutrace in an operating company, harmonising risk assessments of raw materials and feed additives, and in coordination and communication within the Nutrace Platform and beyond.

Nutrace key performance indicators

Key performance indicators (KPIs) were agreed for all five Nutrace standards in 2009. The five Nutrace standards are:

- Certified Quality
- Ingredient Assessment and Management
- Monitoring
- Risk Management
- Tracking & Tracing

The KPIs were selected to be compatible with the audit process of the Health, Safety, Environment and Quality (HSEQ) team that audits all Nutreco production facilities (see page 44). In this way implementation of Nutrace can be monitored during HSEQ audits. The frequency of HSEQ audits varies between sites, depending on the scores they most recently achieved. Therefore, the Nutrace Platform is requesting all quality and food safety managers to conduct an annual self-audit. These will be validated in the subsequent HSEQ audit.

Because much of the data for the Nutrace audit is common to the data collected in the HSEQ audit, it has proved possible to review Nutrace progress retrospectively over the past ten years. The analysis shows a broadly steady progress with interruptions resulting from the acquisition of companies with significantly different systems.

There are five KPIs to cover the five Nutrace standards. Each KPI has a number of specific indicators to cover topics such as training of all personnel with respect to the quality certifications held; active procedures in place for the introduction, approval and use of ingredients; clear sampling strategy for finished products; effective issue management and crisis communications systems in place; and recording of ingredient batches used in production.

If a company has all KPIs for each standard fully in place it will score 100% in the Nutrace audit. The intention is for all Nutreco companies to score 100%. Plans are already being discussed to set an Ambitious level that can be applied when extra measures are in place to meet specific customer requirements. This will help to drive up quality and safety levels and will further differentiate Nutreco from its competitors.

Harmonising

In 2009 the process of harmonising the risk assessments of all raw materials and feed additives progressed and by the year end the database contained details on 140 products. These represent well over 90% of the feed raw materials used in Nutreco but there is a larger number of feed additives not yet represented.

Risk assessment indicates what risks are associated with a raw material or feed additive, for example, whether it is necessary to check for undesirable substances and which ones to check for. When all businesses that use a particular raw material or feed additive agree on the associated risks, the obvious next step is to harmonise risk management and that is now happening.

Risk management indicates how often to check and the methods to use. Harmonising it means one Nutreco business can take the lead for a particular raw material and the analyses can be conducted by one laboratory using a consistent method. The data generated is then shared around Nutreco. Additionally, because the data is consistently prepared in the same manner, the results can be statistically processed, revealing quality and safety trends.

Harmonised risk assessment and management bring commercial benefits for Nutreco in purchasing and cost efficiency of monitoring and supplier auditing activities. Harmonisation also brings benefits in safety and in the quality of information being shared. The overall effect is intended to improve quality and diminish risk.

Nutrace Platform and communication

The Nutrace early warning and rapid alert system, first introduced in 2008, was fully implemented and then extended during 2009. It has become more than a way of alerting quality colleagues to an incident with a raw material or feed additive and is being used as an effective way of communicating on quality and safety.

Experience has shown us that this communication and information sharing is very useful and so a simpler system is being developed to make it more user-friendly for non-experts. At the same time, coverage is being expanded to record all incidents in Nutreco companies and not only those relating to product quality and safety.

This development is, again, a cooperation between the Nutrace and HSEQ teams.

As an incidental effect of the improved communication provided by the rapid alert system, the quality and safety managers throughout Nutreco are becoming a cohesive and mutually supportive community, further contributing to higher quality and greater safety in Nutreco products.

Nanta upgrades track & trace

In 2009 Nanta, Nutreco's animal feed business in Spain, tested and began introducing an electronic track & trace system using bar codes. The Nanta feed plants have a conventional paper-based tracking and tracing system to follow from raw materials to finished products. Management decided to upgrade to an electronic system and in 2009 the bar-code-based system was trialled in the Valencia plant. It uses a combination of the conventional bar codes familiar to most shoppers and two-dimensional codes that carry far more information. The track & trace begins with unique bar code identification of incoming raw materials, in bulk or in bags, and follows through to sales of finished products. The codes are scanned at each step in the sequence to build a record that is linked with a code printed on the final label. Data can be viewed in the Nanta intranet. Conversion has begun in other plants and implementation is scheduled for completion in 2011. An additional test showed the Nanta bar code data can be linked with the track & trace information of Sada, Nutreco's meat business in Spain. This provides a sequence from feed raw material to meat retail.

Also in 2009, Nanta gained ISO 22000 Food Safety Management System certification at two more feed plants. Certification of Nanta plants under ISO 22000 began in 2008, when the standard was new (see page 57 Nutreco CSR Report 2008). The last of the Nanta plants is scheduled for certification in 2010. The next project is to integrate the quality management and feed safety systems of the plants acquired from Cargill in Spain in December 2009.

European dilemmas

The European Union (EU) has restrictions on genetically modified (GM) feed raw materials and on the use of land animal proteins (LAPs) in feed that do not apply elsewhere in the world. This places extra constraints on feed producers and farmers in Europe.

Pre-market approval of new GM crops is much slower in the EU than in most other countries. This asynchronous approval means many agricultural raw materials in widespread production cannot be used in the EU. Consequently, it is increasingly difficult for feed producers in Europe to source a number of important raw materials with a guarantee that they are free of genetically modified (GM) varieties that are not approved in EU. Where they can be found, supplies are limited and there is a premium to pay. The strict zero tolerance rules applied in the EU mean the slightest trace of a non-approved GM variety will result in the rejection of the entire raw material or feed batch.

In addition to the challenge of asynchronous approval, production of non-GM feed is becoming problematic. Because of the benefits GM crops offer arable farmers, uptake is widespread. Current estimates suggest more than 90% of global soya production is genetically modified; 100% in Argentina and 95% in the US, with Brazil at 70–75% and increasing. Emerging economies such as China and India are also active in genetic modification of crops, supported by public funding. Though there is limited information available at present, there certainly will be more GM plant varieties being grown in the near future. One option being used to secure non-GM supplies is the Identity Preserved route. There are dedicated non-GM suppliers but the classification comes at a price. In the early 2000s it was a premium of $ 5–10 per tonne. By mid 2009 that was $ 40 and rising.

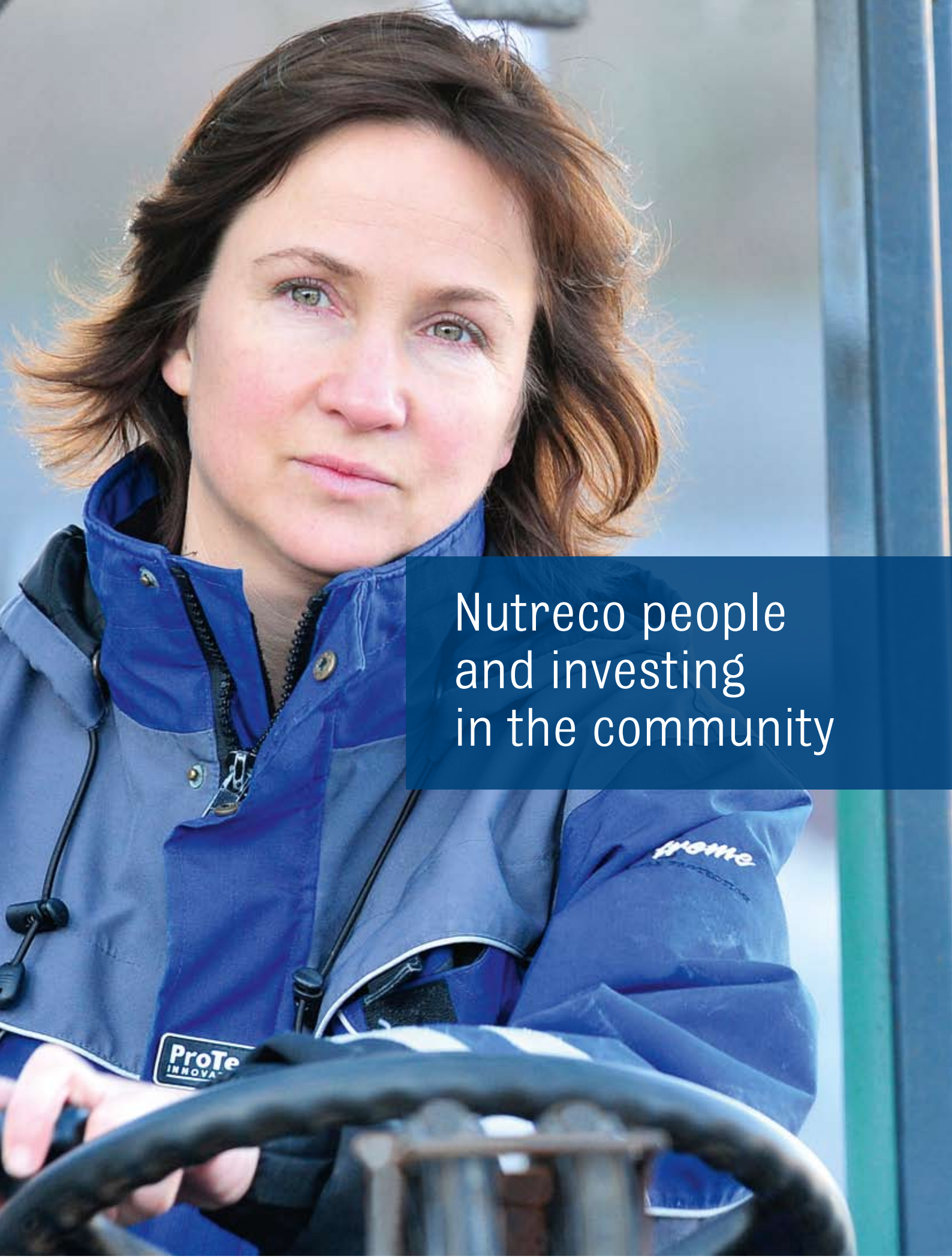
Where a GM variety is EU approved, any feed intended to be non-GMO feed cannot use a raw material with more than 0.9% adventitious presence of that GMO variety. Above that level, it must be labelled as containing GMOs.

Several retailers ask for non-GM claims, 'without biotechnology', to be applied to premium animal protein products as a differentiation to support the higher price. If the trend becomes widespread there may not be enough non-GM raw materials to meet the demand. Another area of genetic research and development may soon lead to commercial results with crops being a potential source of the health-promoting omega-3 fatty acids DHA and EPA currently derived from the fishmeal and fish oil. That would ease the pressure on marine raw materials and present the retailers with a challenge.

Fishmeal and fish oil are important components of feed for farmed fish such as salmon and many marine species, including sea bream and sea bass. They provide a natural source of protein and energy and the long-chain omega-3 fatty acids. The crucial challenge is to ensure the wild fish stocks that ultimately are the source of all fishmeal and fish oil are not over-exploited. If that were to happen, the stocks would collapse and we would lose this valuable resource.

In some parts of the world, dependence on fishmeal and fish oil is eased by using LAPs such as haemoglobin meal, poultry meal and poultry oil in fish feeds. Currently that is not widely possible in the EU because of resistance from regulators and retailers.

As a fundamental principle, Nutreco companies only use approved raw materials. Where customers specify they require a non-GMO feed, this can be provided.



Nutreco people and investing in the community

Nutreco shall provide safe working environments, fair and equal employment in all its operations, regardless of gender, race, colour, creed or sexual orientation. All employees have access to training and opportunities for advancement in line with their talents and ambition. Nutreco shall be a positive presence in communities where it is located and in wider society by acting as an enabler in social and economic development.

Nutreco Sustainability Policy

As can be seen in the relevant paragraph of the Nutreco Sustainability Policy, the health and safety of employees has a high priority in Nutreco. This is also expressed in the Nutreco Code of Ethical Conduct (www.nutreco.com > Corporate Governance), which describes the business ethics and moral values to which the company subscribes. It is more than a matter of meeting legal obligations. That is only the start. In the constant drive to recruit and retain the best people, the working environment is important and Nutreco has a small, highly knowledgeable team permanently occupied in auditing and advising the operating companies on health and safety at work, together with environmental measures and quality issues. This is the HSEQ team.

In addition, Nutreco requires fairness in employment and, through the activities of the Human Resources team, it is continuously developing the opportunities offered for performance management, training and development of careers within Nutreco.

Looking outside the company, Nutreco has always been active in engaging with local communities and with those further away, for example through charitable donations. With the development of the Nutreco Sustainability Policy and its implementation in the businesses of Nutreco, these external relationships will gain official endorsement within Nutreco and recognition as a valid part of Nutreco activities. They will also be given a greater sense of direction and purpose.

Activities in these three aspects of Nutreco people and investing in the community are described on the following pages.

Nutreco people

At 31 December 2009 Nutreco had 9,690 employees. This is an increase from 9,278 in 2008, mainly as a result of the acquisitions in Brazil (51% of Fri-Ribe) and Spain (Cargill Animal Nutrition). These Nutreco people were employed in 25 countries on five continents: North and South America, Australia, Europe and Asia. The great majority were based at 189 locations, including production plants (117), administration, sales and R&D sites.

The following details exclude the employees of the recently acquired companies mentioned above. The proportion of women employed in Nutreco was 27.7% (2008: 28.6%). The proportion of staff in managerial positions was 8% (2008: 8.1%) and 23.6% of these were female (2008: 23.4%). The average age was 41.1 years (2008: 40.0 years).

The average duration of employment was 11.7 years (2008: 10.9 years). Bachelor degrees or higher qualifications were held by 20.2% of Nutreco employees (2008: 17.9%). Further employee information in line with the Global Reporting Initiative guidelines can be found in the Nutreco Annual Report and, mid 2010, gathered on the Nutreco website. This will include data on topics such as lost time incidents and absenteeism. There were no fatal accidents reported by Nutreco operating companies in 2009. Nutreco maintains an ultimate objective of zero accidents in the workplace.

Health and safety at work

Health and safety forms a substantial part of the audits conducted by the Health, Safety, Environment and Quality (HSEQ) team based in Boxmeer, the Netherlands. The team has a key role in maintaining and improving standards that apply throughout Nutreco operations. As well as helping to ensure that everyone in Nutreco can have a safe and healthy working environment, the team contributes to improving operating efficiency by sharing knowledge and experience through Nutreco. It is in an excellent position to do this because team members visit and audit or inspect every Nutreco production and processing site and thus are aware of many options for solving a problem or making improvements. Talking with local managers, they can usually identify one that is appropriate for the site. The exact details vary from site to site to suit the construction and activities of the site rather than imposing identical procedures everywhere.

Each audit takes two to three days on site, including an audit introduction, the site inspection, a review of organisation and systems, and discussions of audit findings at the end of the audit. Afterwards, the auditors prepare a detailed report with recommendations. A site inspection is shorter, usually one day. They take place between audits, for example to see that important changes have been implemented or to see that there are no new problems at sites that already have high HSEQ ratings.

The audit reports, with any recommendations for action, are sent to managers at the site, to their managers at business level and to the Executive Board. The recommendations often form part of subsequent applications for investment (capex). Whenever recommendations call for urgent action, the HSEQ team will follow up to check something has been done. In the unlikely event that there is reluctance or refusal at a site to make required changes, the Nutreco Executive Board can call on reserved powers that enable it to impose control on a business to protect the interests of Nutreco.

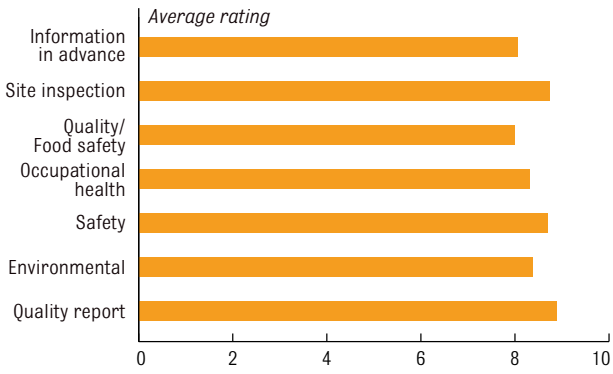
In addition to health and safety, the audits cover environmental issues. Certificates and licences required for activities at the site are checked, for example relating to quality control, hygiene measures and use and discharge of water. This aspect of auditing is relevant to 'Responsibility towards natural resources' (see pages 26–37) and to relationships with local communities. Any complaints made concerning odours or noise are noted and, if there is a real problem, the team works with management to find a practical solution.

In addition to audits and inspections, the HSEQ team coordinates the gathering of performance data used in these Corporate Social Responsibility/Sustainability Reports and in the CSR/Sustainability section of our website.

Nutreco has had an HSEQ team since its foundation in 1995. In that time, it has recorded continuous improvement. Starting in January 2008, Nutreco sites have been rated in one of five categories, based on the HSEQ audit results. The categories are: Insufficient, Below average, Nutreco average, Excellent and Superior. To achieve Excellent status, a site must have an overall score of 85% in the audit. Superior status requires a score of 90% or more in every section of the audit. Sites achieving Excellent or Superior status in the Safety module are awarded a Nutreco HSEQ certificate. At the end of 2009, 35 sites held one of these certificates. The categorisation of a site affects the interval until the next visit. Sites categorised as Insufficient (a total of two sites at the end of 2009) are subject to a full audit within two years, while those attaining Superior category are audited again in six years.

In 2009, the HSEQ team worked with the Nutrace® team to identify parameters that can be checked during an HSEQ audit to provide an assessment of the level of implementation of the Nutrace standards (see page 40).

Site managers assess the usefulness of their HSEQ audits. Results are almost always positive, as shown in the accompanying chart, which is based on feedback from all of the 32 HSEQ audits and inspections and ten other inspections conducted in 2009.



Dust explosion demonstrates dangers

In mid 2009 there was a dust explosion followed by a small fire at a Trouw Nutrition International plant in Poland. No one was injured. The incident highlighted the risks linked to handling fine particle materials and led to a review of Nutreco standards. An investigation of the incident by Nutreco and its advisors led to restrictions on handling certain fine particle materials and the use of 'big bags' (flexible intermediate bulk containers). Nutreco informed its suppliers and other companies of the findings from the incident review to alert them to the potential risks and is working with them to reduce the risks. The incident demonstrated how non-routine actions introduced to overcome a short-term problem, such as an interruption to supplies, can lead to increased risks. These can be further increased by environmental conditions such as high temperatures.

The explosion happened when DL methionine, in fine powder form, was being unloaded from a big bag into a silo that is normally filled by bulk delivery. Shortcomings in the method of unloading led to a dust cloud that was ignited by a spark. The spark came either from a charged insulated conductor nearby or, less likely, from a static charge on the material of the bag. Big bags are classified in three categories, A, B and C, depending on the level of precaution against static charge. Nutreco inspectors found that the bags used by the supplier were category A, which has no precautions against static charge. Nutreco guidelines are that only category B and C bags should be used. All big bags used in Nutreco were checked to ensure they complied with the guideline. A rule was introduced that big bags must not be used with methionine, lysine and wheat bran, which have similar fine particle contents.

Following the review, site personnel received extra training on handling fine particle materials and the dangers of dust explosions. An emergency drill was conducted in December.

Career management

In 2008 the Nutreco Human Resources team began introducing new systems and tools to help managers and employees manage employee performance and development. Changes included the implementation of a Nutreco-wide standard software tool, known as P@CT (People and Career Tool), where employees as well as managers can enter information about objectives, training needs, ambitions and availability. P@CT was implemented globally during the first months of 2009, in 29 countries. This followed on from the first roll-out for the top 280 in 2008. By 31 December 2009 there were around 2,500 employees with access to P@CT.

Performance management

P@CT was implemented to improve performance management by facilitating the processes for performance planning, mid-year reviews and end-of-year reviews and to make them transparent and consistent across Nutreco businesses. Beyond this, P@CT is facilitating in the management development reviews. P@CT is now available in seven languages including Chinese and Russian. In 2010 the number of employees with access to P@CT will increase in accordance with recommendations from Nutreco managers.

End-of-year reviews and performance planning for the following year using P@CT began on 1 December 2009. This is the first time a substantial number of Nutreco employees have undergone these reviews and planning processes in such a consistent and transparent manner. In the reviews, managers discuss the results with their employees and each employee is rated against the agreed objectives and the required competency levels.

Management development

In October 2009 Nutreco embarked on the management development process via P@CT. The process combines information on performance management with information on management development, including skills, mobility (willingness to move), training and succession planning. The review began in the operating companies and will be consolidated first in the business units and subsequently at Executive Board level. It will highlight those employees with the greatest potential to contribute to the further development of Nutreco and identify training priorities in Nutreco.

During 2009 a new and consistent tool for job evaluation was devised. This is now being used to evaluate jobs across Nutreco. Greater uniformity of job grading will facilitate better international mobility in Nutreco, in support of the management development processes described above.

Competence sharing

In October 2009 Skretting Norway was awarded a prize by the Stavanger Chamber of Commerce & Industry for the way it shares its competence and knowledge internally and externally. The jury referred in particular to Skretting's own exam database used for internal competence activities, to the AquaVision conference and to Skretting's cooperation with the University of Stavanger.

Recruitment, learning & development

An e-recruitment facility was prepared for implementation on the Nutreco website early in 2009. Preparation involved collaboration across Nutreco to accommodate geographical and cultural variations. Implementation was postponed in line with the recruitment freeze and scheduled for implementation in February 2010, beginning with vacancies in the Netherlands. Beyond this, most learning and development activities were put on hold throughout 2009, also as part of the measures implemented by Nutreco in response to the prevailing economic climate. One that did proceed was Expanding Horizons. See facing page.

In cooperation with Nutreco Sourcing and Procurement two training programmes were developed: Project Management and Advanced Negotiating. Following the successful completion of the first Project Management programme in 2009 it will now be more widely available in Nutreco. The first Advanced Negotiating programme was scheduled for February 2010. If equally successful it also will be made more widely available.

Training for change in Trouw Nutrition International

In 2009 Trouw Nutrition International introduced a two-stage training scheme for its commercial teams to match with changes in the way the business approaches its markets. The first wave of training took place in China, the Czech Republic, Hungary, Indonesia, Poland, Russia and Turkey.

Trouw Nutrition International is increasing coordination and cooperation between its operating companies around the world, to share best products and practices and a unified approach towards dealer management. Simultaneously it is becoming more customer focused with consultancy complementing the physical products. The two-stage training covers technical and commercial topics. Technical training is provided by the Global Technical Managers of Trouw Nutrition International and covers products and services. It is followed by a commercial training course delivered by an external organisation. This uses and builds on the technical training, making the course directly relevant and interesting for the trainees. Participants completing the course are given a personal development plan.

Expanding Horizons

Starting in 2008, Nutreco ran a two-year Expanding Horizons development programme for young employees with a strong potential to accelerate their international career in Nutreco. The objective is to broaden international experience, increase understanding of Nutreco and strengthen career mobility while providing visibility and interaction with senior managers. For this first programme eight participants were recruited in the Netherlands. Working in pairs, they tackled four international assignments. Results were delivered at the end of 2009 and exceeded expectations. This confirmed the value of the programme for the participants and for Nutreco. A second programme will begin in 2010 and recruitment will be throughout Europe.

Three of the projects were relevant to Nutreco sustainability. One developed the assessment of progress in implementing Nutrace standards (see pages 39–40). Another examined questions of gender balance in Nutreco. A third explored options to reduce emissions from transport of raw materials and finished goods (see page 32).

Nutreco people in Spain

The philosophy of the HR team in Spain is that by developing people who work for Nutreco, the company is making a positive contribution to society.

The August edition of the Spanish financial magazine Actualidad Económica ranked Nutreco España at number ten in its annual survey of the best companies to work for. 147 Companies entered the survey. The number ten position is a rise of seven places from 2008. The survey looks at five aspects of a company: talent management policy, remuneration and benefits, learning & development, ambiance (including motivation and facilities provided) and corporate social responsibility. Entering the survey involves completing a detailed questionnaire and permitting assessors to audit any aspect and to interview employees.

Nutreco continues to be one of relatively few companies in Spain to hold SA 8000 certification. Based on the principles of 13 Human Rights conventions, it is a tool to assure humane workplaces. During 2009 there were four instances when government labour inspectors requested appointments to visit a Nutreco plant to check on gender equality, discrimination and diversity. In each instance they were granted immediate access, without the conventional need to set an appointment 15 days ahead, and in each

instance the plant passed without problem. Success is partly the result of Nutreco in Spain adopting a code in 2008 to prevent harassment or discrimination, for example by gender, race or religion. In addition, six people were appointed to work as social workers and equality agents in the Sada meat processing business, the largest employer of Nutreco businesses in Spain.

In 2009 Nutreco HR in Spain prepared a programme of activities for the integration of the recently acquired

Cargill animal nutrition businesses in Spain and Portugal. This includes competence mapping of teams in both Nanta and Cargill to form a new business from the best of each.

Nutreco in Spain introduced a national version of the Expanding Horizons programme. 12 Young employees worked in a talent development programme organised by Nutreco and the business school of Nabrija University in Madrid. The programme is focused on key management skills and lasts 18 months. It includes running a simulated company for a full business cycle and working in teams on relevant projects. One project relating to sustainability is a cost-benefit study on solar power generation using the roofs of company buildings. The project business cases will be presented to top managers in March 2010.

Looking outside Nutreco

Many Nutreco companies and the corporate office can report on projects where support is given to community projects either nearby or in another country. Nutreco welcomes such actions. To date these initiatives were spontaneous from the local employees and managers. With the implementation of the Nutreco Sustainability Policy, appropriate community initiatives will gain recognition within Nutreco as part of the Sustainability Programme and participation in community activities will become a management goal.

Following are selected examples of community activities in 2009 that can become part of a coordinated Nutreco investment in the community.

Local food production in Bangladesh

The Nutreco Corporate office in Amersfoort committed to supporting an integrated agriculture project to raise living standards in the delta region of Bangladesh. Support includes a donation of € 40,000 a year in funds and € 10,000 in kind for five years. The project developed in 2009 and two Nutreco businesses, Skretting and Trouw Nutrition International, now have people actively involved to provide knowledge of animal nutrition, feed production and feed management.

People in the delta region possess very small plots of land that generally do not produce enough food to feed the family. SLOPB (Stichting Land Ontwikkelings Project Bangladesh), a Dutch organisation, has developed a system to increase the productivity. A fish farming pond is located in the middle of the plot with a chicken hutch above it and vegetables are grown on the banks around it. In this way, families can produce their own high-value protein food and, in most cases, can also sell some to the market. Micro-credit is available to help initial set-up of the farms. Over 3,000 households will benefit from this project in the five years of Nutreco support, potentially benefiting around 100,000 people.

In December 2009 representatives of Nutreco Corporate, Skretting and Trouw Nutrition International visited the project. They report that part of the funding was used to purchase six motorcycles that enable the 22 field workers to travel around the region and provide training and help as new small-scale farms are set up. By December 2009 1,000 families had been selected and trained and around 200 farms were in operation and generating income. The first farms act as models to convince more families to join.

Education in Indonesia

Trouw Nutrition Indonesia, which was founded in 2008, has developed a strong business. In 2009 it initiated a local sustainability action to provide new computers to a local Catholic orphanage and a small Muslim association taking care of local children. Education is a problem area for Indonesia and Trouw Nutrition Indonesia has opted to support those who are trying to provide education for the young and needy.

Training ex-employees in Chile

When the ISA virus spread rapidly through salmon farms in Chile, the reaction was to cull many of the fish and shut farm sites at least temporarily. This led to a down-scaling of the local aquaculture industry and at the end of 2008 Skretting Chile also had to close a feed plant and reduce its workforce of just over 500 to 260. During 2009 Skretting Chile worked with a welding company, an educational corporation and the local union to provide a 64-hour training course in welding for 30 ex-employees. To run the course, mobile training facilities were set up at the Skretting plant in Osorno.

Gas supplies reach Spanish town

Skretting Spain committed to switching to natural gas instead of propane for heating and drying purposes at its fish feed plant. In the busy fish feed factory this represents a substantial consumption; 18 gigawatts annually. The commitment justifies the installation by the gas company of a pipeline to the location of the plant. Having reached the plant, it becomes economic for the company to take the pipeline on to nearby towns. Natural gas will be a cost saving for Skretting and simultaneously it will improve the utilities available locally.

Livestock project in Kenya

Hendrix UTD in the Netherlands provided funds to the Clara Foundation to invest in a livestock project for poor farmers in Kisumu, Kenya. During 2009 a representative of Hendrix visited Kisumu to help with the project. The main action was to purchase goats and sell them on to the farmers at a discount. This meant they were affordable and valued. In addition, a local veterinarian was contracted to inoculate livestock and dogs in the region against rabies and anthrax, which are dangerous to animals and people. Several workshops were organised for the veterinarian to demonstrate to the community how to prevent and treat animal diseases.

Independent assurance report

To the readers of the Nutreco Sustainability Report 2009

Introduction

We have been engaged by the Executive Board of Nutreco Holding N.V. to provide assurance on the Nutreco Sustainability Report 2009 (further referred to as The Report). The Report, including the identification of stakeholders and material issues, is the responsibility of the company's management. Our responsibility is to issue an assurance report on The Report.

Context and scope

We designed our engagement to provide the readers of The Report with:

- reasonable assurance on whether the financial information in The Report presented in 'Profile & financial highlights' on page 2 is properly derived from the audited 2009 Group financial statements of Nutreco Holding N.V.
- limited assurance on whether the information in The Report — excluding the financial information on page 2 — is, in all material respects, presented in accordance with the internal reporting principles as published on Nutreco's website.

Procedures performed to obtain a limited level of assurance are aimed at determining the plausibility of information and are less extensive than those for a reasonable level of assurance.

To obtain a thorough understanding of the financial results and financial position of Nutreco Holding N.V. the reader should consult the audited Group financial statements for the year ended December 31, 2009.

Reporting criteria and assurance standard

Nutreco applies its own internal criteria and guidelines for reporting on sustainability as described on Nutreco's website which, where relevant, are based on the G3 reporting guidelines of the Global Reporting Initiative. We believe that these criteria are suitable in view of the purpose of our assurance engagement.

We conducted our engagement in accordance with the International Standard for Assurance Engagements (ISAE) 3000: Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board. This Standard requires, amongst others, that the assurance team possesses the specific knowledge, skills and professional competencies needed to understand and review sustainability information, and that they comply with the requirements of the Code of Ethics for Professional Accountants from the International Federation of Accountants to ensure their independence.

Work undertaken

We undertook the following activities:

- performing a media analysis and internet search to obtain information on relevant sustainability issues for Nutreco in the reporting period;
- reviewing the underlying principles of information management, and reviewing the systems, processes and internal controls for collection and aggregation of the qualitative and quantitative information in the Report;
- assessing the qualitative information by interviewing staff at corporate and business level and by reviewing internal and external documentation such as minutes of meetings, reports, internet and intranet sources;
- a consistency check to ensure that The Report includes information on the key commitments and targets in the Nutreco CSR Report 2008;

For the financial information in The Report we have reconciled the data on financial performance in 'Profile & financial highlights' with the audited 2009 Group financial statements of Nutreco Holding N.V.

As part of our assurance procedures we discussed changes to the draft reports with Nutreco Holding N.V., and reviewed the final version of The Report to ensure that it reflected our findings.

Conclusions

Based on our procedures for reasonable assurance, we conclude that the financial information in The Report presented in 'Profile & financial highlights' on page 2 is properly derived from the audited 2009 Group financial statements of Nutreco Holding N.V.

Based on our procedures for limited assurance, as described above, nothing came to our attention to indicate that the information in The Report — excluding the financial information on page 2 — is not, in all material respects, presented in accordance with the internal reporting principles as published on Nutreco's website.

Commentary

Without affecting the conclusions presented above, we would like to draw readers' attention to the following:

In 2009, Nutreco has made further progress towards integrating sustainability in the business by the development of a new sustainability policy with involvement of business management and the integration of sustainability targets in the performance contracts of management.

As explained in The Report, the challenge is to identify indicators and tools to monitor progress. In line with this challenge, we recommend Nutreco to ensure full implementation of this policy by translating this into operational plans for operating companies and further development of a reporting system for internal and external reporting purposes. Also, we recommend to further improve the quality of The Report by reporting quantitatively on the performance for the ambitions as defined in the policy.

Amstelveen, 1 March 2010

KPMG Sustainability
W.J. Bartels RA

Addenda

The indexes and texts on the following pages can help you find information in the report, relevant to specific topics, and provide further background information and contact details if you have comments or questions for the report team. The Nutreco Annual Report 2009 provides detailed information on financial performance, company structure, corporate governance, risk profile and related topics.

Millennium Development Goals

MDG	Sub-goal	Nutreco action	Page
 MDG 1: Eradicate extreme poverty and hunger	Sub-goal 2: Provide employment and living wages	Nutreco developed its Sustainability Policy, which includes social aspects.	18, 22
		The Nutreco Feeding the Future Sustainability Programme includes responsible sourcing.	21
		Nutreco is a participating member of the Round Table on Responsible Soy. As a member, Nutreco is bound by the covenant relating to South America that stipulates no soya will be purchased from suppliers connected with forced labour. It also participates in aquaculture dialogues with equivalent objectives.	28, 37
		Nutreco aims to have a positive influence in the community, helping to bridge gaps in local community social structures.	51
	Sub-goal 3: Stimulate local agricultural production	Nutreco is providing funding and expertise for local agriculture and aquaculture in Bangladesh and agriculture in Kenya.	49, 51
 MDG 2: Achieve universal primary education	Sub-goal 1: Avoid child labour	Nutreco developed its Sustainability Policy, which includes social aspects.	18, 22
		Nutreco is a participating member of the Round Table on Responsible Soy. As a member, Nutreco is bound by the covenant relating to South America that stipulates no soya will be purchased from suppliers connected with forced (or child) labour.	28
		Nutreco companies support projects that include schooling.	50

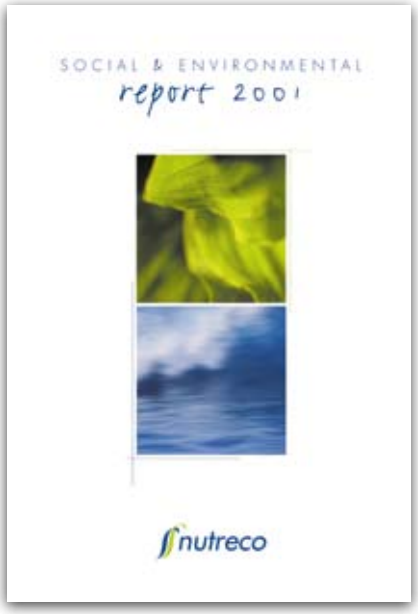
MDG	Sub-goal	Nutreco action	Page
 MDG 7: Ensure environmental sustainability environmental sustainability	Sub-goal 1: Reduce environmental impact	Nutreco developed its Sustainability Policy, which includes environmental aspects.	18, 22
		The Nutreco Feeding the Future Sustainability Programme includes environmental aspects.	21
		Production and transport of feeds have further impacts on the environment. Nutreco gives attention to these environmental relationships and to ways of moderating them. Video conferencing has reduced travel.	32, 33
		Nutreco is well positioned to make a valuable contribution to the reduction of impact of greenhouse gases from livestock and through advances in packaging.	31–36
		The production of biofuels, based on agricultural products, has become a significant industry in recent years. As a strategy in tackling climate change, Nutreco allocated increased resources to research the nutritional value of new raw materials generated as by-products in biofuel production.	29
	Sub-goal 2: Protect ecosystems and biodiversity	When purchasing raw materials, Nutreco aims only to purchase from reliable, quality-assured sources that it believes to be free of unsustainable practices.	28, 29, 36
		Nutreco is a participating member of the Round Table on Responsible Soy and has signed up to the criteria for sustainable palm oil and the Code of Conduct of the Round Table on Sustainable Palm Oil. It also participates in aquaculture dialogues with equivalent objectives.	28, 37
		Skretting is the world's leading supplier of fish feed and therefore an important buyer of fishmeal and fish oil. Skretting expanded its Sustainable Economic Aquafeeds programme and informed suppliers of sustainability criteria they must meet.	36
		Nutreco research centres improve the efficiency of using raw materials and develop models for ration optimisation to help formulators make the most effective use of raw materials.	30, 31
		The Nutreco CEO is a member of a Dutch government task force on biodiversity and natural resources.	

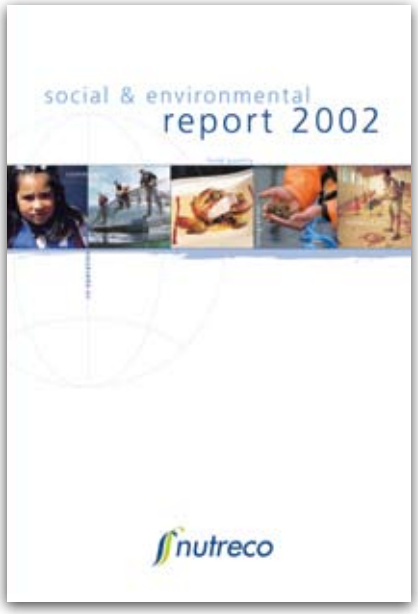
Subject index

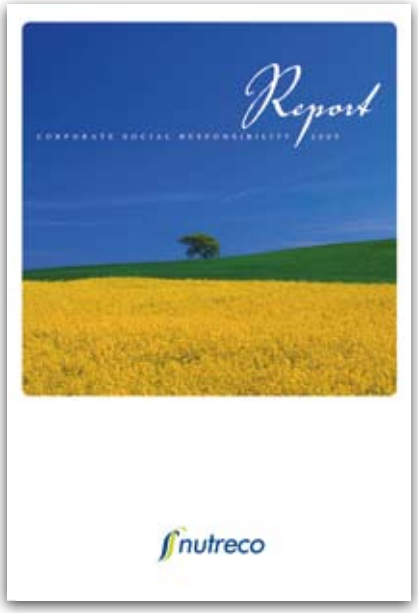
Glossary and abbreviations

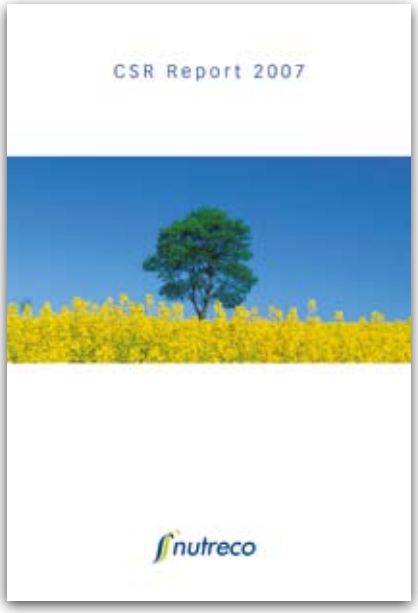
Compound feed	Compound feeds are complete feeds blended, or compounded, to match the nutritional requirements of the specified animal.
Concentrates	Premixes to which high protein feedstuffs have been added. Suitable for supplying to farmers to blend with macro-ingredients such as grain available on the farm.
CO_2	Carbon dioxide
EFSA	European Food Safety Authority
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FEFAC	European Compound Feed Manufacturers' Federation
Fish feed	A compound feed prepared for fish, having a higher nutrient concentration than feed for land animals
GMO	Genetically modified organism
GRI	Global Reporting Initiative
HSEQ	Health, Safety, Environment and Quality
IFFO	International Fishmeal and Fish Oil Organisation
NGO	Non-governmental organisation
OHSAS	Occupational Health and Safety Assessment Series
P@CT	People and Career Tool
Premix	Ingredients for compound feeds consisting of micro-ingredients, such as vitamins, trace elements and minerals, used in the production of concentrates and compound feed
Specialties	Animal feeds for specific animal groups such as young animals, e.g. milk replacers for calves and starter feeds for piglets, or feeds with supplements for specific purposes, such as health promotion

Ten years of sustainability reporting



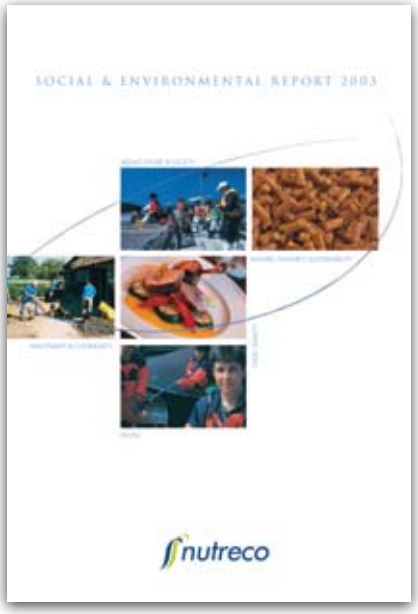


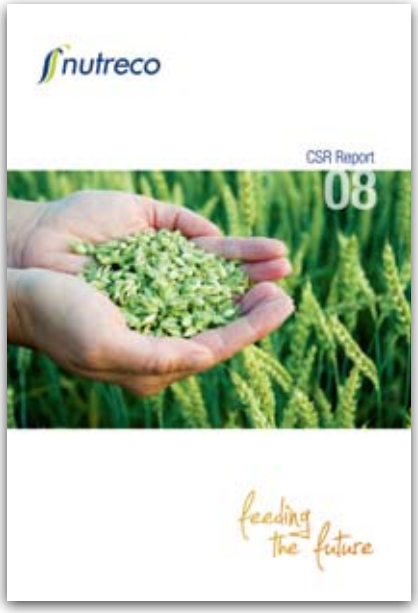




Nutreco was a pioneer in its sector in taking a course towards greater openness by publishing a report each year with information on the issues surrounding its activities. The first report related to activities in 2000 and Nutreco has published a report in every year since, making this the tenth report.

In that time, the reports evolved from Social & Environmental Reports to Corporate Social Responsibility Reports and now to a Sustainability Report. At the mid-point in the sequence, 2004–2005–2006, Nutreco underwent a major change in the Rebalancing for Growth strategy. The most important changes came when the





Hendrix Meat Group and Pingo Poultry were divested followed by the fish farming and processing activities of Marine Harvest. Nutreco then focused becoming a global leader in animal nutrition. These changes in the company and the issues it faces are reflected by the ten reports.

- **2000**:
  a first report; gained an award as the best first report
- **2001**:
  featured interviews with external stakeholders
- **2002**:
  the first report to be produced with attention to the GRI reporting guidelines
- **2003** and **2004**:
  contained focus sections on the issues relating to aquaculture
- **2005**:
  the first report to be structured around sustainability focus areas for Nutreco and to have external assurance
- **2006**:
  the first report following the changes of Rebalancing for Growth
- **2007**:
  the first report to be combined with data published on the Nutreco website
- **2008**:
  featured interviews with Nutreco people tackling sustainability issues
- **2009**:
  embedding of sustainability in the Nutreco business model

Contact us

The Sustainability Report Team
Sigrid van Amerongen
Graham Look
Reinder Sijtsma
Harm Teunissen

Assurance report
KPMG Sustainability

Advised by
DHV Sustainability Consultants
Amersfoort, the Netherlands

Concept and design
www.porternovelli.be

If you have comments on this Nutreco Sustainability Report, or would like further information, please let us know. You can contact the team responsible for the report by visiting the Nutreco website and following the links to the Nutreco Sustainability Report, or by sending an email to info@nutreco.com or by writing to:

The Sustainability Report Team
Nutreco
Prins Frederiklaan 4
P.O. Box 299
3800 AG Amersfoort
The Netherlands

Please provide your name, occupation and postal address or email address.

If you would like copies of the Nutreco Sustainability Report or the Nutreco Annual Report, please send your request to the contact address above.

These publications may also be viewed on the Nutreco website at www.nutreco.com under Sustainability > Sustainability Reports and http://annual-report.nutreco.com


FSC
Mixed Sources
Product group from well-managed forests, controlled sources and recycled wood or fibre
www.fsc.org Cert no. SGS-COC-004099
©1996 Forest Stewardship Council

feeding the future

Nutreco
Prins Frederiklaan 4
P.O. box 299
3800 AG Amersfoort
The Netherlands
tel. (31) 33 422 6100
fax (31) 33 422 6101
www.nutreco.com