

Sustainability  
in the food chain

DuVo-foundation

# Start of a dialogue\*



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\* Translation of the executive summary from the first booklet issued by the DuVo-foundation:  
*Begin van een dialoog* (Start of a dialogue) (80 pages), issued by DuVo in April 2000

## Introduction

With the publication of its first booklet on Sustainability in the Food Chain\* Stichting Duurzame Voedingsmiddelenketen (the Sustainable Food Chain Foundation, referred to below as DuVo) initiated a structural dialogue with society. In concrete terms this resulted in the first Sustainability Dialogue, which was held on 9 December 1999. During that meeting various stakeholders formulated their vision and expectations, which revealed that being open and accessible to society are essential elements if industry is to obtain a broad basis of support within society.

The first meeting clearly underlined the usefulness of and need for the DuVo initiative.

Businesses affiliated to DuVo each have their own responsibility as regards implementing the concept of sustainability\*\*. Socially responsible behaviour forms an essential component in this respect. Of the many fields in which initiatives are being taken, this booklet specifically deals with the approach of DuVo businesses to waste and by-products, the theme of the first dialogue meeting.

In line with the approach that DuVo decided on in 1999, the dialogue will also be continued in the year 2000. For this purpose a dialogue meeting will again be held, this time focusing on raw materials production. Once again, the dialogue will be prepared by means of research.

Below is a brief summary of what the specific findings were during the knowledge development via the dialogue and what experiences the businesses gained in their efforts to achieve sustainability. Lastly, the plans for the year 2000 are set out.

\* *Duurzaamheid in de Voedingsmiddelenketen* (Sustainability in the Food Chain), first publication by the DuVo Foundation, August 1999

\*\* Definition from Brundtland Report (1987): 'Sustainable development means an economic, social and environmental development that meets the needs of the present generations without jeopardising the possibilities for future generations to meet their needs as well.'

## KNOWLEDGE DEVELOPMENT

### *Resulting from first Sustainability Dialogue*

Sustainability is not an absolute concept. A continual exchange of views and harmonisation with all relevant parties is therefore essential, which is why a number of businesses from the food supply chain concluded as early as the late 1980s that dialogue is the best method of fleshing out the concept of sustainability in the food chain. That initiative led to the establishment of the DuVo Foundation in 1995. One of DuVo's objectives is to conduct a social dialogue with government and science, as well as with environmental and consumer organisations. On 9 December 1999, for example, more than 125 invitees – some from the above-mentioned sectors, some from industry – got together to discuss the possibilities for measuring progress achieved in the area of sustainable development. The angle of approach was 'residues in the food chain' in view of the fact that the management of such by-products embodies all aspects of sustainability: economic, ecological and societal.

### THE GROUPINGS IN SOCIETY

The concept of sustainability in the food chain evokes a wide variety of associations in different parts of society. This is reflected, for instance, in a series of brief memos in which various parties and groupings indicate what they understand by the concept:

- it stands for wanting to show social responsibility in an open way, particularly about subjects such as animal welfare, genetic manipulation, organic farming and fair trade (*M. Fleur, Alternatieve Konsumentenbond [Alternative Consumer Association]*);
- it is a challenge for creative entrepreneurs to re-use residual flows safely and in a high-quality way via an integrated environmental approach (*A. van der Kreeke, Recyfeed*);
- it offers a distinguishing element in a market which, incidentally, is becoming more and more saturated (*G. Meester, Ministry of Agriculture, Nature Conservation and Fisheries*);
- it offers opportunities for businesses to link up with and enter into partnerships with social organisations and others (*W. van der Weijden, CLM*);
- it requires an explicit risk assessment of various innovations, followed by clear choices (*R. Rabbinge, WUR*);
- it calls for a shift in the choice of food away from animal and towards vegetable

- proteins, and towards more environmentally aware methods of cultivation (*L. Reijnders, Natuur en Milieu [Nature and the Environment]*);
- it challenges industry to mobilise itself around the concept of ‘responsible food.’ (*E.J. Tuininga, Amsterdam Free-Reformed University*);
  - it requires a chain-focused approach (*S. Hertzberger, Albert Heijn*).

#### THE GOVERNMENT

In his contribution during the meeting Minister Brinkhorst (Agriculture, Nature Conservation and Fisheries) added to this the concepts of food safety and consumer confidence. The minister questioned the increasing use in animal feed of residual animal materials from the food chain. That can only be done if there are guarantees for the safety of food. Those guarantees can only be created via actually managing and influencing the chain.

Mr Pont (Ministry of Housing, Spatial Planning and Environmental Management) emphasised the responsibility of the food industry for food safety, in addition to its efforts to prevent environmental risks. He felt that the consumer had a clear role to play by bringing influence to bear via his or her buying behaviour.

#### THE FOOD CHAIN

The food chain in the Netherlands accounts for 20% of total employment and generates an annual turnover of around 100 billion euro. In all links in the chain there are substantial residual flows which are inseparably linked to the production process. Within the food chain work has long been under way to achieve optimum re-use of those residual flows. The dairy industry, for example, has succeeded in ensuring that the traditional residual flows from butter and cheese preparation have been upgraded from fertilisers and animal feed and are now used as specialised ingredients for foodstuffs and pharmaceuticals.

#### THE DIALOGUE

Both in separate workshops and in a plenary debate, discussions were held during the Dialogue Meeting about the meaning of sustainability in the food chain and about possibilities of making that concept measurable. A general conclusion from the workshops was that openness and being accessible for society are essential elements in acquiring a basis of support for industrial activities (licence to operate). It also emerged that the scientific approach to the concept of sustainability has led to alienation in the way it is emotionally perceived by the public.

From now on the standards and values of society will have to be taken on board even more explicitly in the considerations of industry.

Food safety proved to be the most important theme during the discussion. The image that the public has of that subject leaves much to be desired. It would be a good idea to initiate an intensive information campaign about food safety, so that in future other sustainability themes can be discussed as well. Food safety is strongly linked to existing products, which implies that it has a short term character, whereas sustainability is coupled more to processes and specifically emphasises the long term perspective. It is important to maintain the right balance in the discussion.

The dialogue yielded hardly any new insights with regard to a practical ‘sustainability scale’. None the less, chairman for the day De Jong (Numico) was able to conclude the dialogue with the words: “We as an industry have embarked on an adventure, the social dialogue about sustainability. That imposes obligations on us. We will make sure that it is an open discussion that everyone can follow, the aim being to arrive at a common vision on sustainability. In this way we intend to win back people’s confidence in the food industry.”

### EXCHANGE OF EXPERIENCES

To an increasing extent it is becoming clear that social responsibility is an essential element of sustainable business practices. All DuVo businesses devote much attention to structuring that concept in concrete terms, as explained below. This section also deals specifically with the way in which DuVo businesses approach the theme of waste and residual materials during production and waste prevention in the chain.

#### SOCIAL RESPONSIBILITY

Foods have a very high emotional value and, partly with this background in mind, DuVo businesses are highly motivated to bear their social responsibility. Sometimes they select attractive themes, such as Albert Heijn with their ‘Earth and Values’ programme, which focuses on a more sustainable production of foodstuffs. McDonald’s is participating in an initiative to improve disadvantaged

inner city areas, whilst Van Melle has the objective of achieving environmentally sustainable operations in 2005. Obviously, food safety has top priority for all businesses. In addition to internal quality assurance, some businesses, such as Numico, have set up an advisory council of external experts to make recommendations on the approach.

Chain management forms an essential part of the quality assurance for food, which is why all businesses are busy with this in some way or another. Heineken, for instance, participates in the Integraal Ketenbeheer Brouwersgerst [Integrated Chain Management Brewer's Barley], in which all the relevant parties are involved.

Once it has become clear which objectives are being sought, a covenant (gentlemen's agreement) is in some instances concluded with groupings in society. Campina Melkunie, for example, is seeking possibilities for concluding concrete agreements on reduction of, for example, mineral losses and greenhouse gas emissions.

#### **BY-PRODUCT FLOWS**

A number of production processes in the food industry are inseparably linked to the creation of co-products, like spent grains from beer production, molasses from sugar production and plant residues from vegetable processing. The way in which those flows are handled has been optimised for years, as has their high-grade re-use, mostly in animal feeds production. In some cases they are re-used on the spot as fuel, for instance coffee grounds at Sara Lee-DE or shea gum at Unilever. In a few cases innovation has led to the creation of new, high-value products. Avebe and Campina Melkunie, for example, have developed raw materials for the pharmaceutical industry based on co-products from potato starch production and cheese production respectively. Both at Avebe and at the sugar producers CSM and Cosun a substantial reduction has been achieved in the quantity of attached soil in deliveries of potatoes and sugarbeets.

#### **RESIDUAL FLOWS**

Reduction of waste is an important theme for all DuVo members. Firstly, all factories make efforts to increase the raw materials yield, which means that industrial waste is continuously being reduced. Sometimes this can be achieved by the separate collection and internal re-use of waste flows, as proved possible, for instance, with sugar solutions at Van Melle and with reject sugar at Cosun and CSM. Unpackaged product waste is collected separately, and is mostly used direct as animal feed. McDonald's has set up a special business which organises

this on a systematic basis. The Greenery disposes of its organic residual products in three fractions (animal feed, suitable for animal feed and compostable residual waste). The various residual flows of Heineken have end-uses in, for instance, animal feed, in the pharmaceutical industry and in the brick-making industry (labels). The residual flows from potato processing at Cebeco are re-used almost entirely. The animal feeds of Cehave meanwhile consist of residual materials for 30-80%. Cehave, together with its Profarm subsidiary, this year started the flagship project: 'application of organic residual products as co-product in animal feed', in which a number of DuVo members are participating. Safety assurance is the main area for attention in that project. The Cebeco Group, in cooperation with suppliers of residual materials destined for use in animal feed, is also conducting risk analyses of their production processes so as to optimise quality and safety in the chain.

For the processing of packaged products there is usually close cooperation with a specialised processor. Together with a processor of residual materials, for example, Albert Heijn has developed techniques to remove the packs (via the barcode) from packaged products and to make the contents available for reprocessing. Branded product manufacturers such as Unilever have developed special procedures for quality assurance during that reprocessing stage.

Waste water is biologically purified in many places. During this processing DSM and Sara Lee-DE collect bio-gas that is used as fuel. DSM even makes its know-how and expertise in the area of water purification commercially available.

#### **PREVENTION IN THE CHAIN**

Many businesses, including The Greenery, also monitor how waste management is conducted by their suppliers. All DuVo businesses have signed the Packaging Covenant II, and contribute in this way to the reduction of waste downstream in the chain, at customer and consumer level.

## CONTINUATION OF THE PROCESS

In 1999 DuVo opted for a practical approach as regards encouraging sustainability in the food chain. The central elements in that approach are:

- knowledge development
- exchange of experiences
- conducting a dialogue

Reports on progress were published both in the first booklet of the DuVo Foundation, as well as in this second booklet. In the year 2000 DuVo will again be initiating activities in the three above-mentioned areas, as described below.

### KNOWLEDGE DEVELOPMENT

In a (large) number of places work is being done to achieve sustainability in the food chain, particularly in the area of farming methods. In those projects indicators are used to make the progress measurable, but these indicators by no means always comprise the same elements. Sometimes those indicators are focused solely on the use of auxiliary materials, sometimes they have a much broader scope and also encompass social and economic aspects. Placing the various indicators in a common context makes clear how much overlap exists and the extent to which certain indicators focus on highly specific elements. Parties which concern themselves with the development of sustainability indicators for farming methods will be asked about the nature and content of those indicators, so that they can be placed in a sort of 'phase diagram' formed by the cornerstones of economy, ecology and social. In order to verify the accuracy of that diagram and to discuss any modifications that may prove necessary, a meeting will be organised in September at which members of the steering group, together with a number of selected researchers, will discuss the nature and presentation of the overview. The findings from that meeting will possibly serve as a basis for the discussion during the second Dialogue Meeting.

Partly as a result of the experiences during the first dialogue on 9 December 1999 the need has arisen within DuVo to make an inventory of the expectations that exist amongst various stakeholders with regard to the efforts being made by DuVo and its affiliated businesses in the area of sustainability in the food chain. During the course of 2000 an inventory will be made for this purpose.

### EXCHANGE OF EXPERIENCES

Some of the DuVo businesses have been involved for a shorter or lengthier

period in projects which are aimed (in part) at stimulating sustainability. It seems a good idea to start exchanging the knowledge and experience gained from those projects in a more structural way. It has been agreed that this year three subjects will be dealt with by DuVo, each of which will be explained by two businesses, after which joint consultation will be held to assess whether the experiences are also more generally applicable or whether they can be translated into measurable factors. A broader participation by DuVo businesses would be welcome. The themes to be dealt with are the pigmeat chain (Cehave and Albert Heijn), Product Stewardship (DSM and Avebe) and food safety (Numico and Heineken). A brief report on these meetings will serve as a basis for a broader internal communication within DuVo businesses.

### SUSTAINABILITY DIALOGUE

After the successful first dialogue it has been decided to organise another meeting on 7 December 2000 with the aim of continuing to encourage the exchange of ideas about sustainability in the food chain. The main theme for this year is the question of whether a sustainability scale can be developed which is applicable to all existing cultivation methods.

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