



**RAISIO GROUP
ENVIRONMENTAL AND SOCIAL RESPONSIBILITY REPORT 2003**

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GENERAL

Scope of the report

- The environmental report contains information on subsidiaries in which Raisio Group has a shareholding of over 50% during the year under review and which actually have production activities. The subsidiary Diffchamb is included in the report from the moment of acquisition, i.e. 1 April 2003. Comparison figures are presented according to the organizational structures at the given time.
- The environmental report is limited to the environmental, health and safety aspects of the Group's own business operations.
- Raisio Group has very few transport vehicles of its own. Most of its transportation is carried out in partnership with transport contractors. So far, no assessments have been made of the environmental loading of outsourced transport.
- By and large, the social responsibility report covers the personnel of the entire Group. For some of the indicators, development work on reporting is still in progress and figures are only given for personnel based in Finland.

Towards sustainability reporting

Social responsibility is built on shared financial and environmental responsibility. Raisio Group aims to ensure profitability in the long term and produce added value for shareholders, customers and other stakeholders through responsible, high-quality operation. Raisio is committed to the principles of sustainable development laid down by the International Chamber of Commerce (ICC). Furthermore, Raisio Chemicals has joined the chemical industry's Responsible Care programme.

Environmental and social responsibility reporting is being developed in parallel with financial reporting according to the Global Reporting Initiative (GRI). Raisio's aim is to publish a sustainability report that follows the key elements of these GRI principles in 2006. Annual reporting will be extended as the creation of indicators and reporting systems proceeds.

Chief Executive's review

2003 was a fairly difficult year for all three of our business sectors, Raisio Chemicals, Raisio Nutrition and Raisio Life Sciences. The non-recurring costs incurred in boosting operational efficiency weakened the financial performance further. However, we succeeded better than anticipated in reducing working capital and improving cash flow, which made it possible to maintain solvency levels despite the negative result.

The difficult market situation, which continued in 2003, and weakened demand for some products forced Raisio Group to cut jobs in certain areas. As far as possible we have tried to implement personnel reductions by offering job rotation within the Group, pension arrangements and training for change. In spite of this, it has understandably been a difficult year for many Raisio employees. To my mind, however, ensuring profitability in the long term is the only way to guarantee jobs in the future and is a key aspect of the responsibility that is written into Raisio's core values.

Over the year, the management and the Board of Raisio Group have been considering shared ethical principles alongside financial targets, EHS policies and core values. Jointly agreed ethical principles that have been approved by the Board are now set out as a concise package on the Raisio Group website for all to read.

At the beginning of 2004, the Raisio Group Board initiated the preparation of a new strategy based on concentrating operations more clearly and developing Raisio Group as a profitable and innovative food and animal feed company oriented towards the life sciences. As a diversified processor of grain, oil plants and potatoes, Raisio is able to respond to the expectations of the Finnish consumer for safe, healthy, easy, tasty food. We are in a position to benefit from our existing knowhow in expanding Raisio Nutrition's operations into the Baltic region. On the other hand, growth in functional food ingredients and food diagnostics has to be sought from the European market in particular.

Taking care of environmental, health and safety issues and making ethically sustainable choices are part and parcel of every Raisio employee's normal working day. As a specialist in well-being, Raisio Group will be investing in socially responsible operations in the future, too. One of the key challenges for future development work will be calling for socially responsible operations from all the players in the entire procurement chain. Reporting will be developed further, too, with the aim of producing a broad-based sustainability report in 2006.

Fitting together financial, social and environmental responsibility, the basic pillars of sustainability, is never easy or unambiguous. Raisio's efforts to find a suitable balance have not gone unnoticed, however. In 2003 Raisio shares were selected as ethical investments for the Kempen SRI index and the Ethibel investment register.

Raisio Group in brief

Raisio Group is a growing international industrial group whose operations are divided into three business sectors: Raisio Chemicals, Raisio Nutrition and Raisio Life Sciences. Raisio Group has launched an evaluation of structural alternatives intending to focus its operations more clearly.

Raisio Chemicals serves the paper industry globally, supplying it with functional paper chemicals and chemical concepts. It is one of the world's leading manufacturers of paper latex, specialty chemicals and starch binders. Raisio Nutrition comprises the Food, Animal Feeds and Malt business areas, while Raisio Life Sciences produces stanol ester, the Benecol ingredient that helps to reduce cholesterol. The other important pillar of Raisio Life Sciences is food diagnostics. In the future, Raisio Nutrition and Raisio Life Sciences will be concentrating more and more on special expertise in well-being.

Raisio Group employs some 2,700 people, 45 per cent of them abroad. It has production units in 31 locations in 18 countries. The Group also has sales offices all over the world. The Group's head office is in the town of Raisio in southwest Finland, and there are production plants in eight other locations in Finland.

The free shares of the parent company, Raisio Group plc, are quoted on the Helsinki Exchanges Main List under the food industry and its restricted shares on the I List. The company has some 47,000 shareholders.

ENVIRONMENT RESPONSIBILITY

Policies

EHS policy

Raisio Group is a growing international industrial group. It develops, produces and markets paper chemicals, foods and functional food ingredients, animal feeds and malts. We are expanding our product range by putting competitive, innovative and safe products onto the market.

We want to be a reliable and preferred partner for our customers and other stakeholders, taking full responsibility for our actions in society and in the use of natural resources. We use renewable natural resources as raw material whenever possible.

Our aim is to be a successful company at the forefront of our sector and to be known for our first-class environmental and quality work. To achieve our targets, our business sectors define annual objectives for environmental, health and safety issues and monitor their fulfilment.

We comply with all local, national and international laws and regulations that concern our operations. We are committed to the principles of sustainable development laid down by the International Chamber of Commerce. Moreover, Raisio Chemicals is committed to the international Responsible Care programme.

By acting safely and investing in better safety we promote the quality and economy of our operations. We are constantly improving the environmental friendliness and safety of our operating processes, utilizing the know-how of our international resources and partners. Environmental, health and safety issues are part of our management policy.

Raisio personnel receive regular training in environmental, health and safety matters and apply the principles involved in their daily work. We provide our various stakeholders with open and honest information about our operations.

GMO policy

Genetically modified raw materials in the procurement of oil plants

Raisio Group develops and manufactures foods and animal feeds of high nutritional and ethical quality. We process the seed of oil plants to make oils for food or technical uses and protein feeds for animals. We prefer to use Finnish rapeseed because of its advantageous fatty acid composition.

Soy is used in protein feeds for animals and in foods. It is an excellent and very versatile raw material. There are hundreds of foods on the market where soy is a raw material.

The United States is the biggest soy producer in the world and the food and feed industries would not manage without US soy. Like many other companies, Raisio Group acquires the soy it uses from the Americas. However, soy that has been proven free of genetic modification is becoming increasingly difficult and expensive to come by, as land under genetically modified (GM) soy comprises almost 80% of the total in the US and over 50% globally. GM varieties are also widely used in South America. Farmers prefer the new varieties for their better yield. The new varieties also require less herbicides, which cuts costs and limits environmental load.

GM varieties have been pronounced safe by the authorities in, for example, the USA and within the EU. Raisio Group monitors GM research and progress continuously. Our opinion on the quality and safety of GM soy is invariably based on the latest research and the views of the authorities. It is also Raisio Group's view that GM soy is safe and of good quality.

However, because some consumers are opposed to the use of gene technology in food production, the products Raisio Group sells in Finland contain only traditional varieties that have not been genetically modified. To acquire traditional soy, we have set up a separate purchasing chain that is completely traceable. We buy soy using this separate and controlled chain

outside the main sources of soy. We supervise the acquisition of non-GM soy from farmers and each stage of transportation is monitored. We require both certificates of origin for the soy we buy and analyses of each delivery that show that their GM content is below 0.5%.

We respect the opinion of consumers and will obtain traditional soy for use as raw material as long as it is possible and our customers expect it.

Animal testing

Foodstuffs and animal testing

Food safety in Finland comes under various pieces of legislation such as the hygiene act, the health protection act, and the foodstuffs act, and EU provisions. The guiding principle is that the foodstuffs available to consumers should be of the highest quality, in terms of both food hygiene and health impacts. Food should not contain any pathogens, or foreign substances, and should not endanger human health in any other way. Due to the regulatory requirements specific animal tests may be needed to guarantee the food safety.

The act on novel foods contains criteria for safety checks on what are called novel foods. In order to meet the requirements laid down in the act, it may sometimes be necessary to use animal testing for novel foods and foods comparable to them.

Animal testing in Raisio Group

In its own development and production processes, Raisio Group uses animal testing only to the extent required by law and the appropriate authorities so that the safety of the products concerned can be guaranteed. Safety of stanol ester has been proven by animal tests according to regulatory requirements.

Raisio Group also takes part in nutritional research in Finland and internationally, which may involve animal testing. Raisio Group does not have any testing facilities of its own but has its tests carried out at authorized international facilities

Targets

Environmental impact and society as a whole are prime considerations for Raisio Group in everything it does. At Group level the focus is on the following environmental, health and safety objectives:

- Developing safe, healthy and environmentally friendly products and manufacturing them by sparing natural resources.
- Preventing operational hazards and accident risks and their consequences.
- Reducing the amount and harmfulness of emissions and waste, as well as increasing waste recovery.
- Promoting open debate and interaction on environmental, health and safety issues among customers, authorities, stakeholders, personnel and the entire procurement chain.

Management

The environmental, health and safety targets approved by the Executive Committee create the basis for EHS work within the three business sectors. In addition, the business sectors and the individual business areas set their own EHS targets as part of their management systems and monitor their implementation.

All three business sectors have their own expertise on EHS issues. By and large, environmental management follows the ISO 14001 standard and most of the management systems in the business sectors and business areas have been granted certification.

Cooperation with environmental interest groups

Raisio Group is a member of the Water Protection Association of Southwest Finland as well as a contributing member of the Finnish Association for Nature Conservation. To promote the recycling of packaging materials in Finland, Raisio Group has registered itself on the Environmental Register of Packaging (www.pyr.fi), and is a partner in Suomen Uusiomuovi Oy, Suomen Teollisuuskuuti Oy, and Suomen Kuluttajakuitu ry. Carlshamn Mejeri in Sweden is listed on Reparegistrert AB (www.repa.se).

Raisio Group's quality and environmental management systems in 2003

Most Raisio Group business areas comply with the ISO 14001 standard on environmental management. In 2003, the whole of Raisio Nutrition received certification for its environmental activities in Finland and Raisio Chemicals received four new environmental management certificates. Furthermore, several quality systems have been updated to meet the ISO 9001:2000 standard. The aim of the Food Ingredients business at Raisio Life Sciences is to achieve corresponding readiness for certification in Finland in 2004. Altogether, the various business areas at Raisio Group hold over forty ISO environmental and quality certificates. The new systems are shown in bold text.

	Environmental system	Quality system	Products
RAISIO CHEMICALS			
Finland			
Raisio Chemicals Oy (Raisio, Mietoinen, Anjalankoski)	ISO 14001	ISO 9001:2000	Cationic polymers, starches, hydrophobic sizes, cationising agents, specialty chemicals
Oy Kationi Ab (Lapua)	ISO 14001	ISO 9001:2000	Starches
Latexia Suomi Oy, Latexia SB Oy (Anjalankoski)	ISO 14001	ISO 9001:2000	Latexes
Finnamyl Oy (Kokemäki)	ISO 14001	ISO 9001:2000	Potato starch
Lapuan Peruna Oy (Lapua)	ISO 14001	ISO 9001:2000	Potato starch
Europe			
Raisio Echeveste S.A. (Tolosa, Spain)	ISO 14001	ISO 9001:2000	Hydrophobic sizes
Raisio France S.A. (Toulouse, France)	ISO 14001	ISO 9001:2000	Hydrophobic sizes
Raisio Chemicals Paperion S.A. (Gron, France)	ISO 14001	ISO 9001:2000	Hydrophobic sizes
Raisio Belgium N.V. (Veurne, Belgium)	Under preparation	ISO 9002	Starches and cationic polymers
Raisio Chemicals Deutschland GmbH (Mainz-Laubenheim, Germany)	-	-	Hydrophobic sizes
Raisio Chemicals UK Ltd. (Blackburn, UK)	ISO 14001	ISO 9001:2000	Hydrophobic sizes
Latexia Management	-	ISO 9001:2000	
Latexia Österreich GmbH (Pischelsdorf, Austria)	ISO 14001	ISO 9001:2000	Latexes
Latexia France SAS (Ribecourt, France)	SIMSERP	ISO 9001:2000	Latexes
Latexia Iberia S.L. (Guturribay, Spain)	Under preparation	ISO 9001:2000	Latexes
Americas			
Raisio Chemicals Canada Inc. (Squamish, Canada)	ISO 14001	ISO 9001:2000	Hydrophobic sizes, specialty chemicals, poly-aluminium chlorides
Raisio Chemicals US Inc. (Berwick, USA)	Under preparation	ISO 9001:2000	Starches, cationic polymers
Raisio Quimica Andina S.A. (Itagüi-Antioquia, Colombia)	Under preparation	Under preparation	Hydrophobic sizes
Latexia Brasil Ltda (Paulinia, Brazil)	Under preparation	ISO 9001:2000	Latexes
Asia			
P.T. Intercipta Kimia Pratama (Jakarta, Indonesia)	-	ISO 9001:2000	Hydrophobic sizes
Raisio Chemicals Korea Inc. (Cheonan, Korea)	ISO 14001	ISO 9001:2000	Specialty chemicals, hydrophobic sizes

PT Latexia Indonesia (Merak, Indonesia)	-	ISO 9001:2000	Latexes
RAISIO NUTRITION			
Food business area: Margarine, Milling and Potato Processing businesses (Raisio, Nokia, Vihanti)	ISO 14001	ISO 9001:2000	Foods based grain and vegetable oils and processed potato products
Margarine business, Carlshamn Mejeri AB (Karlshamn, Sweden)	ISO 14001	-	Margarines, spreads, ice creams, soy or oat-based vegetable oil products, almond paste
Margarine business, Raisio Polska Foods Sp. z o.o. (Karczew, Poland)	-	-	Margarines, spreads
Animal Feeds business area			
Raisio Feed Ltd (Raisio, Oulu, Anjalankoski)	ISO 14001	ISO 9001:2000	Feeds for livestock, pigs, poultry and fish
Monäs Feed Oy Ab (Uusikaarlepyy)	-	-	Fur animal feeds
Oil Milling business (Raisio)	ISO 14001	ISO 9001:2000	Rapeseed oils and soybean oil, seed meals and soy meals
Malt business area Raisio Malt (Raisio)	ISO 14001	ISO 9001:2000	Malts
Grain Starch business Raisio Grain Starch Oy (Raisio)	ISO 14001	ISO 9001	Grain starch
Purchasing & Logistics	ISO 14001	ISO 9001:2000	Procurement of grains and oil plants, orders for packaging materials
RAISIO LIFE SCIENCES			
Ingredients			
Raisio Benecol Oy (Raisio) Raisio Staest Oy (Raisio)	Under preparation	ISO 9001:2000	Sterol-based ingredients
Diagnostics			
Diffchamb Danmark A/S (Risskov, Danmark)	-	ISO 9001:2000	Rapid analytical methods
Diffchamb Limited (Nottinghamshire, UK)	-	ISO 9001:2000	Diagnostic systems
Diffchamb SA, R&D Centre (Lyon, France), Diffchamb France SARL (Lyon, France)	-	ISO 9001:2000	Diagnostic systems

ISO 9001 = International quality system standard

Quality control model for planning product development, manufacture, installation and maintenance

ISO 9001:2000 = International quality system standard

Quality control model for planning product development, manufacture, installation and maintenance, Replaces the ISO 9001 International quality system standard.

ISO 9002 = International quality system standard

Quality control model for manufacture, installation and maintenance

ISO 14001 = International environmental management standard

SIMSERP = Système Intégrant le Management de la Sécurité et de l'Environnement chez Rhône-Poulenc

Indicators

Products

Raisio Group objective: Developing safe, healthy and environmentally friendly products and manufacturing them by sparing natural resources.

The operation of the Raisio Group production plants generate only small amounts of environmental pollution at local level. One of the most important eco-efficiency indicators is energy consumption.

Raisio Group processes make use of electricity and heat energy and the Group purchases all its electricity and most of its heat energy from outside suppliers. Pollution caused by outsourced energy suppliers has not been reported.

Main products

Raisio Chemicals	Latex binders, specialty chemicals, starch binders
Raisio Nutrition	Foods, animal feeds, malts
Raisio Life Sciences	Ingredients, diagnostics

Turnover and production volumes

	1999	2000	2001	2002	2003
Turnover, EURm.	763	800	823	843	861
Production volumes, 1,000 tonnes	1,704	1,556	1,686	2,138	2,329

Consumption of raw materials and resources

Most Raisio Group raw materials are renewable natural resources. Transfers of material from one business sector to another may cause raw material quantities to be repeated to some extent.

	1999	2000	2001	2002	2003
Raw materials, 1,000 tonnes	1,940	2,360	2,045	1,913	1,804
Raw materials, tonnes/output in tonnes	1.14	1.52	1.21	0.89	0.77

	1999	2000	2001	2002	2003
Additives, 1,000 tonnes	2.40	2.81	3.43	2.64	2.16
Packaging materials, 1,000 tonnes	16.43	16.52	13.82	16.22	13.81

	1999	2000	2001	2002	2003
Water, 1,000 m3	2,862	3,012	4,323	3,985	4,227
Water, m3/output in tonnes	1.68	1.94	2.56	1.86	1.81

	1999	2000	2001	2002	2003
Heat, GJ	1,465,000	1,615,000	1,627,000	1,961,000	1,890,000
Heat, GJ/output in tonnes	0.86	1.04	0.97	0.92	0.81

	1999	2000	2001	2002	2003
Electricity, MWh	228,000	205,000	223,000	222,000	232,000
Electricity, MWh/output in tonnes	0.13	0.13	0.13	0.10	0.10

Emissions and waste

Raisio Group objective: Reducing the amount and harmfulness of emissions and waste, as well as increasing waste recovery.

The Group has facilities for treating wastewater, another important form of process waste, but also uses treatment plants belonging to its partners. It is impossible, indeed impractical, to calculate or estimate the water pollution caused by outside suppliers. Thus the volume of wastewater alone is used as an indicator.

No continuous quantitative measurements are made of noise, odorous or dust emissions, they are only monitored by spot checks. This means that no continuous indicator data is available. Sustained action during investments and repairs helps reduce environmental hazards. Regular measurements of volatile organic compounds (VOCs) are made at certain plants to comply with the terms of the environmental permits.

Emissions into water

Group level

	1999	2000	2001	2002	2003
Wastewater, 1,000 m ³	1,971	2,044	2,016	1,899	1,954
Wastewater, m ³ /output in tonnes	1.16	1.31	1.20	0.89	0.84

Results of the pre-treatment of wastewater from Raisio's production area and treatment of the wastewater at town of Raisio's municipal wastewater treatment plant

	1999	2000	2001	2002	2003
Wastewater entering pre-treatment, COD, 1,000 kg/year	2,457	3,014	2,317	2,519	2,609
Outgoing wastewater to Town of Raisio's municipal wastewater treatment plant, COD, 1,000 kg/year	375	601	208	655	361
Load on waterway from Town of Raisio's municipal wastewater treatment plant (monthly average) BOD ₇ , mg/l	4.9	4.3	4.4	4.9	10.7
City permit conditions, BOD ₇ 20mg/l	20	20	20	20	20

Loading on water from Raisio Group's own wastewater treatment plants

	1999	2000	2001	2002	2003
Kokemäki (Finnamyli)					
Volume, m ³	101,500	132,540	107,091	101,775	80,407
COD, tonnes	12.60	35.10	11.00	10.45	4.90
P, tonnes	0.30	0.31	0.20	0.20	0.08
N, tonnes			1.33	0.61	0.80
Lapua (Lapuan Peruna)					
Volume, m ³	77,820	111,099	68,222	104,161	59,587
COD, tonnes	13.20	20.00	6.90	12.70	5.20
P, tonnes	0.11	0.20	0.10	0.20	0.06
N, tonnes			2.06	5.50	4.00
Hirvlax (Monäs Feed)					
Volume, m ³	1,280	1,500	1,850	1,790	1,500
COD, tonnes	1.50	1.50	1.60	1.30	0.66
P, tonnes	0.07	0.08	0.10	0.10	0.04
N, tonnes			0.92	0.87	0.38

Vihanti (Raisio Nutrition, Potato Processing business)					
Volume, m3	311,512	319,912	328,887	288,277	281,128
COD, tonnes	28.00	31.10	37.20	47.10	45.80
P, tonnes	0.25	0.30	0.45	0.43	0.48
N, tonnes			2.06	2.16	2.24

All above values are based on actual measurements.

Emissions into air

Hexane emissions from the Raisio oil milling plant increased on previous years. For rape seed, the emissions amounted to 0.970 kg per 1 tonne of raw material (maximum limit: 1.0 kg/tonne) and for soy to 0.792 kg per 1 tonne of raw material (maximum limit: 0.8 kg/tonne). Nevertheless, volumes of emissions were lower than the maximum limits set by the EU to be effective from 2007. The hexane recovery system was renewed to reduce emissions of hexane and odorous substances.

Hexane emissions, kg per 1 tonne of raw material

	1999	2000	2001	2002	2003
Hexane emissions from rape seed	0.791	0.625	0.710	0.884	0.970
Hexane emissions from soy	0.633	0.500	0.568	0.982	0.792
Raw materials, total (average)	0.692	0.551	0.620	0.942	0.871

Maximum emission limits set by the EU effective as of 2007:

- Rape seed: 1.0 kg/tonne of raw material
- Soy: 0.8 kg/tonne of raw material

Waste

Raw materials are used to the fullest possible extent at Raisio; in terms of raw materials, waste production does not constitute a significant environmental factor. Waste production is nevertheless an important indicator of eco-efficiency, and most environmental permits place an obligation on the company to monitor its waste levels. There are, moreover, certain statutory obligations concerning the reduction and recovery of waste which apply to all companies. It is therefore sensible for Raisio to use waste as an environmental indicator, specifying its recovery rate, the quantity of waste consigned for final disposal and the volume of hazardous waste transferred for special treatment.

Pre-packaged consumer products are primarily produced by Raisio Nutrition's Foods business area. The EU has laid down strict targets regarding the use and recycling of packaging materials. Monitoring the volume of packaging materials is a statutory requirement in all EU countries, and accordingly used by Raisio as an environmental indicator.

Increasing attention is being paid to waste sorting. Recycling is further encouraged by increasing recovery of waste board and plastics and by recovering energy-containing waste for fuel.

Group level

	1999	2000	2001	2002	2003
Recycled or recovered waste, tonnes	45,896	51,394	60,268	62,296	52,243
Landfill waste and hazardous waste, tonnes	15,113	15,644	17,467	11,904	12,673
Total volume of waste, % of production	3.58	4.31	4.61	3.47	2.79

Recycling packaging waste from Raisio's production area

	1999	2000	2001	2002	2003
Cardboards, tonnes	3.00	53.20	63.30	74.90	137.80
Glass, tonnes	7.70	16.60	8.30	8.30	2.40
Plastic waste, tonnes	24.20	56.10	89.00	122.00	87.80
Total	34.90	125.90	160.60	205.20	228.00

Environmental and safety investments

Raisio Group spent around EUR 3.2 million (EUR 6.8 million) on environmental and safety investments in 2003. The most important investments were aimed at reducing emissions to air. Operating expenses related to waste treatment, conservation of water resources, prevention of air pollution and occupational safety totalled about EUR 4.1 million (EUR 4.5 million).

Environmental protection costs associated with waste arise from transport and treatment, with wastewater from pre-treatment and invoicing for treatment by others, and with prevention of air pollution from filter renewal and treatment of used filters.

The important wastewater pre-treatment plant project in Raisio received EUR 1.2 million of environmental funding from the European Union. The Town of Raisio is renovating its wastewater treatment plant so that it can use the carbon-rich wastewater from Raisio Group food industry to remove nutrients from the wastewater at its own plant. The work on the Town of Raisio wastewater plant will be completed by summer 2004, after which Raisio Group will alter its own pre-treatment plant to meet the cooperation requirements. The total costs of the project will be EUR 7 million, of which Raisio Group will be contributing 20%.

Raisio Group has no significant quantities of waste in storage, nor is the company under any obligation to clean any contaminated sites.

SAFETY

Raisio Group objective: Preventing operational hazards and accident risks and their consequences

Complying with environmental legislation

The majority of the Raisio Group production plants in Finland that require environmental permits submitted their applications in 2003. Finnamyli Ltd received its environmental permit decision in autumn 2003. There is no litigation in progress linked with environmental issues.

Accidents and their prevention

In 2003, three accidents occurred at Raisio Group sites in Raisio, but the consequences of these were relatively small.

- There was a fire danger at the Raisio Life Sciences esterification plant when stanol leaked onto a hot steam pipe from an axle seal. There was little damage to property.
- A small volume of hexane was ignited during the annual overhaul at the Raisio Nutrition oilmilling plant. The fire was swiftly extinguished by the sprinkler system.
- A minor leak was observed in the sulphuric acid tank piping at the Raisio Group power plant, so that sulphuric acid leaked into the bund below the tank. No damage was caused to people, the environment or property.

Raisio Group has very few transport vehicles of its own, so most of its transportation is carried out in partnership with transport contractors. In 2003, there were 6 transport accidents in which 5 people were injured. There was no environmental damage resulting from the accidents. So far, no assessments have been made of the environmental loading of outsourced transport. The units involved in the road transport of dangerous substances have appointed safety advisors who have passed the appropriate examinations.

Safety at work

Raisio Group personnel receive regular training and guidance in occupational health and safety issues. Accident frequency is used as a safety indicator. The accident figures do not include accidents occurring on journeys to and from work, deaths and invalidity. In 2003, 84 accidents were logged (61), but the amount of absence they caused was less than the previous year.

Work accidents

	1999	2000	2001	2002	2003 ¹⁾
Accidents resulting in min. 3 days' sick leave	50	50	64	61	84
Lost working hours (min. 3 days)	5,231	3,907	7,414	6,680	4,860

¹⁾ 2003 figures include all accidents that caused absence (even shorter than three days).

Work safety training and development

Work safety at the Raisio Group's subsidiaries in Finland has been organized so that each division has its own work safety committee. The committee consists of the work safety manager and employee representatives. Employees that have been elected to represent the workers and office personnel in work safety issues as well as members of personnel working in work-related health care are also invited to take part in meetings. There are 19 work safety managers working in a linear organization with 21 personnel-elected work safety representatives who serve for a term of two years.

Raisio Group provides both in-house and externally organized training for employees involved in promoting occupational safety. This training offers an opportunity to get up-to-date information on occupational safety and provides employees with appropriate skills for improving the working environment.

The basic internal safety at work course is organized at Raisio every two years. The objective has been to get all employees responsible for work safety, both supervisors and work safety representatives, to participate in the training. Others who have been interested in work safety have also been able to participate.

Raisio complies with local national legislation on occupational health and safety at all its plants worldwide and provides related training for local employees. In the initial training of new employees and in developing on-the-job training methods, the work safety aspect plays a key role.

Risk management

The aims, principles and responsibilities of risk management at Raisio Group are defined by the risk management policy approved by the Board of Directors. The key principle is to try to recognise and assess significant internal and external risk factors which could threaten the implementation of strategy or the achievement of targets. The aim is to remove, reduce or transfer recognized risks. Special effort is put into risk prevention and ways of improving it. The biggest challenge in 2003 was to increase risk awareness among Raisio Group personnel.

Coordinating and developing risk management is the responsibility of Risk Management organization, which is led by the Group's Chief Financial Officer. Key risk management operations at Group level are to develop joint evaluation procedures to measure risk management levels in the business units and decide on the extent and emphasis of any action that has to be taken. The Group is responsible for a global insurance programme and the insurance cover is determined annually in conjunction with a survey of the risks present at each site.

Each business sector and the business areas and subsidiaries that belong to it carry out practical risk management work themselves in accordance with corporate risk management policy and Group guidelines. Operational responsibility lies with the management of each business sector. Each business sector carries out a systematic review and recognition of risks and assesses the necessary action to be taken in conjunction with annual planning, for example. Risk assessment and reporting take place according to a specially developed joint evaluation system and the results obtained are dealt with at Group management level.

Risk management is also being evolved in collaboration with outside insurance brokers. Action intended to increase safety precautions and raise protection levels at production plants has been carried out at different sites in the form of risk management assessments. A programme has been drawn up on the basis of the results obtained to guide improvements in risk management assessment. The aim is to continue to perform commensurable surveys in all major production plants in Finland and abroad.

SOCIAL RESPONSIBILITY

Ethical Principles

Raisio Group obeys the principles of sustainability including social, environmental and economic aspects. Our most basic targets are profitability and customer satisfaction, while valuing expertise, responsibility, open-mindedness and enjoyment of working together.

Acting according to our values enables us to commit ourselves to good corporate citizenship all over the world. Raisio is committed to full compliance with all applicable national and international laws, regulations and generally accepted practices.

In addition to these ethical principles, basic targets and values, the Board of Raisio Group has approved environmental, health and safety policies. These important guidelines governing our operations and actions are communicated effectively to all employees. All at Raisio Group are required to adapt and take these principles into practice.

When choosing suppliers Raisio Group strives to select partners and contractors that apply similarly high ethical principles. Furthermore, the traceability of raw materials is important to us.

Human Rights, equal opportunities and non-discrimination

Raisio Group respects the UN Declaration of Human Rights and the basic labour rights as described by the International Labour Organisation (ILO). The basic labour rights include freedom of association, the right to organise and the right not to be organized, collective bargaining, abolition of forced labour or child labour as well as equality of opportunity and treatment.

All personnel are entitled to safe working environment. Psychologically or physically coercive, threatening or abusive behaviour is not accepted.

Diversification of the personnel is considered one of Raisio Group strengths. We select employees according to their personal qualifications and skills. Lifelong learning and continuous professional development are enabled through internal and external education. Discrimination based on e.g. race, gender, sexual orientation, religion or political affiliation is forbidden. We strive to enlarge the current equality plan and well-being plan to cover all Raisio employees around the world.

Fair business practices

Raisio's management and employees are expected to act in the company's best interest. Conflicts of company's and personal interest need to be avoided at all times.

Raisio Group management or employees may not pay, give or accept gifts that exceed normal standards of hospitality to or from their business partners or any other stakeholders.

Raisio appreciates the creation and protection of intellectual capital. Innovations are important to Raisio Group, which encourages and rewards the employees systematically for their innovations and creativity. We safeguard Raisio's intellectual capital and we respect the intellectual property held by outsiders.

All Raisio Group transactions are shown clearly and correctly in company's financial information. This information is reported simultaneously, honestly and transparently to all stakeholders obeying the rules and recommendations for a Finnish publicly listed company. Internationally the local companies obey their relevant reporting rules and recommendations as well.

Community involvement

Raisio Group co-operates locally and on group level with many stakeholders in the fields of science and research, education, sports and culture as well as health-care. Raisio Group Research Foundation supports scientific research through annual awards.

Continuous dialogue with authorities, trade unions and organisations of citizens enables direct and well functioning connections within our communities. While Raisio Group is the biggest Finnish industrial user of grain, we work hard to promote the vital and developing Finnish countryside. Listening to the different stakeholders and responding to their needs is essential to all Raisio employees. Raisio Group encourages its units and personnel to participate in local community work to promote the common good.

Number of personnel

	31 December 2003
Raisio Chemicals	1,151
Raisio Nutrition	1,312
Raisio Life Sciences	199
Service functions	73

Number of personnel increased in 2003 due to the acquisition of the food diagnostics company Diffchamb and Raisio Chemicals' expansion into Asia. Numbers were reduced by closing down margarine production in Sweden, selling the ice-cream business to Åhus Glass AB and implementing the rationalization programmes.

Financial pressures on Raisio Chemicals and increasing competition in the sector led to a critical evaluation of operations during the first half of 2003. As a result, the organization was changed and around 90 jobs were cut in Finland, elsewhere in Europe and in Americas. Moreover, a total of 26 jobs were cut from Group administration early in 2003 as part of the rationalization programme.

Raisio Nutrition carried out an extensive rationalization programme which included comprehensive reorganization, pruning out overlapping operations, focusing resources to meet customer needs and rationalizing the product range. It was also decided to close down the Grain Starch business. The rationalization programme at Raisio Nutrition will reduce the number of jobs in Finland by a total of 117 in 2004.

It has been possible to implement some of the personnel reductions by internal transfers, pension arrangements and voluntary reductions. Some specific measures were organized to help people find new jobs and face up to change.

Managing expertise

In managing human resources, Raisio takes a close look at organization and management, and the competence of individual employees and their personal development targets. Achieving the strategic targets and budgeted targets is backed up by developing competence including job rotation, induction, training, networking and sharing experiences. Personal targets and ways of developing competence are agreed individually between employee and supervisor according to the performance appraisal practice.

In terms of developing competence in 2003, inputs were made in business and management expertise, language and IT training, and quality and environmental issues, as well as developing professional training and internal operations.

In 2003, some 20 people from nine different countries took part in the Raisio Chemicals international training programme for middle management. Training is arranged on average every other year and so far, a total of 80 Raisio Chemicals managers and supervisors have taken part.

The first group in the 'Leading Raisio' management training scheme launched in autumn 2002 finished their studies in spring 2003 and the programme will be further developed on the basis of the feedback received. A new group of 20 supervisors and experts began their studies with various aims including learning how to put vision, values and strategy into practice, increasing their business expertise and developing their personal skills and internal networking and thus improving supervisory practices.

At Raisio Nutrition and Raisio Life Sciences, a great deal of effort went into hygiene training in 2003. About 800 Raisio employees who had passed an approved test were awarded a hygiene certificate.

At Raisio Chemicals, about 50 people working in production at customers' factories took part in occupational safety training in 2003, with the aim of obtaining a national 'occupational safety card'. In 2004, the practice will be extended to cover the entire Raisio Group.

Training for crisis communications was arranged at Raisio, Anjalankoski, Nokia, Lapua and Vihanti. The training prepares personnel for dealing with management and communications in different types of crisis situation. Altogether around 60 people took part in the training.

Raisio Group motivates and trains its personnel to keep up their professional skills. The personnel are encouraged to work in an environmentally friendly manner that also promotes health and safety. Environmental, health and safety training is also arranged to increase the professional skills of the personnel and to keep them up to date. In 2003, the amount of training aimed at environmental, safety and hygiene increased by 26% on the previous year. A system of incentives and sanctions was also used to steer operations in a more environmentally friendly direction.

EHS-training

	1999	2000	2001	2002	2003
Number of training sessions	246	202	242	264	333
Number of participants	1,741	1,761	2,151	2,009	2,836

Well-being at work

Improving well-being at work covers all activities associated with the health, well-being and competence of the individual employee and with work, the working community and working conditions.

There is a long tradition of maintaining working ability in Raisio Group's units in Finland. The idea is to increase motivation, benefit systematically from the Group's internal expertise, reduce sick leave and discourage people from taking early retirement. The methods used include work community training, free-time activities supported by the company, rehabilitation and other services linked with health, plus surveys and working community evaluations.

In addition, an equality plan has been drawn up for the use of Raisio Group units in Finland. The plan sets out the action to be taken to prevent gender discrimination, promote equality between men and women, improve the balance between work and family commitments and prevent sexual harassment. The current state of equality was assessed with a survey amongst the personnel, which provided the basis for setting out targets for the Group's equality plan and measures for removing the inequalities that were observed. The success of the plan will be monitored annually and it will be further developed to cover international operations as well.

Initiatives

The target of Raisio's initiative scheme is to increase the number of suggestions aimed at improving business or working conditions. An initiative competition was organized in spring 2003 in cooperation with human resources management and the initiative committee to speed up operations. Employees were extremely active in suggesting initiatives during the competition with a considerable number of initiatives aimed at improving occupational safety and working conditions.

	1999	2000	2001	2002	2003
Number of employee initiatives	124	103	132	194	333
Number of EHS initiatives	66	41	45	98	110
EHS initiatives, % of total number of employee initiatives	53	40	34	51	33

Incentives

One of the Raisio Group's principles is to offer competitive remuneration to personnel according to country and business. Pay systems, incentive schemes and social and other benefits are assessed on a regular basis. The aim is to maintain and improve country-specific and business-specific schemes that are fair and motivating and that reward good performance. Raisio Group regularly monitors salaries on the open market to ensure it maintains its competitiveness.

Community involvement

Raisio Group objective: Promoting open debate and interaction on environmental, health and safety issues among customers, authorities, stakeholders, personnel and the entire procurement chain.

According to Raisio Group's ethical principles, the company cooperates with various bodies, such as scientific communities, educational establishments, sports and culture providers and health care, at both Group and local level. For example, Raisio continued to support the UNICEF international girls' education campaign and Raisio Polska Foods with Benecol products took part in a national health project in Poland. The Raisio Group research foundation distributes grants every year to support scientific research.

The Raisio Group research foundation distributes grants every year to support scientific research. The purpose of the foundation is to promote the conditions for improving oil plant, grain and potato production and to support scientific research aimed at improving food, animal feed and chemical industry products and production methods. In 2003, the foundation distributed in total around EUR 100,000 to nine researchers.

Continuous dialogue with the authorities and non-governmental organizations means that Raisio Group has good relations with the surrounding community. It is important to everyone at Raisio to listen to different interest groups and take their needs into account. Briefings and opportunities to visit Raisio sites are arranged for local residents. Raisio Group encourages units and employees to take part in activities that contribute to the local community.

Cooperation with stakeholders is described in the individual business sector reviews.

Challenges for 2004

Raisio Group is going through a phase of strategic change. Change is often accompanied by a feeling of uncertainty about the future. The main focus of human resources strategy for 2004 is on improving cooperation between supervisors and their employees, as well as on continuing to develop well-being at work.

RAISIO CHEMICALS

EHS targets

Raisio Chemicals' Quality and EHS Targets for 2004

- Introduction of uniform customer feedback practices to allow for systematic monitoring
- Extended use of the Balanced Scorecard tool
- Reduction in the number of accidents against the year 2003. Target zero level of accidents → "All incidents can be prevented"
- Continuous enhancement of awareness regarding matters of social and environmental concern through training
- World Class Manufacturing Indicators: consolidation and optimising of necessary indicators and reporting procedures
- Training of transport companies
- Improvements to global Quality and EHS guidelines and audits
- Implementation of annual management level safety rounds at all production sites

EHS management and key environmental issues

At Raisio Chemicals, quality and EHS issues were strongly influenced in 2003 by the renewal of the ISO 9001:2000 standard and the need to rearrange the management systems to comply with the new standard. The aim is to integrate the ISO 9001:2000 and ISO 14001 systems. In 2003, four Raisio Chemicals production plants received new ISO 14001 environmental certification. The management systems are used for continuous operational improvement and guidance in a more sustainable direction as far as the environment is concerned, while taking special customer requirements into account. The safety systems have not been given certification but there is a strong focus on safety issues in all operations.

One of the most important challenges for Raisio Chemicals is the European Commission's proposal for new chemicals legislation. The proposal is progressing through the European Parliament and the Council of Europe and is expected to come into force in 2006 at the earliest. Raisio Chemicals has taken an active part in various working groups making comments on the proposal and studying the impact of the regulation on its own and its customers' business. Raisio Chemicals has estimated that it will have to register around twenty chemicals as a result of the new regulation. A few substances will be subject to regulatory authorisation procedures. In terms of implementing the regulation, the biggest challenges will be involved with the regulatory procedures and the overall communication involved in the registration process and other obligations, as well as the need to renew corporate data systems. All in all, Raisio Chemicals will incur extra costs of several million euros as a result of the implementation of the regulation.

Stakeholders

In an increasingly international operating environment, Raisio Chemicals' business calls for transparent communications with stakeholders.

In order to ensure that its business develops in a sustainable manner, Raisio Chemicals is heavily involved in the activities of the Chemical Industry Federation of Finland, the Confederation of Finnish Industry and Employers, Finnish national research institutes and EU cooperation bodies. Raisio Chemicals has also traditionally been involved in close cooperation over research and training with universities and other educational institutions throughout the world. We also cooperate with many local organizations in different forms at our various sites.

The Future Printing Centre (FPC) that was opened at Raisio in December 2003 and is jointly owned by Raisio Chemicals, Hansaprint, Omya, Flint-Schmidt Finland and Metso Paper, is a good example of the widespread cooperation carried out by Raisio Chemicals with stakeholders. Besides the owner companies, various universities and research institutes are involved in innovative cooperation carried out at the Future Printing Centre. The town of Raisio is also a partner for the facilities.

At the beginning of 2003, Raisio Chemicals sent an environmental management questionnaire to its most important raw materials and packaging suppliers and the transport companies it uses. The data obtained has been analysed and cooperation with key suppliers over environmental issues is also being expanded.

On the basis of the results, it could be said that Raisio Chemicals' major suppliers have environmental issues well under control:

-67% of chemicals suppliers and almost 50% of transport companies have an environmental management system,
-85% of chemicals suppliers are involved in the Responsible Care programme.

Half the suppliers that do not have an environmental management system will be adopting one in the future.

Development

In Raisio Chemicals product development, special attention is paid to environmentally friendly products, and whenever possible, preference is given to renewable and environmentally sound raw materials and processes. Most Raisio Chemicals products are based on renewable natural materials and derivatives of them. Nearly all products meet the eco-labelling criteria set for chemicals in their particular product category and are approved for use in the manufacture of packaging for foodstuff. In both product and process development the most environmentally sound alternatives are opted and the precautionary principle is followed.

More and more attention is being paid to the environmental impacts of printed products throughout their life cycle. The need to reduce energy consumption at the papermaking machine while using more economical processes and less raw material will affect the printability of the paper and its suitability for different end products. Environmental requirements for printing plates and printing blankets, printing inks, wetting agents and additives, as well as for paper, are getting stiffer all the time. One of Raisio Chemicals' long-term development projects has been to reduce the use of organic solvents in printing, but at the same time maintain the printability of the paper. The Future Printing Centre (FPC) has been collaborating with various partners on intensive development work aimed at responding to the ever-tightening requirements set for the printed media.

EHS events

As well as environmental issues, Raisio Chemicals pays a good deal of attention to safety issues. The number of accidents has been successfully cut since 2002. In 2003, incident reporting was extended to cover the whole EHS field. Personnel at Raisio Chemicals has been encouraged to report 'near-miss' situations in various ways including a draw for a money prize amongst all those making a report. Reporting was started in conjunction with the Safety 24h project. The project has been implemented jointly by the Chemical Industry Federation of Finland, the Chemical Workers' Union and other organizations related to the chemicals sector. The aim of the project is to find procedures that will achieve genuine and permanent improvements in risk prevention at the workplace. The Safety 24h project received an award for good practice from the European Agency for Safety and Health at Work.

In October 2003, Raisio Chemicals organized an open day at the Lapua plant for local people and other interested parties. Visitors were briefed on a number of things including plant operations, chemicals used and possible hazards arising from operating procedures. They were also given a tour of the works and the wastewater treatment plant. The event was aimed at increasing dialogue between the local community and the factory.

RAISIO NUTRITION

EHS targets

Raisio Nutrition — main EHS targets for 2004

- Staff training in safety and protection planning.
- Monitoring of accident and sick leave modelling to be included in management systems.
- Landfill waste from Raisio Margarine to be cut from 300 tons/year to 100 tons/year by improved sorting.
- Grease separation to be improved at the Raisio margarine plant.
- Grain waste at Nokia to be recycled.
- Volume of water used at Vihanti to be cut from 1,500 m³ per day to 1,300 m³ per day.
- Centrifuge slurry to be used as a binding agent for bio-fuel.
- EHS training at margarine plants in Poland and Russia.
- Minerals in pig feeds to be adjusted as part of animal feed improvements.
- Cleaning of barley to be improved prior to malting to cut solids in wastewater.

The EHS targets set for 2003 have in the main been achieved, but the planned investments in sludge treatment at the heat recovery and wastewater treatment plants at the Vihanti potato production plant have had to be postponed for the present.

EHS management and key environmental issues

Once the Milling, Margarine and Potato Processing business areas had constructed a joint ISO 14001 environmental management system in 2003, all Raisio Nutrition's operations in Finland were brought within the scope of certified environmental and quality systems. At the same time, ISO 9001 was extended to cover Potato Processing, as well. Animal Feeds and the Malt business areas had already been covered earlier.

The systems support the setting of environmental and quality targets for each of the business areas according to the principle of continuous improvement. Progress was made in 2003 on setting and monitoring health and safety targets on a broader scale. The challenge for Raisio Nutrition in the future is going to be to make health and safety targets and the measures necessary to achieve them a permanent integral part of management systems and practical operations.

One of the most important environmental projects for Raisio Nutrition in 2003 was submitting separate environmental permit applications for each production plant to the authorities. Up to now, most Raisio Nutrition production plants have not been required to hold a permit under the Environmental Protection Act because the direct impact of their emissions to air and water from production has been rather small. According to the new legislation, however, IPPC-based permits (Integrated Pollution Prevention and Control) will be needed at most Raisio Nutrition plants in the future.

The operations of Raisio Nutrition, which uses renewable sources of raw materials, generate only small amounts of environmental pollution at the local level. Cultivated raw materials are, almost without exception, used in their entirety and generate minimal amounts of waste. Processes and environmental technology are chosen according to the best available technology (BAT) principle.

The environmental impacts of the food and malt industry take place through the use of energy in processes and transport, and to a certain extent in packaging and other waste. Apart from the milling industry, water and wastewater also have a considerable impact. In 2003, a study was made of the potential environmental impacts of accident.

The most important environmental aspect in the Animal Feeds business area is the nutrient load derived from livestock manure. Optimizing the nutrients in the feed and having a good feed/gain ratio reduce the load produced per kilo of food and animal feed.

Tangible examples of the environmental measures now in progress include the improvement in refining of malting barley before soaking to reduce the amount of solid material in the wastewater, the project to improve separation of grease in wastewater from the margarine plant, the reduction in the phosphorus content in animal feeds and the project to make use of centrifuge slurry from potatoes as a binding agent for bio-fuel.

Raw material procurement

In the procurement of grain and oil plants, two of the most important raw materials, the most significant environmental impacts are connected with farming inputs in primary production and transportation. The Quality Grain trademark system takes environmental issues into account as a part of quality management and the procurement process. Improvements have been made in the assessment of outside suppliers and the traceability of raw materials throughout the supply chain.

In September 2003, the new EU regulations on approval procedures, labelling and traceability of genetically modified products were published. The new regulations have been a long time in preparation and the expanded and more focused legislation is expected to sway consumer reaction in Europe more favourable towards genetically modified products. Raw materials for animal feeds, such as soy bean meal, now also have to carry markings and will come within the scope of official controls, as well.

The new legislation will be applied from April 18, 2004, but there are still flaws in the practical implementation guidelines given to operators in the sector. Raisio Nutrition will be monitoring the development of GM technology and experiences obtained from it. As far as our products are concerned, we shall be following the wishes of our customers and market developments particularly in the rest of the EU area. Production and marketing of traditional and genetically modified products side by side would be extremely difficult and expensive from a logistical point of view.

In 2003, Raisio Nutrition still held back from using genetically modified raw materials in its products. As far as purchasing for 2004 goes, it has been decided to remain with traditional unmodified soy, for the time being. However, depending on the way the final interpretation of the new EU regulations is applied, it may well be that in future, some of the additives used by Raisio Animal Feeds that are manufactured using microbes will be classified as genetically modified. This mainly applies to enzymes, vitamins and amino acids.

Stakeholders

Finnish farmers are extremely important partners to us, both as raw material suppliers and buyers of animal feeds. Family farms play a key role in developing their own communities and maintaining the cultural values of the countryside. Raisio Group thus makes a significant contribution to the preservation of rural heritage in Finland. The broad based education program for contract farmers, which started at the end of 1998 as part of the Quality Grain project, is still ongoing. The training assures that the grain's traceability, purity and ecologically sustainable production methods can be verified more easily than before.

Development

The three-year Foodchain research project, coordinated by the Technical Research Centre of Finland (VTT) and MTT Agrifood Research Finland, was completed in 2003. The project studied the effects of different variables on the environmental impacts of food production through its entire life cycle. Raisio Group was involved in all three project sections, grain, cheese and potato products. In the grain section, Elovena oat flake was the product whose life cycle was studied. The environmental impact of the industrial processing of Elovena was surprisingly small in comparison with primary production and with further treatment of the product in the home. The environmental impact was further reduced by the switch from fuel oil to biogas and natural gas in the steaming process at the Raisio Nutrition Nokia plant.

Sources of soy that has not been genetically modified are becoming more limited and this has caused an increase in hexane consumption at the oil milling plant. New processing methods were developed in 2003 and new absorption equipment was acquired in order to resolve this problem.

Product safety and product healthiness are well to the fore in Raisio Nutrition operations and the special expertise associated with them forms part of Raisio Nutrition business strategy. Additional resources were devoted to raw material and process control and laboratory activities were expanded, for example. The traceability of raw materials and products was further improved.

Relying on Finnish raw materials provides Raisio Nutrition with a sound basis for environmental and safety issues. Animal health is one of the main themes in product development at Raisio Feed.

EHS events

Environmental training was given specifically in connection with the construction of the ISO 14001 environmental management system for the Food business area.

Waste recycling increased and the quantity of waste going to landfill sites was reduced.

The phosphorus content in animal feeds was reduced significantly, which had an important impact on the phosphorus balance on livestock farms. In the light of new research data, the amount of grain in relation to animal-based raw material was increased in fur animal feeds. This will have a substantial impact on reducing the nitrogen and phosphorus loading at fur farms and at the feed factory.

RAISIO LIFE SCIENCES

EHS targets

According to the environmental policy approved by the Raisio Group Board of Directors, Raisio Life Sciences is committed to keeping environmental, health and safety aspects as the basis for all its operations. Key aims are the prevention of accidents, making more efficient use of raw materials and reducing waste.

One specific aim for 2004 is to reduce the loading on wastewater caused by production by 20% in relation to production volume. Another is for personnel to take part in occupational safety training and pass the relevant test to obtain their 'occupational safety card'.

EHS management and key environmental issues

The certified quality systems used by Raisio Benecol and Raisio Staest, which are part of the Raisio Life Sciences business sector, are in accordance with ISO 9001:2000. The system at Raisio Staest US will be certified early in 2004. Development work on the ISO 14001 environmental management system will continue with the aim of having the system ready for certification by the end of 2004. Work was completed on updating the quality management systems used in the food diagnostics company Diffchamb, acquired in spring 2003, and certifying them in accordance with ISO 9001:2000. The integration of environmental reporting at Diffchamb is still in progress.

Stakeholders

The safety risks inherent in laboratory work were charted in collaboration with the Turku Institute of Occupational Health in 2003, as a new form of cooperation with stakeholders.

Development

There has been a certain amount of networking among Finnish and international research groups over research and development in the ingredients business. Raisio Benecol took part in several public research projects and conducted its own joint research projects. One of the aims of these has been to study ways of improving the efficiency of recovery and reuse of by-products from Raisio Group processes. Process development studies the potential for reusing waste products from production that can be supplied as by-products.

EHS events

- A large proportion of Raisio Life Sciences' ingredients personnel in Finland were awarded hygiene certificates
- Production automation systems were renewed at Raisio Staest Ltd.
- Raisio Staest renewed its environmental permit application along with other Raisio Group production plants.
- A voluntary State safety inspection (OSHA) was carried out at the Raisio Staest US Inc. works in South Carolina.

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Glossary

BAT	Best available technology
BOD ₇	Biochemical oxygen demand. The amount of oxygen consumed by micro organisms (bacteria) for breakdown of organic matter during a 7-day period.
CO ₂	Carbon dioxide. Main component of flue gases; formed during combustion through oxidation of carbon in fuels. The most important 'greenhouse gas'.
COD	Chemical oxygen demand. The amount of oxygen required for the chemical decomposition of slowly degrading organic waste in wastewater.
EHS	Environment, Health and Safety.
FDA	United States health authority
GM soy	Genetically modified soy
Hazardous waste	Waste which is dangerous or harmful to human health or the environment and must be treated or disposed of separately from other waste.
ICC	International Chamber of Commerce
IPPC	Council of Europe directive which aims at preventing and reducing environmental pollution.
ISO 9001	An international quality management standard.
ISO 9001:2000	An international quality management standard replacing the earlier ISO 9001.
ISO 14001	An international environmental management system standard.
MTT	MTT Agrifood Research Finland.
Notification	Notification procedure concerning new substances.
NO _x , nitrogen oxides	Products of the combustion of nitrogen, formed from the nitrogen contained in fuel and in combustion air. Emissions of nitrogen compounds to air are calculated and reported as nitrogen dioxide (Nox).
OSHA	A voluntary State safety inspection (South Carolina, USA)
P	Total amount of phosphorus.
Recoverable waste	The reusable waste produced by the company's operations (other than that bought from outside the company for reuse).
Responsible Care	An international programme in the chemical industry. Companies committed to the programme set clear targets related to environmental, health and safety issues in all their operations.
Safety 24 h	A year-long project launched by organizations in the chemistry sector which provides a broad operational framework for companies and project teams to apply to their own development projects from the specific perspective of their sector of business.
SO ₂ , sulphur dioxide	A product of the combustion of fuel containing sulphur.
3 RHSE	Requirements and Recommendations for managing Health, Safety and Environment.
VOC	Volatile organic compounds
VTT	Technical Research Centre of Finland
Waste for final disposal	Waste taken to landfills, including municipal waste but excluding hazardous waste.