

16th CEIES seminar

Agricultural statistics and consumer information — Meeting new needs

Luxembourg, 19 and 20 November 2001





A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (http://europa.eu.int).

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19 November 2001

OPENING ADDRESS: MR F. BODEN, Minister of Agriculture, Viticulture and Rural Development, Luxembourg

10:00 Session 1: STATE OF THE ART

CHAIR: MR J. LAMEL, Vice-Chairman of CEIES

Participants:

Ms E. Kilpiö, National Consumer Research Centre, Finland

Mr G. Calò, Eurostat, Directorate Agricultural, Environmental and Energy Statistics

Mr M. Delaporte, L'Alliance 7, France

Discussant:

Mr A. Lindner, OECD

10:45-11:15 Coffee / tea break

11:15 Session 2: consumers' interests

CHAIR: Ms E.REDONDO JIMENEZ, Member of the European Parliament

Participants:

Mr D. Tournez, INDECOSA-CGT, France

Mr E. Sto, Sifo, Norway

Discussant:

Mr R. Strasser, Member of the Economic and Social Committee, Member of the Bureau, Section Agriculture, Rural Development, Environment"

12:00 OPEN DISCUSSION

12:30-14:30 Lunch break

14:30 Session 3: European Policy Actors

CHAIR: Ms K. SIUNE, Denmark

Participants:

Mr S. Jové Peres, Member of the European Parliament

Mr J.J. Rateau, European Commission, Directorate general Health and Consumer Protection

Ms B. Kettlitz, Bureau Européen des Unions de Consommateurs

15:15 OPEN DISCUSSION

16:00-16:45 Coffee / tea break

17:00 END OF THE FIRST DAY

20:00 DINNER OFFERED BY THE MINISTRY OF AGRICULTURE, VITICULTURE AND RURAL DEVELOPMENT OF LUXEMBOURG IN THE CHÂTEAU OF BOURGLINSTER

20 November 2001

09:00-12:30 Study tour in the countryside

"Wine production in Luxembourg - from producer to consumer"

12:30-14:30 Lunch break in the "Salons Verts", Jean Monnet building

14:30 Session 4: NATIONAL AND INTERNATIONAL EFFORTS

CHAIR: MR. J-P. HOFFMANN Ministry of Agriculture, Viticulture and Rural Development, Luxembourg

Participants:

Ms A. Caricchia, Istat, Italy

Mr E. Casadei, FAO

Discussant:

Mr M. Blass, Fachverband der Nahrungs- und Genussmittelindustrie, Austria

15:15 OPEN DISCUSSION

15:45-16:15 Coffee / tea break

16:15 Session 5: Data providers

CHAIR: MR J. KARLSSON, Unece

Participants:

Mr Ch. Gay, Ministère de l'Agriculture, France

Mr A. Niphuis, Netherlands

Discussant:

Mr P. Helm, Defra Statistics, United Kingdom

16:45 OPEN DISCUSSION

CONCLUSIONS AND RECOMMENDATIONS

17:15 Position of Eurostat

Mr Y. Franchet, Director General, Eurostat

17:30 SUMMING UP

Ms. K. Siune, Denmark

17:45 CLOSING UP BY THE VICE-CHAIRMAN OF CEIES

Mr J. Lamel

18:00 END OF THE SEMINAR



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OPENING ADDRESS

Mr Fernand BODEN

Minister of Agriculture, Viticulture and Rural Development 1 rue de la Congrégation L-2913 LUXEMBOURG

It gives me great pleasure to welcome you, on behalf of the Luxembourg Government, to Luxembourg for this seminar organised by the European Advisory Committee on Statistical Information in the Economic and Social Spheres on the topic of "Agricultural Statistics and Consumer Information - Meeting New Needs".

I would like us to take a look together at some of the main developments in the Common Agricultural Policy in recent years and then to identify some of the expectations we have of agricultural statistics, given that we need to provide the consumer with the best possible information.

The foundations of the Common Agricultural Policy were laid with the Treaty of Rome in 1957, and it has been overhauled several times in order to adapt it to changing economic and social requirements, including consumer expectations, and to take account of successive waves of EU enlargement. The most recent reform of the Common Agricultural Policy, known as "Agenda 2000", dates back to 1999.

In the course of this reform, it has been possible to get all the Member States to agree on a European model for agriculture based on the multi-functional nature of our agriculture. On this point, it is with a certain amount of pride that I should like to remind you that it was under the Luxembourg Presidency that the Community defined this European model for agriculture, which is – and I quote – "an agriculture which, as an economic sector, must be multi-functional, sustainable, competitive and Europe-wide."

The new agricultural policy therefore aims to promote

- a competitive agricultural sector capable of taking advantage of the present outlets on world markets without excessive subsidies while guaranteeing the agricultural community a fair standard of living;
- safe production methods enabling farmers to supply high-quality products which meet consumer demand;
- diversity, reflecting the rich traditions of European food production;
- the preservation of thriving rural communities able to offer employment prospects to the rural population;
- an agricultural sector which is environmentally sustainable;
- a simpler, more understandable policy which draws a clear dividing line between decisions which must be taken jointly at Community level and those which should remain in the hands of the Member States;
- an agricultural policy which establishes a close link between the use of public funds and the services provided by the farming community to society as a whole.

Matching production to consumers' needs has therefore been made one of the express objectives of agricultural policy. Furthermore, in order to attain the objectives set out above, it is essential that the consumer is well informed; agricultural statistics should be in a position to provide the basic data required to ensure that the consumer receives this information; I will return to this point later.

In order to achieve the objectives set, Agenda 2000 - covering the period from 2000 to 2006 - is made up of the following main components:

- lower institutional prices in the cereals, beef and veal, and milk sectors in order to strengthen competitiveness;
- an increase in direct payments in the cereals, beef and veal, and milk sectors to partly offset this drop in institutional prices;



- strengthening the position of the European Union in the forthcoming negotiations within the WTO by aligning institutional prices with those on international markets;
- adhering to minimum standards in the field of the environment, health and animal welfare as an integral part of both the market support policy and the new rural development policy;
- introducing a coherent and sustainable framework (rural development plans) for rural development activities covering a large range of measures in the agricultural, forestry and agri-environmental sectors and measures aimed at strengthening the competitiveness of rural areas, thus making rural development the second pillar of the CAP alongside the market support policy.

Another key development with repercussions for the Common Agricultural Policy is the publication by the European Commission in January 2000 of the **White Paper on food safety**.

The objective is to guarantee a high level of food safety through concerted action by all those involved in the food chain. I believe that they all agree with this objective, but there is still a need to ensure that it is implemented and monitored through appropriate food laws which apply throughout the European Union. It will be necessary to set up an independent European Food Authority responsible for producing independent scientific opinions on all aspects relating to food safety, and for running early warning systems, discussing and communicating with consumers on issues of food safety and health, and setting up networks with national agencies and scientific bodies.

The White Paper identifies over 80 separate measures which are required to improve food safety standards. These will need to be implemented by means of legislative measures which form part of a coherent legal framework covering the whole of the food chain, including the production of animal feed. This legal framework will need to establish a high level of consumer health protection and clearly attribute primary responsibility for safe food production to industry, producers and suppliers.

In co-operation with the Member States, a framework for the development and operation of national control systems needs to be drawn up, and this should take account of existing best practices and the experience of the Commission's inspection services.

I believe that this approach adopted at a political level can be used to help identify guidelines for improving consumer information through the coordinated development of agricultural statistics.

Consumers should be well informed about agricultural production and the processing and marketing of agricultural products, so that they are in a position to form an objective opinion and conduct a rational debate on the problems which may arise in relation to food safety. A dialogue should be fostered between stakeholders in the food chain and the consumer and they should be encouraged to play a part in food safety policy.

Consumer information is of key importance in the following areas:

- basic information on agricultural production and the processing of agricultural products to produce foodstuffs:
- information on the origin of agricultural products from which foodstuffs are produced;
- information on the different methods of agricultural production (the range of methods of agricultural production is not merely restricted to a distinction between conventional and organic production, but also encompasses other methods which seek the best possible combination of economic, environmental and social aspects);
- information on the quality of foodstuffs;
- information relating to food safety.

The proper transmission of objective information in these fields will have a part to play in making a success of the agricultural policy set out in Agenda 2000, which not only seeks to improve the economic and social conditions of the working agricultural population, but also to develop rural areas and preserve the wide range of cultural values found in our regions and Member States.

Agricultural statistics provide users with basic information on agricultural production and the agri-food sector. Efforts should be made to make this information easy to access, read and understand, so that it can be used to meet the many requirements for consumer information which I have just outlined. The statistical information already available should be used as extensively as possible and new statistical series should be developed in fields barely covered by agricultural statistics; I am thinking in particular about topics such as the quality of



foodstuffs and food safety, fields in which consumers have taken a great interest and where there is a need for transparent and reliable information.

There are a number of challenges facing politicians and agricultural statisticians regarding the future direction, implementation and statistical documentation of the Common Agricultural Policy. It is important to make full use of the opportunity presented here in Luxembourg to compare your experiences with those of your colleagues from other fields, particularly those of the consumers' representatives, and to pool a wide range of ideas on new requirements in the field of consumer information. It is with this in mind that I wish you every success in your work over the next two days and I can assure that we will be taking a keen interest in the outcome of these discussions.



Eila KILPIÖ

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First of all, I am thankful for having the opportunity to address this seminar, which focuses on issues of special interest today. The requirements for information concerning the food economy – and the need to develop this information – are felt in many sectors of society. New needs for information are being expressed by decision-makers of national and communal policy, by authorities and researchers, by the food sector itself and by trade associations, by the media, and, finally, by consumer organisations and ordinary consumers. I am glad that this seminar approaches the production and development of statistics and other information from the consumers' standpoint, taking into account their expectations and views. CEIES is to be thanked and congratulated for concentrating on this important aspect. I am sure that experts in statistics, researchers, representatives of various organisations, authorities and other specialists are willing to co-operate to produce information which will increase the transparency of the food chain and thereby strengthen consumer confidence in foods and in the entire chain.

I myself represent the area of consumer research, which produces information on the food economy but also utilises and processes data supplied by other organisations and institutes, e.g. statistics (Figure 1). Consumer research has great expectations as to this vision seminar with regard to the development of new information. In our research, we approach the food economy from very many different perspectives, and often apply multidisciplinary research methods (Figure 2). Our research traditions range from studies on food use, the household food economy and time use, consumer behaviour and purchasing habits, nutrition and health, technology, products and product quality, and further onwards to food prices and food basket comparisons. Research also covers the expectations of consumers concerning food labelling as well as the intelligibility of the information provided to consumers.

As research materials we often apply aggregate-level statistical data, such as the Balance Sheet for Food Commodities, and household-specific consumer research data, market study results and other available secondary data. Quite frequently cross-sectional data are collected by surveys, and supplemented by qualitative studies. Researchers often find the use of existing information and its integration with comprehensive research projects somewhat problematic. They have various information needs in mind which are not nearly always met by the current supply of statistical data. Systematic identification of the information required to solve the open questions is, therefore, considered a highly important and urgent task.

I am glad that we have the opportunity here at this seminar and in co-operation with such a large number of experts to analyse, prioritise and envision the future outlook regarding the expectations of the various actors in the food economy. Great changes have taken place in recent years in this sector, both at the national, EU and global levels, including the current acute food crises (Figure 3). In order to understand the operation of the food cluster and the problems of the different actors we need to get a full picture of the entire food chain and its components. The aim is to understand the expectations and problems of the various parties involved. An additional challenge is to yield new information about the whole food chain and its changing operating environment. Changes are taking place both in primary production, in industry and processing, food trade and distribution, industrial processes and product development, and furthermore in food packaging and consumption.

The changes in primary production involve various factors related to the economy, ecology and technology as well as to prevailing values. Statistical data are already produced on some sub-components, particularly on



farm inputs and output and farmer income formation. The current statistical systems also cover certain data on the food industry and food trade, as well as on household purchases and household-produced foodstuffs. Nevertheless, the majority of the food economy changes remain to be fully identified or understood, partly because of the fragmentary and irregular supply of information. The objective of systematic development of statistical data is to ensure the simultaneous availability of uniformly collected, comparable information from different countries, not merely at the national level. By applying a variety of approaches, and by making use of quantitative and qualitative research results and statistical data, it is possible to set the target in the production of information high enough to enable us to describe and understand the different food systems and the mechanisms that influence them (Figure 4).

The different actors within the food cluster range from those acting in primary production to the input and processing industries, wholesale and retail trade, other distribution levels and, ultimately, to the end-users of foodstuffs, including private households as well as large-scale kitchens, restaurants and other actors in the service sector (Figure 5). Similarly, the product chain within the food economy from the field to the table involves various different actors, plus a large group of authorities and experts. Primary production is controlled and subsidised both by the national and the EU's common agricultural policy. Supervision of the food industry, trade, distribution, packages, marketing and labelling is within the realm of either the food policy or consumer policy, including the planning of further development measures. Recommendations, regulations and consumer education related to the choice and use of food are among the most important duties of the nutritional policy. Each of the actors and policy sectors involved in the food chain has its own information needs, and to some extent also the means to meet these needs, e.g., by collecting, producing and analysing the statistical and official data available. Still, there is a growing need for comprehensive and uninterrupted, well-documented, transparent and systematic production of information throughout the food chain.

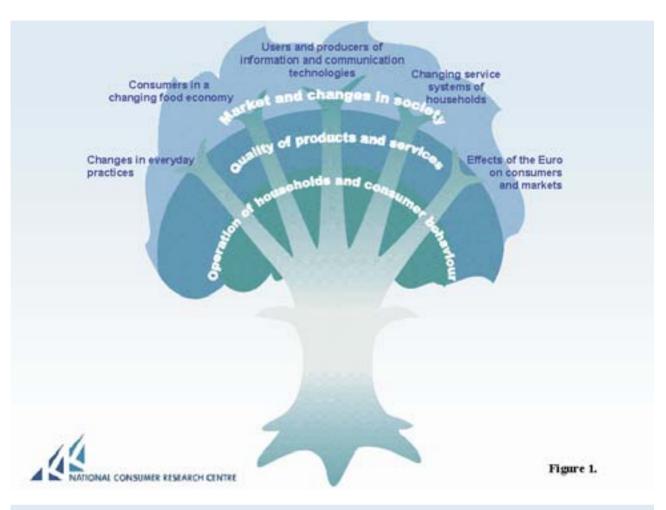
Formerly, the consumer's role was to act as the purchaser and end-user of different products. With other actors in the role of an active subject, the role of the consumer became indirect, mainly that of an object. Similarly, the effects of the food cluster on well-being, competitiveness, productivity, and inputs and outputs used to be examined primarily from the perspective of the problems and development needs of the sector itself, as isolated from the views and priorities of the consumer. However, consumer interest in the entire food chain and its operation has today grown to such an extent that we may well begin to examine the operation and quality of the food chain primarily from a consumer-oriented perspective in the future (Figure 6).

These new kinds of information requirements pose a challenge to all of us taking part in this seminar to work in closer co-operation. We will have to ponder questions like:

- what are the relevant, new information needs within the food chain (Figure 7)
- how should these numerous new information needs be prioritised
- · how could the networks among research, statistics, authorities and other experts be further improved
- what concepts and indicators should be developed
- what concepts and methods could be harmonised
- what registers and existing data could be utilised and combined
- how should the collection of different kinds of data be divided among the parties involved
- what are the duties and expertise of different information producers in the development, collection and use
 of data

The ultimate target of the development efforts should be a satisfied consumer – one who trusts the information produced by the food chain and is capable of utilising it. The consumer must also be able to feel confident that the provided information helps to prevent food-related risks, and provides feedback to the chain regarding the expectations of consumers about food quality (Figure 8).



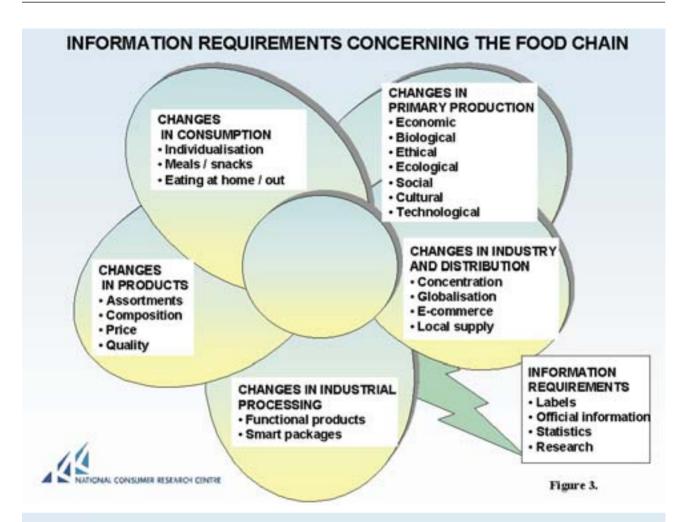


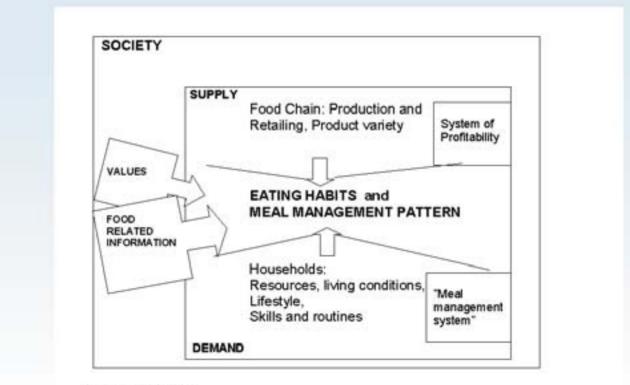


NATIONAL CONSUMER BESEARCH CENTRE

Figure 2.





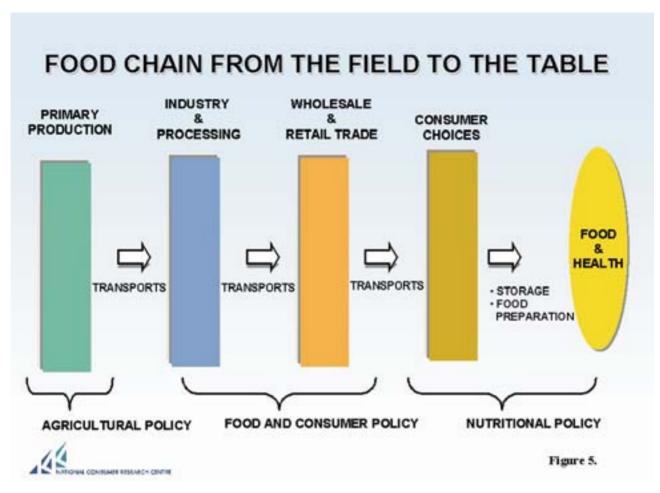


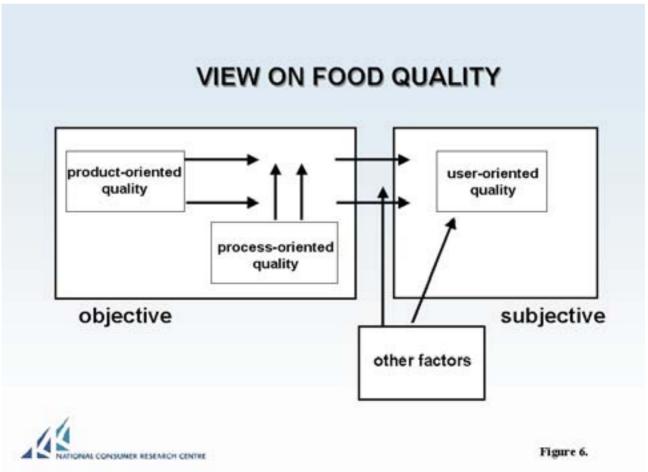


Food System











CONSUMERS AND FOOD QUALITY

OBJECTIVE PRODUCT QUALITY CRITERIA

- Safety
- · Freshness and keeping quality
- · Nutritional value
- Ingredients
- · Sensory properties
- Price

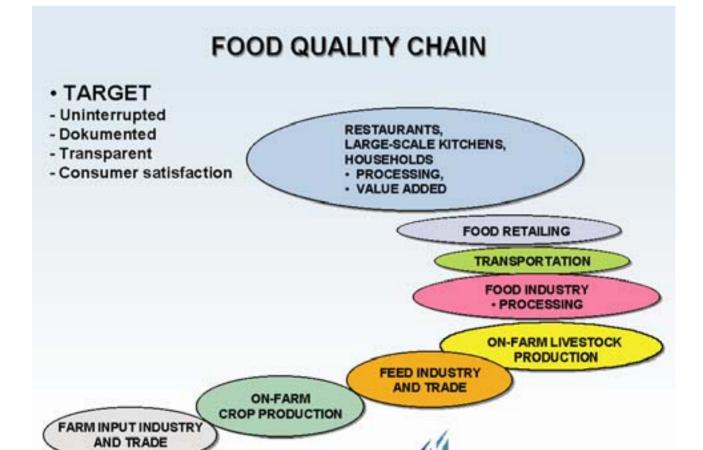
SUBJECTIVE PRODUCT QUALITY CRITERIA

- Taste
- · Availability and freedom of choice
- Quality of package
- · Ethical quality
- Status value
- · Convenience, easy to use



Figure 7.

Figure 8.





Giuseppe CALO

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I would like to begin by thanking the CEIES for its kind invitation to speak at this Seminar. I am delighted to be here this morning, not only because of this timely discussion on how Agricultural Statistics can better meet Consumers' new information needs but, also because of the opportunity to address such a distinguished audience and panel of experts.

There can be little doubt that the outbreak of a number of food safety crises over the recent years has drastically attrited consumers' trust in European agriculture and food production as a whole. The BSE crisis, the Dioxin contaminated episode and, to a lesser extent, the recent Foot and Mouth Disease outbreak have made people ask themselves whether or not the food they eat is completely safe.

This primary concern has given way to a genuine interest in the way that our food is being produced and monitored. We -consumers- are more eager than ever to know where, when and how the food we buy at the supermarkets has been produced. Therefore, pressure has been put upon modern food production methods themselves and also upon the environmental and ethical aspects of agri-food production, animal health and welfare.

New, reliable and comprehensive information is required to address these fully justified concerns. And, needless to say, consumers and public at large are prompted to search such information in the realm of Agricultural Statistics.

But, unfortunately, this time Agricultural Statistics can not be regarded as a silver bullet for such concerns. There is no question but that in most Member States, the information currently available on these subjects is either lacking or largely imprecise.

This situation highlights the absolute necessity for all those involved in food production and monitoring, on the one hand, and the European Statistical System on the other hand, to deploy new efforts so as to ensure that reliable information on these subjects is made available to the public.

The Commission is firmly committed to ensuring that European consumers have access to the safest food supply in the world. Safe and quality food, available at an affordable price, obtained by production methods that do not jeopardize the natural resources nor the environment. To this end, the Commission has recently undertaken a series of actions to play its role in ensuring that the highest standards are maintained. Allow me to comment briefly on them.

In March 1999, Agenda 2000 established a new direction for Common Agriculture Policy. The implementation of the reforms and measures contained in Agenda 2000 have enabled a smooth swift away from production-support measures to new measures that are production-neutral, fully in line with our commitments in the World Trade Organization.

In addition to this, the Rural Development Policy was enshrined as the second pillar of the CAP. It has enabled so far the preservation of many rural areas across the European Union, the improvement of production methods and the manufacturing of high quality foodstuffs.

More recently, in January 2000, the European Commission published its White Paper on Food Safety. With the aim of regaining consumers' confidence in food production and supply, it proposed the establishment of a comprehensive legal framework with effective and open organizational structures.



The main elements of this new legal framework, that has now nearly finished its passage through the Council of Ministers and the European Parliament, may be summed up in four points:

- A single Regulation for food law in the European Union
- Setting up of clear responsibilities for all stakeholders
- Traceability along the food production chain
- Establishment of the European Food Authority

First of all, a single Regulation for food law in the European Union has been proposed for the first time. This Regulation will contain the principles of food law, the basic necessity for food law to be developed following the principles of risk analysis and to set up the organizational structures and procedures to deliver this.

It will settle the basis of a modern, flexible and looking-forward regulation of the European Food Industry, and will contribute to make food safety the driving force in food supply throughout the European Union.

The well known motto "from the farm to the fork" tries to underscore that, a safe food chain, correctly regulated and effectively controlled is the only way to revamp consumers' shaken confidence in our food supply system.

To be workable, any regulation or control will have to be built up on an accurate information system, capable of supplying timely data and analysis on different and numerous areas. And, it goes without saying, that Agricultural Statistics are called to be the cornerstone of this system.

Second of all, I would like to underline that the proposal tabled by the Commission not only establishes basic principles for food law. **It also sets up clear responsibilities for all stakeholders** to ensure that only safe food is placed on the market and that high standards of quality and health protection are observed.

Even though the primary responsibility for safe food rests with industry, producers and suppliers, its is also the responsibility of the competent authorities in the Member States to ensure that food legislation is complied with.

Each Member State will have to achieve this responsibility through effective enforcement controls at all points in the chain "from the farm to the fork". These controls will not be restrained only to foodstuffs intended for human consumption but will also be extensive to animal feeding.

As you may well imagine, this will bring in significant changes to the European agri-food industry in the next years. An industry worth almost 535 billion Euro annually in the European Union, which is about 15% of total manufacturing output. A diversified and competitive industry, located throughout Europe, that together with the farming sector, employs nearly 10 million people.

But, these new control measures, heavy and cumbersome as they may seem at a first glance, are indispensable and unavoidable to restore the shaken confidence of European consumers in the food we buy and eat every day.

And, as I pointed out before, all these control measures will eventually have to rely on accurate, sound and timely Statistics, notably on Agricultural Statistics. This may give you a general outline of the multiple efforts and resources that, in the next years, the whole European Statistical System will have to put forth to accomplish such important task.

Thirdly, the recent food safety crises have shown the unavoidable need for comprehensive **traceability of food along the food production chain**. The proposed regulation will make it mandatory for businesses to have in place systems to trace, at least, from whom they have purchased foods and to whom they have supplied their products.

Indeed, traceability should be regarded as one of the most decisive steps leading towards a new food production/consumption model. A new model that will be focussed more on the precautionary principle and far less in sheer output. A model conceived to meet consumers' expectations for safe, wholesome, nutritious and diversified foods.

To this end, the Commission is firmly committed to implement all the necessary systems and co-ordinate any actions needed to guarantee the safety of the European food supply. All stakeholders (farmers, industry, business and consumers) will be asked to participate and play their role in this regard.



Allow me to elaborate briefly on a sensitive example that may illustrate the efforts deployed by the Commission regarding traceability: Genetically Modified food crops.

Contrary to the United States (where the vast bulk of the world's 44 million hectares of GM food crops are grown), the European Union has submitted the expansion of GM food crops to an integrated and comprehensive approach.

An approach in which traceability has been the touchstone that has helped us to strike the right balance between technical progress and economic competitiveness, on the one hand, and our safety, environmental and ethical concerns on the other hand.

Just to give you an example, the recent scare in the United States due to the introduction in the human food chain of StarLink GM-maize, approved only for animal feed, demonstrates -in my view-, the soundness of the European stance on this subject.

And finally, last but by no means least, the proposal tabled by the Commission also foresees the establishment of the European Food Authority. The EFA, which is due to start working early next year, will be responsible for ensuring that the scientific risk assessment is carried out to the highest standards of independence, scientific excellence, transparency and accessibility to the public.

The EFA will be an independent body, separate from the European Commission, being a legal entity in its own right. It will have the mission to communicate and provide information on food safety to the general public and scientific assessment to those responsible for proposing food law in the European Commission.

In other words, the EFA will be first port of call on all questions relating to food safety and a key player in the new food safety policy. But, the EFA will only be able to accomplish the ambitious mission it has been assigned if every and each of its scientific risk assessments are carried out thoroughly and comprehensively, and without undue delay.

To achieve this concrete purposes, it is clear that the best available information and the most reliable and timely Statistics will be required.

I am sure you will agree with me that, all these requirements mean an important challenge for the European Statistical System as a whole and, specially, for those of us responsible for Agriculture Statistics. It is a hard task that will require our best efforts in the years to come, but I am confident we are able and willing to fully undertake it.

But here, I would like to stop speaking and leave the floor for you now. I am looking forward to hearing your views on how we can all contribute to make that happen.



THE CURRENT STATE OF AFFAIRS

Maurice DELAPORTE

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L'Alliance 7 is a French professional organisation chiefly representing the industrial manufacturers of biscuits, rusks, chocolates, sweets, breakfast cereals, packet desserts, snacks, dietary products and foodstuffs for infants and children. It is affiliated to the National Food Industry Association - *Association Nationale des Industries Alimentaires - ANIA* in France, and to various European sectoral federations, all members of the European Confederation of Agro-Food Industries - *Confédération européenne des Industries AgroAlimentaires (CIAA)*.

As for most professional organisations in the food industry, in the space of the last few years the issue of the safety of the products sold by its members has become one of Alliance 7's spearhead priorities. It was very rapidly faced, along with the distributors of its products, with the problem of the availability of explanatory information for the consumer.

For a proper understanding of the situation as it is now, it is worth going back a few decades to discover how we reached where we are today and what the current situation actually is.

How did we get to where we are today? *

Before-sales production

Whether a manufacturer works in the food industry or in any other sector, the purpose of producing is to sell.

This said, fifty years ago in the food sector the focus was on production data. Sales were of course viewed with interest, but they were mainly considered in terms of turnover, which is a key factor for calculating profit margins!

There was interest in sales expressed as an overall figure because in this form it represented the wealth of the industry. Sales were physically accounted for in conjunction with production accounts. At the end of the Second World War, the West had to meet the challenge of relaunching its economy. The objective was therefore to produce to satisfy a demand that only too obviously existed. Demand exceeded supply. Sales were guaranteed. In a struggling economy full of shortages, production took precedence over sales in terms of physical quantities.

Alongside this observation, another equally important coment needs to be made: back then, the food industry was very different from what it has since become:

- food was much more immediately linked to agriculture;
- the processing of agricultural products was comparatively rudimentary;
- food preservation techniques were limited;
- the transition from the production phase to the sales phase was simple, and production chains generally short;
- industrial food products were the exception;
- producers tended to sell their products directly to final consumers.

^{*} Although this description may seem exaggerated to the point of caricature, it is actually not far from reality...



In very general terms, the national production accounts provided all the data economic operators needed - and as for consumers, they needed foodstuffs, not information! There was no formal convention to back up this situation, and it was not even based on a tacit agreement: all parties involved accepted it implicitly as self-evident.

From production to sales

Concern with product distribution did not start in Europe until the mid-sixties. To be more exact, there was a need to adapt the distribution system to the ever more plethoric supply of industrial foodstuffs. Some ideas had emerged in the USA. They were rapidly copied and adapted to the European market. "Large-scale" distribution took hold mainly because the existing system was no longer able to distribute foodstuffs optimally. Foodstuffs still today continue to constitute a very large segment of mass consumption products.

Parallel to this, the progress made by the food industry further changed the status quo: products had greatly improved keeping qualities (cooking, aseptic canning, freezing, refrigeration, etc), they were ready to eat immediately or at a moment's notice (pre-cooked dishes, breakfast cereals), etc. It was clear that they were increasingly responding to consumer expectations. Furthermore, changing circumstances allowed products to be distributed far from where they were produced, with logistical progress also contributing to this trend.

Because products were sold far from their place of production and long after the date they were produced, to consider the amount of products produced equivalent to that of products sold was no longer meaningful. This meant that for the first time manufacturers actually needed to know what quantities had been sold.

Food products were evolving, manufacturers with them, and distribution systems as well. International trade was expanding. Consumers were quite legitimately reaping the benefits of this conjunction of favourable factors. The public authorities played their part by adapting legislation to this new context: i.e., to protect consumers.

From sales to market

Over the years, two slightly different tendencies have emerged.

The agricultural sector as well as some food industries dealing in "fresh products" or close to the source in the agricultural production chain continued to be concerned initially about having data on the quantities they were producing. These data were ever more precise. This accuracy reflected Member States' growing concern with calculating national production.

However, the majority of manufacturers, whose products were not bound to be sold within the country because of their long shelf life - which facilitated storage and opened up export possibilities - became much more interested in monitoring their sales. Distributors, for whom sales are the prime activity, naturally shared this approach, and very legitimately went one step further in searching to identify market characteristics.

Unless they evolved, state statistical tools were no longer sophisticated enough to meet operators' needs in terms of sales data.

Private institutes able to meet these needs stepped into the breach by offering their services.

At the same time, especially through their trade organisations, manufacturers used the combination of official national figures on production, imports and exports to work out apparent consumption to complement the data they obtained from the private market research companies.

As for consumers, they did not express any particular need for information as regards the situation described above: the change was yet to come.

What is the situation nowadays?

The market: consumer driven

The first food safety scares erupted, in some cases widely publicised by the media, accompanied by consumers' obviously quite legitimate reactions. Manufacturers and distributors of their products had to provide



explanations to consumers, whose identity as a group became apparent in the aftermath of these events, and as such their particular role as economic actors.

At the moment, in strictly economic terms, manufacturers have the data described above. In the scientific or the medical field, other data exist, more difficult to pin down by a statistician, unless it is merely to list their sources.

I should like to try to draw up a more precise inventory of these sources of data.

1° Statistics resulting from the events of the last decades

Overall, the following general statistics are available in the European Union:

- production statistics compiled by the national statistical institutes, which were harmonised a few years ago within the European Union when the so-called PRODCOM regulation came into force;
- statistics on intra- and extra- Community trade;
- sales statistics compiled by private study institutes, which provide data on distribution networks (on condition of having access, and without any absolute guarantee of homogeneity among countries).

In some Member States, more detailed "government" statistics are produced (this is the case in France, and for L'Alliance 7 in particular):

- sales statistics generated from the production statistics mentioned above;
- statistics on the use of raw materials.

It is of course important for the nomenclatures of products used for these various statistics to be compatible. The public authorities have addressed this issue, but from a purely economic angle, chiefly aimed at monitoring production and trade. This angle would no doubt not have been chosen had the objective been solely to meet consumers' needs for data on the subject that concerns us (without taking into account the statistics from private sources, whose purpose and also content exclude this possibility).

While on the subject, we must pay tribute to the considerable progress made regarding the correspondence of nomenclatures thanks to the entry into force of the Harmonised System in 1988 (backed up by the Combined Nomenclature), in the area of trade statistics, and later to the gradual application of PRODCOM from 1995.

Moreover, in the area of food safety, the concept of traceability is of critical importance. French statistics on the use of raw materials, produced for certain sectors of activity, are probably the exception rather than the rule across the EU Member States. Nevertheless, it is in fact extremely useful to identify and quantify the raw materials (as well as the packaging materials) used in the different sectors.

A new effort to revise the nomenclatures has been launched at worldwide level. These revised nomenclatures should be completed by 2007. Will they be able to promote better consumer information? It is still too early to say. It must be pointed out that overhauling the nomenclatures is an extremely difficult exercise. The first objective that the various parties involved have set themselves in revising the nomenclatures is not to undermine the benefits derived from the current situation (*primum non nocere!*). The second is to succeed in making two types of improvements. Firstly to update the nomenclatures to remove the 'dead wood' with which they have inevitably become cluttered, and secondly to make actual progress. This would consist, for example, in aligning the production nomenclatures and the trade nomenclatures, or in harmonising the various Member States' nomenclatures, or - and this is even more difficult - in increasing the links among the nomenclatures in force around the world. One thing is certain: the more constraints there are, the more complicated the exercise becomes, and the more compromises have to be made - and compromises, by definition, cannot satisfy everyone!

2° Data more directly scientific or medical in nature, whether or not related to foodstuffs

These are far from negligible, as is borne out by the length of this list. However, it is often difficult to relate them to the production and trade statistics mentioned above, and not all of them are relevant to food safety issues. Furthermore, medical or scientific data are not always homogeneous throughout the EU and do not therefore lend themselves to comparison. Furthermore, access to these data is sometimes restricted.



They are issued or disseminated by:

- The World Health Organisation (WHO):
 - · Food Safety / Public Health
 - Bulletins of Foodborne Diseases and Communicable Diseases
 - International Agencies
 - · National Agencies
 - · WHO Collaborating Centres
 - · WHO Regional Office
 - Others

Food safety and public health:

- Centre for the Epidemiology of Infectious Disease, Univ. of Oxford, UK
- · Food Chemical News, USA
- · FoodNet, Canada
- · Food Safety Consortium, USA
- International Food Information Council Foundation, USA
- Institute of Food Science and Engineering, Texas A&M Univ., USA
- · National Food Safety Database, Univ. of Florida, USA

Bulletins of food-borne toxic infections and communicable diseases:

- Bulletin épidémiologique hebdomadaire, France
- Canada Communicable Disease Report
- · Communicable Diseases Intelligence, Australia
- · Communicable Disease Report, UK
- Emerging Infectious Diseases, CDC, USA
- EuroSurveillance, European Union
- Infectious Agents Surveillance Report, NIH, Japan
- Communicable Disease and public Health, UK
- INFOSCAN Southern Communicable Disease Report, UK
- Jaargang nummer Infectieziekten bulletin, Netherlands
- · Kansanterveyslaitos, Finland
- · Morbidity & Mortality Weekly Report, CDC, USA
- NSW Public Health Bulletin, NSW, Australia
- EPI-News, Statens Serum Institut, Denmark

International agencies:

- Food and Agriculture Organization of United Nations (FAO)
- International Atomic Energy Agency (IAEA)
- International Labor Organization (ILO)
- International Organization for Standardization (ISO)
- Organization for Economic Co-operation and Development (OECD)
- United Nations Environment Programme (UNEP)
- United Nations Children's Fund (UNICEF)
- · World Bank
- World Trade Organization (WTO)
- The Joint FAO/WHO Food Standards Programme (Codex Alimentarius Commission)
- United Nations Administrative Committee on Coordination Sub-Committee on Nutrition (UN-ACC/SCN)
- International Consultative Group on Food Irradiation (ICGFI)

National agencies:

Asia and Oceania:

- Department of Health and Family Services, Australia
- CSIRO Division of Food Science and Technology, Australia
- Australia New Zealand Food Authority(ANZFA)



- Ministry of Health, labour and Welfare, Japan
- Ministry of Agriculture and Forestry (MAF), New Zealand
- National Institute of Health, Japan
- Food Quality Control Division, Ministry of Health, Malaysia
- Ministry of Health, Singapore

Europe:

- The Danish Veterinary and Food Administration Home Page
- Communicable Disease Surveillance Center (CDSC) Home Page
- Department of Health, UK
- Institute of Food Science & Technology (IFST), UK
- INED "Mortalité, santé, épidémiologie", France
- Institut Pasteur, France
- Agence française de sécurité sanitaire des aliments (AFSSA), France
- Ministry of Agriculture, Forestry and Fisheries (MAFF), UK
- Consumer Policy and Consumer Health Protection, European Union
- Directorate of Social and Economic Affairs, The Council of Europe
- · Food Safety Authority of Ireland
- National Institute of Public Health and the Environment (RIVM), Netherlands

North America:

- Food Safety Risk Analysis Clearinghouse, USA
- · Canadian Food Inspection Agency (CFIA), Canada
- · Agriculture and Agri-food Canada
- President's Council on Food Safety, USA
- Gateway to Government Food Safety Information (FoodSafety.gov), USA
- Center for Disease Control and Prevention (CDC), USA
- Food and Drug Administration (FDA), USA
- Food Safety and Inspection Service (FSIS), USA
- Health Canada Santé Canada
- National Institutes of Health (NIH), USA
- United States Public Health Service, USA
- United States Department of Agriculture (USDA), USA
- Food Safety Research Information Office, National Agricultural Library, USDA
- New York State Department of Health, USA

Latin America:

- · Ministry of Health, Brazil
- Health Secretary, Mexico

Middle East:

· Health Sciences Center, Kuwait

Centres that collaborate with the WHO to monitor food contamination:

- National Food Authority, Australia
- Bureau of Chemical Safety, Health Canada, Canada
- Pesticide Control Service, Department of Agriculture and Food, Ireland
- National Institute of Hygienic Sciences, Japan
- Department of Pesticide Residue Analysis, National Institute of Public Health and Environmental Protection, Netherlands
- · Food Administration, Ministry of Health, New Zealand
- Food Laboratory, Institute of Science and Forensic Medicine, Singapore
- The National Food Administration, Sweden
- Food Science Laboratory, MAFF, United Kingdom
- Center for Food Safety and Applied Nutrition, FDA, USA



Food-borne toxic-infections caused by listeria

• Laboratoire des Listeria, Institut Pasteur, France

Food safety:

- Laboratory of Water & Food Microbiology, National Institute of Public Health and Environmental Protection, Netherlands
- NSF International, USA

Surveillance of food-borne toxic-infections

Division of Bacterial & Mycotic Diseases, Center for Infectious diseases, CDC, USA

Virology of food origin

Food Safety Unit, School of Veterinary Medicine, University of California, USA

Research and Experimentation regarding Food Hygiene and Zoonoses

Bundesinstitut f
 ür Gesundheitlichen Verbraucherschutz und Veterin
 ärmedizin, Germany

Impact of Biotechnology on Health

• TNO Nutrition and Food Research Institute, TNO Biotechnology, Netherlands

Risk Evaluation and Intervention in Products of Animal Origin

· Food Safety Research ProgramIowa, Iowa State University of Science and Technology, USA

WHO Regional Offices:

- for Africa (AFRO)
- for the Americas/Pan American Health Office (AMRO/PAHO)
 - · Veterinary Public Health
 - Pan American Institute for Food Protection and Zoonoses (INPPAZ)
- for the Eastern Mediterranean (EMRO)
 - · Food Safety
- for Europe (EURO)
 - Programme: Food Safety
- for South East Asia(SEARO)
- for the Western Pacific (WPRO)
 - Food safety

Others:

- Emerging Infectious Diseases (Published by USCDC)
- ProMED, Federation of American Scientists
- PubMED Query, Federation of American Scientists
- Communicable Disease Prevention & Control (CDPC)
- International Life Sciences Institute (ILSI)
- · Infectious Disease WebLink

within the European Commission ("Eurosurveillance": DG SANCO):

- EARSS European Antimicrobial Resistance Surveillance System
- EISS European Influenza Surveillance Scheme
- ENIVD European network for the diagnosis of "imported" viral diseases
- Enter-Net Investigation of international foodborne outbreaks of gastrointestinal organisms
- EPIET The European Programme for Intervention Epidemiology Training
- EUCALB European Concerted Action on Lyme Borreliosis
- EuroHIV Surveillance of HIV/AIDS in Europe
- EuroTB Surveillance of tuberculosis in the WHO European Region
- EWGLI The European Working Group for Legionella Infections
- HELICS II Hospitals in Europe Link for Infection Control through Surveillance



• IDA-HSSCD - Community's Interchange of Data between Administrations - Health Surveillance System for Communicable Disease

in the various EU Member States:

- The Food Consumption Observatory *l'Observatoire de la Consommation Alimentaire* in France, previously under the aegis of CREDOC (Research centre for the study and observation of living conditions *Centre de Recherche pour l'Etude et l'Observation des Conditions de Vie*), and now dependent on the AFSSA (the French Food Safety Agency *Agence Française de Sécurité Sanitaire des Aliments*)
- a similar type of observatory in the UK, which has been transferred from the MAFF (Ministry of Agriculture, Forestry and Fisheries) to the FSA (Food Standard Agency)
- a similar type of observatory apparently exists in the Netherlands, under the control of the TNO (Netherlands Organisation for Applied Scientific Research)

What next?

If any conclusion can be drawn from this attempt to describe the current state of affairs, it is probably the following: we have data that are economic, scientific and medical. These data are abundant, but too often not related, and for this reason difficult to use and access for consumer information.

The first stage will no doubt be to analyse these data more precisely to identify at what points they can be interrelated - and these points must certainly exist. This could be the first stage in establishing a database to meet consumers' need for information. This analysis will easily reveal a lot of missing data. Only at this point should the issue of how to collect them be considered.

The contribution manufacturers can make to this improvement

We of course welcome all efforts that the European authorities can bring to bear to promote a better response to consumers' expectations in terms of information on food products. The food industry needs consumers for its products, and it is not trying to deny the fact! The food industry is therefore perfectly aware that it must take account of consumers' need for information. This seminar provides an opportunity to emphasise this.

If we are to achieve progress in this area, the following guidelines must be respected:

- firstly, we must meet consumers' actual needs: these needs must be precisely defined so they can be given the best possible response;
- secondly, consumers must not be drowned in a deluge of information such that they are unable to see the wood for the trees;
- finally, if manufacturers are asked to contribute, they need to have the means to supply the data that have been deemed essential.

In this regard, it must be remembered that, in a world where the need for information is ever increasing, all data collection inevitably incurs costs. The level of enterprises' contribution to compiling data sources is already very high. Any new form of survey that may be prompted as a result of the ideas expressed in this seminar will have to be scrutinised with great care from this point of view. Relevance and appropriateness will have to govern all initiatives. Like most economic actors, the food industry does not exist solely to produce data! Its purpose is to produce food. This is not to say that there is any unwillingness on the part of industry to make information available that could help improve food safety, it is just stating an economic reality, for which the consumer should not be expected to pick up the tab.



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INDECOSA is an association which is a member of ConsoFrance, a grouping of national consumer organisations which defend social and environmental interests of consumers. In order to promote consumers' interests, we helped to create the AEC, the Association of European Consumers, which has as its members some thirty national associations of Europe, including some from associated countries.

Food quality forms a perfect integral part of consumer issues, and even acts as a spearhead since it affects all consumers in an area in which they are particularly demanding. Their concerns are immediately understood when they discuss food. Food effectively affects all social strata and has a direct impact on the environment.

Our association also carries out surveys in order to establish consumers' requirements better and find out what they want. We recently established some findings with regard to food.

The CSA, a French survey body, at the request of ConsoFrance, recently carried out a survey on consumer behaviour regarding food. It established that the French felt that they were well informed (59% for food products), generally satisfied and that product quality had priority in determining their purchasing behaviour, but they criticised a lack of information on traceability. They claimed to be little or badly informed about the food sector (61%) which can be seen in the context of the recent crises.

This survey also shows that with regard to reactions in the event of disputes with sales people, those with the lowest level of education and training, those with low incomes and persons over 65 stated that they took no action in particular. This should be taken into account when considering quality, together with the fact that if consumer associations are effectively surveyed (93 to 96%), consumer services benefit from a particularly positive image among workers (90%) and private sector employees (89%).

This shows that the consumers in the weakest positions have confidence in the professional people dealing with consumer affairs, especially because they do not always have any alternative, which leads to major crises when they discover they are being sold unsafe products. All the same, they wish to continue to have this confidence because they continue to only glance at the content of labels.

In these circumstances, how can consumers be informed that the products they are purchasing meet their own quality requirements? Is it the information they need or can rely on? Are they not looking for something else in the information - for example about production methods? But before replying should we not ask ourselves about quality itself and how consumers expect it to be? This is a difficult debate since it includes both the explicit and implicit opinions of consumers.

Quality in consumer choice?

We know that it has much higher priority than price (42%), that traceability is a priority for food (43% mention the origin and composition of products) and quality labels are quoted by only 40%.

In the past, consumers sought enjoyment in food ("natural" and tasty products, rich in flavours and gratifying the taste buds, etc.); now they also want to be able to choose quickly which products are easy to cook and be eaten rapidly at a reasonable price. Consumers spend less time at the dining table and in the kitchen and devote



a smaller share of their budget to food. Employment in general and especially that of women has not remained unaffected by these changes.

As a result, industrial products (85% of processed products) are gaining more acceptance, they can be regarded as progress and are no longer synonymous with lack of quality if they manage to keep a minimum amount of taste. But there will be increasing demands for safety.

Food safety for consumers

This is divided into two branches; the quality of food in health terms and access to a sufficient quantity of nutrients.

Health safety is approached in two ways. The most obvious way is producing and selling foodstuffs free of the risk of poisoning or intoxication, etc., and another more positive approach, that of proposing foodstuffs which allow diseases to be avoided and life to be improved (nutritional aspects), respect the environment, social and ethical rights.

Safety in terms of quantity is also subdivided into two branches: it means providing nutrition for survival and allowing consumers a vast choice of products in order to have access to a diversified range capable of responding to all wishes with regard to nutrition, taste and biological aspects.

For us, these different aspects of food safety should comprise a minimum to which all consumers have access, whatever their standard of living. Allowing the opposite to happen would be to admit that the poorest are entitled to less safety and a lower life expectancy than more well-off citizens or allow them access to only a certain category of food, which you will agree, is unacceptable.

The difficulties we are encountering today which are leading to a loss of confidence stem from the fact that some food experts have not decided in favour of all these quality/safety criteria and have given priority to the economic criteria, especially in production methods. Consumers are presented with products in sufficient quantities but as a result of crises they have discovered that health-safety has been neglected (the mad cow disease). Even if overall health-safety is certainly more important now than in the past. On the other hand, priority will sometimes be given to safety and means of preservation rather than diversity (raw milk cheeses, fruits and vegetables).

With these crises, consumers are discovering that the manufacture of these products with their good presentation and marketing in fact hides the production methods (from the farm to the shop shelf) which may be bad for their health, environment, future or animal welfare.

From crisis to crisis they discover the truth and how much they did not know, causing a violent reaction on their part to what they feel is betrayal because they considered health safety to be guaranteed.

Thus consumers in this new millennium do not wish to remain in a fog - they want to know everything about what they eat, how it is made, with what and by whom?

What about consumer information on quality?

At the moment, consumers allow themselves to be guided in their choices by different aspects ranging from the price to the labelling and composition, as well as any other information such as quality seals and appearance.

But surveys also show that consumers generally spend little time reading information and they refer more to elements which they can identify easily such as the price, best-by date, and label.

They also show that consumers do not want to buy products at high prices and learn later that they were produced in intolerable conditions - intolerable in environmental terms (intensive farming) from the social point of view (child labour) and from the ethical viewpoint (poor treatment of animals, gene-manipulated plants).

It is also clear that too much on the label ruins it since there is a need for clarification as consumers no longer know what quality seals actually mean even if they are official.

These seals also have the drawback that they are addressed to consumers in general whereas the latter are far from united in their appreciation of quality, which leads to even more confusion. Let us take the example of the



biological farming logo: it is basically addressed to a certain type of consumer, but today with the current crisis, this logo is assumed to bring with it virtues it does not necessarily have in terms of hygiene, nutritional qualities etc., or at least aspects which it does not monopolise. It thus becomes a prototype which needs to be democratised.

The quality assurance of products, whether they are labelled as such or not, should not serve as a pretext for making products over-expensive either, since it should be regarded as a natural characteristic even if we know that there is no such thing as zero risk. Quality assurance is regarded as already incorporated in the sales price.

As regards safety, if we provide information about some products, this suggests that it may not be present in others, which is unacceptable. This would guarantee on the one hand that some consumers who are incapable of informing themselves (being illiterate) or have insufficient resources will be led to consume less safe products, and on the other hand, it would place the responsibility with the consumer. Take for example peanut allergies. We find the statement "likely to contain" more and more. Obviously we cannot be satisfied with this type of information. What can be said when the manufacturing process involves companies where working conditions are unacceptable? Should we then increase the amount of information and promote quality seals?

What are the risks involved?

It seems therefore that information should above all allow people to get to know better the characteristic quality of products and this is where quality seals come into their own in a big way on the basis of consumers' tastes (horizontal quality) but it is perhaps not suitable for health safety (vertical quality).

For this latter quality, it is preferable to improve monitoring from production to sales, ensuring transparency about types of production.

Are consumers interested in production methods?

Surveys show that consumers are interested in how the products they buy are produced (traceability, composition, respect for the environment, social conditions of manufacture). This interest is not new. Consumers have always been worried about what they eat and where it comes from. In the past they had to trust the production line and since they knew there were controls they checked it less, which does not mean to say that they were no longer worried about it. With the crises and disappointments, interest has simply become more marked today and it concerns the entire food chain.

In fact, for consumers, production methods are not limited to a discussion about sustainable farming, bio farming, reasonable farming. They are interested in it but it is not their main criterion for selection and I do not wish to join in the analysis of these different types of production. But it turns out nonetheless that consumers wish to participate in the debate and would like the CAP to be reformed in order to review the aid allocated to producers which currently gives priority to high production.

This does not mean to say that we have to revert to low-scale farming and processing of products on a completely biological basis, since this would not provide all the quality assurance criteria either, but there must be types of production which can be developed since they present a type of quality which is in demand.

Types of production (agricultural, processing, distribution) which meet consumers' expectations cannot be considered separately. There is no point in making a good agricultural product if it is then spoilt during processing, transport or distribution. There is no point, either, in improving the presentation of products which by virtue of their manufacture do not provide the quality required or claimed. To act otherwise would be to deceive consumers and disappoint them in the end.

We have seen this in the case of the mad cow disease. When consumers are disappointed, the entire system is shaken.

We therefore have to ensure transparence, which is more than providing information on products.

We have to place consumers in the centre of interests. Thus, distributors must become informed about products they are purchasing for resale on the conditions for their optimum use in order to maintain quality and refuse to sell products which do not meet the minimum quality required. Likewise, farmers cannot be content to produce good products and then no longer be interested in what happens to them afterwards. Everyone must be aware of what the others are doing so that all are committed to share responsibility.



For us, this is how we can "ensure the highest level of food safety in the European Union" as indicated in the White Paper.

The creation of an independent European Agency should also be a pledge to improve things for consumers.

This is especially important at European level since goods circulate and consumers know their origin from the labelling and sometimes traceability is ensured, but they know little about the production methods and level of safety in the other countries.



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1. Introduction: The legitimacy of consumer interest

With this seminar CEIES and Eurostat have decided to have a closer look at the new need for information and statistical data in the agriculture sector. This gives an excellent opportunity to introduce the consumers' point of view on new data from the food production. The recent food scandals have put the interests of consumers on the political agenda, and the need for stronger consumer organisations have become obvious on the national as well as the European level. Consumer organisations have a new role to play also on the global level, and this has been reflected in the activity of Consumer International. The present situation in the food chain is the best argument for expanding the European data base, and meet the new needs both from consumer policy and consumer research.

Both consumer NGOs, governmental food authorities and the economic actors in the food sector need updated empirical data about the current health situation in the food chain and risk analysis in agriculture production and consumption. But this collection of data has to be expended to also include consumer attitudes and behaviour in the food market, and their political reaction to the scandals. This is important in the short run, to react on the rapid changes in meat consumption and the dramatic fall in consumer trust in food and lack of confidence in the actors in the food chain. This calls for quick data collection, presentation and analysis.

But updated empirical data is also crucial in the long run, because distrust in food production could treat the legitimacy of the whole political system. This means that the theoretical framework for the empirical data collection and analysis is also of vital importance. This calls for more debt studies, combining qualitative and quantitative methods and stimulating the European theoretical discussion on consumer trust in general and more specific related to the food chain.

The responsibility for this objectives must be shared between:

- Eurostat
- Eurobarometer
- The fifth and sixth research framework program of the EU and the research community
- The activity of other DGs within the European Union, and national policies
- NGOs on European and national level.

I am not quite sure which part Eurostat should play in this joint effort to create valid and reliable data about food safety, animal welfare and organic production. This could be a matter of discussion in this seminar. There is no reason to develop data collections already covered by other institution. However, in this paper I will not be very specific in describing the role of Eurostat. I will focus on the information needs from the perspective of consumer policy and consumer research. It is not up to me to decide how these needs should be met, and who should be the responsible institution. But Eurostat has a an important part to play.

Our first main message in this paper is that all actors in the food chain must treat the worries, scepticism and anxieties of ordinary consumers seriously. It is of decisive importance to create an two-way dialog with consumers and their organisations, and move away from the traditional top-down communication. This message goes to farmers, industry, retailers and their organisation on the one hand, and to food authorities, politicians and bureaucrats on the other, - both on the national and European level.



Our second main message is better co-operation between national and European bodies in data collection and presentation., CEIES has formulating the goal to meet new consumer information needs. This goal can only be reached if various actors on national and European level co-operate in the collection and presentation of data about animal health and human welfare in Europe.

Our third main message is that the new data collection must expand along two dimensions. First of all it must include the whole food chain, and not only production phase. Secondly, the data collection must expend from production quantity and economic figures to include social, ethical and political attitudes and behaviour from the involved stakeholders, with a special focus on the everyday life of consumers.

The aim of this paper is to develop the consumer perspective to information from the food chain:

- We will first discuss very briefly what do we know about consumers' trust in food.
- Secondly we will use one example to stress the need for co-operation in the European data collection.
- At last we will move to the new needs under the headline: from production to consumption.

Within each section we will discuss the implementation of these consumer oriented information needs more concretely. What kind of data set are required.

2. Consumer trust and distrust

In several European countries, as well as at the European Union level, there has been considerable turbulence in the food sector related to a number of food scandals (BSE, dioxin and foot & mouth decease being the most outstanding examples). Consumer distrust in food safety is at the focus of attention. Reactions are experienced through fluctuations in consumer demand patterns, like increased interest in organic foods, as well as through articulated consumer groups. While some theorists fear that these reactions are only the beginning of a new era, a new risk society, others claim that the reactions have been overestimated or that they are mainly associated with a new wave of protectionism.

In any case, the issue of consumer trust has created serious uncertainty among a number of concerned parties, political as well as market actors. However, it is not clear how this situation can be interpreted, in particular because consumer reactions vary considerable between different countries. For example, while several of the contemporary controversies revolve around food crossing national borders, this does not appear to be the case in all European countries, and the meaning of food crossing borders is probably quite diverse.

At the EU level the events have caused considerable turbulence, reorganisation and a new awareness of food safety as a political issue. At the national level, the fear and uncertainty seems to be reflected in countries that have experienced the most severe scandals, but also in countries and branches that so far have not been directly affected. Still other countries, however, seem to be more or less untouched in this respect.

However, the turbulence is probably associated not only to scandals. Extensive changes are taking place in food production technology (GMO etc.) and market structure (international integration, shifts of power in the food chain etc.). These changes also seem to bring uncertainty and problems of trust to the fore. On the other hand, the European Union and international integration also contribute to the establishment of supranational protective measures against food insecurity, like common food directives and other institutional regulations of the food market motivated by food safety. This development has lately been brought a step further through the new European Food Authority (EFA).

The impression from a number of studies is that certain elements, such as transparency and impartiality have become important for trust in regulatory public/governmental institutions. In addition, of course, such trust still depends on the authority and professional competence provided by the regulators and their advisory expertise. In the food market, there seem to be two important strategies.

- One can be characterised by keywords such as transparency, traceability, organisational feedback and improved quality, giving the consumers a more informed choice.
- The other is more concerned with producing symbols that can simplify consumer choice through labelling of national origin, form of production etc.



The first type of strategy will of course give the consumer at better foundation for a reflected choice, but it is probably a big challenge for less well educated consumers as well as for enterprises with limited resources. The second strategy is simple, but requires that these symbols are to be trusted.

Comparative analyses indicate that consumers do not react in any uniform way, neither as responses to problematic events nor with regard to more general development traits. Moreover, many consumers seem rather unresponsive or resistant to impressions that for others induce distrust. There are probably no simple explanations linked to a variable focus on food safety in the media in different countries, nor to common traits of different social groups (f ex educational level does not have the same implications in all countries). A suggestive hypothesis is that trust in food is strongly influenced by structural conditions, where different national traditions and solutions have a strong impact, in addition to recent market and regulatory changes. Such structural conditions includes the regulatory framework (legislation, organisation, implementation), pressure groups, the vertical and horizontal structure and distribution of power in the food market, technological development, the role of different professions etc.

There is a strong need for research and data that can overcome the limitation of previous empirical approaches in the field by contextualising individual risk perception and behaviour in a wider social and political perspective. This perspective should catch not only reactions to individual measures and decisions, but include the dynamics of processes and structures at a system level.

A recent Norwegian study based mainly upon the Euro-barometer shows significant differences in consumer trust among European countries (Berg 2000):

- The institutional trust varies from one country to another, and the overall trust is higher in The Netherlands, Norway, Sweden and Denmark than in Portugal, Greece and Belgium
- People do trust consumer organisations in most countries, but this trust is substantial higher in The Netherlands, Norway, Denmark and Sweden (where more than 2/3 express their trust) than in Portugal and Greece (where less that 1/3 do the same).
- The trust in retail chains is on the other hand much higher in UK, Ireland and The Netherlands (more than 25%) than in Germany, Denmark, Norway, Portugal (10%)
- The trust in governmental authorities is highest in The Netherlands, Austria, Finland, Norway, Denmark, Sweden and Spain (more than 1/3 express their trust), and lowest in Belgium, Greece, Portugal and France (below 20%)
- Consumer's risk evaluation varies also from one country to another. More than 2/3 of the consumers in Finland, Norway, Spain, Sweden and Italy think is it safe to eat both eggs, fish and meat, while the percentage in Belgium, Denmark Portugal and Germany are below 35%

I am sure that consumer trust in food is an important question for European consumers. I am also sure that is has a central part to play in European research and data collection. But I am not sure that it belong to Eurostat. For the point of view of consumer research it is important that *trust in food* has a natural part to play in the sixth framework program of research in the European Union. In the proposal for the sixth framework program it is, however, difficult to find strong references to these questions. While Eurostat has opened for expending the agriculture data base by including the consumer perspective, my preliminary impression is that the sixth framework program represent a step in the wrong direction compared with the fifth program. I will therefore use the opportunity to argue for a stronger commitment to consumer oriented question in the European Research Area.

3. Primary need: European co-operation

In the European Union and within all member states a large number of statistical material are created each year. But is it possible to compare these data, between nations and over time? I will use one important example to illustrate that it is rather difficult. At our institute we are working with a European project about trust in food, including several countries spread all over Europe. It is well known that salmonella is a serious problems in some countries, but not in others. But how is this documented in national and European statistics?

In the report "Trends and sources of zoonotic agents in animals, feedingstuffs and man in the European Union and Norway" from the European Commission in 1999, a substantial part is used to the describe the currant development of salmonella in Europe (European Commission 2000). The report covers salmonella in feed



material, poultry, eggs, pigs and human. It is possible to use these data to describe the development over time in each country, and the data shows that the development varies from one product to another, - and from one country to another. But it is difficult to use the data to compare data between countries.

According to this report the number of salmonella among humans in the European Union decreased by 10% from 1998 to 1999. The number *reported* was 165 659, all member states included, in addition 1 434 cases was reported in Norway. It is important to stress that that this are *reported* cases, and they are not registered in the same way in all countries. Even if we try to compare two similar countries as Norway and Denmark, experts tell us that this is impossible. The scientific methods in the hospital are different, and we know that not all cases are reported to doctors or other parts of the health system The degree of reports from individual varies from one country to another, the obligation to report varies among countries and the health system has also significant differences. If we move from human salmonella data to animals, the problem only increases.

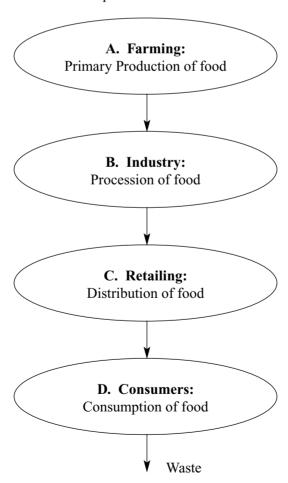
This calls for integrated methods and reporting system in other to increase the validity and reliability of the collected data as far as salmonella is concerned. There are reasons to believe that this is the case also for other zoonotic elements.

4. From supply to demand, from demand to consumption

From the consumer research point of view it is not enough to focus on production statistics and animal welfare, and organise the data collection and presentation of material in a new co-ordinated way. As we see it we need statistics and data about consumption and consumers along two dimensions:

- From supply to demand
- From demand to consumption

In a simple model the process of food consumption can be illustrated in the following way:



In this model our main idea is to move the interest of statistic production from level A and B to level C and D, without loosing the focus on the agriculture production side. In the modern – or postmodern – world, consumers



play an important part in society and their behaviour in the market of consumer goods is vital. But also their household activities where the goods are transformed through household production are important parts and have to be reflected in the European statistics and research. Some of the question raised will naturally "belong" to Eurostat, while others have to be addressed by other institutions.

4.1 Consumers as customers

First of all we need information about consumers as shoppers. Not only information from the production side in a top-down perspective, but also from retailing and consumer shopping behaviour in a more bottom-up perspective.

Retailers represent the link between producers and consumers. In some countries their power and responsibility have increased substantial the last years, and we have seen tendency to horizontal and vertical integration in the food chain. Some of the retail chains in northern Europe are in a more or less monopoly situation with 30 - 40% of the grocery market, and 3-4 chains have nearly 100% of the Marked (Dulsrud 1996) In other countries the retailers are still small and fragmented. Some of the retail chains are only locally based while other are national and even European economic actors. These multi-national companies represent a challenge to the production side, because their loyalty is not national based. We need data about:

- Number and size of the shops, in both square metres, number of goods available and annual turnover
- An overview of different kind of shops: kiosks, discount, supermarkets, megastores and shopping malls
- Data about the concentration in the European retail business: the market shares of the main actors in the European counties
- Data of cross border integration

The data about the retail system in Europe could mainly build upon public national statistics, data from the retailers themselves and information from commercial institutions dealing with the retail business.

When we move to individual consumers and households we must mainly base our information on consumer surveys, combined with statistical material from the retailers. We need information both on consumer behaviour, what are they buying, and consumer attitudes towards their own shopping behaviour. We have above discussed the need for studies on consumer trust. In this part we are more concerned about what consumers do to reduce their risk. One rational behaviour in risk society is to choose "safer" products! But other aspect of their shopping attitudes are also important.

Based upon public statistics and data from retailers we need information about:

- Increase and decrease in shopping behaviour of strategic goods
- Market shares of various organic products, in the food chain from production to consumption

Based upon consumer surveys we need information about attitudes in shopping behaviour:

- The importance of country of origin
- Ethical shopping behaviour
- Shift in meat preferences
- Increase in vegetarianism
- · From meat to fish

4.2 From purchasing to consumption

In the light of European food scandals it is important to recognise that consumers are not only customers with short term economic interests limited to the shopping behaviour of consumer goods, - in this case food products. One way to reduce consumer risk is to think twice in the shopping situation, - another is to treat the products in a way that reduce the calculated risk. But the utilisation of foodstuffs is not only a question about consumer risk. The change in food habits are interesting also from the perspective of consumer culture. It is important to remember that food is not only a matter of nutrition and product safety, it is also a matter of pleasure and culture.

When we move beyond the market to internal use and production in households we must base our data on consumer surveys



- What are consumers doing with their products in order to reduce risk consumption for various product groups?
- The degree of food production within household and refining of agriculture products
- Change in food habits?
- Potential substitutes?

5. Conclusions

Within the risk society all actors need new information in order to meet and handle the calculated risks. This is first of all the case in the agriculture sector, where the recent food scandals is the best argument for discussion the new statistical needs. From the consumer point of view the current statistics have to be expended along three lines:

- Increase the co-operation among national and European statistical institutions in order to enhance the possibility to compare data between nations
- Move the production of statistical data from the production to the consumption phase
- Include consumer attitudes and behaviour in this data production, remembering that consumers are not only economic customers

Some of these needs can be met by Eurostat, others by a number of institutions and programs within the European Union. This calls for a stronger co-operations in the future.

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NEW NEEDS AND NEW SOURCES OF AGRICULTURAL STATISTICS

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Agriculture is perhaps the economic activity which opens up the fullest and most complex field for statistics. Its link with the climate creates requirements for information and methods which other production sectors do not set. Also, its importance for land management, its diversity and links with the environment give agricultural statistics a geographical dimension which other activities lack. The budgetary scale of public support for agriculture creates special statistical needs for monitoring expenditure and taking decisions on policy. On the other hand, the fact that agriculture is a food production activity generates special needs regarding food safety and other aspects related to a whole range of markets and certain perceptions on the part of consumers.

These latter aspects are certainly the ones most directly connected with consumers. Nonetheless, it should not be forgotten that consumers are above all citizens. For their part citizens, as tax payers, become consumers of a very special type of commodity - policy. Most foods are paid for by consumers in two ways. Consumers pay for foodstuffs directly in shops when they acquire them but also indirectly via the Community budget. This latter amount is not insignificant - it totals over four billion euro and makes up half of the Community budget.

Tax-payers, as policy consumers, are entitled to demand quality just as they do for other consumer commodities. Although gauging quality almost always involves a degree of subjectiveness, in consumer goods quality is easily defined and measured. Even when it takes into account differences in taste between consumers, it is easy to establish a consensus on the quality of any article on the basis of consumers' expectations. For any type of consumer good, it is easy to define criteria for safety, resistance to wear and tear, useful life, conformity to standards and other criteria which, taken together, may constitute a measure of quality which, though it may not be objective, is commonly accepted. Naturally these definitions will not include aesthetic and sensory perception-based criteria which depend more on subjective perception.

Nevertheless, when evaluating the quality of a specific policy, the question becomes considerably more complicated. First, perception plays a very important role. Citizens' perception can be focused on a very specific aspect of a specific policy and ignore the overall policy. On the other hand, perception can be formed and highly manipulated by the media. A clear example of this was provided by the last crisis of confidence in food caused by BSE. In most Member States there was no perception of the risk or crisis of confidence or decline in consumption when the risk actually existed and no policy for correcting the problem had been adopted. Nor did the crisis break out five years ago when a whole series of worrying dysfunctions came to light and a radical change in consumer protection policy came about. Surprisingly, the crisis started in countries with less incidence of the illness, before the detection of a few isolated cases. It is also surprising what a small role was played by agricultural policy when the problem appeared, the changes made to deal with the crisis and the analysis of the changes which remained to be carried out to avoid any repetition. At all events, three questions remain clear: the importance of subjective perception, the vast capacity of the media and the inability of agricultural statistics to send alarm signals to the political decision makers in order to head off crises and be in a position to inform citizens accurately when they become apparent, so that they do not take on unjustified proportions.

Measuring the quality of a policy can also be based on a cost-benefit analysis. Taxpayers rarely perform such analyses and it is clear what difficulties there are in explaining them to citizens. This does not excuse the institutions concerned from carrying out cost-benefit analyses of current policies, and what is more, from



making them available to taxpayers. This practice which is needed in order to give policies the transparency we all claim, necessarily implies the use of administrative information on the application of each of the policies, and especially the most costly one. It involves filling a gap which is impossible without a major advance in transparency. It would mainly take the form of telling taxpayers in a comprehensible manner what public money is being spent on. Unfortunately, it seems that transparency is not actually provided as intensively and fully as is desirable. Furthermore, transparency is frequently replaced by reluctance in public spending which simply results in reduced effectiveness of the common policies.

Allow me to illustrate the current situation with an example. When the CAP was being revised at the halfway stage, the European Parliament's Agricultural Committee commissioned a study of the implementation of rural development measures. Apparently, the institution responsible for implementing the study encountered many difficulties caused by the opposition of a Member State's representation on the STAR Committee which receives information on the arrangements for applying rural development policy in each Member State. In the end, there are few obstacles which cannot be overcome and all the information which people try to conceal from the public will be obtained in the end. Nonetheless, there are substantial problems which make it difficult for the democratically elected representatives of the citizens to assess the application of specific policies.

At all events, the cost-benefit analysis is complicated since "benefit" can only quantified on the basis of the level of attainment of the objectives for each policy. The problem appears in the CAP when the targets set by the Treaties are not defined with sufficient clarity. On the other hand, as we approach the fortieth anniversary of the CAP's existence, big surprises may be in store for us. In the post-war period, when the CAP was created, the term "food security" had a strategic connotation associated with the guarantee of self-sufficiency in food. However, today, no-one is worried about the fact that the European Union depends on imports for some 75% of its vegetable protein requirements. In fact, when there is talk today about "food safety or security" people are referring to the health guarantees offered to consumers by a specific product.

The objectives set for the CAP by the Treaties are supplemented by others derived from general principles such as geographical and social cohesion, or a high level of public health protection. This is where things become considerably complicated. The lack of definition is as in the case of the CAP objectives and can result in the assessment of a policy's benefit falling into a category similar to that of aesthetic or sensory perception-based problems which can affect product quality. Cohesion or justice are moral categories which are not valued equally by everybody and should be applied to other clearer or more conclusive issues such as budgetary discipline.

Furthermore, added to this are other problems such as oversimplification by the media. Frequently they present news items referring to a certain royal household as the main recipient of CAP aid, or the head of a certain principality or certain financiers with problems with justice making speculative investments to obtain CAP aid. Unfortunately, this information is difficult to verify and it creates a simplified and distorted image of the CAP, making it vulnerable to attacks from its detractors. Between immobility and destruction lies the path of reform, but for the latter, reliable information is needed. Nobody benefits from a distorted image of the CAP. However, it should be agreed that if this information is used by CAP detractors and echoed in the media, it means there is a certain consensus among tax-payers. Without using the term scandal, it is clear that the consensus of public opinion is focused on the fact that it is not fair or morally right to grant agricultural policy aid to certain beneficiaries whose economic size well exceeds the break-even point.

This consensus was recognised over ten years ago by the Commission. In fact, when the Commission presented its proposals for reforming the Common Agricultural Policy in 1992, these were based on a declaration that "20% of the farmers receive 80% of the aid". This argument justified a reform which only anticipated the demands of the USA and Cairns Group in the context of the GATT negotiations; however, public opinion was reassured, thinking that the CAP would become efficient and fair. It has never been possible to check the distribution of aid, but what is more serious is that it has never been possible either to tell whether the 1992 reform managed to achieve a more equitable distribution. Some incomplete information points towards a more unbalanced distribution in some Member States and regions. On the other hand, the trend in the number and size of agricultural holdings points more towards greater concentration of aid within a smaller number of holdings.

After the 1992 reform, the CAP was reformed again in 1999 as part of the Agenda 2000, and again it was carried out without knowing how fairly aid was being distributed, what the trend was and what its effect was on



maintaining a social fabric in the rural environment. In the near future, the European Union will have to face up to a new enlargement which will subject the budget to new, more intensive pressures. The effects of enlargement will be accompanied by new demands on the part of the WTO and the effects of signing up to new trade agreements and the globalisation of production. It is foreseeable that new reforms will proposed against a background of scant economic resources. It would be good if both the Commission as the initiator of legislation and the other institutions had enough information to be able to act with maximum effectiveness. It is so important to be able to carry out a retrospective analysis of the consequences of previous reforms and to be able to evaluate the consequences of various alternatives before adopting a reform. This need is all the more pressing since budgetary restrictions can result in restrictive reforms with serious consequences on the viability of a good number of agricultural holdings in both the current Member States and the candidate countries. As a result, we face the need to have statistical indicators at our disposal which provide information on the cost-benefit ratio of the new instruments applied within the Common Agricultural Policy.

Unfortunately, there are not many sources of information. The Survey of the Structure of Agricultural Holdings does not provide an entirely continuous picture and its results are published late. Its limited periodicity restricts its usefulness for monitoring the consequences of regulatory reforms. In spite of their limitations, the last Surveys of the Structure of Agricultural holdings depict a process in which holdings are being abandoned and the agricultural labour force is declining, whereas the Utilised Agricultural Area is being maintained. These changes are very relevant and point towards extremely serious changes which affect not only agricultural activity but also the basic structure of rural society and land management. As a result, we need to have statistical indicators at our disposal which provide information on the cost-benefit ratio of the new instruments applied within the Common Agricultural policy. For this reason it is necessary to have supplementary means of identifying the developments taking place on agricultural holdings.

Currently, there is a considerable mass of information which is wasted. Aid not linked to output levels which is provided by the European Agricultural Guidance and Guarantee Fund represents 50% of its budget, and could provide good and rapid information on output potential, its structure and trend, for certain sectors such as arable crops, beef and veal, sheepmeat and goatmeat, rice and textile crops. The cost of compiling this information would be zero and, in order to use it, it would only be necessary to make minor changes to the computer programs available to the bodies responsible for administering payments in the Member States. These changes should make it possible to obtain the desired results whilst meeting all the requirements of statistical confidentiality, but this does not involve any technical problem or any risk of information being leaked.

To obtain the maximum of information derived from administrative data, whilst maintaining statistical confidentiality and overcoming the obstacles which might be presented by certain state legislation, it is necessary for the statistical exploitation of administrative data to be carried out by the bodies which administer the Guarantee Fund payments in each Member State.

Similarly, the aid linked to output levels now represents some 20% of the Guarantee Fund budget. The processing of this information would help in verifying other statistics, especially data on olive oil, tobacco, fruit and vegetables, dried fodder, milk, wine and textile crops.

Both groups of data represent some 70% of the Guarantee Fund budget and therefore, they need to be analysed in order to evaluate the application of the Common Agriculture Policy at times of change in order to correct, if necessary, specific decisions which can lead to undesirable effects or imbalances. On the other hand, information could be obtained to verify other agricultural statistics and depict the situation between the Surveys of the Structure of Agriculture Holdings.

This would provide advantages of speed, and above all, practically zero cost. For this purpose, it would be necessary for the Standing Committee on Agricultural Statistics to coordinate the action needed to obtain these statistics to be taken by Eurostat, the Guarantee Fund and the Member States, via the bodies responsible for administering the Guarantee Fund aid.

In all the Member States there are laws on the protection of automated individual data which make it difficult to obtain information from administrative documents. Therefore it is necessary to allocate the work of producing statistics to the bodies administering the Guarantee Fund aid. As a result, these bodies would remain obliged to provide the Member States' statistical services with the aggregated results from the statistical



processing of the information on the Guarantee Fund payments. The data aggregation would allow information to be obtained which maintained the statistical confidentiality of the administrative documents.

The cost would be minimal since the amount for the collection of the data in the field is nonexistent. In order to make statistical use of the administrative data it would only be necessary to make slight changes to the computer programs used by the bodies administering the Guarantee Fund aid. Nevertheless, with its application, there would be a considerable improvement in the consistency of the agricultural data and it would be possible to identify certain processes early enough before policies are drafted.

Five years ago, the European Parliament asked for the introduction of these changes on several occasions. Today we could have a fuller database at our disposal which would allow us to monitor, virtually in real time, the effects of the changes introduced by regulations. Unfortunately, we find that there is a loss of quality in the work of all those of us who participate in decision-making and a loss of transparency vis-à-vis tax-payers as consumers of policies.



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May I begin my thanking the organisers of this seminar on behalf of my Director-General, Mr Robert Coleman. As I shall try to explain, there is no doubt that my Directorate-General, Health and Consumer Protection (or SANCO) *needs statistical information, and new statistical information in particular*. The organisation of this seminar is therefore of the very greatest interest for us.

But are there really new statistical needs in the consumer sector?

As most of the speakers before me have stressed, the answer is "yes", for the following reasons.

First, I would say because the European Commission's statistical services have not met, or have not been able to meet, the needs which underlie the framing and implementation of consumer policy. I hasten to add, however, that until a few years ago, the need for statistics was relatively ill defined in our Directorate-General (then DG XXIV), and we really did not go looking for them. Things began to change *after 1996*, in the wake of the "mad cow" crisis, and more precisely, with a note which our then Director-General, Mr Horst Reichenbach, sent *on 5 August 1999* to Mr Yves Franchet to enter begin a dialogue between SANCO and Eurostat. Given the *priority* then attached to Community policy on health and consumer protection and the statistical requirements to frame and direct it, Mr Reichenbach proposed developing cooperation between our two DGs in *three steps*.

Step One: identifying and assembling existing statistics on health and consumer protection;

Step Two: adapting existing statistical programmes to our requirements;

Step Three: developing new statistical programmes to meet the requirements of consumer policy.

Since then, our new Director-General, Mr Coleman, has confirmed and specified that demand, and Eurostat and Sanco have appointed a *coordinator* to promote contacts between the two DGs. For some months now, *exchanges* have been developing, particularly in the areas of finance, the safety of products and services, food and health.

We welcome these initial contacts, which augur well for fruitful cooperation.

But we do not intend to stop at that. In the sectors I mentioned, needs will have to be further specified and developed to satisfy our expectations, and we will soon be investigating new sectors, too.

After the "mad cow" crisis in March 1996, the Commission decided to strengthen our Directorate-General to permit it to steer a real health and consumer protection policy by bringing together the services concerned by that policy. Many had been scattered through several Directorates-General, and Agriculture DG in particular. In a matter of months, therefore, we expanded from a DG of six units and roughly one hundred officials to the powerful SANCO of today, with some thirty units and 700 officials and experts. Over five years, then, SANCO's resources have multiplied by five. At the same time, our statistical needs have grown considerably, and they will probably continue to grow in future.

Allow me to give you a few examples.

In its White Paper on Food Safety, in January 2000, the Commission proposed setting up a *Food Safety Authority*. Today, discussions within the Council are practically complete, and the FSA can reasonably be expected to be in place in early 2002. As a scientific agency at Union level, it will have particular responsibility



for the research and analysis necessary for food safety at every link of the human and animal food chain, "from the farm to the fork". Although the Authority does not yet exist and it is difficult to define its needs at this point, there is every reason to believe they will be substantial, and that great efforts will be required of Eurostat to meet them.

Another example: I am currently completing a survey of Member States' consumer policies. Twelve reports have already been published, and the one on Belgium came out a day or two ago. Thanks to this survey, we can say, in 12 Member States today and very soon in 15, which administrative departments are concerned with consumers, which consumer organisations there are, which policies are in force and what results are being obtained in terms of health, safety, education, information, protection of economic interests, etc. In short, we have a relatively full description in *qualitative terms* but practically nothing in *quantitative terms*. We do not know, for example, which national administrations and how many officials are concerned, how many permanent staff and volunteers are working in consumer organisations or what budgets they have.

If, as I hope, it is decided to pursue this survey, we will need Eurostat's help to know what resources are being put into health and consumer protection policy across Europe.

Third and last example: *animal diseases*. Within SANCO I am currently leading a study to identify the financial resources committed in the Union to eradicating animal disease and especially *zoonoses*. We are gaining a broadly satisfactory picture of the means the Commission is committing to this campaign, but we are coming up against huge difficulties in assessing the state of animal health and, therefore, in gauging the effects of our efforts. We have no clear view of the Member States' efforts in this field, either. We are, therefore, now faced with the challenge of not only improving our knowledge of where things stand in the Union of 15 in the coming months but also of examining this within the context of *enlargement*. Given the administrative set-up in the candidate countries and the health status of their herds, this is bound to be no mean undertaking. Yet again, we will have to obtain huge amounts of data, and we trust that Eurostat will provide us with its experience and its aid.

Madame President, Ladies and Gentlemen,

Let us leave it at that. There is no point in my giving you more examples. Everyone is bound to understand that the statistical needs of Health and Consumer Protection Directorate-General are great at the moment, that they will be even greater in future and that we are relying heavily on Eurostat and on cooperation with the statistical services of the Member States to help us to get to grips with them as soon as possible.

Thank you very much.



NATIONAL AND INTERNATIONAL EFFORTS: THE ROLE OF THE NATIONAL STATISTICAL INSTITUTES¹

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Introduction

The aim of the European Statistical System is to provide European Union with high quality statistical information service, able to meet the needs of Community Policies.

Eurostat and appropriate bodies in Member State Administrations, in particular National Statistical Institutes, face growing difficulties in meeting statistical information needed to monitor the ever-increasing policy requirements of the Community, both in traditional policy areas, and in new domains. For the next years the principal Community policy priorities are:

- Economic and Monetary Union: all of the statistics required for the Phase III EMU and the pact on stability and growth;
- EU enlargement: statistical indicators of primary importance for the accession negotiations and for the integration of Candidate countries into the ESS;
- Competitiveness, sustainable development and the Social Agenda: statistics on labour market, environment, services, living conditions, migration and e-Europe. Particular attention will be given to the growing need of information in the consumer/welfare aspects.

The organisation and the activities of the European National Statistical Institutes are being deeply changed by different factors, such as the evolution of European rules in the field of statistics, the growing information needs of users, the need to reduce the statistical burden on respondents and the continuous innovation in the field of information technology. According to this framework, it is necessary to face the exiting trade-off between growing information needs and scarce resources, on one side, and between growing information needs and statistical burden, on the other side.

Therefore it is important, on the basis of statistical production activities, to schedule initiatives aimed:

- to define priorities,
- to improve quality and pertinence of data,
- to optimise the general organisation,
- to introduce new methodologies in the different stages of surveys,
- to promote actions to innovate statistical production processes from the technological, computer and organisational points of view.

Processing innovations

ISTAT and in particular the Economic Statistics Department started in the last years several general activities aimed at the introduction of processing innovations:

¹ Significant inputs from Cesare Costantino, Mario Adua, and Pasquale Papa.



- the valorization of the coordination activity carried out by ISTAT in the National Statistical System. The legislative decree no. 322/1989 placed the Institute at the centre of the National Statistical System, which includes all the official producers of statistics in the country. The System was created to guarantee unity of policy, and a rational use of resources and statistical information flows at central and local level.
- The focus-group set up for the several sectors of economic activity. Its task is to develop contacts among the experts of the production sectors both internal than external (representatives of associations, economists, etc.).
- The attention to the data quality.
- The "information feedback flow" valorization aimed at improve customer satisfaction in terms of quality, completeness and timeliness of the information provided (web sites, diskettes, data warehouse, standard files).
- The valorization of the systemic approach, that is in the production processing of the statistical information, the passage from the item to item logic (an informative need, a survey, a product) to the information system logic.
- The extensive use of administrative data for statistical purposes, even if considerable effort may be needed to ensure that this information is correctly integrated into a statistical environment.
- A greater use of technologically more advanced methods of survey: CATI (computer-assisted telephone interviews) survey, based on appointments fixed by the interviewer, CAPI (computer-assisted personal interviewing) survey, based on the use of electronic questionnaire and more in general CASIC (computer-assisted survey information collection) system.
- The replacement of census surveys with sample surveys.
- The use of methods which allow the sample rotation.
- The reduction of the sample size, where it is possible.
- The simplification of the questionnaires.
- The easier processing of data collection (fax server, e-mail, internet).

Product innovations

Since what mentioned before has been realized in order to balance needs and resources and to reduce the statistical burden, other initiatives have been carried out with the purpose to satisfy the emerging needs of information.

Phenomena related to sustainable development, and in particular those describing the interface between economy and environment have to be taken into account: agricultural sector and food-industries are strongly involved.

In the agricultural sector, the radical economic and social transformations characterising the Western Countries have recently caused a new and emergent interest , related also to the quality of life and to the protection on public health. As a matter of fact, the food industry suffers from phenomena originated in the primary sector, such as the spreading of the BSE (Bovine Spongiform Encephalopaty) and the food-and-mouth disease in the animal farms or the production of genetically modified organisms. The growing attention of the consumers on the quality of the food products has strongly reinforced the need of looking at a single agro-food product as the result of a chain of process linked together. In this approach, agriculture doesn't represent only an economic sector but mainly the origin of the food chain and for this role it deserves special attention.

It is important to point out that food production chain is becoming increasingly complex. Every link in this chain must be as strong as the others if the health of consumers has to be adequately protected. As a consequence, an effective food safety policy must recognise the inter-linked nature of food production. It requires the assessment and monitoring of the risks to consumer health associated with raw materials, farm practices and food processing activities; it requires effective regulatory actions to manage this risk; and it requires the establishment and operation of control systems to monitor and enforce the operation of these regulations. These facts involve that a food safety policy must be based on a comprehensive integrated approach throughout the food chain, including feed production, primary production, food processing, storage, transport and retail sale. In other words this approach demands the traceability of feed and food and their ingredients. Adequate procedures to facilitate such traceability must be introduced.



Besides, the development of the agro-food industrial system shows a more and more importance of the coordination of the several elements processing chain, with the aim to improving both the production efficiency and the final consumer satisfaction. The fast changes in demand require rapid reaction as well by the production structure which, in order not to be overwhelmed by the competitiveness, should be adopted to the new requirements with great flexibility; actually, the remarkable agriculture production fragmentation with regard to the manufacturing and food distribution sectors, causes that an enterprise unable to have an efficient coordination could be replaced easily by a competitive enterprise.

In this context, the study of the adopted strategies, both by the agricultural holdings and by the manufacturing enterprises in order to face the market and to participate to the several phases of the processing chain, becomes fundamental for the complete analysis of the phenomenon.

The topics related to the enterprise flexibility, to the food safety and quality research belongs to this field as an alternative to pursue price leadership and more in general, the analysis of the strategies adopted by the enterprises. But besides the "vertical co-ordination", the "horizontal" relationships of the enterprises, that is, the whole relationships and the exchanges among the economic activities have a particular importance.

In particular, the path of development of typical and quality productions, is based on the valorization of the contextual knowledge and of the horizontal relationships through the creation of districts and of enterprises cooperation network.

In this context, the role of a NIS as ISTAT should be that of producing and disseminating a set of clear, up-todate and integrated data and indicators that allow a deep analysis for both the single production process and the overall food chain.

The main tool to realize such analyses is the integrated use of information from the **business survey system**, from **agricultural statistical system** and from **environmental statistics**.

In particular from the business statistics system:

- The economic censuses of Agriculture and of Industry and Services carried out every ten years, the 1999 Intermediate Census of Industry and Services with reference year 1997, and business registers that are the necessary tools in keeping track of the structural changes in the economy brought about by such operations as joint ventures, partnerships, buy-outs, mergers and takeovers.
- The Structural Business Statistics, that gives information on structure, activity, competitiveness and performance of enterprises. In particular such system gives information on research, development and innovation, environmental protection, investment, eco-industries, tourism and high-technology industries, structure of earnings of employees, the cost of labour and on training and regional, national and internationals markets.
- The Prodcom survey: that gives information on the business markets and, whereas the international dimension of these markets, the possibility to align production statistics and external trade statistics.
- Statistics relating to the trading of goods among Member States.
- The survey on the costs structure of the manufacturing and services enterprises has the objective of estimating the value composition of the enterprises intermediate costs during 2001 and will start in the last months of the year. This meets two types of information needs. On one hand, it aims at the 101 branches intersectoral construction table of the Italian economy, complying with the community regulation concerning the European system of the integrated Economic System Account (ESA). On the other hand, it completes and qualifies the collection of structural statistical information on Italian enterprises to be disseminated through the currently used channels and those to be defined.
- The Tapas (Technical Action Plan for Agricultural Statistics) finalised to study the input structure of Italian food industry: ISTAT is going to carry out during 2002 a new survey dealing with the input structure of Italian food industry. The survey has the following objectives: to improve the quality of agricultural products supply balance sheets; to calculate direct and indirect content of agricultural products in food and beverages; to calculate direct and indirect costs for agricultural products in food and beverages; to analyse the agricultural products flows in food industry.

More closely, the object of the survey is to collect input structure data of food industry in Italy (division 15 of NACE Rev.1)² for the construction of a technology matrix whose elements define the amount of a given input contained in one unit of a specific product and allow the calculation of direct, indirect and total content of



processed and unprocessed agricultural products in the food and beverages. This knowledge leads to considerable improvement of the supply balance sheets for unprocessed and processed agricultural products.

Furthermore the technology matrix gives full details on structural features of the sector. Each coefficient represents the number of units of a product that are necessary to produce one unit of a product group. Since the technical input structure of food and beverages industry is rather stable in the time the matrix allows the analysis of the consumption of basic and processed agricultural product for several years with the aid of annual production data and annual import-export data.

If data are available in volume, the matrix leads to the calculation of net production, that is the base to obtain supply balance sheets net of double counting. An appropriate partition of the matrix provides at a glance the input coefficients of unprocessed agricultural products, the input coefficients of processed agricultural products, and the total content of agricultural products in food and beverages. All these coefficients can be provided in both value and volumes. When expressed in value terms, the technology matrix allows the calculation of direct and indirect costs for agricultural products in food and beverages industry. Moreover, such information could be seen as a starting point in a general traceability program for food and beverages.

In particular from the statistical environmental system:

During the last decade, ISTAT has been making a remarkable effort – within the limits given by current financial and institutional constraints – in enlarging the environmental component of the different statistical systems produced by ISTAT and in favouring and promoting within Sistan the production of official statistics relevant for that phenomenon:

- the EU Regulation concerning the structural business statistics, which calls for introducing a number of questions concerning environmental protection expenditure in the survey devoted to the same statistics.
- The calculation of agro-environmental indicators based on data collected through the Farm Structure Survey (FSS), with reference year 1998. The FSS is carried out by ISTAT annually, although the European Union (Regulation 571/88) demands to execute it every two years.
- The system of surveys aimed at collecting data on the water use cycle from pumping to discharge, that are expected to produce relevant statistical information on phenomena at the interface between economy and environment. Figures are supposed to be available in 2002 with reference year 1999.
- For highlighting elements of the social framework, the inclusion in 1998 of environmental questions in the ISTAT Multipurpose Survey, which describes the society from the citizens' viewpoint; the additional questions referred to individual perception and behaviour on environmental issues, with particular reference to the citizens' viewpoint about the quality of the environment, their satisfaction with environment-related services and their behaviour in reducing environment pollution.
- The development of work in the specific field of environmental accounting: ISTAT activities in this field are characterised by active participation to working groups and task forces co-ordinated by the international organisations and this, since the very first stage. By taking stock of achievements obtained at international level, ISTAT was able at the beginning of the decade to lead the work of an ad hoc Commission of experts (including representatives of the Ministry of the Environment as well as of other public bodies concerned and of the academic world), which laid the foundations of the discipline indicating directions and priorities for the implementation of environmental accounting at ISTAT.
- The most advanced projects, close to the stage of regular data production, are: data collection on environmental protection expenditure of General Government and the calculation, for the same institutional sector, of aggregates meeting the requirements of the European satellite account EPEA (Environmental Protection Expenditure Account, the principal module of the SERIEE Système Européen de Rassemblement de l'Information Economique sur l'Environnement); the construction of NAMEAs (National Accounts Matrix Including Environmental Accounts) according to the standards defined at Eurostat.

² The agro-food industry is of major importance for the European economy as a whole. The food and drink sector is a leading industrial sector in Italy with an annual production, in 1998, worth about 63,800 million Euro, 12.7% of the overall manufacturing output. The food and drink industry is one of the largest industry with over 443,000 employees and 69,000 enterprises. Export of food and drink products are worth about 14,500 million Euro in the year 1998.



• Other three projects aimed at producing basic data for the construction of the EPEA satellite account in application of the European guidelines on implementation of the SERIEE, namely two pilot surveys on households' environmental protection expenditure with reference years 1995, 1996 and 1997, and a first data collection on companies' environmental protection expenditure conducted within the 1999 Intermediate Census of Industry and Services with reference year 1997, the results of which will be available in the next few months; a survey of environmental taxes in Italy and an evaluation of the possible use of available data for building the EPEA satellite account, completed in 1996; a first selection of economic activities that can be - partly or wholly - identified as environmental industries; methodological work, co-financed by the Commission of the European Communities, for the construction of sectoral environmental pressure indicators for each of the target sectors identified by the 5th European Environmental Action Program (namely Agriculture, Tourism, Industry, Energy, Transport) plus Waste Management, in the framework of the action launched by the European Commission at the beginning of 1995 for developing environmental pressure indices; the development of economy-wide material flow accounts and methodological work on forest accounts and water accounts, with participation to the corresponding task forces set up by Eurostat.

In particular from the agricultural statistical system:

- the Farm Structure Survey (FSS) carried out by ISTAT annually, although the European Union (Regulation 571/88) demands to execute it every two years.
- The survey on the economic results of the farms, carried out annually by ISTAT, since 1998 reference period, in order to obtain data on the structure of the farm costs, on the investments, and on all the other items of economic interest (contributions, extra-farm income, rents, interests, wages and salary, etc.).
- The surveys on the distribution of the mineral and organic-mineral fertilizers for agriculture use and of the phytosanitaries, as well as specific surveys on the use of phyto drugs on some cultivations (grapevine, apple and olive tree): since many years ISTAT carries out on the enterprises an annual census survey on the provincial (NUTS 3 level) distribution of fertilizers. Totally as many as 62 groups of fertilizing products are surveyed. Combining the data surveyed on the distribution of fertilizers with UAA (Utilized Agricultural Area), it is possible to determine yearly at regional level and, on the occasion of the general census on agriculture, at provincial level, each average quantity of nutritional elements introduced on the field by hectare of fertilizable surface area.
- As well as mentioned about fertilizers, ISTAT surveys, through a specific annual census survey on enterprises, the provincial distribution of the phytosanitaries products. Totally 51 groups of distributed products are surveyed. For every product is required also the content in each of the 386 active principles authorized by the national and community rules. Also in this case, comparing data on the content in active principles for consumption and therefore used in the cultivations with utilized agricultural surface, it is possible to determine the quantities of pythosanitaries products distributed by hectare of fertilizable surface area.
- The survey on the use of pesticides, born as community survey included in the TAPAS programme for the development of agricultural statistics, afterwards was and is continuing as annual current sample survey. Such survey is carried out in order to define specific information for some cultivations (grapevine, apple and olive tree) relevant to:
- surface treated with phytosanitaries products;
- number of treatments by type of product utilized;
- content of active principles by each treatment carried out.

The sample data processing allows to determine at national level the average quantity of the active principles utlized in the cultivation by hectare of surface area treated with phyto drugs.

Such surveys represent an important instrument of knowledge useful to the researches concerning the food safety, particularly for the healthiness of water and for the content in potentially dangerous residues on the vegetable and animals agriculture production and in the food products for consumption.



• ISTAT has also carried out studies on two processing chains directly connected to the topics on the food safety: the organic farming³ and the quality products⁴.

With the presentation of the final documents, two working groups have just concluded their work. They examined the possibility to set up official statistics surveys on organic farming and on the PDO (Protected Designation of Origin) and PGI (Protected Geographical Indication) quality products. The representatives of Regions, of the Ministry of Agriculture, of the academic world and of the Institutes of Research, have participated in the working groups co-ordinated by ISTAT.

The conclusions of the two working groups are similar and concern the proposal to carry out, from the available administrative data, two specific official statistics surveys aimed at the collection of information on the processing chains:

- organic farming (utilized surface area, production, prices, manufacturing, etc.);
- quality products (primary productions, manufacturing, distribution, foreign trade, etc.).

Conclusions

In view of the mentioned considerations and taking into account the emerging and constant evolving aspects of the discussing phenomenon, it is necessary to tend the efforts of both the policy makers and the statistical information producers. Actually, as for the policy makers, it is a matter of establishing the objectives and the priorities of national and international policies, by means of a high degree of openness. Whereas, as for the statistical information producers, in particular the producers of official statistics, it is a matter of defining which statistical information is needed and how it should be produced. The main criteria that the latter should consider are:

- pertinence, policy-relevance,
- responsiveness, change sufficiently quickly in response to action,
- · analytical soundness, based on sound science,
- · measurability, based on data available,
- ease of interpretation, clear definitions,
- · comparability,
- cost effectiveness.

³ In Italy at the end of 2000 about 54,000 enterprises work in this context (2817 in the food industry, 1330 in primary production and food processing), with a surface of about 1,040 thousand hectares (6.5% of National UAA).

⁴ The Italian basket of quality products is about the 20% of total EU: 111 products (77 as PDO, 34 as PGI) compared to the 560 EU products (350 as PDO, 210 as PGI).



STATISTICAL INFORMATION ON FOOD SAFETY FROM NATIONAL TO INTERNATIONAL SYSTEM¹

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Introduction

At the beginning of the new millennium one of the main challenge is to reduce foodborne diseases and provide consumers with wholesome and safe foods.

In this last decade, rapid changes in the systems of production, processing and distribution of foods were registered. Agriculture is no longer seen only as a means of food production, but it is recognized its important role and goals such as food safety and quality, animal welfare, environmental protection, sustainability and rural development. The farm to table approach towards food safety has been recognized as a fundamental system for the prevention of problems and the protection of the quality of produced food. Food businesses have their role to play in this regard, as ultimately it is the responsibility of every business to ensure the safety of the foods they produce, manufacture or sell.

Consumers expect food to meet their nutritional needs, to be wholesome and tasty. They expect their food to be produced and processed in accordance with good farming practices and they expect to be informed, in a precise and accurate manner, about the composition, the nutritional value, the durability, the origin, and, in certain cases, the method of production of the food offered to them.

However, modern food production and the development of international food trade, if from one side have facilitated the availability at level of the consumers of a wide variety of foods at competitive prices, on other hand they have increased the risk of consumption of spoiled and contaminated food products. In several occasions, the globalisation of food trade has showed that the risk for consumer is increasing and modern system in food production, application of HACCP principle in the different segments of food chain, the certification of products and the definition of equivalent food control systems, are assuming an growing importance in food safety.

Public awareness of food safety issues has increased dramatically in recent years. This awareness is derived from the concerns over BSE (Bovine Spongiform Encephalopathy), antibiotic-resistant pathogenic bacteria in foods, dioxin contamination, outbreaks of food-borne illness due to microbial contamination and the finding that a genetically-modified maize, approved only for animal feeding appeared in foods intended for human consumption. Thus all countries, including those with high food standards and sophisticated food inspection and control systems, can experience cases of food contamination and related health hazards.

FAO activities and experiences

The Food and Agriculture Organization of the United Nations (FAO) provides a neutral international forum for discussion of food safety issues. The Organization gives high priority to the establishment and implementation

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of international frameworks to ensure the quality and the safety of food. Mechanisms of science-based risk analysis have been in place for some time. FAO, in partnership with its sisters agencies of the United Nations system, particularly the World Health Organization (WHO), is engaged in a series of important initiatives to enhance food safety in developed and developing countries.

The existing international mechanism for establishing standards for the protection of human, plant and animal health are well prepared to meet the safety interests of consumers as stipulated by the Agreement on Sanitary and Phytosanitary Measures (SPS) and on Technical Barriers to trade (TBT) of the World Trade Organization (WTO) and other relevant agreement. These mechanisms are constantly evolving in light of emerging concerns, particularly in the context of the globalisation of the markets.

FAO provides the secretariat for two of the three international standards-setting bodies referred to in the relevant WTO agreements. FAO, with WTO, provides the secretariat for the Codex Alimentarius Commission (CAC), which deals with food standards for the protection of human health. The CAC is an inter-governmental body currently with a membership of 166 countries and encompassing a large array of subordinated committees dealing with the various aspects of food quality and safety. Codex is a comprehensive standards-setting mechanism, which fosters international harmonisation of food standards and contributes to fair international trade. The International Plant Protection Convention (IPPC) deals with plant health. Animal health is dealt with by another organisation, the International Organization for Epizootics (OIE), with which FAO has close contacts. FAO also contributes technical inputs to other international bodies and agreements where they relate to food and agriculture.

Risk Assessment: scientific basis of food safety standards and procedures

FAO promotes the application of risk assessment in all matters involving food safety, based on sound scientific evidence provided by panels of independent experts. Risk assessment is one of the component of risk analysis – which can be defined as being an overall strategy for addressing risk that includes risk management and risk communication. The importance of an overlap between these three elements (risk assessment, risk management and risk communication) is well recognised, but some functional separation is also necessary. In relation to risk assessment, such separation ensures that issues are addressed in a transparent manner using a scientific basis.

The CAC defines risk assessment as a scientifically based process consisting of the following four steps: a) hazard identification; b) hazard characterisation; c) exposure assessment; and d) risk characterisation. The risk assessment process is a means of providing an estimate of the probability and severity of illness attributable to a particular pathogen-commodity combination. The four-step process enables this to be carried out in a systematic manner, but the extent to which the steps are carried out will be dependent on the scope of the risk assessment. The risk manager through ongoing dialogue can define this clearly with risk assessor.

Risk assessments provide information for identifying and characterising food hazards. Risk assessment information is useful in determining which hazards are of such a nature that their prevention, elimination or reduction to acceptable levels is necessary. The information is also useful in determining the most effective intervention strategies. Capacities for risk assessment should be strengthened at both the national and the international level.

At present, there are two long-standing panels that provide advice to Codex, governments and industry. They are the Joint FAO/WHO Expert Committee on Food Additives and Contaminants (JECFA) and the Joint FAO/WHO Meeting on Pesticide Residues (JMPR). In addition FAO and WHO convene ad hoc expert consultations when needed to address specific issues not covered by the permanent panels. For example, there have been consultations on genetically modified foods, animal feed and risk assessment of microbiological hazards in foods.

Joint FAO/WHO Expert Committee on Food Additives (JECFA)

The Joint FAO/WHO Expert Committee on Food Additives (JECFA) is an international expert scientific committee that is administrated jointly by FAO and WHO. It has been meeting since 1956, initially to evaluate the safety of food additives. Its work now includes the evaluation of contaminants, naturally occurring toxicants and residues of veterinary drugs in food. To date JECFA has evaluated more than 1300 food additives, approximately 25 contaminants and naturally occurring toxicants, and residues of approximately 80 veterinary



drugs. The Committee has also developed principles for the safety assessment of chemicals in food that are consistent with current thinking on risk assessment and take account of recent developments in toxicology and other relevant science. As of June 2001 the Committee had met a total of 57 times.

JECFA serves as a scientific advisory body to FAO, WHO, to FAO member governments, and to the Codex Alimentarius Commission (CAC). Advice to the CAC on food additives, contaminants and naturally occurring toxicants is normally provided via the Codex Committee on Food Additives and Contaminants (CCFAC) and advice on residues of veterinary drugs via the Codex Committee on Residues of Veterinary Drugs in Foods (CCRVDF).

JECFA normally undertakes an evaluation of submissions from Member countries of both national contaminant data and national dietary exposure assessments. National dietary exposure assessment may be derived from different data sources, such as total diet studies or from national nutrition surveys combined with national contamination data. At a national level, a range of contaminant dietary exposures for the whole population, for consumers only of food containing the contaminant and high consumer contaminant exposures may be reported. Dietary exposure estimates for population subgroups identified in the hazard characterisation, as being vulnerable groups may be available.

JECFA to carry out an international dietary exposure assessment based on the five WHO GEMS/Food regional Diets, needs sufficient contaminant data to derive concentration levels for major commodity groups. To date it has not been possible to establish mean or median concentration levels for each commodity group on a regional level, based on a satisfactory collection of data. It is considered essential that more data should be available, on the level of contaminants and toxins in foods, preferably on a national basis and especially from developing countries, to provide a better basis for exposure assessments.

All countries need to have access to reliable risk assessment of chemicals in food, but relatively few have the expertise and funds available to carry out separate risk assessment on large numbers of chemicals. JECFA performs a vital function in providing a reliable source of expert advice, and some countries use information from JECFA in formulating their own regulatory programmes. In the same way, CCFAC and CCRVDF develop standards for chemicals in food based on JECFA evaluations

FAO/WHO Joint meeting on pesticide residues (JMPR)

The JMPR is comprised of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in food and in the Environment and the WHO Core Assessment Group. JMPR carries out toxicological evaluation of pesticide residues, normally resulting in an estimate of the Acceptable Daily Intake (ADI). In addition, JMPR proposes Maximum Residues Limits (MRLs) for individual pesticides in or on specific commodities. These MRLs are primarily based on the residue levels estimated in supervised field trials when the pesticide is used according to Good Agricultural Practices (GAP). In case where initial estimates indicated that ADI may be exceeded, more refined intake calculations are performed using national food consumption data and information from pesticide residues monitoring programmes.

Most of the information and data on GAP are originated from developed countries and for many pesticide/commodity combinations are not available data from supervised trials conducted in developing countries.

The Expert Committees establish chemical safety standards based on a review of toxicological studies in the more sensitive test animal species. They apply reducing factors for an adequate level of safety, use risk assessment procedures, consider use and consumption patterns and define the specifications of the identity and purity of food grade chemicals to be used.

Microbiological risk assessment

Risk assessment of microbiological hazards in foods has been identified as a priority area of work for the CAC.

While Microbiological Risk Assessment (MRA) is becoming an important tool for assessing the risk of human health from food-borne pathogens and can be used in the elaboration of standards for food in international trade, it is not within the capacity of many, perhaps most countries to carry out a complete MRA. Risk assessment is a tool that can be used in the management of the risks posed by food-borne pathogens.



Risk assessment can be used to justify the introduction of more stringent standards for imported foods. A knowledge of MRA is therefore also important for trade purposes, and there is a need to provide countries with the tools for understanding and, if possible, carrying out MRA. This need, combined with requests of the Commission and of the Codex Committee on food Hygiene, for scientific advice on MRA, has led FAO and WHO to undertake a programme of activities to address the issue of MRA at the international level.

The aim of the programme is to provide a transparent review of scientific opinion on the state of art of MRA, and to develop the means of achieving sound quantitative risk assessment of specific pathogens-commodity combinations. The work includes an evaluation of existing risk assessment; a review of the available data and current risk assessment methodologies, highlighting their strengths and weaknesses and how they may be applied; provision of examples; and identification of ongoing data and information needs. As it is developed, such information is being made accessible through the FAO Web site.

Ideally, a risk assessment should encompass all components of the food system, from production to consumption, so that risk factors and strategies to reduce them can be thoroughly described. An MRA can be used for a number of purposes, including to create broad food safety policies, develop sanitary measures that achieve specific food safety goals and elaborate standards for food.

Information sharing

FAO believes that there is an urgent need for a mechanism by which the relevant, existing information is gathered in a systematic and organised manner and made publicly available to all interested parties. An International Mechanism on Food Safety, Plant Protection and Animal Health Information is being established.

Access to information on food safety, animal health and plant health is of paramount importance for countries to protect human health, agriculture and the environment as well as to facilitate international trade. Such information includes international standards and scientific evaluations, national legislation, regulations and standards; international and national alerts related to food safety and plant and animal health.

Easy access to this information creates a common ground for determining equivalency and assessing risk. However, as the need for relevant information has increased, access to such information has become more problematic. The proliferation of digital information sources now outpaces the ability to organise, search and access data. The main sources would be official information issued and published by competent authorities in member countries as well as by regional and international organizations.



ORGANISATION OF THE SYSTEM OF OFFICIAL STATISTICS ON AGRI-FOODSTUFFS IN FRANCE¹

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1. The institutional organisation of the French system of official statistics

- 1.1. The system of official statistics in France is characterised by the coexistence of a central statistical institute (INSEE²) and specialised statistics departments within the ministries. The statistical institute's role is to coordinate, in particular by managing classifications and directories of statistical units. It is also directly responsible for the collection of statistics, specifically on households and prices, and for compilation tools such as national accounts or current economic indicators. The statistical institute also conducts numerous surveys and studies on economic or social aspects. The specialised ministerial departments are responsible for collecting and analysing statistics falling within the remit of their ministry. These analyses are usually sectoral (industry, agriculture and agri-foodstuffs processing, transport etc.), but may equally cut across sectors (employment).
- 1.2. Another important feature of the system is the consultation between producers and users of statistics when framing the annual programme of government surveys. This consultation is conducted within the National Council for Statistical Information [Conseil National de l'Information Statistique CNIS], which groups together the various categories of users. First, the annual survey programme is subjected to systematic examination; in particular, new or substantially modified operations proposed by the departments concerned are discussed, and must be judged appropriate; the Council can also recommend that more information be submitted on a given subject. Secondly, once the technical methods of each project have been judged appropriate, they must then be presented in detail to a small group responsible for approving the survey in terms of its public interest and statistical quality and, where appropriate, for proposing that it be made compulsory. The Council also regularly reviews the existing surveys to ensure they remain relevant to current needs.
- 1.3. A third feature, more specifically related to industrial statistics, is the role of the professional associations in collecting and developing production data for individual products. This special feature derives from historical circumstances which are enshrined in the French Statistics Act of 1951. This Act allowed the government to delegate the task of conducting compulsory official statistical surveys to approved professional associations. Widespread use has been made of this opportunity to carry out surveys on the production of individual products, both in agri-foodstuffs processing and in the rest of the industry. In addition to the division of tasks between INSEE and specialised statistics departments within the ministries, therefore, there is a second organisational level, at which the task of conducting statistical surveys is shared between certain specialised ministerial departments and professional associations, with the government taking final responsibility.

2. With the focus on economics, government statistics on agri-foodstuffs embrace new needs

2.1. Government statistics in the field of agri-foodstuffs have developed to respond first of all to the need for economic information: in other words, the need to know more about the markets involved in trends in the

¹ Paper by Georges Decaudin, assistant director for statistics on agriculture and foodstuffs at the Ministry of Agriculture and Fisheries

² National Institute of Statistics and Economic Research [Institut National de la Statistique et des Etudes Economiques]



Common Agricultural Policy and trade. They are also needed as general input for the national accounts. In this connection, the statistics department of the Ministry of Agriculture and Fisheries (National Surveys and Statistical Studies Service - SCEES³) is responsible for compiling economic statistics on agricultural holdings and agri-foodstuffs processing industries. These statistics essentially cover the structural features of the production system and outputs. INSEE compiles statistics downstream of the production system on marketing businesses and household consumption. It is also responsible for indices on producer or consumer prices. Data on trade between France and other countries compiled by the Customs statistics department are widely utilised by other departments.

2.2. More recently, new trends in information needs have prompted the statistics department of the Ministry of Agriculture and Fisheries to take an interest in new fields, thus broadening the scope of agri-foodstuffs statistics beyond its traditional economic remit to include structures, output, consumption and external trade. Although part of this expansion remains closely associated with economics (innovation in businesses, globalisation of trade and production etc.), another section covers less obviously relevant fields in which specific concerns are voiced, in particular, the rural sphere, environmental protection, and even the quality of foodstuffs, although to a very limited extent as yet. The responses received in these new areas of statistics are still only partial and numerous difficulties persist.

3. Traditional economic statistics on agri-foodstuffs

Economic statistics are still the cornerstone of the system that produces government statistics on agrifoodstuffs. The overall organisation of this system and its relevant compilation tools have remained essentially unchanged for many years, despite the various developments resulting from the increasing harmonisation of European statistics.

3.1 Structural statistics on the production system

- 3.1.1. Agricultural holdings are covered by regular farming censuses, plus structural surveys conducted in the intervening periods by sampling, on the one hand, and by the Farm Accountancy Data Network (FADN) of on the other. The statistics department of the Ministry of Agriculture and Fisheries takes direct responsibility for these operations, conducted in the field by the agricultural statistics departments in the regions and *départements*. This collection of information has been closely supervised and harmonised by European legislation on statistics for more than 35 years. The censuses and structural surveys on agriculture chiefly provide data on potential production (surface areas cultivated, herds, employment, farming equipment etc.). In the absence of a regularly updated central directory of agricultural holdings, censuses also serve as the basis for conducting surveys by sampling. For its part, the FADN provides greater clarification through the special feature of supplying accounting information on the economic performance of "professional" agricultural holdings, i.e. those which exceed a minimum economic size.
- 3.1.2. The situation is markedly different in the field of agri-foodstuffs processing in that the statistical system is part of the more general framework of business statistics in France, coordinated between the sectors by INSEE. A fundamental component of the system is a well-established intergovernmental directory of businesses and establishments, regularly updated and run by INSEE (the SIRENE directory). This directory is particularly important in launching the Annual Business Survey ABS [*l'Enquête Annuelle d'Entreprise EAE*], which in France is the basic structural survey of non-agricultural businesses, specifically to satisfy the numerous demands of the European Regulation of 1996 on structural business statistics. The ABS has been introduced gradually since the 1960s and is today compiled through coordination between the different ministerial statistics departments, each working within its own field, with the statistics department of the Ministry of Agriculture and Fisheries compiling the section on agri-foodstuffs processing. The businesses covered by the survey are divided up between these departments according to their main activity, so as to avoid both omissions and double counting. The data collected primarily cover economic results from financial

³ National Surveys and Statistical Studies Service [Service Central des Enquêtes et Etudes Statistiques]



accounts, factors of production (labour, investment) and the activities concerned, making it possible to identify the main activities and in turn update in the SIRENE directory.

3.2 Statistics on the production of individual products

This field broadly covers the organisational differences outlined above between agricultural holdings and processing businesses in compiling structural statistics.

3.2.1. In the case of agricultural raw materials, the system is run by statisticians at the Ministry of Agriculture and Fisheries because they are located throughout France in each of the NUTS 3 regions.

These statisticians compile data from their respective regions on areas under production, yields and production levels for a considerable number of products. Their work covers both plant and animal production and goes on all year round to respond to both short-term needs and the more specific demands of annual trading balances for the main French industries. These balances, compiled in accordance with a harmonised methodology at European level, are used as a tool to ensure the consistency of information from various sources on production, external trade, processing and consumption.

The relevant information is provided by sampling surveys conducted by local and regional statistics departments in accordance with national procedures, backed up by local expertise, plus the processing of administrative or legislative information for statistical purposes. Some statistical surveys aim not only to record production but also to identify the timing of product supplies to markets for sale, as in the case of fruit and vegetables.

3.2.2. A particular feature of the monitoring system set up by the French government for products processed by the agri-foodstuffs industry is the role played by professional associations in collecting and developing data. In numerous sectors, these associations take direct responsibility for conducting surveys of production under the technical supervision of the statistics department of the Ministry of Agriculture and Fisheries, which also directly conducts surveys of areas which, for one reason or another, the professional associations have been unable or unwilling to cover. This level of involvement on the part of industry in compiling statistics has the advantage of closer contact with the units included in the surveys, and they can make it easier to target questions and encourage businesses to respond. On the other hand, it demands a considerable effort on the part of statisticians at the Ministry of Agriculture and Fisheries to coordinate the initial files, concepts and classifications, and the statistical methods used (verifying data, estimating non-responses etc.) and to meet deadlines. The small size of many organisations is also a handicap whenever those responsible for the surveys are unavailable. Efforts have recently been made to improve coordination, with the signing of a quality charter between the statistics department of the Ministry of Agriculture and Fisheries and the approved professional associations. The charter sets out rules of good statistical practice to be observed when conducting these surveys; adherence to these rules is to be assessed on a regular basis and this may lead to the government repeating certain surveys.

Statistics on the production of the agri-foodstuffs industry have two main objectives. The first is to monitor short-term economic activity through monthly sampling surveys on sets of products deemed to be representative of the activity within each sector: these surveys provide data in particular for the industrial production index calculated by INSEE (1998 regulation on short-term business statistics). The second objective is to obtain detailed information on the production of individual products by means of surveys, usually annual. When studied in conjunction with statistics on external trade, these surveys make it possible to estimate the domestic French market. Introduction of the 1991 PRODCOM regulation on industrial production statistics meant that considerable efforts had to be made to adapt the entire system: harmonisation of questions with the list of PRODCOM products, and the introduction of questions on the value of production, since the existing surveys generally included only physical quantities. In addition to data on production and/or supplies, these surveys also include questions on the consumption of raw materials in a number of sectors.

3.3 Statistics on marketing and consumption

Detailed statistics on household consumption of foodstuffs for individual products are provided by a survey conducted every five years by INSEE. This survey does not specifically cover expenditure on foodstuffs, but covers total expenditure (e.g. including taxes and duties, insurance, loan repayments etc.); the resources and



composition of households are also recorded, allowing behavioural studies to be carried out. The foodstuffs statistics include own consumption and are monitored by means of a detailed data collection classification comprising 260 items, with non-domestic consumption included under separate headings.

In addition, INSEE makes annual estimates of the consumption of individual products as part of the National Accounts, bringing together available data from various sources (production data, panel surveys by private institutes, external trade etc.).

INSEE also produces statistics on structures in the French distribution system by means of surveys conducted on wholesale and retail businesses. Other short-term surveys of such businesses provide information on consumption trends for major groups of products.

4. The emergence of new needs for statistics on agri-foodstuffs

Although the demand for traditional economic information on agri-foodstuffs remains very high and has even been reinforced by recent European legislation on statistics, in particular with regard to processing (the regulations on PRODCOM and structural and short-term business statistics were cited above), new needs are coming to the fore which require government statisticians to adapt.

- 4.1. Part of this upsurge in the need for information remains closely linked to the economic sphere. The task is to try and assess new phenomena, which in any case are common to most economic sectors: innovation, organisational changes within businesses, growing involvement in the global economy, advances in information and communication technology and so on. In order to meet these demands, government statisticians in France have spent the last ten years developing thematic surveys, initially on agri-foodstuffs processing and other industrial sectors, and then the services sector. These surveys are deliberately limited in length, usually to four-page questionnaires, and are mailed to businesses selected by sampling. Some have been conducted following international recommendations and harmonised between the Member States of the European Union under the coordination of Eurostat: this is the case with the surveys on innovation in industry. Indeed, we are seeing a growing tide of support for this type of thematic survey harmonised at European level. It could be that European integration, the elimination of national borders and enlargement will lead or have already led to an increase in the calls for economic information directed at existing government statistical production systems in each Member State.
- 4.2. However, the new need for information on agri-foodstuffs has also made itself felt in France in fields less closely-linked to economics: examples include developments in the rural districts and environmental protection. The government statistical system, particularly the statistics department of the Ministry of Agriculture and Fisheries, has endeavoured to deliver at least a partial response. Assessing phenomena in terms of statistics is often especially difficult in these fields: there are conceptual and methodological problems in arriving at an exact definition of the subjects to be assessed as well as the problems of actually collecting the data from the units surveyed (where the information is non-existent or too costly to compile). In addition, the production of traditional economic statistics continues to take up the bulk of the resources of statistics departments. Moreover, the amount of work involved for units taking part in the survey must be kept within bounds, to avoid them simply refusing to participate.
- 4.2.1. Despite these difficulties, a number of operations have been successfully organised to clarify certain aspects to these problems apart from the purely economic issues. The most longstanding problems involve the rural sphere: since 1969, in addition to the demographic data obtained from population censuses, four surveys have been conducted by Ministry of Agriculture and Fisheries statisticians and INSEE on facilities in rural districts (shops and services) and on the corresponding catchment areas, resulting in the identification of residential areas. Growing environmental concerns led in 1990 to the introduction of annual surveys on industrial expenditure for environmental protection, covering the field of agri-foodstuffs processing; the production of information on this subject has since been formalised by the 1996 regulation on structural business statistics, and an extension targeting current expenditure on environmental protection is under discussion. The same environmental concerns in agriculture are being studied by statisticians at the Ministry of Agriculture and Fisheries. Specific measures have been implemented to tackle such social issues. For this reason, surveys based on sampling have been conducted at regional level on cultivation practices amongst farmers and on features of livestock buildings. All these operations involve gathering the information needed



to devise indicators which describe situations and how they develop; this is particularly pertinent to water, fertilisers, pesticides, erosion and nitrate leaching.

4.2.2. Even more recently, general concerns about the quality of foodstuffs have begun to emerge. For various reasons, they pose formidable conceptual problems for assessment in statistical terms: the subjects to be evaluated are often poorly defined, situations are changing rapidly, some phenomena are just emerging and are ill-suited to statistical interpretation, etc. It is therefore hardly surprising, though regrettable, that the responses of French government statisticians to questions on this matter which have not yet been fully articulated are extremely fragmented.

The statistical summaries drawn up by the health monitoring services themselves have a distinctive character. They report on the activities of these services, and are often tricky to interpret where the monitoring is conducted by sampling: on grounds of efficiency and cost, these samples can in fact be based on any given subpopulation considered to be at risk, and are not necessarily representative of the overall situation.

The work undertaken by statisticians of the Ministry of Agriculture and Fisheries covers a particular aspect of the issue: assessment of production according to official indicators of quality and origin (registered designations of origin, labels, certificates of conformity, and organic farming). The subjects to be assessed in this field are precisely defined in the regulations and the conceptual aspects of the problem are therefore largely resolved; the difficulty lies in the assessment itself and its regularity over time. Whereas the development of these official quality indicators now forms part of the main thrust of the policy of reorienting and enhancing the value of French agricultural production, at present there is no official and uniform statistical system to cover this issue at national level. The available data are compiled by various bodies in the absence of overall coordination. The National Institute for Designations of Origin [l'Institut National des Appellations d'Origine] has, for this reason, been working for some time on developing its own system of surveying registered designations of origin, on the basis of information supplied by various product protection associations. As regards other indicators of quality and origin, aggregated data are collected and processed by various bodies and may be incomplete.

The statistics department of the Ministry of Agriculture and Fisheries therefore plans to launch an initial experimental survey of products with official labels of quality and origin in 2002, in order to provide consistent information on this field. This survey will be directed at the basic associations and bodies in charge of the quality labels rather than directly at the producers or processors themselves.

Initially, however, the survey will not cover organic farming. Data on trends in organic farming – areas under production, number of operators and output - are currently gathered by the National Monitoring Centre for Organic Farming [l'Observatoire National de l'Agriculture Biologique], under the auspices of the Chambers of Agriculture. Any direct measures taken by statisticians at the Ministry of Agriculture and Fisheries are still in their early stages: they include the introduction of a question in the most recent farming census to identify the main characteristics of farmers choosing to go organic and the addition of a section on organic milk to the traditional annual dairy survey.

5. Conclusion

The production and analysis of traditional economic data on structures characterising the production system and on output continue to be an important part of the work which falls to French government statisticians responsible for agriculture and agri-foodstuffs. The demand for economic data has not diminished, particularly given the emergence of new phenomena which also affect agri-foodstuffs: the deepening of the European Union, the globalisation of trade and businesses, the increasing role of innovation and new technologies, new forms of business organisation and so on.

Thanks in particular to their presence in large numbers throughout the country, agricultural statisticians are attuned to the changing needs for information. As part of the Ministry of Agriculture and Fisheries it is easier for them to discern certain needs associated with government action. In addition, there is an on-going dialogue between producers and users of statistics within structured bodies such as the National Council for Statistical Information. These monitoring systems reveal an increasing focus on topics that are not strictly economic, particularly on the rural sphere, the environment and, more recently, food quality.



These new topics are not easy to deal with satisfactorily and often raise entirely new conceptual and methodological problems, such as how to define the subjects for assessment, the compatibility of these definitions with the information which can be readily supplied by the units surveyed at an acceptable cost to them, devising a suitable sampling base and so on. The process from the expression of a need to the actual creation of an appropriate statistical tool to provide answers is always fairly slow, especially if the need is expressed in vague terms. The new phenomena are fast-developing and therefore particularly useful to attempt to define; at the same time, however, they are often difficult to measure statistically at an affordable cost without first identifying the units involved. Moreover, the overall trend in France is to cut back on the human resources allocated to agricultural and agri-foodstuffs statistics, although the demand for traditional information remains strong.

European unification is increasingly requiring the introduction of coordinated system of statistical monitoring. All in all, these systems are today operating to an almost satisfactory standard for traditional agricultural and agri-foodstuffs statistics, although it looks as if progress with the new themes might be slow. Apart from the conceptual and methodological difficulties mentioned above, which need to be resolved in a consistent manner through cooperation between the Member States of the European Union, the likely complexity of the questionnaires which will then have to be sent to the units surveyed probably means that well-trained personnel will be needed to carry out the questioning in person. Whereas some Member States have already put this method of data collection into practice, others will have to make an additional investment in such systems.



ALL POTATOES ARE EQUAL

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1. Discussions

Intensive and interesting discussions are nowadays taking place on the subject of food safety and animal welfare. Daily papers, agricultural magazines and the worldwide web. As regards the latter, in March of this year the EU started an internet debate at http://europa.eu.int/comm/dgs/health_consumer/library/debate/index_en.html . For a discussion between people from the North and the South on possibilities of biotechnology for food supply in developing countries there is: http://www.southernvoices.nl/ Also in The Netherlands a discussion is going on (in Dutch) on gene technology and food: http://www.etenengenen.nl from which the government and parliament hope to get information on behalf of decision making in this area. Since october 10 on the initiative of the German Ministerium für Verbrauchershutz, Landwirtschaft und Ernährung and the Netherlands Ministry of Agriculture, Nature management and Fisheries, a discussion between citizens of the two neighbouring countries takes place (in German and Dutch and partly English) until November 21 at http://www.future-of-food.nl But in other countries such debates take place as well. To illustrate the counfusing diversity of aspects and attitudes, in the below a few considerations and results of the debate mentioned are given.

- A general opinion is that public authorities, producers of food and supermarkets/retail shops have to guarantee food safety. Consumers want that a blind trust is justified.
- Modest attention so far got questions whether the foundation of a National and a European Food Authority provides a proper guarantee for food security.
- Also the question to what extent consumers believe and trust hallmarks (like e.g. the German Gütesiegel) got
 little attention, although the question was raised why one gets a guarantee label when bying a puppet and not
 when buying food.
- It is recognised that 100% safety is worthwile to strive after, but that in practice this cannot be reached. For this to many possibilities exist for phenomena showing up all of a sudden. In society accepting such type of risks is generally accepted, e.g. in traffic.
- There is much to do about behaviour of consumers. As consumers tend to trust that what is in the shops is safe, there is a certain preference for what is cheapest. Therefore many complaints exist that consumers are not prepared to pay more for biological products of which the better quality is not always striking.
- Findings from surveys indicate that attitudes towards the consumption of food widely depend on one's knowledge of food products. And indeed a clear request for information on the way of production exists.
 Detailed data may be very disclosing in a society where a substantial part of the population has only rudimentairy ideas on where food products originate from. Therefore much support got the proposal to promote general knowledge on food.
- Very limited attention is paid to the fact that large concentrations of natural toxics are contained in quite a
 few food products. Nicotine for instance is well known for being noxious.
- In case food is concerned, all of a sudden certain moral standards show up, that do not easily raise on other subjects. For instance, the idea that for absolutely safe food, one has to pay more than for food with slightly



- more risks, is hardly admitted. However for cars it is accepted that one buys to a certain extent safety through a robust car and by installing airbags.
- Abundance of safe and healthy food does not necessarily take away problems. In the opposite. As regards alcoholic products, one may notice advertisements that encourage consumption and at the same time recommend to limit consumption, in order not to endanger health. For other food products this is not very comon.
- It is widely believed that what comes from own garden is safe. In most EU countries the phenomenon of growing own food is not very widespread. However in CEEC's a high percentage of households prodece and process a substantial part of their food. In these countries the knowledge of preservation is still very high.

2. Requests for (statistical?) information

Of course statisticians take note of these debates in order to be well prepared when sooner or later these may lead to requests for statistical information. But although numerous suggestions for procedures and requests for information on behalf of consumers are brought forward, it is far from easy to derive from it conclusions as regards an adequate compilation of statistical data. This is partly caused by the fact that a notion like "safety" does not easily comply with all kinds of averages. Sometimes it may be of help to promote the awareness of the fact that the main output of statistical organisations consists of tables. Maybe that nowadays users are invited to construct their own tables out of data-bases, the data base itself is just a huge table. So, to make a discussion on requests for statistical data more efficient, it may be useful to stimulate the construction of statistical tables, of course still empty. This of course should not be misused for killing discussions at an early stage, but to encourage a certain discipline. Once ideas about empty tables have become somewhat concrete, the possibilities for filling these are to get proper attention.

3. Relevant statistics, the role of statisticians

The above sketch of tasks, potential users of statistics carefully expressing their wishes and statisticians developing the most efficient way to fill the tables, is of course rather formal. And taking formal positions is not always very productive. Especially in the rather new area of food safety, it may be recommended for participants in the discussions to step across their boundaries. On the other hand, people crossing boundaries should stay aware of the boundaries concerned.

As regards statistics, nowadays frequently (and sometimes rather easily) is mentioned that these should be relevant, timely and reliable. For timelyness and reliability certain standards maybe developed or at least agreements can be made. But relevance? In case all parties involved have the same interest it may not cause many problems. When however a conflict of interests is not to be excluded, statisticians may be cautious, in order not to loose trust of any of the parties. For a statistical institute it may e.g. be less appropriate to take the initiative for a survey as regards the number of animals that die during transport (maybe over 1000 km) to a slaughterhouse.

4. A few examples

Questions concerning data on food quality usually concentrate on two main aspects:

- production circumstances all over the chain
- physical aspects of food products

As regards the first group, in quite a few countries as a result of statistical surveys, data are available on use of pesticides, use of artificial fertilisers, farms engaged in bilological farming, share of biological products in total production and farms participating in systems of Good Practices.

In most countries the public authorities responsible for inspection of food safety carry out sample surveys as regards phenomena in both groups. Inspections taking place as regards hygienic circumstances in industries and retail shops. And examples of the second category are data on the presence of pesticide residues, bacteria like salmonella and of pharmaceutical residues in food products. In some countrie the results of these surveys are published on a regular base. Sometimes in publications of the statististical institutions (in the section on health statistics). More often in other publications. A problem may be that institutions carrying out inspections



do not have as their main task providing representative data but controlling food quality. For this reason samples need not necessary be random, on the opposite, inspection may be directed towards areas of potential risk. It seems as if there are possibilities for harmonisation on a European level in order to enlarge the possibilities to use the data concerned for compiling statistics.

5. Quality Assurance Systems and biological farming, recent data for The Netherlands

In most countries nowadays Quality Assurance Systems exist in which agricultural and horticultural holdings can participate. This in general implies that their production circumstances have to meet certain standards. And as may be expected, these circumstances are checked now and then by institutions that specialised in this. For a few of these systems is valid that as long as the standards are met, the products can be delivered under a certain certificate. In the 2001 Agricultural Census in The Netherlands a question was included whether respondents participate in such a system. For clarity a number of systems were listed of which the respondent could confirm participation. Among these were four systems that are relevant for all holdings. First ISO (International Organisation for Standardisation) and HACCP (Hazard Analyses, Critical Control Points), both internationally recognised. The two others are: AMK (Agricultural Environmental Hallmark) and SDL (Stimulus Sustainable Agriculture). Apart from this the list had 4 systems for dairy farming, 3 systems for pig keeping, 9 systems for keeping hens and other poultry, 2 systems for arable farms, 4 systems for horticulture under protective cover and 4 systems for horticulture in the open. Results are in the below tables 1. and 2. Due to the fact that it concerns an exhaustive census, much more detailed figures are available.

Table 1: Agricultural and horticultural holdings with 1 or more Quality Assurance Systems, according to type of farming and size classes in The Netherlands, 2001

	All	holdings with 1 or more quality assurance systems						
	holdings							
			3-<12	12-	20-	32-	50-	>100
				<20	<32	<50	<100	
arable holdings	12911	3767	259	229	313	472	1335	1159
horticultural holdings	12317	5573	103	103	204	313	949	3901
permanent crop holdings	4915	1345	81	74	137	197	511	345
grazing livestock	46187	33615	3995	2411	2309	3175	11789	9936
holdings								
factory farms	7641	6439	193	286	513	690	2228	2529
mixed crop holdings	1889	877	37	41	82	119	261	337
mixed livestock holdings	2706	2449	118	187	292	347	672	833
mixed crop livestock	4217	2610	401	320	322	314	553	700
holdings								
All types of agricultural								
and horticultural holdings	92783	56675	5187	3651	4172	5627	18298	19740
	(100%)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
arable holdings	13.9	6.6	5.0	6.3	5.1	8.4	7.3	5.9
horticultural holdings	13.3	9.8	2.0	2.8	4.9	5.6	5.2	19.8
permanent crop holdings	5.3	2.4	1.6	2.0	3.3	3.5	2.8	1.7
grazing livestock	49.8	59.3	77.0	66.0	55.3	56.4	64.4	50.3
holdings								
factory farms	8.2	11.4	3.7	7.8	12.3	12.3	12.2	12.8
mixed crop holdings	2.0	1.5	0.7	1.1	2.0	2.1	1.4	1.7
mixed livestock holdings	2.9	4.3	2.3	5.1	6.0	6.7	3.7	4.2
mixed crop livestock	4.5	4.6	7.7	8.7	7.7	5.6	3.0	3.5
holdings								

Source: Statistics Netherlands, Agricultural Census 2001 (elaborated data) * 1 NSU reflects a standard gross margin of about 1400 Euro.



Table 2: Agricultural and horticultural holdings according to type and number of Quality Assurance Systems (QAS) in The Netherlands, 2001

	total number of holdings	holdings without QAS	h	oldings with	QAS	4 and over
all types of holdings	92 783 (100)	36 108 (39)	23 526 (25)	25 717 (27)	5 915 (6)	1 517 (2)
arable holdings	12 911 (100)	9 144 (71)	2 672 (21)	820 (6)	194 (2)	81 (1)
horticultural holdings	12 317 (100)	6 744 (55)	3 947 (32)	1 335 (11)	209 (2)	82 (1)
permanent crop	4 915 (100)	3 570 (73)	1 021 (21)	272 (6)	32 (1)	20 (0)
holdings						
grazing livestock	46 187 (100)	12 572 (27)	8 901 (19)	20 115 (43)	3 830 (8)	769 (2)
holdings						
factory farms	7 641 (100)	1 202 (16)	4 487 (59)	1 417 (19)	415 (5)	120 (2)
mixed crop holdings	1 889 (100)	1 012 (54)	465 (25)	267 (14)	83 (4)	62 (3)
mixed livestock	2 706 (100)	257 (9)	542 (20)	692 (26)	926 (34)	289 (11)
holdings						
mixed crop livestock holdings	4 217 (100)	1 607 (38)	1 491 (35)	799 (19)	226 (5)	94 (2)

Source: Statistics Netherlands, Agricultural Census 2001 (elaborated data)

Also in the 2001 Agricultural Census a question was included on biological farming. Table 3 shows that the percentage of holdings that shifted completely or partly to biological farming is rather modest. The figures may slightly understate the phenomenon, due to the fact that so far no special standard gross margins (sgm's) have been calculated for biological farming. In The Netherlands the threshold for the Agricultural Census is comparatively high, about 3.5 ESU. In case sgm's for biological farming would exist, a somewhat higher number of biological farms might have been above the threshold.

Table 3: Number of biological agricultural and horticultural holdings in The Netherlands 2001 (provisional figures)

		biological	of which		
	total number of holdings	holdings	complete biologic	partly biologic	
all types of holdings	92 783 (100)	1287 (1.4)	838	449	
arable holdings	12 911 (100)	169 (1.3)	83	86	
horticultural holdings	12 317 (100)	179 (1.5)	124	55	
permanent crop holdings	4 915 (100)	86 (1.7)	55	31	
grazing livestock holdings	46 187 (100)	587 (1.3)	446	141	
factory farms	7 641 (100)	62 (0.8)	20	42	
mixed crop holdings	1 889 (100)	76 (4.0)	48	28	
mixed livestock holdings	2 706 (100)	48 (1.8)	23	25	
mixed crop livestock holdings	4 217 (100)	80 (1.9)	39	41	

Source: Statistics Netherlands, Agricultural Census 2001 (elaborated data)

6. Initiatives in CEEC's

Due to the fact that especially the Candidate Countries have a substantial burden in adapting their statistical systems in order to complie with EU legislation and agreements, one might expect that at the same time setting up new systems is altogether a bit much. However a quick orientation shows that also in the countries concerned



initiatives are taken in this area. In quite a few countries in the program for agricultural statistics quality classes are included in the questionnaires for production of milk and meat. Apart from this on a regular base data resulting from inspections of food and drinking water are published in Estonia (Statistical Yearbook of Estonia). In the Czech Republic a program exists called "Personal Dietary Exposure", based on the recommendation of WHO. Results are published in the Yearbook of the Environment of the Czech Republic, publications of the Ministry of Health and available on http://www.lipa.vscht.cz). But there is no suggestion of completeness in the above.

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POSITION OF EUROSTAT

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Traditionally agricultural statisticians, together with their colleagues in other areas of official statistics, have given great weight to the requirements of policy makers and producers in the preparation of statistical programmes. This was largely due to the fact that the most coherent expressions of user requirements were heard from these parts of the user community. The initiative to create CEIES has succeeded in giving a voice to a wider range of users. This seminar is the first occasion on which CEIES has devoted its attention to agricultural issues but the discussion is particularly timely in the light of events. I would take this opportunity to congratulate and thank both CEIES and the Ministry of Agriculture, Viticulture and Rural Development of Luxembourg for their excellent cooperative effort in organising this seminar.

The Treaty lays emphasis on security of food supplies and on economic fairness as between producers and consumers as the basis of the Common Agricultural Policy. However, the expression of consumers' concerns has moved beyond the availability of supplies and the associated price levels to embrace wider issues. These concerns include food quality, food safety, animal welfare and the ethical treatment of animals, organic production, genetically modified products and animal and plant health. Some of these concerns have been addressed in the White Paper on Food Safety, others related to diversity and quality are at the centre of the European Food Model. The Commission's 2002 policy strategy points out that one of its main axes "sustainable development" includes food policy and questions of food safety.

The agricultural sector has also evolved. The development of pluriactivity, the association of traditional agricultural activities with others which may be undertaken in association with pure agriculture, raises a number of statistical issues. These activities may range from farm shops through tourist enterprises such as the provision of bed and breakfast facilities and beyond. Equally important is the concept of multi-functional agriculture which envisages support of the agricultural sector for services, particularly of an environmental nature, which go beyond those of what is regarded as normal good agricultural practice.

A statistical response to address the information needs which arise from these developments will require cooperation amongst various partners. Linkage between different sectors of statistical activity is not new. The traditional definition of the agricultural sector which effectively stops near the farm gate does not suffice to answer the questions posed by consumer concerns or those which result from the development of multifunctional agriculture and pluriactivity. We have already the example of agro-industrial statistics where the food chain is followed beyond the agricultural sector into the food industry to provise a statistical picture of both production and processing of agricultural products. This will serve as a basis and an example on which we can build in developing our work in ensuring the traceability of food products.

Article 153 of the Treaty lays down that "..the Community shall contribute to protecting the health, safety and economic interests of consumers, as well as promoting their right to information,..." "..Consumer protection requirements shall be taken into account in defining and implementing (other) Community policies and activities...". This is reflected in the draft Community statistical programme 2003 to 2007 which foresees the provision of statistical data in a user-friendly format to shed light on consumption and consumer issues.



The establishment of the European Food Authority will provide us with an important new client for statistical information. Already we have close relations with the policy directorates general most closely connected with consumer information in the agricultural context, the directorates general for Health and Consumer Protection and for Agriculture, and we look forward to working closely with this new body. Irrespective of the decisions taken concerning the creation of an agency, there has already been a growing need for reliable and pertinent indicators on this policy topic. Initiatives have already been taken in a number of EU Member States, as we have heard in the course of this seminar; Eurostat and the European Statistical System will capitalise on these to enhance the number and range of indicators in this field.

The papers presented at this seminar provide reassurance that a major contribution to the primary aim of this meeting has been achieved. Development of new statistical domains is a time and resource consuming operation which requires careful planning and, above all, a deep understanding of users' requirements. The assistance of participants will provide a valuable input to our future work in this area.

In developing our work it will be necessary to take full account of response burdens and of the scarcity of resources in the statistical system. These are not issues that are unique to this domain and clearly the initial approaches must be based on existing data sources. However, the fact that legislative and administrative provisions are developing rapidly provides an opportunity to ensure that statistical considerations are taken into account in the formulation and implementation of policy. Where possible, we should seek to ensure that, for example, administrative and statistical definitions and classifications are compatible and that administrative registers such as those developed to ensure traceability are capable of being exploited for statistical purposes.

The development of the European Statistical System to meet the evolving needs for consumer information on the entire food chain is a major challenge. This seminar is an important step in meeting this challenge by setting out clear expressions of requirements from users and I can assure you that it is our intention to build on this foundation.



SUMMING UP

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"From field to table" or "from fork to fork", these sentences had been the skeleton of questions to food setting the agenda for European agricultural statistics for decades. Do we have enough food, enough production of agricultural products to feed Europe? That was the main question, and a good part of the statistics is still based on that question.

New questions are now raised and both CEIES and Eurostat are aware of that there are new needs for food statistics. Today consumers are much interested in the quality and not only in the quantity of food they can get. The question is no more only "to the table or to the fork". Now consumers are interested in knowing what the results of eating the food will be, for stomach, heart and recently also for their brains, due to the increasing awareness of potential problems with food quality. There are many more questions raised today, than when the agricultural statistics were formed. Nobody denies the relevance of the new questions raised during this seminar.

Many changes have taken place within the food chain as Ms Kilpiö clearly showed in her presentation. Consumers want more information and about an increasing number of aspects; several presentations showed that. Consumers were however not the only ones interested in new statistics. The seminar showed that there are many different actors interested in agricultural and food statistics, both at national and European level:

- Politicians, defined as elected members of parliament
- Ministers, as individuals and as part of governments
- Ministries, assisted by committees
- DG's (because they are responsible)
- People responsible for food policy and in some cases also for research initiatives
- Committees of different kinds
- Private and public consumer agencies at national and European level
- Organised interest groups
- NGOs lobbying for better food quality or for better prices
- The international community
- The European Union

What are the main needs for initiatives regarding statistics at the European level? And what is the main logic behind actors demanding better statistics? A few needs were identified in the seminar, e.g. control, forecasting and background information for policy initiatives.

The seminar was based on the presentation of the needs of different actors. We learned that there are many aspects we all have to be aware of. Statistics cannot solve all problems, but can show problems or developments which eventually may lead to problems. The participants in the seminar agreed that statistics are needed and they all agreed there were new needs.

Nevertheless, the problem of how to avoid overburdening the agenda for statistics was not solved. Many ask for something extra, but we cannot ask Eurostat nor the National Statistical Institutes to give us all we ask for. One



participant therefore suggested that a minimum requirement list be drawn up. Already existing data could also be better used. Secondary analyses and deeper analyses are a cheap way if extracting extra information from available, already collected data. In depth analysis could eventually be made at the national level.

It was proposed during the seminar that statistical data on food quality could be used for benchmarking purposes within Europe or eventually for benchmarking Europe versus non-EU countries.

Many institutions follow the food production and the way from fork to fork, from field to table. The seminar concluded that there is a need for reliable, valid, timely, comparable and harmonised data. There was also a certain agreement about the need for transparent data to make it possible to trace the food from stable to table to body and thus allow a proper risk assessment.

The question now is where we can reduce the statistics produced at the moment. Not so much was said about that issue, the new needs were on the agenda.

ATTENDANCE LIST

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