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THE FUTURE OF THE LIVESTOCK SECTOR IN THE LIGHT OF THE RECENT CRISES IN EUROPE

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Introduction

J.C. Flamant

A more and more sensitive and controversial subject of debates in society, and a lot of repeated events whose effects are re-enforced by the influential mass media, upset the general population. And consumers have less confidence in animal products as well as in research in animal science and are also developing a suspicious attitude towards food. In this context *“the organization of a Forum of debates between us means we do not turn our backs to the sensitive and hot issues even if and maybe because they are very complex and problematic”* as mentioned Aboul Naga. And following Maurice Bichard: *“Such Round Table could provide an opportunity to listen to views on the changing environment in animal production and show to the society that EAAP is taking them into account seriously”*. The present Round Table, according to Jean Boyazoglu, *“revives an old and valid tradition in EAAP activities that has been less present in the last three decades maybe, namely the active if not militant involvement in evaluating and openly discussing subjects of direct actuality for the livestock sector”*. In this respect, I am very happy to mention that we have with us to-day, Kristof Kallay, who lived with these first decades of EAAP in this ambience of opening discussions.

Thanks to Pim Brascamp and to our Dutch colleagues for having accepted the organisation of the first Round Table during The Hague EAAP meeting. It was a successful experience. So it was decided to repeat it here in Budapest, having in mind the possibility to make it in the future as a permanent and important event during the EAAP Annual Meeting, complementary to the sessions of the Commissions. Cledwyn Thomas, who was the animator of the Round Table in The Hague, has accepted to play the same role today.

From the events of the last 12 months (BSE, foot-and-mouth disease and others) and their consequences for the economy of animal production and for consumer trust... which interpretation should be given to the last series of crises in food animal production chains in Europe?

... Only accidents with effects amplified by the media, and arising solely from faults in the control of animal health, and that the science of animal production is fundamentally sound.

... Or a warning sign that our animal production systems are no longer sustainable.

What are the arguments in favour of each of these two interpretations?

What is the role of research and of technological progress for the future?

Those are the questions put in debate with the kind contribution of our invited debators.

Before giving the floor to you Cledwyn Thomas, may I wish that this debate be stimulating and be very active without missing the point that if we are animal production specialists, discussing scientific results and technical innovations, we are also citizens. This afternoon I am sure we shall have a citizen's debate.

Presentation of the panel

Cledwyn Thomas

My role is to ensure the smooth running of the debate and this one we changed a bit from the one we had last time because we felt it was important that the audience had an opportunity to have their say. So the structure is going to change a bit to allow this to happen.

Now the idea is that Malla Hovi and Maurice Bichard will be two main debaters. They will introduce the subject, they will analyze what they think are the causes of the various crises that we have had recently, but in addition to that we will hear the views of 4 other people who represent the all of the food chain. What I want to do first is to just introduce the people so that you know who they are and where they come from.

First I introduce **Malla Hovi**, who comes from the University of Reading. She is an epizootiologist that works with Veeru and originally comes from Finland. She has a great interest in organic systems.

Next **Maurice Bichard**. He was trained as an animal breeder. He split his career between University research and being a technical director for a commercial breeding company.

The other people who will present their views are **Patrick Coelenbier** who is the sales manager of a French-German rendering group (Saria-Bioindustrie) and a member of the European Association that represents renderers.

Next to him is **Peter Horn**, an animal geneticist, professor and co chairman of the Hungarian Animal Breeders Association.

Moving along to the other side of the table we have Professor **Martin Tielen** who is Prof. of Animal Husbandry at the Veterinary Faculty and his now President of The Netherlands Feed Industry Association and Vice President of the European Association (FEFAC).

Right at the end is **François d'Hauteville** who comes from the Ecole Nationale Supérieure Agronomique of Montpellier and François' interest is in Agrofood marketing and he is a member of the department there and involved in teaching and research in consumer behavior quality signals and retails strategies.

So you see from this group that we have a wide variation. Now the idea is that Malla and Maurice will talk for 10 minutes each strictly. At the end of that, each of the other four people will give their personal views and the views of the part of the food chain that they represent, the industries that they represent. And they will be talking for five minutes.

Maurice Bichard

In my rejection of the proposition that animal production has taken a fundamentally wrong direction in the past 50 years, I would like to make the following points.

The outbreaks of animal diseases in the past 12 months are only the latest in a much longer series of scares or real problems, in the food chain that

have seriously disturbed consumers. You can read the list below of scares or tragedies that we have had in the past few years, namely in the UK. Notice that only a few of them are diseases, the first few-but also all of them have caused a temporary or permanent harm to the consumption or image of animal products in Britain and so the image of animal farmers and scientists has suffered:

BSE and nvCJD
Foot and mouth
Salmonella in eggs, poultry and pigs
Swine fever
Hormones in beef and veal
BST for milk production
PST for pigmeat
Transgenic pigs
Leg problems in broilers
GM feed ingredients

Salmon farming: chemical control of parasites, escape and wild populations
Effluent spills into the sea (salmon) and streams
Use of slaughterhouse waste in animal feed
Mechanically recovered meat in food products
Confinement conditions for poultry, pigs and calves
Stunning practices in abattoirs
Livestock transport conditions

As a background, I suggest we note the following points:

- The major proportion of the population is now urban, better-educated, and increasingly distant from any connection with animal production
- Second, food for almost everyone is plentiful and relatively much cheaper than it was historically
- Third, most animal products in most Western countries are today produced by apparently industrial processes or at least produced on a large scale.
- Fourth, the media particularly television, and our daily newspapers have become heavily involved in these matters.
- Finally, there is a widespread perception that farmers in fact grow rich relative to the general population, on subsidies. The reality of course is that thousands give up the struggle every year.

My analysis is that animal production systems and their supporting technology have developed in order to provide the food chain with what producers believed was wanted:

- High on this list of course has been low price, relative to average disposable income and producers have been hugely successful. Plentiful and cheap food, together with medical advances, has meant that our populations live better, stay healthier and survive for much longer than they did 50 years ago.
- But of course producers and their supporting science and technology systems can respond in many other ways beside cost reductions, and they have done so. We can think of many examples: reduced fat level in meat, more breast meat in poultry, heavier or lighter carcasses in our production systems, changing the colour of eggs or skins on poultry to suit the what the consumer wants, free-range poultry and pig meat and so on.

But in order to make these changes, producers need clear signals.

Looking at this list of incidents... If we exclude the disease outbreaks, I would argue that most of the other problems have arisen because of the employment of new technology as a means of reducing production costs. But the situation today is that some customers, in these affluent countries, are now looking more closely at production systems and deciding that they do not wish to accept some of our practices. In their judgement, the risks to their own health, to the suffering of the food animals or harm to the environment are no longer tolerable, hence the upsets.

The difficulty here of course -and we have some inkling of it this morning in a paper from David Croston in the first session- the difficulty here is that even in an affluent country, consumers vary in the importance given to price versus their view of quality. In the value they place on animal welfare or environmental harm, and in the risk they perceive to themselves in using any products, they vary.

We should be careful not to accept that the media, the articulate consumer or even the opinion survey of prompted questions will always be good predictors of the decisions most people will take when they fill their supermarket trolley. And that is obviously a problem.

Turning now to the serious disease outbreaks, these are of several different sorts. Foot and mouth and swine fever were accidental infections which have no direct implications for human health. Nevertheless, the eradication procedures have caused distress to consumers and, in the ongoing foot and mouth disease in the UK, are also causing financial loss to many other sectors in the economy; much greater than those borne by animal production.

Malla Hovi

I suppose that I am going to carry on directly from where Maurice left it.

Initially when I was asked to participate in this meeting and claim that most of the recent health

And maybe this is the first time that this has happened where we have a direct economic conflict between sectors of the rural economy, which is getting a lot of press back in Britain.

Salmonella, on the other hand, is one of a group of diseases that have long been endemic in livestock but have well known and potential serious effects on humans (zoonosis). BSE is another, but initially we didn't know that it could cause a zoonosis.

From this analysis, I would concede that perhaps in all cases their spread and continuing existence in farm livestock and maybe even their transmission to humans, has been made more likely by aspects of our production systems, or those in the processing industries which have been developed as cost saving strategies. So, I would even say that the disease outbreaks have been helped by that.

I conclude that the successive scares and real problems, even tragedies, connected with our animal production industries in the recent years must be taken seriously by producers and scientists. But there is not evidence that our production systems are no longer sustainable. They do not prove that the application of science has been a wrong direction for the past 50 years. And pressure groups which reject cost-saving technology must remember that our livestock industries are not operating in isolated islands- not even in the UK – though we may be physically an island. Our governments are committed to free trade and that will mean that consumers will continue to have the choice of buying animal products from around the world. Many of those exporting countries will have strong competitive advantages and our farmers will only survive if they continue to regard cost reduction as one of their important goals.

scares in the livestock industries in the UK were caused by intensification and industrialisation of livestock production, I rejected the idea and felt I was not going to be the sacrificial lamb put in front of all of you. But I took up the challenge,

partly because I felt that there was a need to take the blame away from the pressuring need for cheap livestock production. I don't think that it is an actuality in Europe in many cases anymore. I also felt that there were certain aspects of industrial livestock production that had quite clearly contributed to the recent animal health crises –whether you call them scares or real crisis- that we have had in Europe.

So I took up the challenge. Basically what I am going to claim here that the producers and scientists that have helped them have actually not been that successful in reducing the price of food. The price on the shelves in the shops might be low but the real price of producing food -in an intensive that way has not been included. The livestock producers and the livestock industry have been very successful in externalising a lot of its costs.

I would like to really start with BSE because it provides a good platform and a good example for most of these problems.

In order to rationalise and intensify production, we have increasingly gone away from land based production and created long and not so transparent feed chains. These feed chains obviously contributed to the creation of BSE –as we all know by now.

Another important feature of the long and not so transparent feed chains, is the need to cut down costs because of the added costs created by transport and the added costs of capital investment in the feed production systems. If we are to believe the most plausible explanation for the origins of the BSE, we know that chain rationalisation within the rendering industry was behind the epidemic, at least partially.

A third feature of this large feed industry system is that it is very difficult to stop things from happening once they started happening. The system has the ability to spread disease far wider than land based livestock industries, and this is exactly what happened with BSE. We were still spreading the disease within the feed industry in the early '90s, when it was quite clear – at least for us in the UK – that ruminant protein was spreading the disease.

My first claim would therefore be that when livestock feed production is intensified, centralised and industrialised, in the manner that results in long feed chains and poor transparency in these chains, we are bound to see similar incidents happening again. One can conclude that BSE wasn't an accident. It was rather an accident waiting to happen. And as we know now in the UK from the lengthy BSE public enquiry, into the BSE we know that warning signs were all there and actual warnings were expressed as early as in the 1970's.

Another feature of rationalisation and intensification of livestock production is the way in which we attempt to ignore the true nature of the livestock species we have domesticated and as a result lead to poor animal welfare and zoonotic problems.

Again BSE is a good example of this. We all know that our attempts to intensify milk production by feeding ruminant proteins back to ruminants was behind the emergency of BSE.

Ruminants are perhaps not the best example of our attempts to ignore the livestock's real nature. I am sure we can find better examples of this within the monogastric livestock industry. For example, our attempts to make mammalian monogastric pigs into early solid feeders has caused a lot of problems within the industry. They have attempted to solve those problems more or less successfully by formulating complicated weener diets and including routine antibiotics into these diets.

Another example is easily found in the poultry industry where we have significantly increased the growth rates in table birds and have ended up with a system where 90% of table birds suffer from leg problems at slaughter weight.

A third example... We have systems of poultry that are heavily dependent on high bio security and antibiotics inclusion in the feed to promote growth and we have created a system where the birds are virtually incapable of establishing natural gut flora. As an example for the last 30 years, salmonella has dominated the gut flora of poultry. Now that industry has finally taken issue with salmonella *Campylobacter* has taken up this ecological niche.

I would also like to take up an issue that was not on Maurice's list: I am talking about the emerging problems of drug resistance both in the anti-parasitic and anti-microbial drugs.

Intensive agricultural production is extremely dependent on using these drugs to be able to maintain the high stocking levels and infection risk prevalent in extremely intensive systems. We are all aware of the fact that most anti-parasitic drugs at the moment do suffer from resistance problems and no truly new parasitic drugs have been developed in the past ten years, with very little hope of being developed either. The industry is having to resort more and more to the strategic control of parasites and this usually means lower stocking rates and in ruminant system in particular mixing the livestock production systems.

The significance of antibiotics use in production of animals has quite clearly been recognised by the EU Scientific Veterinary Committee and by WHO. I don't think we need to dispute that here. The only thing we can say is that it is hardly sustainable to have livestock industry that routinely uses antibiotics as input and contributes to the environmental pollution of anti-microbial

resistance when human doctors are already talking about post antibiotic area.

So, my third claim is that in the absence of these support pillars of anti-microbial and anti-parasitic drugs, industrial livestock production is not sustainable in its present form.

In conclusion, as Maurice focused very much on the reasons behind this intensification production system, I would also like to say something about the social aspects. Obviously the producers, and the science and the industry have not resorted to these systems in order to make it unsustainable. Demand for cheap food has always been seen as the culprit. We always wash our hands – the consumer wants cheap food and that is what we are delivering.

I think that the situation is however changing very rapidly. Both the consumers and the policy makers are recognising that cheap food comes at a price and that price is much higher than the one we see on the supermarket shelves. I think that the livestock scientists will have to come face to face with that fact as well.

Cledwyn Thomas

Well we have heard two different views really of the causes of these crises and the outlook for the future and what I want to bring into the debate now is some of our other colleagues; and first of all I want to ask Peter Horn to give his views, Peter obviously comes from the basis of an evolving and restructuring economy. They are adapting to EU rules and here there maybe completely difference perspective of the way these food crises evolve.

Peter Horn

We have heard two very distinct and different views, but I think we could have heard even also much more divergent ones.

As representing one country which may be placed in the 70 richest countries of the 200 in the world, we have to consider that most countries who speak against – too much against – mass produc-

tion of animal products are countries where people spend approximately between 12 and 18% - of their earnings on food; but in our groups of countries which still belong to the semi-rich countries, we spend 35/38% average. That means that a large part of the Hungarian population has to spend even a higher percentage to get their food – not speaking of 130 countries which have to spend much more per capita.

So the pressure to get the food necessary in quantity and quality will stay a very strong one. It will be even enhanced by the very dramatic increase and increasing share of the supermarkets which put another big pressure on food prices and production. In Hungary the market share of the supermarkets exceeds 50%. Liberalised trade which is inevitable, will be the third factor and even stronger in the future than at present to keep the prices down.

If I would be our State President, I would separate livestock production into 2 distinct branches. A large proportion belongs to that group producing animal products which we need in very large quantity and in very good quality to maintain the population's good health.

In the first group milk, table eggs and poultry meat production are the main animal production sectors. In these cases, because our own population needs a large quantity of good products, we cannot circumvent being very efficient in the production process. If we are not efficient then imports will immediately take over our home markets, which is already happening to a large extent. This we cannot afford to do as a

potentially good and efficient food producer, and we could not afford to import a large part of this high quality mass food.

The second animal production group is completely different. Here we have a much bigger freedom in choosing environmental friendly or welfare oriented strategies because these serve niche markets, and can serve also ecological, touristic and other purposes as animal breeding structures and systems. In this case, I could list the beef and sheep production, game farming, goose, rabbit and horse breeding including horse meat production.

So my philosophy allows both ways animal production. Although I stress again that in many countries a large proportion of the population will not be able to purchase high quality mass products (milk, eggs, poultry meat) at significantly higher prices.

Therefore to ensure a healthy diet – sufficient animal protein intake – animal agriculture has to remain competitive, and will face strong price pressures.

Martin Tielen

I am not a pessimist like the debaters who have presented their view, because I believe that when should I make a list, a black list like the list from Mr. Richard, 35 years ago when I started in animal production, that list would have been much longer and much more worrying.

So I believe that in the animal production, the health of the animal is better than ever before. We have a clear decrease of the use of drugs in individual farms in a normal situations. Because of the better management, because of the better housing systems and so on.

We have only a problem with epidemic diseases and that is our own choice. That is the choice we made in our European Union for the non-vaccination policy because a lot of these diseases can be prevented by vaccination by the presence of very good vaccines.

We have an animal production with a welfare status that is better than ever before. Welfare that has clearly increased by the EU regulations, been increased by the improvement in housing and management systems.

Thirdly, we have a quality of animal products that is better than ever before. Especially in relation to food safety we have never such a high quality of animal products. But we have a consumer's perception of animal production that is worse than ever before and that is our problem. Our problem is that we couldn't make clear to our producers that our products have high quality and we couldn't show a transparency and a traceability of our product and that is the experience of the past years that due to this lack of transparency and traceability, we are connected with some clear crisis. Crisis in relation to the food safety of animal products and that is the way that we have to manage the animal production in Europe in the future. We have to take care of transparency and

traceability. We have to take care of certificated animal production. That means that animal production has to take place in integrated production systems based on good enterprise and practice and based on health subsistence systems in all phases of the production, including the primary production on the farm. Health subsistence that makes clear the critical control points, that makes clear by administration what is going on in the process and the production and that makes it possible to trace all the products from table to stable. That is one of the most importance things that we have to do to gain and gain the confidence of the consumer.

I agree with Peter Horn, that we will have a commodity market and a quality market; and a commodity market that will focus on all the consumers needs and production on a low cost price. And we have to take care especially that

commodity market guarantees a good food safety - but only a good food safety. All other quality aspects are extra and the consumer has to be prepared to pay for that extra. And when the consumer is not prepared to do that then it is not possible to produce that kind of product.

That means we will have changes in Europe and in the animal production systems. We will have still a commodity market production, but part of that market will move to other parts of the world where there are cheap possibilities to produce animal product for the commodity market and we in Europe will focus on the quality market with high quality standards with extras that will be paid by the consumers themselves.

That is my vision about the future.

Patrick Coelenbier

I just give some idea about the rendering industry and just say that the diseases outlined by Maurice Richard in his proposal (BSE, foot and mouth disease) and the accidents like dioxin introduction of contaminant in the food chain provoked a very big emotion in the rendering industry and a very big change.

Before 1996, we were collecting and processing 16.5 million tons of animal by-products, one third of the total production in the world. And those products were valorised in the food chain and in different applications, industrial applications.

After 1996, we had to change our policy due to the fact that in some countries like the UK, Portugal, France, and more recently other countries, developed new strategies concerning the rendering industry and particularly concerning the programme to fight against BSE contamination. This programme rests on three different principles:

- First: the guarantee of the safety of the origin of animal by-products. All foreign stocks, all specified waste material coming for the food chain has to be removed and incinerated.

- Second: the guarantee of the processing of mammalian animal by-products. Since 1997 we have to sterilise at a pressure at 133 at 20 minutes/bars all products from the food chain. Then guarantee the use of animal products, - you remember most probably a ban in cattle since 1990 - in main countries and European levels since 1994, but you probably know also that since the 5 December 2000 we have a ban in poultry and pigs of all types of animal protein..
- Then guarantee the use of animal products, - you remember most probably a ban on cattle materials since 1990- in main countries and European levels since 1994, but probably know also that since the 5 December 2000 we have a ban in poultry and pigs of all types of animal protein.

The main consequence is the necessity to incinerate of 3.6 million tons a year, each year on a European level. The capacity of incineration today represents on a year 2.4 million. So we have a lack, a loss of nearly 1.2 million. Today, just for your information, we are storing 1.5 million tons of meat and bone meal in EU countries. So from 100% of products we valorised in 1996, now we valorised 35 to 40% of this total: 60 to 65% have

to be incinerated. We can consider that it is somewhat a valorisation – energetical valorisation.

But what is the future of our products?

First we have to guarantee the safety of animal products which we are still valorising. We can distinguish two types of products what we call the non food grade products which come from foreign stocks and SRM which have to be processed in dedicated factories and transported in dedicated lorries. What is done now in some countries and what will be done probably in main countries of EU. Then the food grade products or food grade origin products that are still valorised essentially from pig or poultry by-products and which have to be processed in dedicated factories.

In the next future, we have two solutions: or maintain the ban in animal production of those animal protein or perhaps imagine a possible comeback of such animal protein in specific conditions. It means specific type of protein for specific animals. It means for example, poultry protein for pig or pig protein for poultry. Or maintain the ban and develop a new strategy for energy sources as a substitute for fuel like it is done in some countries today.

François d'Hauteville

The first comment I would like to make is that there is no such thing as the “customer”. As you know, the average customer does not really exist and it is a pity because our jobs would be much more simple.

What we experience is that we have very different customers, that the market is very segmented, with a lot of different groups and this is the reason why it is necessary to differentiate marketing policies – we call this segmenting the market. One difficulty is to find what is common to these consumers. I think we could find two points that consumers have in common in our industrial countries. First I think they have first in common the culture of choice. The second is the culture of low price food paid at retail level.

In conclusion, I should say, as Malla said, the meat chain will have to include all those extra cost, which represent a very high charge on a European level and in some countries. You must not forget the farmer does not support the full charge of this incineration; does not support also some other charge like the identification of BSE in the abattoir and so on.

In a few months and in a few years, it will change on a European level. This is a challenge for the renderers, but I should just add that the challenge of the renderers is not alone; they are also all the actors of the big chain who have their own challenge. The farmers through market adapted production system - we are collecting products coming from the farms - Slaughterhouse through the traceability of the meat and the traceability of the products we collect in the slaughterhouse. Retailers through food transparency on quality and price and origin of the product. Media through good information which has not been the case during the last five years, and the public authority through a good control of food safety and a good education of people on nutrition.

The culture of choice

From a “customer” point of view, I have no opinion on the two arguments sustained by Maurice Bichard and Malla Hovi, because from this consumer’s point of view, both of them may be true or at least acceptable. This is part of the problem related to choice – as I said before : if the consumer wants to make a choice, he has to be informed. Now information today is in crisis, because normally information should be clear for the public and provide one sided signals. But it is not the case, information is not clear at all. The consumer is asking for “transparency”: it is a very important word in France, “transparency”... But people don’t realise that transparency implies that you should introduce complex subjects with professionals and consumers when problems arise,

when scientists are not yet sure of their conclusions, and then you are confusing in facts the topics when you are trying to make them “transparent”. Consumers have yet to discover that choice may imply responsibilities...

So, we may be going in the wrong way with this objective of transparency, as long as the customer is not able to accept complexity and relative information (as opposed to absolute truth). For instance, sociologists tell us for instance that consumers are not able to reason in terms of statistics or probabilities... So, if you only say there are only ten people dead (compared to thousands elsewhere) – if uncle Joe is dead of eating beef, it is as if one million people are dead.

Therefore one of the problems we have to face is : “how can we inform people clearly” and is this at all feasible ? I think in this respect, big retail chains will take a lot of power in this exercise because they can concentrate much of the information available in the supply chain, and because there is a generalised distrust towards traditional sources (politicians and scientists).

The culture of low price.

he second point which I think is common to customers is the habit of paying low price for food. Now people are not always conscious nor ready to pay for external costs that are generated by all these production problems that they are discovering in the medias. They do not feel responsible for it anyways. They agree to take the

Maurice Bichard

As I said, I don’t see the need for drastic and fundamental changes in our approach.

For those problems which don’t involve a clearly infectious disease then we need to recognise that some proportion of consumers will object to the use of certain technologies. All of these situations ought to be identified in advance by continuous dialogue with consumers. We have got to listen more... We have to encourage discussion... And as we have been saying from several places, we

advantages of such a situation, but does not want to consider the disadvantages. Most customers are only ready to pay for attributes of the product that goes towards his personal satisfaction, like taste, better service, or better images of themselves. But they are much more reluctant to pay more for collective advantages. So this means that the consumption which used to be exclusively in the personal sphere in the past, is coming very strongly in the public sphere, under the form of increasing demand for public policies in order to solve the problems. The costs then would be paid by the citizens....

To conclude, the fact is that most people are very enthusiastic about the idea of an alternative agriculture. Most customers would like to see animals treated “humanly”, and they project human feelings in the way things are done. But if they want to be consistent and see things change, it would require on their part an effort to understand what is going on in agriculture, get more information on these alternative policies, in other words get closer of production in order to decrease the gap between them and the world of production. This takes time and efforts, and I am not sure that consumers today are ready to do that.

Based on that, I am quite pessimist on the success of alternative agriculture, in spite of the fact that there is a big demand for stronger relationship between consumer and producers. The major challenge for me seems to be to provide adequate information to customers that are understood and accepted.

have got to provide better information on what we do and why we do it. And don’t let us underestimate the challenge of that.

We are not going to get clear and simple answers. The last speaker emphasised the segmentation of the market and we don’t need to explain on that. Of course the consequences of going along with the consumers, as my colleague here said, of forgoing the use of some existing or some new technology, is a price differential and surely it’s got to be up to the market to decide

what proportion should be produced at the higher price just as it does today already for free range eggs, “Label rouge” poultry or organic milk. The market will decide this. But of course, the situation is not remaining constant in our definition of what is standard production and the way they are produced. There is a question of the degree to which producers have been allowed to externalise costs – but if you talk to a pig producer about how much extra expenditure he’s had in the last 15 years to avoid water pollution, to avoid this that and the other, he would have a hollow laugh about putting all the cost on other people... And of course, as a colleague on this side said the standards are going to be changed in terms of what society will allow in terms of feed additives for example, so that the base line against which we compare things is going to change. Where the problems do concern specific diseases, we certainly must expect to have new outbreaks or new diseases in fact. We now surely have to review our production systems and try to reduce the risks of introduction - both to the country and to the farm – and of spread when they have come. Better biosecurity is quite clearly going to be one of the consequences of the current foot and mouth disease in Britain. Perhaps pig and poultry producers may have something to teach cattle and sheep farmers but there is no doubt any mention of 20 day rules (presenting further no import when once you have brought animals in) is currently producing a real squeal amongst our beef and sheep producers.

We’ve also got to continue to devise methods of eliminating or controlling more of today’s common farm pathogens, which can or are suspected to cause human illness.

I don’t intend to elaborate here. All of us in the animal industry know that there are nasty bugs around that have the potential to cause scares which have not yet been on my list, and that is not a very pleasant thought. Surely the enormous costs of this series of recent outbreaks are going to put into perspective how much effort and cost we ought to be putting into eliminating some of those which are still there.

For those diseases that are likely to be reintroduced, we obviously need to address the whole question of how to be more effective in preventing this or in diagnosing or controlling them more quickly at less cost to the economy and with less distress to the public. And I might say less disturbance to other parts of the rural economy like rural tourism and industry. And even, our national airline British Airways is talking about reduced profit blamed on foot and mouth in the last two quarters. We’ve got to realise that there are costs and do something about them.

What consequence does it have for future research and technology development? To the extent that basic research is the pursuit of knowledge then we wouldn’t expect to have any change except we should put even more emphasis on understanding how diseases spread and how they might be controlled. - my colleague here will not disagree with that.

But let’s be honest most research and technology development by agricultural scientists is concerned with the application of basic scientific knowledge to achieve specific objectives within economic production systems. That’s what most of us do. We admit we have a catalogue of scares and real problems caused by our cost saving technologies, or their rejections by some of the public. Therefore, before we commit future public or private funds to develop new technology, it would surely be sensible to encourage much more debate on its likely acceptability to tomorrow’s affluent consumers.

Our production systems will continue to evolve to utilise resources more efficiently, to give cost savings, and to conform to the changing demands of the consumer and the other sectors of the food industry. But this will surely be a continuing evolution, not by a revolution taking us backwards or forward to some fundamentally different order.

Malla Hovi

Maurice really summed it up very well and I tend to agree with most of the things he said.

I would however perhaps go in the more utopian direction and challenge most of the other speakers who spoke after I did. Everybody seems to refer to more transparency, more traceability and more taking into consideration what the consumer wants... Might be a very difficult task... All this will cost money and that will be an external cost to the cheap food.

I don't think that we are primarily looking for cheap production of food in Europe.

Because of that, I think that animal scientists should see this moment in time as a great opportunity to optimise livestock production on other basis than just economics. I think economists – whilst I work with them everyday – I think we should displace the economists from the position where they always determine whether something is feasible or not. We should be able to optimise, create optimal livestock production system that equally consider animal welfare, what consumers want, environment damage and quality

of food and to reach a point where the livestock production science goes towards a more multidisciplinary approach. An approach where multidisciplinary does not just mean working together with an economist which even in the veterinary field often signifies: “*You have an economist in the team? Ok, we are multidisciplinary!*”. Animal scientists and veterinary scientists needs to get together. Animal scientists and policy makers need to get together. The multidisciplinary has to become something more than just economics.

The research also has to be more participatory. Animal scientists said, 5/10 years ago, “It is not possible to produce organic milk, you will have too many problems”. Organic farmers have had to prove themselves that they can achieve reasonable yields and they can have healthy animals under organic management. Farmers had to take the lead as scientists refused to do help. And, as a personal wish and a final comment, I would like to see the livestock science concentrate on creating production systems with real, genuine animal welfare.

Cledwin Thomas

Now, it is your turn of the audience to contribute. You have heard the various views of the people on the panel. The challenge that we have been set really is to look into the future, to ensure the future of the livestock sector in the light of recent crisis in Europe. Now you have all heard an analysis of the past. What I want you to do is concentrate on the future. We don't want to dig up any more problems; what we need is solutions. So what I want to try and do is move it to a positive element, consider what we need to do to our livestock production systems to minimise the impact of future crisis.

Discussion

Reinhard Burger,

President of the German Association of Animal Breeders, member of the European Parliament.

I fully agree generally speaking that we are producing the highest quality and most healthy product we ever could offer. On the other side I must say that concerning the crisis, some people

and politicians thought that BSE and foot and mouth disease crisis was a sort of turning point for modern systems and we should rationalise agriculture and food production. But this is not the

truth. The truth is laid down in the report of the Enquiry Committee of the Assemblée Nationale in France, European Parliament and of the Philips Commission which says quite clearly that BSE has nothing to do with the crisis of modern agriculture... It has to do with lack of responsibility of institutions, lack of control, bad management and huge errors which allow low standards in recycling as meat and bone meal. What was the big error made by most institutions (and we discussed it this morning in the working group) that having made such errors, such faults, you shouldn't defend these faults over years. And so, we were falling down within the last months in this very very big crisis. So we have to learn this lesson, that of course control is necessary to

John Hodges

Editor of EAAP News

I just like to make the point that as we look into the future, what we really need is balance. I think we need to be aware of looking back over the past and apologising for it and saying that we can no longer continue in the same way but on the other hand we have to go into the future with greater humility, recognising that science and the application of science doesn't know everything. Looking back for a moment as a scientist who's worked in agriculture for the last 45 years, I am very proud of what we have done and what has resulted in Europe... the higher standard of living, cheaper food, better quality food reduction in famine and animal health problems disappearing. On the other hand, we do face new problems which Maurice has raised and I would like to mention the BSE incident as a major one which we as scientists need to face.

The British Government set up not only the Philips Commission, but it also set up the Horn Commission, chaired by Prof. Horn who is the Professor of zoology at Cambridge University and they reported just last month. Their report has been presented to the British Parliament and is now in the public domain on the web.

They are a very eminent group of scientists who have studied very closely BSE and Creutzfeldt-Jakob disease and they have made some precise conclusions about the state of knowledge – scientific knowledge – and the first thing is they say is “*We do not know the original cause of BSE!*”. That is a major statement for us, as scientists to face that we still do not know the major cause of BSE.

guarantee high standards but on the other side we shouldn't we mustn't neglect the competitiveness of the sector. And speaking frankly, it is quite clear that maximum 10 or 15% of the consumers in reality are ready to pay higher prices. And one last sentence please: learning from the lessons of the past foot and mouth, I fear if we do not develop a new strategy to fight animal diseases as foot and mouth based on those discussions of the OIE and of the scientific committee of animal welfare and animal health from March 1999, we will create generations of vegetarians. So we need a new intelligent strategy on European and international level, otherwise we can forget all the details we are discussing here on the scientific and political level.

The second point they make is that meat and bone meal certainly was the vector which caused it to be spread and multiply and undoubtedly they said there were several cycles of BSE in the 1970's before it was ever recognised.

The third thing they point out is that no commercial rendering process is able to destroy abhorrent prions, regardless of whether the process is one that preceded or followed the changes that were made in the rendering industry. Now these are important pieces of information and observations, and I think that it is important for us as animal scientists to recognise that although we have had great success in the past, we don't have all the questions answered for the future and we need therefore to have a very careful balance as we move into the future, that we have a more humble attitude and recognise that things need to go perhaps a little more slowly that we as scientists would like to see them go.

So I am really saying that within EAAP, we really need to represent to society at large - and not merely to livestock farmers - a balance approach which recognises that there are many different stakeholders who have to be listened to and not to be pushed over the edge by consumers surveys. Consumers themselves are often the victims of the media and we really need to go carefully based upon transparency and accountability recognising that knowledge is not always complete and where it isn't complete we need to be cautious. So it is a call really that we as an organisation and as scientists should provide a balance rather than an hysterical approach to the issue.

Akke van der Zijpp
Wageningen University

Thank you panel members for your explanations however it is still very apparent that there is a large extent of justification and explanation in what you have presented. I wish we could look more forward to the future in terms of the resources that we want to utilise like water, soil animal, human health etc., and start to design animal production systems that will serve those future resources that we will need for future gene-

Thomas Banhazi
Australia

Talking a little bit as an outsider obviously, although I do have contacts with Europe, I wanted to raise two practical quick issues. One I agree with Martin Tielen that the whole environment for animal production is probably much better than we had in the past. However, my gut feeling is that the second speaker was quite right in pointing out that we do not internalise a lot of external costs and when we try to achieve this, we basically expect producers to carry the burden which is quite unfair. So maybe not just a scientific advance needed but maybe some political decision to basically force production systems to carry this external cost into internal pricing. And I think that relates to some extent to Prof. Horn who mentioned that in some countries

David Croston
Meat and Livestock Commission, UK

I just like to make one or two comments about the position about externalisation of some of the costs. We have to be careful looking at cost, which directly influence the industry and those external ones that Maurice alluded to the British Airways example. Certainly with the BSE crisis in the United Kingdom, there was a huge transfer of costs from rendering from a positive to a negative in the abattoir sector, and as a result, we are monitoring the differences between producer prices and retail prices right through the '90s and it started with beef and it has now passed on to lamb and also pig meat. That gap between those two prices, the farmers' price and the retail price has got on wider and wider and wider... and the fact is that as primary producers, British farmers always get hammered and have to pick up all the costs at the end of the day. The price is taken into

rations and ourselves. And from that point of view, it worries me that in the things that you presented there is quite a lot of bureaucracy involved. I think it increases the complexity and I am not very sure how we will ever get to the situation which I think would be ideal where our consumers are paying, not only for the product, - with all its attributes -, are also paying for the regulations and are also paying for whatever EU subsidies are left.

that the production costs are quite high. But again, it would be good to have a look at what is the actual production costs and what is the additional transport retail costs which is usually quite high in a lot of countries and again it is quite unfairly disadvantaging producers in terms of getting money for their products. Another quick point... I wanted to say that in a lot of the new production systems there are many opposing demands in terms of what do we value. Some free range egg production for example create a lot of pollution costs. We see that welfare is improved but pollution, occupation, health and safety problems can increase. What do we value within these improvements needs to be evaluated and assessed.

account at the negotiation transaction phase between the farmer and the person who he sells on to. So that is the first point. The second thing I would like to make is, yes, I do believe we can get a proportion of the community consumers to pay more for certain additional schemes like organic, etc. and that does rely on clear communication, clear understanding of consumer needs and recognising the sector or the target audiences we are talking to. And so it is concerning that just saying that everything is externalised and we are covering all these costs is quite high, some we are and some we're not, but at the end of the day producers are always hit hardest because all those costs that have been loaded on for BSE are being passed back to the primary producer.

Eugene Wagner
Luxembourg

I think we are here on a quite elective circle. At least, most of us coming from rich countries and my predecessor is coming from Australia. Akke, she had a lot of experience from other countries... I don't know if we are living really here in a circle or if we have to look at other countries. EAAP is getting larger and larger, and the rich countries are in France, Germany, Luxembourg, ...England. I think that there will be other countries and then we have a lot of work to do for those countries. There is a World

Association of Animal Production, but the world association is not resolving all the problems. We are speaking on BSE in UK or in Germany or in Luxembourg or in France. I know there are big problems for the farmers but, to my opinion, we have to face to the consequences of the extension of European Union, and to the increasing participation of developing countries in world trade -when we are looking at the TV pictures you see what is happening in other countries like India, like all the African countries.

Conclusion

Cledwyn Thomas

We don't live in isolation any more, we live – I know you hear these words all the time – we live in a global market. We have countries increasingly from all over the world now who are able to supply the European market and some countries can do this at lower costs than we can. We are not alone anymore. We continue to face the challenges from outside. We have new products coming in. At the same time, we have challenges in terms of diseases coming in as well. So inevitably in the future, our livestock production systems will face greater challenges, and so merely to do nothing I think will be courting disaster.

It was very interesting what I think David Croston said this morning, a lesson that if something goes wrong with the product – doesn't matter whether it is a car or meat or whatever it is- is that if you do nothing about it, you'll lose market share. If you do something about it, that you admit you made a mistake and then put it right and then show people that you've put it right then you will regain the market. So I think the challenge is to come out of this current phase and say: *“Right, yes, there have been mistakes, there have been errors as our friends from the European Parliament said but we now must put these right”*.

Can we continue to produce food from intensive animal production systems and will this food be safe? Will it be acceptable to the consumer? And also will it be cheap? My view is I don't think we can meet all those criteria. You may disagree with me. I think we have to think about changing our animal production systems. I think we have to consider one of the points that was made before that maybe in reality, our competitive edge in a world market is in terms of producing quality products. But whatever we do, we have to make sure in the future that we listen to consumers; that we try and reduce the chain lengths and if something does go wrong, we put it right.

Thank you for attending this meeting, I hope you found it useful, I hope it will encourage you to continue these debates within the various commissions within EAAP and put pressure on all the Commission Presidents to debate these issues in the future.