



# GROWING FOR THE FUTURE

Unilever and Sustainable Agriculture



Unilever

# Contents

Message from the Chief Executive	1
Patrick Cescau on meeting consumer needs today and in the future	
Unilever and sustainable agriculture	2
Who we are and why sustainable agriculture is vital to our business	
A decade of progress	4
Our sustainable agriculture journey so far	
Our framework	6
An introduction to our external advisory board and internal management	
Involving our suppliers	8
Working with growers to develop key indicators	
Lead agriculture projects	10
Our achievements and what happens next	
Unilever Colworth	10
Vegetables: peas and spinach	12
Tomatoes	16
Tea	18
Palm oil	22
Beyond key crops: dairy, gherkins, olive oil, oilseed rape, sunflowers	24
Looking to the Future	29
We restate our commitment and invite stakeholders to work with us	
Timeline	30
Mission statement	32
Our formal mission statement with accompanying explanation	

## Extract from our Corporate Purpose

"Unilever's mission is to add vitality to life. We meet everyday needs for nutrition, hygiene and personal care with brands that help people feel good, look good and get more out of life ... To succeed also requires, we believe, the highest standards of corporate behaviour towards everyone we work with, the communities we touch, and the environment on which we have an impact ... This is Unilever's road to sustainable, profitable growth for our business and long-term value creation for our shareholders, employees and business partners."

Further information: [www.unilever.com/ourvalues/environmentandsociety/sustainability/](http://www.unilever.com/ourvalues/environmentandsociety/sustainability/)  
email: [sustainable.agriculture@unilever.com](mailto:sustainable.agriculture@unilever.com)

## Acknowledgements

Writing Juliet Walker, [juliet.walker109@btopenworld.com](mailto:juliet.walker109@btopenworld.com)

Consultancy/Editing Environmental Context, [www.econtext.co.uk](http://www.econtext.co.uk)

Design A10plus, Rotterdam, [www.a10plus.nl](http://www.a10plus.nl)

Photos All the photos are the property of Unilever except p 18  
© Audubon Society, USA. All oilseed rape pictures copyright Prof. Olaf Christen, University Halle-Wittenberg

The Unilever Lead Agricultural Project Managers and Sustainable Agriculture Network: Jeroen Bordewijk, Robert Borrill, Liz Chadd, Prof. Olaf Christen, Erich Dumelin, Dimitris Efthymiopoulos, Richard Fairburn, Fabrizio Fontana, Billy Ghansah, Claudia Guelke, D.G. Hegde, Vanessa King, Kostas Konstantopoulos, Willem-Jan Laan, Shaohong Ma, Neville Martin, Anniek Mauser, Innes McEwen, Sikke Meerman, Evert-Jan Mink, Lettemieke Mulder, James Onsando, David Pendlington, A. Ramesh, Rogerio Rangel, Hans Reiterer, Randy Rickert, John Russell, Sylvia Rutatina, Volker Schick, Gail Smith, Harald Struck, Gabriel Tuei, Gerrit van Duijn, Jos van Oostrum, Jan Kees Vis, Bernard Wagner, Christof Walter.

# Message from the Chief Executive

"Sustainable farming practices work, because they are business-based and promote efficiencies while at the same time benefiting both the environment and society."

Feel good, look good and get more out of life – this sense of wellbeing and vitality is one of the benefits Unilever brings consumers through a wide variety of branded goods, from pasta sauces to shampoos. Bertolli, for example, conjures up the Mediterranean zest for life. Becel/Flora keeps hearts healthy. Sunsilk keeps your hair, and you, looking great.

As the world changes so our business must change to meet new consumer needs. No longer is it enough to list the ingredients on the back of a pack. Increasingly, consumers want to know how those ingredients are produced. With over two thirds of our raw materials coming from agriculture we need to be confident that those ingredients have been grown in a sustainable way, with regard to the long term future of farming and communities as well as the profitability of our business far into the future.

Although we source some products, such as tea, in part from our own estates where sustainable practices have been established for generations, most of our raw materials are bought on world markets. Our third-party suppliers, like our contract farmers, are our partners, and their engagement in our endeavours is essential for the long-term success of all parties. Our message to them is: sustainable farming practices work, because they are business-based and promote efficiencies while at the same time benefiting both the environment and society. This booklet describes how our programmes work in practice.

Beyond our own immediate requirements we seek to promote sustainability by raising standards across a wider platform. With palm oil, for example, we are working with the conservation organisation WWF and other partners through the Roundtable on Sustainable Palm Oil. We keenly promote responsible soy production. We collaborate with other major food companies through the Sustainable Agriculture Initiative Platform.

Agriculture continues to face grave challenges, and we know our own contribution to sustainable practices will inevitably be limited. But by working with our partners to promote sustainability we believe we can meet some of the key challenges facing agriculture. We have made progress, but there is no room for complacency. We welcome feedback on how we are doing, as we listen and learn and hopefully improve still further.



Patrick Cescau  
Group Chief Executive

# Unilever and Sustainable Agriculture: more from less, using fewer resources

## BACKGROUND

### Who we are and what we do

Unilever is one of the world's leading suppliers of fast-moving consumer goods. We have a portfolio of brands that are popular across the globe – as well as regional products and local varieties of famous-name goods.

Our products fall into two main categories: foods, and home and personal care. Our foods include Knorr soups, Lipton and Brooke Bond teas, Bertolli olive oil and pasta sauces, Hellmann's dressings, Heartbrand and Ben and Jerry's ice creams, Becel, Flora margarines and spreads, and Findus, Birds Eye and Iglo frozen foods. Our home care products include Cif, Comfort, Domestos, Omo and Surf. Our personal care products include Axe, Dove, Lux, Pond's, Rexona and Sunsilk.

So popular are these and our other brands that 150 million times a day in approximately 150 countries, someone somewhere chooses a Unilever product.

### Unilever and agriculture

Over two thirds of Unilever's raw materials come from agriculture. We are large users of agricultural raw

materials, and a major buyer of agricultural goods on world markets. Our materials come from commodity markets supplied by millions of farmers and third party suppliers and from our own estates. Some farmers are using state-of-the-art technology on their extensive farms, while others are smallholders working just a few hectares with the help of their families.

Our crops grow in tropical and temperate climates in widely varying environments. They may grow as plantations – tea and oil palm, for instance, or as part of a rotation – peas, gherkins, sunflower, for example. Many grow from seed – tomatoes, peas, spinach, soybean and oilseed rape, to name only a few. Others such as olives come from established, matured trees; some crops are rain fed, but many must be irrigated. Almost all of them require additional nutrients to boost productivity as well as careful treatments to control pests and diseases and ensure defined standards at harvest.

The sustainable supply of agricultural raw materials is an essential element in the long-term success of Unilever's business. We have a long history of farming responsibly

based on good agricultural practice, which means using judicious amounts of fertilisers and pesticides to maximise yields while minimising environmental impact.

However, during the last decades of the 20th century it became clear that an approach just based on good agricultural practices was inadequate. Increasing social and environmental pressures on agriculture threaten our supply chains, and growing consumer concerns about the food chain threaten our markets. Both demand a more radical approach. In addition, by tackling sustainability concerns we are well positioned to anticipate and respond to forthcoming legislation – if we have not already done so – such as the reform of the Common Agricultural Policy in Europe. From this basis, the sustainable agriculture initiative has been a logical progression.

### Unilever and sustainability in the 21st century

Sustainability is widely defined as meeting the needs of today without jeopardising the ability of future generations to meet their needs. This includes the need to properly feed some 10 billion people by 2040 and make sufficient drinking water available to keep them clean and healthy. But for Unilever sustainability is much more than a general goal alongside our other corporate aims. It is, of necessity, a process of continuous change

and constant, defined improvement aligning economic growth, environmental protection and social progress. These aims underline all our endeavours to 'add vitality to life' as we try to 'meet the everyday needs of people everywhere'.

Besides our own requirement for sustainably-produced raw materials, we have a clear obligation to our stakeholders, especially shareholders, employees and business partners, to ensure continued access to agricultural materials. Our consumers, too, expect high quality goods produced in an environmentally and socially responsible way. In turn, we need to ensure on their behalf that these requirements are understood along the supply chain. When consumers select a product labelled as 'Food you can trust' and 'Using the best from nature', they must be confident that we understand where our ingredients have come from, how they were grown, and their impact on the environment and rural communities.

As we make progress and involve more and more of our supply chain, we will have increasing influence beyond our own requirements on those who shape the market – producers, buyers, processors, consumers. This is already happening, for example, in our efforts to source sustainable palm oil and tea on world commodity markets (see pages 23 and 19). The efficiencies, savings and overall greater rigour that sustainable practices bring in turn stimulates competitiveness and makes good business sense.

Unilever has direct experience of such a market-based approach through its partnership with the Marine Stewardship Council (MSC), established in 1998 following a Unilever/WWF joint initiative. After broad consultation, the MSC compiled a set of principles and criteria for sustainable fishing. The MSC label allows consumers to choose products sourced from certified fisheries that comply with sustainability standards. We are beginning to look at how to communicate that other brands of ours have been produced from sustainably-managed agricultural resources.

## Sustainability principles

Unilever believes that sustainable agriculture should support the following principles:

1. It should produce crops with high yield and nutritional quality to meet existing and future needs, while keeping resource inputs as low as possible.
2. It must ensure that any adverse effects on soil fertility, water and air quality, and biodiversity from agricultural activities are minimised, and positive contributions are made where possible.
3. It should optimise the use of renewable resources while minimising the use of non-renewable resources.
4. It should enable local communities to protect and improve their wellbeing and environment.



Plucking tea, Unilever Tea Kenya



Bumble bee in a wildflower margin, Colworth UK



## A DECADE OF SUSTAINABLE AGRICULTURE

### First steps

The sustainable agriculture programme began in the mid-1990s and has been an investment of some € 20 million in core expertise so far. We began to consult with a wide range of stakeholders with a keen interest in the environment and sustainable development. They included consumers, farmers, scientists, agribusinesses, the food industry, retailers and non-government organisations (NGOs). A 1998 workshop drew expert participants from around the world and from within Unilever. Our purpose was to find ways for farming to become more productive, better protect the environment, preserve natural resources and contribute to rural communities, while using fewer agrochemicals and other inputs. The findings of the workshop shaped our project. These were:

- The development of a mission statement (see page 32), including a definition of sustainable agriculture
- The definition of four principles of sustainable agriculture (see page 2)
- Identification of 10 broad Sustainable Agriculture Indicators – increased to 11 in 2005 (see page 8)
- The selection of five crops for initial pilot projects (later increasing to 11 crops), which are significant to Unilever and through which we have a direct influence on agriculture (see page 10 onwards)

The original five Lead Agricultural pilot Projects (LAPs) were based on selected farms and plantations with growers with whom we have longstanding relationships; in some cases Unilever owned the plantations involved, in others we had associations going back decades.

The programme continues to be based on the four principles and selected indicators. The principles cover the economic, social and environmental dimension of sustainability; the indicators are the specific areas around which improvements continue to be made: soil health, soil loss, nutrients, pest management, biodiversity, value chain, energy, water, social and human capital, and local economy. In 2005, we added animal welfare to the list.

### LAPs in practice

It usually takes two seasons to establish the baseline LAP measurements of the impacts of existing integrated agricultural practices on the environment, economy and social conditions against the indicators.

Next steps include consultations with farmer groups and others in the supply chain, agronomists, NGOs and other stakeholders about precisely where realistic improvements can be made to satisfy the broad sustainability criteria. Any changes in practice are monitored against the indicators. If the parameter values move in the right direction, then the new practices become part of the sustainable agriculture standard. If the values do not change, or deteriorate, then either the wrong practice was changed, or the right practice was changed in the wrong way, or the parameter value chosen was not correct after all. It is a process of trial and error that cannot be rushed and must always be tailored to local conditions. Guidelines are prepared only when satisfactory improvements have been noted across a number of trials on several farms or plantations over several seasons, and often across several continents.

So far we have established 11 LAPs around the world involving a wide range of expert partners and stakeholders. By 2005, Good Practice Guidelines were published for peas, spinach, palm oil, tea and tomatoes. Further details of progress with the individual LAPs are described from page 10 onwards.

### Other crops

Amora Maille, our French condiment brand, produces pickled gherkins supplied by Indian farmers organised in a sustainable agriculture programme. Together with UFOP (Union zur Förderung von Oel- und Proteinpflanzen), we are funding a programme on oil seed rape with farmers in Schleswig-Holstein, Germany, with the support of the University of Halle-Wittenberg. We helped to start international dialogues on soy (Roundtable on Responsible Soy, see [www.responsiblesoy.org](http://www.responsiblesoy.org)) and olives. Our business in South Africa is looking into the possibility of starting a programme on sunflowers. We have also begun a partnership programme focusing on the recently added

indicator – animal welfare – with Dutch dairy farmers and Ben & Jerry's.

### Sharing our expertise

Our Good Practice Guidelines are available to all as they are published. Together with Syngenta we have developed and made freely available a pesticide risk assessment tool (see page 11). We continue to work with other major food companies to promote sustainable agricultural practices through the Sustainable Agriculture Initiative Platform. By 2004, the

Platform had grown to 19 member companies, with working groups on cereals, coffee, vegetables, potatoes, dairy and fruit. See [www.saiplatform.org](http://www.saiplatform.org) for details.

## Biotechnology and organic farming

### The issues

*Biotechnology* is the commonly used term for a wide range of technologies, including the manipulation of the genes of existing organisms to develop new strains. There are concerns among some stakeholders about the effects that genetically modified organisms (GMOs) will have on the environment – particularly the contamination of other plants through cross-pollination – and the safety of food containing GM ingredients.

*Organic farming* excludes the use of biotechnology and restricts, or prohibits, the use of artificial fertilisers or pesticides, preferring more natural alternatives. As organic certification requires products to be free of GMOs, many growers fear that contamination from GM crops threatens the future of their business, and some would argue that the two systems cannot exist side by side. Critics of organic farming argue that it cannot supply sufficient quantities of food for a growing population.

### Unilever's position

We believe that the future of agriculture needs to be sustainable. Our approach is to keep an open mind on the role that organic farming and biotechnology could play in the context of sustainable agriculture.

Many techniques and approaches used in *organic* farming focus on the underlying health and vitality of agricultural systems, and will meet our standards in social, economic and environmental terms. Indeed, they have a vital role in sustainable agriculture.

Similarly, we feel that some applications of *biotechnology* offer real social, economic and environmental benefits. If biotechnology, including genetic modification, is to find a place within our vision of sustainable agriculture it must conform to

the four principles set out in our mission statement. We will need to be satisfied that it is environmentally safe. If, after careful evaluation against our standards, this proves to be the case, then we would consider that biotechnology could contribute to sustainable agriculture.

Understanding the concerns of our consumers is of paramount importance to us because the success of our business depends on it. Our research shows that some of our consumers have strong opinions about biotechnology and organic farming, and we will continue to respond to demands in our different local markets to provide products that meet their needs.

It is essential that consumers should have the information they need to choose the food they wish to buy. Labelling standards are important, and we will continue to work with the relevant authorities and those in our industry to ensure that labelling is clear, informative and fair. Furthermore, the public and our consumers must have full confidence in the regulations that govern the development and use of biotechnology by industry.

We will continue to work on our own and with others to track developments in science and public opinion, and remain committed to full participation in the debate on the use of genetic modification in food production. We will retain the capability to include GM ingredients in our food products in the future when these are shown to be safe, are approved by the relevant authorities and are wanted by consumers.

For more information, see [www.unilever.com/ourvalues](http://www.unilever.com/ourvalues) and select issues.



## THE FRAMEWORK OUR ADVISORS

### Advisory Board

The Sustainable Agriculture Advisory Board (SAAB) provides independent advice and judgement, and strengthens policy-making within Unilever. Its principal objectives are the improvement of environmental impact of primary production, and safeguarding social infrastructure and wellbeing for stakeholders. Profit and continuity are also important aims.

Membership of the SAAB comprises individuals from research institutes in the voluntary sector and academia.

Members are selected for their individual quality, rather than to represent their organisations. (See SAAB members, box.)

SAAB's role encompasses a number of key functions. Members advise on the overall approach of the sustainable agriculture initiative, including aspects of primary production processes, land use, supply chain management and consumer interests. They advise on sustainable standards for Unilever's selected key crops, as well as how to make sure those standards are acceptable to stakeholders. SAAB's other main function is to establish links with other bodies working

in the sustainability field, on agricultural research, water management or biodiversity for example.

### Steering Group

The Sustainable Agriculture Steering Group (SASG) comprising Unilever staff is responsible for managing the initiative. Its objective is to promote sustainable supply chains worldwide, focusing on Unilever's long term, sustainable access to key crops. Jules Pretty acts as principle advisor (see below).

The strategy we are following has three aspects:

- sustainable agriculture best practice in growing key crops (continuous improvement)
- sustainable agriculture standards for sourcing key crops and developing a sustainable supply chain (which requires the establishment of market mechanisms for trading sustainable raw materials)
- including more crops in the programme, such as those used to produce major vegetable oils.

Progress must be measured. Clear objectives, milestones and performance indicators are built into each phase.

## SAAB members

### Janet Barber, *United Kingdom*

Janet Barber has national and international experience in planning and implementing public policy and field programmes designed to achieve the sustainable use of natural resources and has analysed the effectiveness of these investments. She has worked with Forum for the Future in the UK, WWF and other NGOs, international companies and the UK Government.

### Hartmut Bossel – University of Kassel, Germany (retired)\*, *Germany*

Dr. Bossel has led research projects and studies on energy supply policy, global dynamics, agricultural policy, forest dynamics and management, sustainable development and indicator systems. Before his retirement in 1997 he was professor of environmental systems analysis and director of the Scientific Center for Environmental Systems Research at the University of Kassel.

### Amadou Diop – The Rodale Institute, USA

Dr. Diop is the International Projects Coordinator at The Rodale Institute. He works on research and training programmes that help farmers practice regenerative farming. The Institute works with people worldwide to achieve a

regenerative food system that renews environmental and human health, and aims to develop awareness of the importance of healthy soil.

### Bernward Geier\*, *Germany*

Bernward is a pioneer and international expert of the organic movement and formerly the Executive Director for International Relations, International Federation of Organic Agriculture Movements (IFOAM). IFOAM represents the worldwide movement of organic agriculture, providing a platform for global co-operation. It is committed to a holistic approach in the development of organic farming systems including maintenance of a sustainable environment and respect for the needs of humanity.

### Keith Goulding - Rothamsted, *United Kingdom*

Prof Keith Goulding is the Head of Agriculture and Environment and manages the cross-institute programme for soil science research at Rothamsted and the Institute for Grassland and Environmental Research. His research interests cover four main areas: nutrient cycling, especially of nitrogen, potassium and phosphorus; nutrient losses from agriculture; farming system studies; and acid rain and soil

acidification.

### Richard Perkins – WWF, *United Kingdom*

Richard Perkins is an environmentalist with a background in natural science and agricultural economics. He advises WWF, the global conservation organization, on agriculture and rural development. A major part of his work is to improve the environmental impacts of commodity supply chains by working with others to identify better management practices that measurably reduce environmental impacts. He believes strongly that to conserve the environment environmentalists have to work in partnership with farmers and with the businesses they supply.

### Rudy Rabbinge – University of Wageningen, *The Netherlands*

Rudy Rabbinge is Chairman/Dean of Wageningen Graduate Schools and University Professor for Sustainable Development and Systems Innovation. Biologist by training, he has worked throughout the world over the past 30 years in various functions on the ecologisation of agriculture. Between 2004-2005 he chaired an inter Academy council panel on food security and agriculture productivity at the request of the Secretary General of the UN.

### Suhas P Wani – International Crops Research Institute for the Semi Arid Tropics (ICRISAT), *India*

ICRISAT is one of 15 non-profit and non-political organisations belonging to the Future Harvest Alliance of Centres supported by the Consultative Group on International Agricultural Research (CGIAR). Suhas Wani is a trained soil scientist and works as Regional Theme Co-ordinator for Asia for the Land, Water and Agro-Diversity Management and is Principal Scientist in Watersheds.

### Tensie Whelan – Rainforest Alliance, *USA*

Rainforest Alliance's mission is to protect ecosystems and the people and wildlife that depend on them by transforming land-use practices, business practices and consumer behaviour. Tensie is the Executive Director and has worked with many organisations and NGOs in different countries as an environmental journalist, writer, communications and management consultant. Her published work includes one of the first books on ecofriendly tourism, *Nature Tourism: Managing for the Environment* (1991, Island Press).

### Stephanie Williamson – Pesticides Action Network, *UK*

Stephanie has worked in environmental and integrated pest management (IPM) training and educational activities since 1985. She has worked in over 17 countries in Latin America, Africa and Asia, with four years spent in Nicaragua. She trained as an ecologist and entomologist, and has participated in numerous international conferences on IPM and farmer training.

\*Will step down from SAAB by end of 2005.

## Steering group

### Jules Pretty – University of Essex, *United Kingdom*

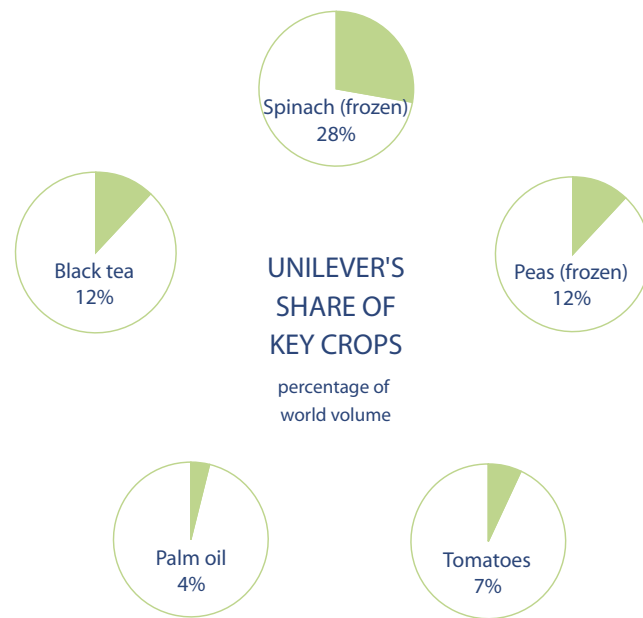
Professor Jules Pretty is Professor of Environment & Society and Head of the Department of Biological Sciences at the University of Essex. His research interests include sustainable and ecological agriculture; soil health and carbon sequestration; agricultural policies and the real costs; biodiversity and ecoliteracy; and social capital. He is Chief Editor of the *International Journal of Agricultural Sustainability*. He is principle advisor to Unilever's Sustainable Agriculture Steering Group.



SAAB members, Sustainable Agriculture Workshop Greece

## INVOLVING OUR SUPPLIERS

Once guidelines are established based on the pilot farms and plantations, they are shared with suppliers along our supply chain. Work is already well under way with suppliers to our frozen foods business – by the end of 2004 we had completed a first sustainability assessment with all 50 third-party frozen vegetable suppliers in Europe (see Interview with Harald Struck, page 14). In the UK, we have extended our sustainable agriculture



programme for peas from our 20 key growers to all 420 growers. In 2005, we initiated a major programme with our tea growers in Kenya (see Interview with James Onsando, page 19) and Indonesia. Unilever is increasingly involved in a major partnership programme with the Roundtable for Sustainable Palm Oil (see Interview with Jan-Kees Vis, page 23).

Clearly it takes time to work with our thousands of supplier and growers worldwide, but we believe that market mechanisms and consumer pressure will gradually favour sustainable agricultural practices and that our suppliers will embrace the standards we are promoting. Eventually we can reflect these raised standards in our branding.

## Sustainable Agriculture Indicators

### 1. Soil fertility/health



Soil is fundamental to agricultural systems, and a rich soil ecosystem contributes to crop and livestock performance. Sustainable practices can improve beneficial components of the soil's ecosystem.

Parameters can include:

- 1) Number of beneficial organisms (for example, earth worms per square metre)
- 2) Number of predatory mites
- 3) Number of beneficial micro-organisms
- 4) Soil organic carbon (a measure of healthy soil structure)

### 2. Soil loss



Soil eroded by water and wind can lose both structure and organic matter, diminishing the assets of an agricultural system. Sustainable practices can reduce soil erosion.

Parameters can include:

- 1) Soil cover index (proportion of time soil is covered with crop; this protects against leaching and erosion, promotes water binding)
- 2) Soil erosion (loss of top soil in percentage per annum or in topsoil/hectare/annum)

### 3. Nutrients



Crops and livestock need a balance of nutrients. Some of these can be created locally (such as nitrogen), and some must be imported. Nutrients are lost through cropping, erosion and emissions to the air. Sustainable practices can enhance locally-produced nutrients and reduce losses.

Parameters can include:

- 1) Amount of inorganic Nitrogen/ Phosphates/ Potassium applied (per hectare or per tonne of product)
- 2) Proportion of Nitrogen fixed on site/ imported
- 3) Balance of Nitrogen/Phosphates/Potassium over crop rotations
- 4) Emissions of Nitrogen compounds to air

### 4. Pest management



When pesticides are applied to crops or livestock, a small but significant proportion can escape to water and air or accumulate in foods, affecting ecosystems and human health. Sustainable practices can substitute natural controls for some pesticides, reducing dependence on synthetic substances.

Parameters can include:

- 1) Amount of pesticides (active ingredient) applied (per hectare or per tonne of product)
- 2) Type applied (profiling, positive list, weighting factor)

- 3) Percentage of crop under integrated pest management (IPM)

### 5. Biodiversity



Agriculture has shaped most ecosystems in the world, and biodiversity can be improved or reduced by agricultural practices. Some biodiversity is highly beneficial for agriculture. Sustainable practices can improve biodiversity by 'greening the middle' of fields as well as 'greening the edge'.

Parameters can include:

- 1) Level of biodiversity on site: number of species (such as birds, butterflies); habitat for natural predator systems (such as hedgerows, ponds, non-cropped areas)
- 2) Level of biodiversity off-site: cross-boundary effects
- 3) Crop genetic diversity

### 6. Value Chain



Value chain is the term for the sum total of all value-adding activities which lead to putting a product on the market. For food products, farm economics is an integral part of the value chain. Farmers should develop a firm grasp of what influences the economics of their farm and what non-economic value they produce. Sustainable practices should be able to maintain or improve farm economics, and add to nature values and eco-system service values.

Parameters can include:

- 1) Total value of produce per hectare; farm income trends
- 2) conformance to quality specifications – nutritional value, including minerals, pesticide residues, foreign bodies, etc
- 3) ratio of solid waste re-used/recycled over solid waste disposed to landfill
- 4) marginal costs for various crops and various fields/plots
- 5) financial risk management and solvency
- 6) nature value and eco-system service value created

### 7. Energy



Although the energy of sunlight is a fundamental input to agriculture, the energy balance of agricultural systems depends on the additional energy supplied from non-renewable sources to power machinery. Sustainable practices can improve the energy balance and ensure that it remains positive – there is more energy coming out than going in.

Parameters can include:

- 1) Balance: total energy input/total energy output, including transport where relevant
- 2) Ratio renewable over non-renewable energy inputs
- 3) Emissions to air (greenhouse and pollutant gases)

### 8. Water



Some agricultural systems make use of water for irrigation, some pollute or contaminate ground or surface water with pesticides, nutrients or soil. Sustainable practices can make targeted use of inputs, and reduce losses.

Parameters can include:

- 1) Amount of water used per hectare or tonne of product for irrigation
- 2) Leaching and runoff of pesticides to surface and ground water
- 3) Leaching and runoff of Nitrogen/ Phosphates/Potassium (nutrients) to surface and ground water

### 9. Social/human capital



The challenge of using natural resources sustainably is fundamentally a social one. It requires collective action, the sharing of new knowledge and continuous innovation. Sustainable agriculture practices can improve both social and human capital in order to ensure normal outputs. The prime responsibility for this should remain with the local community, leading to realistic and actionable targets.

Parameters can include:

- 1) Group dynamics/organisational density (farmer groups)
- 2) (Rural) community awareness of relevance and benefits of sustainable practices/ connectivity to society at large
- 3) Rate of innovation

### 10. Local economy



Agricultural inputs (goods, labour, services) can be sourced from many places, but when they come from the local economy, the expenditure helps to sustain local businesses and livelihoods. Sustainable agriculture practices can help to make the best use of local and available resources in order to increase efficiency.

Parameters can include:

- 1) Amount of money/profit reinvested locally
- 2) Percentage of goods/labour/services sourced locally
- 3) Employment level in local community

### 11. Animal Welfare



Animal husbandry systems are becoming ever more specialised and therefore further removed from the wild habitat where farm animal ancestors evolved. Treatment of animals in contemporary artificial environments is a major ethical concern. Care must be taken that the animals can live in harmony with their environment.

Parameters can include:

- 1) Feeding; housing; watering
- 2) treatment of diseases
- 3) freedom from abuse



# Lead Agriculture Projects

## UNILEVER COLWORTH

Colworth in Bedfordshire, UK is a major Unilever R&D centre. Programmes here bring together scientists from many disciplines to support Unilever's foods, and home and personal care businesses.

The centre includes a 500 hectare commercially run farm where a 60 hectare section has been used as an experimental site since 1999. The Colworth Farm Project conducts trials to compare 'conventional' and 'experimental' – potentially more sustainable – agricultural practices on a commercial farm. This involves risk to crops, which means it would not otherwise have been possible to conduct these trials commercially.

Company: Unilever Colworth

Start date: 1999

Scope: 1 farm, 8 fields in a 1 in 7 year rotation, 60 hectares

Crops: Spring wheat, winter wheat, vining peas, spring oil seed rape, winter oil seed rape, set-aside (fallow)

### So far

We tested six farm scenarios: spring versus winter cropping; reduced nitrogen fertiliser; mixed rotation and

cover crops; reduced pesticide applications; mechanical weeding; and field margin management. To assess the impact of these scenarios, we monitored the abundance and diversity of birds, plants and insects; levels of nitrate, phosphate and pesticides in surface water; crop yields; and profits. The environmental, financial and social costs and benefits of adopting potentially more sustainable practices were assessed and improvements identified. A detailed account of the Colworth Farm Project was published in 2005. The project showed the importance of considering whole farming systems when looking at sustainability measures and provided useful management techniques.

### Next

We are conducting the first European trials of Controlled Traffic Farming, using a specially adapted tractor where the wheels run on the same tram-lines over four years to reduce overall soil compaction. We are looking for ways to achieve the 50 milligram/litre nitrate limit at catchment level set out in EU legislation while remaining profitable. Colworth bird data is contributing to the UK government debate on how best to achieve its target for national bird population recovery on farmland by 2020.

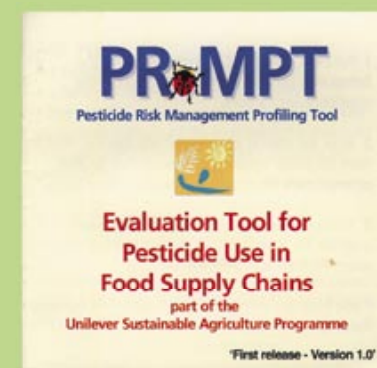
Farmer field margin workshop, Colworth



Wide axle tractor used in Controlled Traffic Farming, Colworth



Mechanically weeding peas, Colworth (far right)



## PRoMPT

### Pesticide Risk Management Profiling Tool

In partnership with Syngenta and other stakeholders, Unilever Colworth has developed PRoMPT, a tool to help evaluate some of the indicators of sustainable agriculture. It is aimed at farm managers, agronomy advisors, supply-chain managers and food buyers, or any manager who is monitoring progress towards more sustainable farming.

PRoMPT can estimate risks associated with decisions on pesticide use in food supply chains – for example, whether a no-spray zone near a watercourse would make a significant difference to drinking water quality or aquatic life, or why different pesticides carry different risks and so require different types of risk management. By ranking risks on a particular farm, past actions may be evaluated, or the impact of possible future changes assessed, and the farmer gains insights into possible environmental impacts of his activities on environmental and human safety.

PRoMPT's great strength is that it can be used anywhere in the world, because of the global climate data it incorporates. Copies are available free of charge to any interested party on request from [prompt@unilever.com](mailto:prompt@unilever.com).



Spraying tomatoes, Unilever experimental farm, Brazil (top)  
Water course, Italy (above)  
Automated nitrate, pesticide water sampler, Unilever Colworth (below)





## VEGETABLES

Vegetable crops currently being tested are spinach and peas, used in Unilever's frozen vegetable products, under the Iglo, Birds Eye and Findus brand names. European contract growers provide around 50,000 tonnes of spinach (28% of the global total) a year to our companies. We also produce over 80,000 tonnes of frozen peas per year, approximately 12% of global production of industrially processed peas.

### PEAS – UK

Brand: Birds Eye

Company: Unilever Ice Cream and Frozen Food, UK

Start date: 1997

Scope: 19 farms originally, now rolled out to all 420 Birds Eye pea growers in eastern England (covering around 13,500 hectares of peas)

### So far

Since 2004, all Birds Eye pea growers (around 420) have been contractually obliged to follow our sustainable agriculture standards. The Forum for Sustainable Farming (FfSF), established in 2003, helps to communicate these standards to farmers. It is comprised of Birds Eye growers, the Processed Vegetable Growers Association and Forum for the Future (a leading NGO that encourages sustainability in business). FfSF obtained funding from the UK Department for Environment, Food and Rural Affairs to run a three-year sustainability training programme where farmers educate other farmers (Interview with Robert Borrill, below). Pea growers have so far focused on biodiversity, with progress measured through changes in populations of key indicator species.

### Next

Further research is needed on: ways to reduce nitrate leaching; selective weeding programmes; biological

controls including an aphid monitoring/warning programme; reducing soil compaction; breeding of disease-resistant pea varieties to reduce the need for agrochemical inputs. Other important issues to tackle include: energy use and climate change (work on calculating farm carbon footprints is already underway); soil erosion; water quality; and developing social capital.

### SPINACH – GERMANY

Brand: Iglo

Company: Unilever Ice Cream and Frozen Foods, Germany

Start date: 1999

Scope: Five contract farmers initially, around 100 farmers and around 2,000 hectares of spinach

Contract farmers around the Reken factory near Munster, north-west Germany, have provided Unilever with vegetables, including spinach, for over 40 years.

### So far

All farmers are contractually obliged to follow the standards and other partner suppliers are adopting practices based on the guidelines. Regular workshops and monitoring of individual fields have produced improvements against almost all indicators: soil fertility improved where the rotation was extended from two to three spinach-free years; minimum tillage tests are looking at ways to improve soil structure and improve fertility; and soil loss is reduced and biodiversity improved where 3 metre vegetation strips help bind the soil and provide wildlife habitats. We are working with Hanover University on the use of pheromone traps and bio-insecticides to reduce use of chemicals. Iglo's farm and factory tours, launched in 2003 to explain the goals of its sustainability initiatives, attracted around 3,000 visitors in its first year and around 10,500 in 2005.

### Next

Further work is needed on water use and quality, pest management, soil quality and biodiversity. The greatest



Forum for Sustainable Farming, UK

### Farmers talking to farmers & policy makers

*Interview with Robert Borrill, Chairman of the Forum for Sustainable Farming*

"In partnership with my parents I grow peas as part of an arable rotation on some 550 hectares of eastern England. I have been a member of the Birds Eye pea sustainability programme since 1998. Since then, along with 18 other growers plus advisory partners in Unilever's first sustainable farming experiments, we have learned a great deal about sustainable pea growing against Unilever's original 10 indicators. Farm economics is key.

Through the Forum for Sustainable Farming (FfSF) we've begun sharing what we have learned with the 420 farmers representing some 100,000 hectares in total who supply peas to Birds Eye's Hull and Lowestoft factories. Increasingly the remit of FfSF is extending from peas to all crops on each farm, with a long term aim of sustainability branding for the whole farm – a tall order, but when it is achieved it will single out such farms as the 'elite', which in turn is a strong marketing tool.

Our objectives are to link farmers, policy makers and consumers, share experiences and help each other to improve as we develop higher standards in sustainable agriculture that go beyond compliance. We assist our farmer colleagues in understanding recent and forthcoming environmental legislation and help them access environmental aid schemes through training workshops with our many partners including: DEFRA, FWAG, LEAF, the BTO\*, Forum for the Future and the Processed Vegetable Growers Association, supported by a DEFRA VTS grant. We act as a lobby group and consultative body for UK government and EU policy. We are very focused because we believe passionately that sustainability is the way forward for crop production."

DEFRA – UK Department for Food and Rural Affairs  
FWAG – Farming and Wildlife Advisory Group  
LEAF – Linking Environment and Farming  
BTO – British Trust for Ornithology



Farmer Workshop, Germany (left)



Iglo Land tour, Germany (below)



Harvesting Peas, UK (right)



BTO partner conducting field work, UK (middle)



FWAG advisor and Birds Eye grower (bottom)



challenge is to develop an integrated whole-farm approach for each of our spinach growers.

**SPINACH – ITALY**

Brand: Findus  
 Company: Unilever Ice cream and Frozen Food, Italy  
 Start date: 2000  
 Scope: 150 farms, around 900 hectares of spinach

Spinach is grown in Latina to the south of Rome and around Foggia to the south-east of Rome, with field

sizes varying from about 2.5 to 10 hectares. Many of our farmer suppliers have supplied vegetables to the Sagit factory in Cisterna di Latina for over 40 years.

**So far**

We produced guidelines in 2003, based on seven pilot farms, which we started to distribute to farmers in 2005. Other partner suppliers are also adopting practices based on the guidelines. In the warm climate of southern Italy, the main problem is contamination – from caterpillars, downy mildew and weeds. Integrated Pest Management (IPM) has become an established

practice. Integrated weed management was introduced in 2002: activities include weed control in the previous crop (wheat), appropriate tillage, ditch management (cleaning, ensuring grass cover), pre-harvest weeding, and holistic farm management to prevent weeds in the first place. Water scarcity is an issue and we are testing models to promote water savings. We have held workshops on sprayer and spreader calibration.

**Next**

Key indicators for further improvement are value chain, pest management, nutrients, water and soil fertility. We

will continue research on localised bio-control agents and on ways to reduce loss of nitrates and phosphates in surface run-off. We are developing ‘weed risk maps’ using Geographical Information System software, testing special hoeing equipment and evaluating new herbicides.



**Selling sustainability and frozen foods: the integrated business approach**

*Interview with Harald Struck, European Supply Management Director*

“When we began our sustainability journey in the mid 1990s our marketeers agreed that it was a good and necessary approach in terms of guaranteeing future reliable agricultural supplies, but it took time for them to grasp what a powerful and profitable selling message sustainability could become. As my now retired colleague Hans Reiterer, Technical Director Operations Group Frozen Foods Europe, reminded me, initially the marketeers indicated that they doubted it was much more than a dream of top management and a few frozen vegetable Supply Chain experts, but an irrelevance in terms of persuading consumers to choose our brands.

Hans has been responsible for leading us to the situation today where our brands carry a clear and trustworthy message. You cannot communicate much about our approach on a pack, but what you do say must be supported and endorsed by monitored activities. If we claim as part of our vitality message that we care for the soil where spinach or peas are grown, for example, we can prove it – hence the careful agriculture practices described

in this brochure, now normal practice for all our vegetable suppliers.

“In 2003 we began to market IBF (Iglo, Birds Eye, Findus) frozen foods in Europe with a Brand Promise about our vision and our sustainable supply base including ingredients, processing, packaging, delivery and eventual use by consumers. Our aim is that our total vegetable supply becomes fully compliant with our sustainability standards. We prioritise our good practices, and have developed the respective toolkits to help supplier appraisal, they in turn will use them with their own contract farmers. Each factory has an agreed action plan to ensure the ongoing improvement towards sustainability. Our approach is one of partnership with the full buy-in of our suppliers rather than dictatorial. Sustainability is never finite, but it is becoming an integrated, indispensable pillar of our frozen foods business.”



Harald Struck



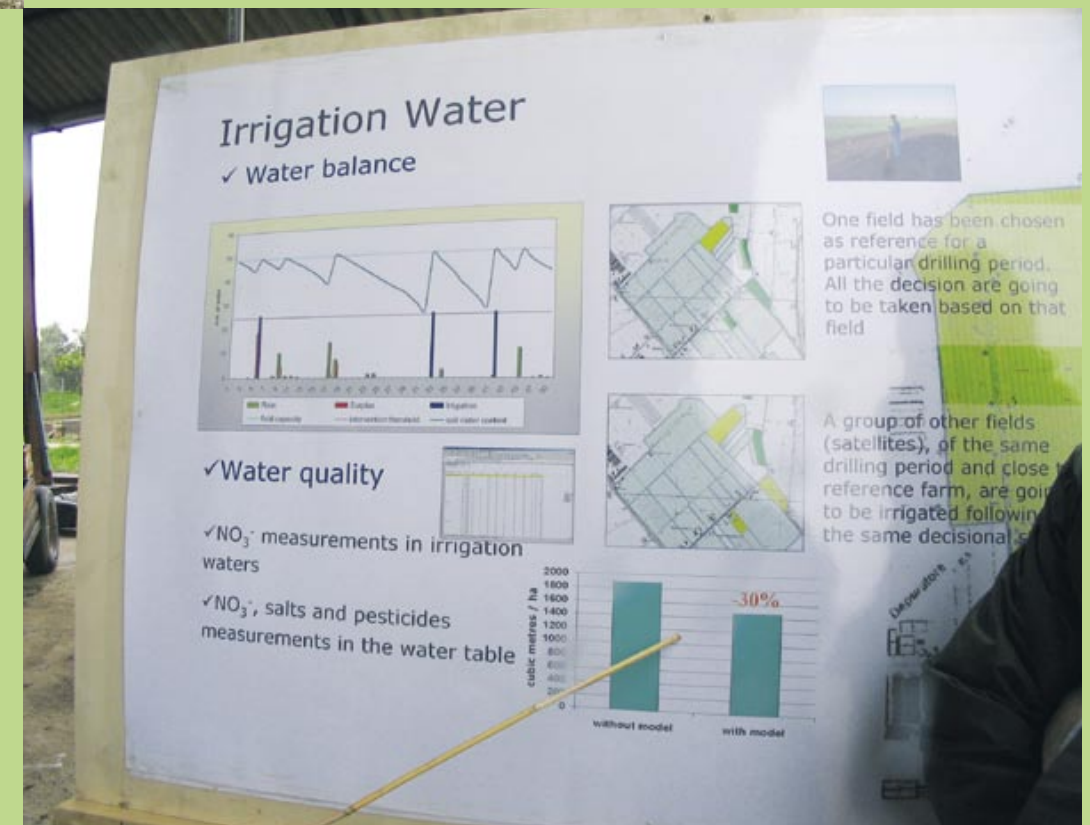
Hans Reiterer

Pheromone trap, Italy (above left)

Silver Y moth caterpillar damage, Germany (above middle)

Sprayer calibration workshop, Italy (above)

Farmer irrigation workshop, Italy (right)







## TOMATOES

### Product Profile

Unilever is the world's third largest producer of tomato-based products – using 7% of the world volume in sauces, paste and ketchup. Our tomatoes come from a wide range of growing conditions, from the semi-arid soils of California and Greece to the humid fields of Brazil, from vast farms to modest smallholdings.

### TOMATOES - BRAZIL

Brand: Knorr Cica

Company: Unilever Foods Brazil

Start date: 2002

Scope: Five farms producing a volume of 540,000 tonnes

Five growers in the Goiânia area are piloting the LAP on farms of 50-200 hectares, within a varied rotation.

### So far

Pest management, irrigation, soil health, harvesting, and social and human capital are key issues. Research on our experimental farm is improving standards based on the indicators. We are moving from pivot to drip irrigation, which reduces water use by up to 20%, produces up to 30% higher yields and reduces the amount of fungicide needed by around 30%.

### Next

We are looking for ways to improve efficiency for our 80 growers, through pest control, waste reduction, better harvesting techniques, grower education programmes and financial incentives for farmers to install drip irrigation systems. Unilever is determined to help eradicate child labour, which, although illegal, is still endemic in many parts of Brazil. We are setting high standards in this area and encouraging support from other agribusinesses. We also are expanding our social programmes to support schools.

### TOMATOES – USA

Brand: Ragu, Bertolli

Company: Unilever Foods North America

Start date: 2001

Scope: 35 farms producing a volume of 450,000 tonnes

The LAP began with one farmer and now involves 35 growers on farms of 100 to 6,000 hectares in the fertile Sacramento and San Joaquin valleys, California.

### So far

Research on four farms helped us select a wider range of beneficial rotation crops for soil health; reduce nutrient applications and further implement integrated pest management; and establish biodiversity programmes, including bird surveys and raptor poles to tempt owls to control rodents. Farmers are starting to use drip irrigation and more efficient equipment to save energy. We are helping farmers' long-term security and encouraging innovation by granting multi-year contracts.

### Next

We will build on our farm self-assessment pilot and we aim to reduce transport miles from field to factory, down from 85 to 70 since 2002, to 60 by 2007.

### TOMATOES – GREECE

Brand: Pummaro

Company: Unilever Foods Greece

Start date: 2005

Scope: 250 farms producing a volume of 55,000 tonnes

We buy from 250 farmers in the fertile area in the far west of the Peloponnese. Most farms are smallholdings of 10-20 hectares.

### So far

We run seminars to educate farmers on best practice and we employ a dedicated field agronomist to support farmers. By the end of 2005, three growers had been assessed in detail against the indicators.



Partnership to protect childrens rights in rural communities, Brazil (above left)

Drip irrigation and mulch to preserve water, Brazil (above)

Hand harvesting tomatoes, Brazil (above middle)

Tomato Variety trials, USA (above right)

Unilever varieties in breeding greenhouse (top and below)

Fertiliser application in tomatoes USA (above)

Pivot irrigation tomatoes, Brazil (above right)



**Next**

We are increasing our direct supply of inputs (seed, fertiliser, pesticides) to have better control over applications. Unilever is developing new varieties adapted to both growing region and specific product, particularly late-season and disease-resistant varieties.

**TEA**

After water, tea is the most popular non-alcoholic beverage in the world, appreciated for its ability to refresh, relax and revive. Unilever is the world’s largest supplier of black leaf tea, with annual sales of around 300,000 tonnes. Lipton is our best known brand. We own tea estates in India and East Africa and additional quantities are purchased on world markets and from third party growers. Tea is generally grown at high altitudes where other crops could not thrive. Tea bushes may remain productive for a century or more, and on hilly land they help reduce soil erosion. Pilot projects are established in Kenya, India and Tanzania.

**TEA – KENYA**

Company: Unilever Tea Kenya  
Start date: 1999  
Scope: 8,000 hectares mature plantations and 150 hectares immature (producing around 36,000 tonnes of made tea)

**So far**

Guidelines for sustainable tea growing (published in English and Kiswahili) have been distributed to employees, major suppliers and smallholders. Sustainability initiatives include: the use of prunings as mulch; no pesticides on mature plants; and maintaining indigenous forest and conservation areas on over 10% of the property, including a dedicated monkey sanctuary. A major programme of indigenous tree planting involving neighbouring communities continues, with over 400,000 trees planted so far. We are trialling the use of factory ash and lime to tackle increasing acidification of the soil where fertilisers have been used. Through the use of our own hydroelectric power stations and fuel wood plantations 97% of our energy consumption is from renewable resources. However, our fuel consumption is being reduced still further by drying wood more effectively before burning.

**Next**

We continue to develop and refine our practices, and are embarking on a major programme to involve the whole supply chain (see Interview with James Onsando, below). HIV/AIDS among agricultural workers remains an urgent problem – we have comprehensive medical programmes for our own employees, and we are sharing our education, prevention and care strategies with our suppliers and others in the community. We continue to develop our tea breeding programme, seeking new, more sustainable varieties for our own use and to sell to suppliers and other growers.

**TEA-TANZANIA**

Company: Unilever Tea Tanzania (UTT)  
Start date: 2001  
Scope: 3,000 hectares (producing around 10,000 tonnes tea)



Blackbirds over tomato fields, USA. Copyright Audubon Society



Transplanting tomatoes, Greece (below left)

Dry fuel wood storage, Unilever Tea Kenya (below)

Hospital Unilever Tea Kenya (top far right)

Tea Small Holder visit Kenya, SAAB Meeting Nov 2004 (below far right)



**Sustainability in the Lipton supply chain**

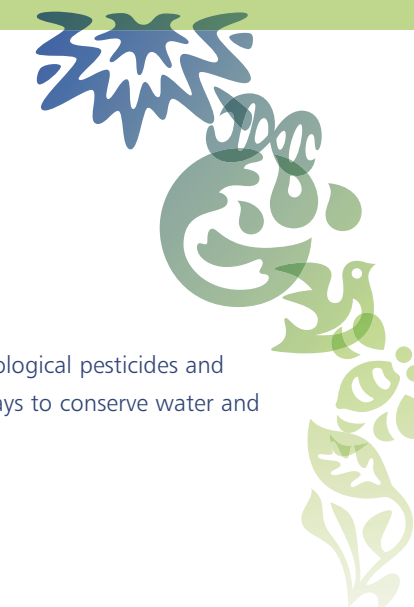
*Interview with Dr. James Onsando, Senior Sustainability and Environment Manager, Lipton.*



“Now that we have defined guidelines for sustainable tea growing on our own estates and with smallholders who supply us directly, it is time to include the wider tea growing community who supply us indirectly. With help from the UK Department for International Development via the Business Challenge Linkage Fund, and in partnership with the Kenya Tea Development Agency we have embarked on a programme to bring sustainability to the entire Unilever Tea supply chain. We began in autumn 2005 by piloting in three factories in three different locations. Each factory started with 50 or so of their supplier farmers, who in due course will train other farmers. Progress is structured and monitored to ensure there is no loss or distortion. Farmer field schools are an enabling environment for growers to experiment, learn, and draw conclusions as they see practical benefits. A technical team explains how to establish a baseline, monitor progress, identify gaps and develop a strategy to deal with the issues. Once suppliers and farmers have understood what we are trying to achieve they are extremely enthusiastic – but it does take time for the benefits to become apparent.”







The unpredictability of tea prices makes convincing farmers of the benefits of sustainable farming in the Southern Highlands of Tanzania a huge challenge.

**So far**

Sustainable practices at UTT include: improved machinery to alleviate soil compaction during harvest; sparing use of fertilisers and herbicides, and no pesticides on mature plants; rainwater storage in dams for irrigation during the dry season. Supporting biodiversity is critical, since the indigenous forest is especially rich in bird and plant species, and draws visitors from around the world. Forest fires and other systems of land clearing are a constant threat. The company maintains some 14,000 hectares of indigenous forest within its property. A biodiversity action plan (BAP) drawn up in 2003 aims to promote biodiversity through a range of projects. They include the protection of identified key habitats, remedial measures, education programmes and environmental impact assessment of

any new developments. A comprehensive programme to combat HIV/AIDS is ongoing.

**Next**

We will continue biodiversity education and awareness programmes within the company and wider community. Our fuel emissions are gradually being reduced by converting to electric irrigation systems.

**TEA - INDIA**

Company: Hindustan Lever Limited (HLL)

Start date: 2000

Scope: Two plantations – Tea Estates India Division (TEI) and Doom Dooma India Division (DDI) (total area of around 7,000 hectares producing around 16,000 tonnes of black leaf tea)

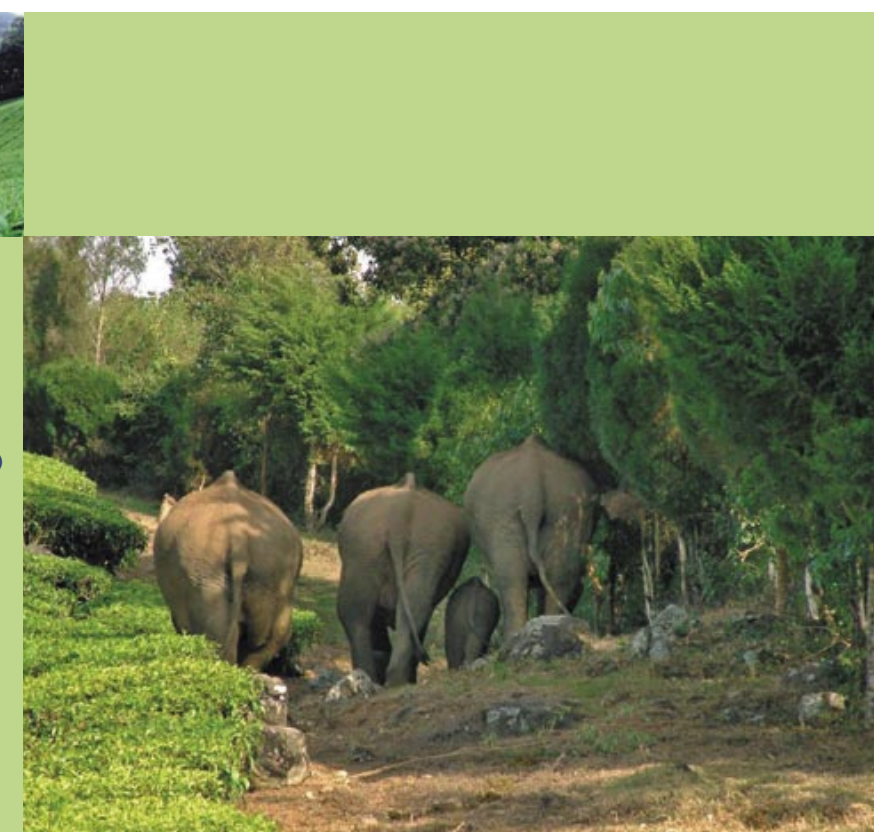
**So far**

Since we published guidelines in 2002, farmers have focused on soil loss and fertility, pest management and

biodiversity. Prunings remain on the field to improve soil fertility, and we have reduced nitrogen and potash applications per hectare by over a third on average between 1999 and 2004. Inorganic pesticides are being replaced by fungal agents and pheromone traps. Thiashola is the first Unilever tea estate that has been certified for organic tea cultivation. Leguminous cover crops help prevent soil erosion and fix nitrogen, and rainwater harvesting programmes are successful in drought prone areas in the south. Renewable energy (wood from trees on the plantation planted for this purpose) is used to dry tea, and two windmills supply almost 10% of electricity on the plantation. We work with Nature Conservation Foundation, Mysore (NCF) to understand the biodiversity of the rain forests adjoining our estates. A rainforest species nursery has been established in Injipara with 75,000 plants of 60 different species. We are helping to educate local communities on environment conservation, particularly of surrounding rainforests.

**Next**

We are continuing to test biological pesticides and fertilisers, and looking for ways to conserve water and energy.



Luisenga biodiversity hotspot, Unilever Tea Tanzania (far left)  
 Indigenous trees nursery, Unilever Tea Tanzania (left)  
 Mechanical harvesting, Unilever Tea Tanzania (below left)  
 Shelter belts, Unilever tea estates India (above)  
 Elephant corridors, Unilever tea estates India (right)



## PALM OIL

### Product Profile

Palm oil, extracted from the fruit bunches of oil palm trees, is used as an ingredient in foods and soaps. A well-managed oil palm plantation can be highly sustainable. It needs fewer inputs per tonne of oil produced; it is only replanted every 25 years, resulting in less pollution and soil degradation; and it produces higher yields and more rural employment per hectare than any other vegetable oil.

Unilever owns plantations in West Africa which supply some of the local manufacturing needs for margarine and soaps, but it also has long associations with established plantations in Malaysia. Here on one of our former plantations a LAP project identified key areas of improved agricultural practice and helped establish

the basis for Unilever's wider involvement in the global commodity market (see Interview with Jan-Kees Vis, below right).

### PALM OIL – GHANA

Company: Benso Oil Palm Plantation (BOPP) and Twifo Oil Palm Plantation (TOPP)

Start date: 2001

Scope: Over 8,700 hectares

The Unilever plantation companies deal with around 600 smallholders who they helped to set up and a large number of small farmers who set up their own farms.

### So far

A simplified version of our sustainable agriculture guidelines is available in English and, from 2005, in the local languages Asanate twi and Fante. It remains a challenge to convince many farmers that sustainable practices produce improved yields and therefore higher financial returns. Since 1998 at BOPP, we have been helping to prevent soil erosion, conserve water and increase yields on steep slopes by constructing contour terraces on all newly and replanted slopes above 10 degrees. To continue processing palm oil during the dry season (peak harvest time) without exacerbating water shortages faced by villagers downstream, TOPP constructed a large reservoir to store flood water from the rainy season. To combat mosquitoes attracted to the water, the reservoir is stocked with fish such as Tilapia, which feed on the larvae.

### Next

We still need to convince farmers of the importance of biodiversity. Around 35 hectares are left as wild forest, but more pockets of natural vegetation are needed. We plan to build on trials to return nutrients to the soil by composting factory waste and using it on the fields. We also want to explore alternative pest controls and ways to target applications more precisely.



Terraced plantings BOPP Ghana

Composting trial, BOPP Ghana (below)

Tilapia fish ready for stocking, Ghana (bottom)



## RAISING GLOBAL STANDARDS IN PALM OIL PRODUCTION: Roundtable for Sustainable Palm Oil

Jan Kees Vis\* explains the quest for sustainable palm oil

"For many years there has been widespread concern about how methods of palm oil production might be made more sustainable. WWF took the lead, and Unilever and others became founder members of the Roundtable for Sustainable Palm Oil (RSPO) in 2003. This is an association of oil palm growers, palm oil processors and traders, consumer goods manufacturers, retailers, banks and investors, environmental, social and developmental NGOs – all of us interested 'to promote the growth and use of sustainable palm oil through cooperation within the supply chain and open dialogue with its stakeholders'.

A more sustainable approach to the palm oil supply chain has become urgent, as global demand has risen. There are instances where the development of new oil palm plantations has led to conversion of forests with high conservation value and has threatened the

rich biodiversity of these ecosystems. The use of fire for preparation of land for oil palm planting also contributes to forest fires and widespread polluting haze over vast areas. In many instances the expansion of oil palm has led to social conflicts between local communities and plantation owners and others. In Indonesia and also in countries in Latin America conversion of land for agriculture is the biggest threat to tropical rainforests alongside illegal logging.

Unilever has encouraged the industry-wide multi-stakeholder dialogue to address these challenges. We continue to contribute our learnings about best practice from our own plantations. We are involved in the dialogue between stakeholders – global and local, large and small – to develop Principles and Criteria for Sustainable Palm Oil Production launched in 2005. As we seek ways to make the Unilever supply chain more

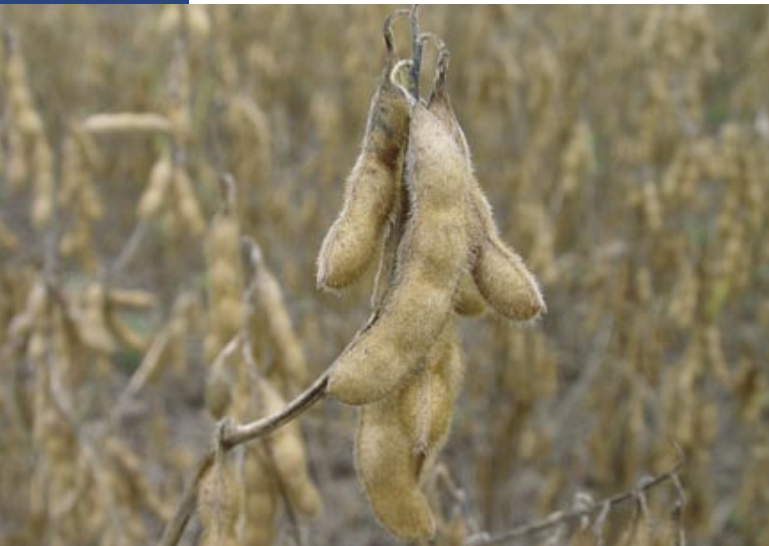
sustainable, through RSPO we are engaging with others facing similar challenges. The issues are complex but only by addressing them in a practical, transparent and inclusive way will we reach the stage when consumers can have confidence that the product they choose has been developed from sustainable sources."

For more information: see [www.sustainable-palmoil.org](http://www.sustainable-palmoil.org).

\* Jan Kees Vis is the senior manager co-ordinating the Unilever sustainable agriculture initiative and is currently the President of the RSPO.







Soya beans ready for harvest

### Contributing to responsible soya production

Soya is grown in many countries with temperate and sub-tropical climates, and increasingly also in tropical regions. It is a source of protein and oil used in food for humans and animals, and also has industrial applications. Soybean production is expanding rapidly to satisfy demand, raising concerns about the environmental and social impact of changes in land use: fires are used to clear native forest, hundreds of thousands of acres of unbroken monoculture, high inputs of synthetic chemicals, issues about land ownership and labour rights. Forests and savannah grassland, once rich in biodiversity, continue to be destroyed for soybean. A more responsible approach is urgently needed.

Unilever does not use much soya in its brands. But after a decade or so of detailed research into sustainability issues across many key crops, we believe we can make a practical contribution to the debate. With our experience in palm oil research and work through the RSPO (see page 23), we are keen to support an international roundtable on responsible soya production because soya shares so many of the same issues. Subjects currently being debated among industry leaders, NGOs and others in the supply chain include developing industry-wide standards, compliance assessment programmes and certification systems that will help protect biodiversity, in particular. A first conference took place in Brazil in March 2005 and a second is planned for August 2006.

### EXTENDING BEYOND THE KEY CROPS

#### DAIRY – THE NETHERLANDS

Brand: Ben & Jerry's

Company: Ben & Jerry's

Start Date: 2003

Scope: 11 farms

Team: Ben & Jerry's, Hoogwegt Milk BV, Wageningen University, advised by WWF, Stichting Natuur & Milieu (Dutch Nature Conservancy), Animal Welfare specialist Maarten Frankenhuis, former Director of Artis Zoo and professor in animal science, Dutch Institute for Dairy Research (NIZO)

#### So far

Our ice cream brand Ben & Jerry's has developed a sustainable milk initiative on Dutch farms under the slogan 'Caring Dairy', building on its sustainable dairy

initiative in Vermont, USA. The key challenge is animal welfare – a new indicator added to the original 10. Each farmer has developed improvement plans to suit their individual needs, through self-assessment and close monitoring of their own practices.

#### Next

We plan to produce guidelines from this trial, which will be rolled out to dairy farmers more widely. A Caring Dairy variety of ice cream and other marketing initiatives will help to engage consumers on the issue of sustainable dairy farming.

#### OILSEED RAPE

##### Product Profile

Oilseed rape is the most important source of vegetable oil in temperate zones and the third most important in the world after soya oil and palm oil. Unilever uses it as an ingredient in margarines and mayonnaise. Some soaps and detergents also contain rapeseed oil.

#### OILSEED RAPE – GERMANY

Partners: the University of Halle-Wittenburg, Unilever, UFOP (Union for the Promotion of Oil and Protein Plants)

Start date: 2004

Scope: Eight farms (four cash crop farms and four mixed farms, total agricultural area of about 2,500 hectares)

The LAP is located in Schleswig-Holstein, Germany, one of the main rapeseed growing areas in Europe.

Caring Dairy cows, Netherlands (below)

Caring Dairy project farmers, Netherlands (bottom)



Oilseed rape, Schleswig-Holstein, Germany (below)

Oilseed rape trials, Germany (bottom)







**So far**

We are training farmers to use REPRO software, developed by the University of Halle-Wittenburg, which allows them to analyse the impact of different management techniques and inputs on a number of indicators for an entire farm or a single field.

**Next**

Soil sampling, nitrate measurements in drainage water, and analysis of plant material has begun on three farms. The results will be used alongside field trials to validate the REPRO software and form the basis for guidelines for growing sustainable oilseed rape.

**SUNFLOWERS**

**Product profile**

Oil from crushed sunflower seeds is the key ingredient in Flora margarine.

**SUNFLOWERS – SOUTH AFRICA**

Company: Unilever Foods, South Africa

Start date: 2005

The sunflower LAP has particular constraints because it is evolving in accordance with South Africa’s Broad-Based Black Economic Empowerment Act 2004 which aims to transform land ownership and management.

**So far**

We are developing the LAP in partnership with black farmers, the South African government, Elsberg Agricultural College, grain companies and financial institutions. There is an existing infrastructure on farms in the North West Province where one lead farmer works with 10 farmers in the district to practice good soil, water and crop rotation management.

**Next**

We plan to develop guidelines and roll them out to around 20 farmers in 2007 and 2008.

**OLIVE OIL**

**Product Profile**

Unilever’s Bertolli brand is the biggest olive oil brand in the world, accounting for 8% of world olive oil production. It is a versatile cooking product used in salad dressing and cooking, and as an important ingredient in Unilever’s sauces and spreads.

**OLIVE OIL**

Brand: Bertolli

Company: Unilever Foods, Italy

Scope – Suppliers of three factories (Inveruno, Italy; Piraeus, Greece; Abrantes, Portugal), around 133,500 tonnes of olive oil

Start date: 2005

Unilever does not own any olive farms. We depend on our suppliers and expert partners for quality raw material, which is determined by the growing, harvesting and extraction methods used.

**So far**

In 2005 we began a dialogue with some of our partners to find ways of obtaining olive oil from more sustainable sources.

**Next**

We plan to work on pilot projects with suppliers in Spain initially, and then Italy and Greece. Key indicators include soil health and nutrients, pest management, water, biodiversity and local economy.



Sunflowers in flower, South Africa (far left)

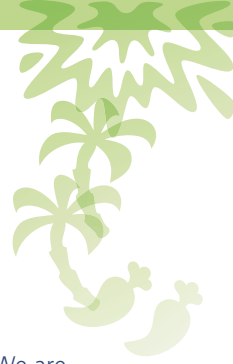
Sunflowers ready for harvest, South Africa (left)

Olive leaves-branch

Olive groves, Greece (right)







# LOOKING TO THE FUTURE

The Unilever Executive has re-affirmed its commitment to the sustainable agriculture programme. We will continue to run LAPs for our key crops and look for ways to source our agricultural raw materials more sustainably. As we expand the programme to include new crops, the emphasis will be on working in partnership with others who have the relevant expertise. We will continue to work with suppliers, farmers, scientists, non-governmental organisations and other companies. As our business grows, we need to source more raw materials. This enables us to expand the benefits of our sustainable agriculture programme to cover more farms. Our aim remains the same – to improve performance on all key indicators. We need others to join us on our sustainable agriculture journey. If you have ideas on how to improve our programme, please get in touch.

Contact us at: [sustainable.agriculture@unilever.com](mailto:sustainable.agriculture@unilever.com)

## GHERKINS

### Product Profile

Unilever sources graded gherkins – small pickling cucumbers – for processing by Amora Maille.

### GHERKINS – INDIA

Company: Unilever Foods, France

Start Date: 1998

Scope: Five suppliers (producing 6,500 tonnes) working with 6,000 farmers in Karnataka and Tamil Nadu, Southern India

Gherkins are cultivated by smallholders in the states of Karnataka and Tamil Nadu in Southern India as part of a crop rotation. Although it is possible to produce three crops a year, Unilever restricts farmers to two to avoid high risk of disease during the cyclone season.

### So Far

We rely on five suppliers, who in turn have contracts with some 6,000 farmers in the region. The agricultural team includes field managers who monitor the crop closely. Unilever has helped the industry improve yield by up to 60% since our initial involvement in 1998.

### Next

Water is the main challenge in a dry region. We are working in partnership with the Ministry of Agriculture and academic institutions to find ways to fund drip irrigation systems – one experimental farm has yielded water savings of up to 40%, as well as reducing the amount of chemicals needed. We will continue our research into biological pest control systems and our grower education programmes.



Gherkin growing, India

Various fruit and vegetable products on offer from Chinese suppliers (far right)

## CHINA: Creating and developing new supply chains

Fruit and vegetable production in China has been developing rapidly since the 1990s, both in volume and in quality. For example, China is now the world's third largest supplier of processed tomatoes and the largest exporter of tomato paste. In the past, the main problem was chemical residues. Unilever suppliers are establishing their own audited supply chains for greater control over inputs.

We currently source very small amounts of our overall food requirements in China, buying mainly tomato paste, and frozen and dried vegetables. Our Food Ingredient China Sourcing team is working with local partners to help suppliers meet our global

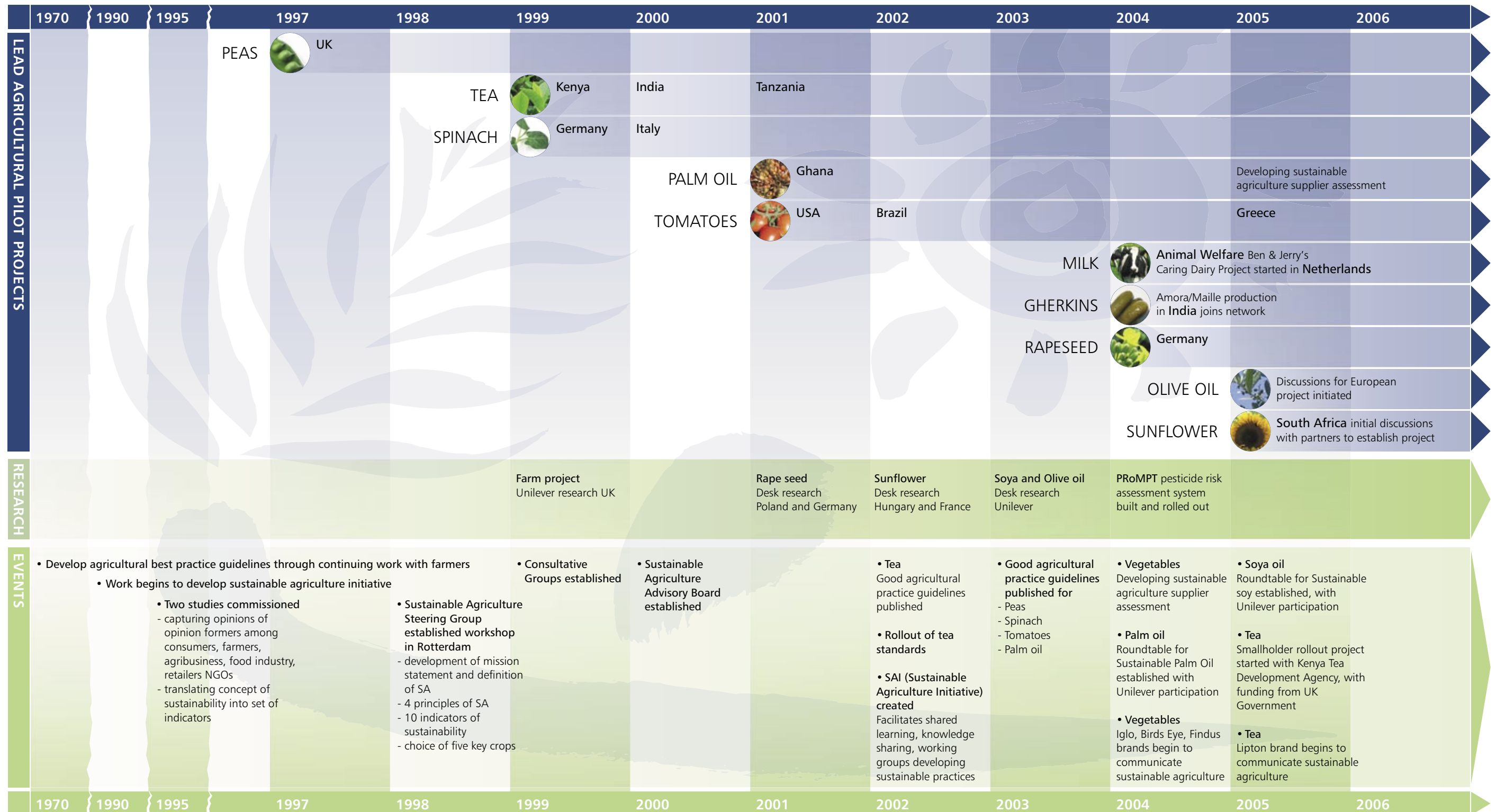
food quality and safety standards, from initial crop development to final product. Unilever Research China, Shanghai, has been upgraded as a Unilever global laboratory for contaminants analysis, and in October 2005 we appointed a dedicated agronomist to work directly with our growers.

Cultural differences including difficulties in explaining the benefits of sustainability programmes, the short term view in a buyers' market coupled with a wish for quick returns, wide gaps in agricultural skills and training, are all issues that require careful management in building an integrated supply chain.





# Time line



### Next steps:

- Continue to develop and validate Sustainable Agriculture Standards for use in all key crops
- Continue to contribute to necessary market mechanisms to support raw material sourcing from sustainable agriculture worldwide
- Develop supply chain capable of delivering Unilever's key agricultural raw materials from sustainable sources
- Define next generation Good Agricultural practices

# Mission Statement

The sustainable agriculture initiative seeks to ensure that the agricultural systems on which Unilever relies have the capacity to deliver sustainable and secure supplies of raw materials and that all of Unilever's business operations understand and anticipate the changes needed to secure sustainable supplies into the future.

## Background

Our mission is to add vitality to life. We meet everyday needs for hygiene, nutrition and personal care with brands that help people feel good, look good and get more out of life.

Agriculture provides more than two-thirds of the raw materials for these branded products. Sustainable supply of these materials is an essential element in the long term success of our business.

The capacity of agricultural systems to meet the world's food and fibre needs is under increasing pressure. Growing competition from urban development and nature conservation is limiting land available for agricultural production while valuable arable land is also being lost due to soil erosion. Agriculture is using more and more water for irrigation yet critical reserves of fresh water are being rapidly depleted. Water resources are also at increasing risk of pollution from nutrients (fertilisers and animal waste) and pesticides used in agricultural production. These factors led Unilever to develop an initiative on Sustainable Agriculture.

## Approach

Unilever supports the view that sustainable development is the interaction between economic growth, environmental protection and social progress and has adopted the following definition of Sustainable Agriculture:

Sustainable Agriculture is productive, competitive and efficient while, at the same time, protecting and improving the natural environment and livelihoods of local communities.

Starting from a number of principles which embrace the concepts of economic growth, environmental protection and social progress, we have set up a number of Lead Agriculture Programmes around a number of key crops. Together with stakeholders, these LAPs have worked towards defining new sets of Sustainable Agricultural Practices which lead to improvements on a number of chosen sustainability indicators. We will continue to seek improvements in agricultural practices, leading to ever better sustainability levels in our supply chains.

At the same time, we will support and stimulate general agreement on application of superior agricultural practices through partnerships in our supply chains. This will be best realised in a well-functioning market environment for all inputs and outputs. We will participate in, or start anew, food industry and other initiatives to promote and advance sustainable agriculture for all crops. In this way we will ensure that we deliver against our purpose: to add continuously to the quality of life of our consumers.

*Rotterdam, March 2004*

## FURTHER READING



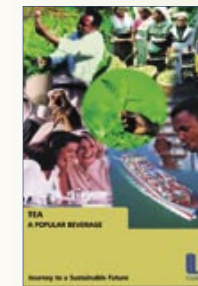
**Our Everyday Needs**  
Unilever's Water Care Initiative (2001)



**Unilever And Water**  
Towards Sustainability (2003)



**Fishing for the future II**  
Unilever's Sustainable Fisheries Initiative (2002)



**Tea - A popular Beverage**  
Journey to a Sustainable Future (2002)



**Palm Oil**  
A Sustainable Future (2001)



**In Pursuit of the Sustainable Pea**  
Forum for the Future in collaboration with Birds Eye (2002)



**Growing for the Future Spinach**: For A Sustainable Future (2003)



**Growing for the Future Tomatoes**: For A Sustainable Future (2003)



**Sustainable Tea**  
Good Agricultural Practice Guidelines (2002)



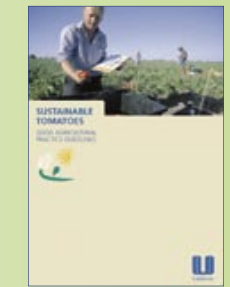
**Sustainable Palm Oil**  
Good Agricultural Practice (2003)



**Sustainable Vining Peas**  
Good Agricultural Practice Guidelines (2003)



**Sustainable Spinach**  
Good Agricultural Practice Guidelines (2003)



**Sustainable Tomatoes**  
Good Agricultural Practice Guidelines (2003)



**The Colworth Farm Project**  
Putting Sustainable Agriculture to the Test (2005)



## Understanding the icons within our logo



**Sun** our primary natural resource. All life begins with the sun – the ultimate symbol of vitality. It evokes Unilever’s origins in Port Sunlight and can represent a number of our brands. Flora, Slim-Fast and OMO all use radiance to communicate their benefits.



**DNA** the double helix, the genetic blueprint of life and a symbol of bio-science. It is the key to a healthy life. The sun is the biggest ingredient of life, and DNA the smallest.



**Bee** represents creation, pollination, hard work and biodiversity. Bees symbolise both environmental challenges and opportunities.



**Hand and flower** the hand is a symbol of sensitivity, care and need. It represents both skin and touch. The flower represents fragrance. When seen with the hand, it represents moisturisers or cream.



**Hair** a symbol of beauty and looking good. Placed next to the flower it evokes cleanliness and fragrance; placed near the hand it suggests softness.



**Palm tree** a nurtured resource. It produces palm oil as well as fruits – coconuts and dates – and also symbolises paradise.



**Sauces or spreads** represents mixing or stirring. It suggests blending in flavours and adding taste.



**Spoon** a symbol of nutrition, tasting and cooking.



**Bowl** a bowl of delicious-smelling food. It can also represent a ready meal, hot drink or soup.



**Spice and flavours** represents chilli or fresh ingredients.



**Fish** represents food, sea or fresh water.



**Sparkle** clean, healthy and sparkling with energy.



**Bird** a symbol of freedom. It suggests a relief from daily chores, and getting more out of life.



**Recycle** part of our commitment to sustainability.



**Lips** represent beauty, looking good and taste.



**Ice cream** a treat, pleasure and enjoyment.



**Tea** a plant or an extract of a plant, such as tea. Also a symbol of growing and farming.



**Particles** a reference to science, bubbles and fizz.



**Frozen** the plant is a symbol of freshness, the snowflake represents freezing. A transformational symbol.



**Wave and liquid** the wave symbolises cleanliness, freshness and vigour either as personal washing or as a laundry icon (with the shirt). Liquid is a reference to clean water and purity.



**Container** symbolises packaging – a pot of cream associated with personal care.



**Clothes** represent fresh laundry and looking good.



**Heart** a symbol of love, care and health.

3rd Edition © 2005

Unilever N.V. PO Box 760 3000 DK Rotterdam The Netherlands

[www.unilever.com](http://www.unilever.com)

email: [sustainable.agriculture@unilever.com](mailto:sustainable.agriculture@unilever.com)