Major role to play in achieving EU animal health aims

IN June some 500 people were invited to Brussels to hear about the proposed new animal health law.

There has been extensive consultation and the law has been under development since 2004, with a strategy document published in 2007. The next stage is for the European Parliament to ratify the legislation and the detail is expected to be adopted in 2016. Veterinary surgeons are seen as major players in fulfilling the objectives.

So, what is it all about? The day before the conference I was invited to discuss some of the issues with the head of the animal health unit, Dr Alberto Laddomada. Google lists that he is a veterinary surgeon with a postgraduate interest in virology.

It is unlikely that he would wish to be called on to carry out a caesarean on a cow but if he was he may well question why the problem has arisen in the first place. The whole thrust that has arisen from nine years of work is that “prevention is better than cure” and this approach dictates all the changes to come.

Reducing cross-border risk
It is difficult to be sure of where direction from the Commission and the Parliament stops. In theory, each member state is responsible for disease control within its country’s borders but, as disease does not recognise borders, one country cannot put other member states at risk. In future, it is hoped that the risk of cross-border disease will be reduced.

In this context, the UK needs to be a good European and consider the whole of the EU. This involves not just the transfer of disease across borders but EU Ltd has a brand and a reputation to defend, so that a breakdown in the wholesomeness of the product can affect members whether a particular country has a problem or not.

There were a number of stands at the conference with interesting literature. The French Agricultural Research Centre for International Development (CIRAD) produced a handbook of over 100 pages on foot-and-mouth disease, which has been translated into English.

In an assessment of surveillance and risk the text reads, “An underestimation and misunderstanding of risks, and poorly applied surveillance measures are weaknesses that benefit the virus. The most striking example is the 2001 epizootic in Great Britain, which experts had considered to be a country facing a very low risk of foot-and-mouth disease due to the protection provided by being an island.

However, an inadequate supervision of farms and the feeding of pigs with insufficiently heated swill imported from Asia opened the door to the virus. The result was the massive slaughter of animals and economic losses estimated at nearly 13 billion euros.”

Copies of this handbook are available and comments on the content are requested via http://savoirpartages.cirad.fr/.

A single law
Some 400 items of legislation are to be streamlined into a single law. The aim is that the rules will be simpler and clearer so that authorities can focus on the key priorities of preventing and eradicating disease with a clarification of responsibilities for farms, veterinary surgeons and others dealing with animals.

New technologies are to be encouraged, including the surveillance of pathogens, electronic identification and the registration of animals.

The early detection and control of animal diseases is to be improved, including emerging diseases linked to climate change, and there will be more flexibility to adjust rules to local circumstances.

It would appear that the term “local” is an important point for future action. There is no definition whether “local” is a farm, parish, county or country, as that will be up to the directors of a member state to decide.

It is likely that local control will change with particular disease situations and level of understanding.

It is indicated that the categorisation and prioritisation of animal health measures will become increasingly relevant and important. Animal diseases are to be listed and categorised according to their level of risk by operating a systematic and scientific basis. The lower the risk, the fewer resources will be allocated for control and prevention.

“Compartmentalisation” is a term to pay attention to where a risk-based approach will indicate that some farms are considered safe even during disease outbreaks.

Big numbers
Available literature indicates that across the EU there are at least 2 billion birds (chickens, laying hens, turkeys, etc.), 334 million mammals (pigs, sheep, goats, cattle, fur animals, etc.) on 13.7 million animal holdings contributing a livestock farming output of €156 billion a year. There are 25 million food businesses operating along the agri-food chain.

As well as the four elements of the review package (animal health, plant health, plant reproductive material and official controls), a fifth proposal aims to establish a multi-annual programme for financing actions to ensure a high level of health for humans, animals and plants.

It is recognised that disease outbreaks can have significant impacts on food consumption and international trade in animals and animal products. Thus, animal disease directly impacts on EU competitiveness and job creation.

There were over 30 speakers at the conference with many comments on the scope and detail of the proposed laws.

Several speakers expressed concern over the introduction of fees.

Mandatory fees are to be collected from all registered food and feed businesses but micro-businesses will be exempt. The definition and registration of a micro-business may become important to farms and even large veterinary practices.

As all the costs are to be recovered by the EU, it was indicated that compliant operators should be rewarded when the final framework details are developed.

The director of veterinary and international affairs, Bernard Van Goeaam, urged delegates to view the website of the RASFF, ec.europa/rasff (Rapid Alert System for Food and Feed).

Barbara Logar from the European Commission emphasised the improvements expected in the tools available to offer an effective
Effective strategies for ‘large’ herds

THE 8th annual Large Herd Seminar, held in Gloucestershire, attracted over 300 delegates, including more than 60 veterinary surgeons and 150 dairy farmers along with consultants, advisers and representatives of commercial companies.

Over the two days there was a strong emphasis on cow health as the means to greater profitability. It was clearly laid out by Dr John Feltrow, professor of dairy production medicine at the University of Minnesota, who said that “Success in the dairy sector is all about profit, yet many dairymen see it in terms of cutting expenses. While cost control is critically important to profitability, any action based solely on that approach is doomed to failure.” Warwick Bastard of Lillico Attlee, who founded the Large Herd Seminar with Pentrith-based veterinary surgeon Richard Veequeary of the Evidence Based Veterinary Consultancy, said that “The high level of financial commitment now required to develop and maintain larger herds significantly increases the demands on owners and operators in terms of the standard of management and husbandry required. “It is essential that they operate effective strategies to meet the health, production and financial challenges which present when large herds enter the growth phase.”

Dr Gordon Jones is a veterinary surgeon based in Wisconsin who consults for dairy producers and veterinarians and has designed and operated large dairies. He showed information and insights from dairies with 7,000 and 16,000 cows.

Failure of transition period
Dr Jones said that in the US there has been a failure of the transition period and he highlighted a number of rules in dairying that have to be applied: cow comfort is first, forage is king, pregnancy rates mean that you keep cows and a dry cow programme stops early fresh cow losses.

To be avoided is too much: body condition, weight loss in the dry period, time in the dry pen, energy, too many lactations, twins/triplets, grain, overcrowding and excess soluble protein.

Also to be avoided is too little: body condition, weight gain, time in the dry pen, selenium, energy, dry matter intake, fibre, protein and magnesium.

Getting these elements right requires attention to detail. Many dairies have 4-6% displaced abomasums, he said, whereas less than 1% is achievable. Fibre should be as short as the width of a cow’s mouth, otherwise cows will sort the ration and individuals will achieve a different intake. There are three things that a cow should do, he stated: stand to eat and drink, stand to milk, and lie down.

Other gems included: “Dairying run as a business is a good way of life but a dairy run as a way of life is a bad business”; “There is a danger that a veterinary surgeon who is only looking at the abnormal makes the abnormal normal”; “Present food on exit from the milking parlour, then the cow goes to bed”; “How many times does a cow get to the milking parlour, then the cow goes to bed?”

Robin Hawkey (Mole Valley) with Arturo Gomez, Dr Gordon Jones and Mike Christian (Elanco).
I don’t care to have a consultant on the farm until I know that they care.”

Currently studying for a PhD in the US, Dr Arturo Gomez is a veterinary surgeon with an interest in lameness and digital dermatitis. Four stages of digital dermatitis are now recognised by researchers: a subclinical stage (M1) with lesions <20mm, an acute clinical stage (M2) with larger lesions, a healing stage (M3), a chronic stage (M4) and a chronic stage with subclinical lesions (M4.1). Detailed photographs and hoof measurements illustrated the various conditions.

Digital dermatitis causes conformation changes in the hoof but it is not clear whether those changes are sufficient to reduce cow performance; however, conformation changes increase the survival of treponemes. Heel horn erosion is increased in the presence of digital dermatitis.

Topical treatment
Early topical treatment is effective in acute cases to prevent chronically infected cows and footbathing prevents chronics developing from subclinical and clinical lesions. The length and depth of a footbath determine hoof coverage and the number of hoof dunks per cow as they walk through.

A step up into the bath of 25cm with a depth of 10cm and a length of 360cm has demonstrated effective chemical coverage. Footbaths should be managed on the amount of chronic lesions recorded.

Dr Greg Berthard speaks very rapidly. The slides direct the delegate to think in one direction and then the speaker challenges why those ideas were ever realistic in the first place. It is a very effective and entertaining way of giving a technical presentation.

Detailing the economics of replacements, a major factor is the value of the cull cow. Stating that the health of the herd determines the economics, a cow in hospital with a low value has a low worth to fix that cow with vet fees, etc; therefore, an increase in culling can improve herd profitability, provided replacements are available.

John Feltrow also considered culling and indicated that dairymen should look at cull rates in the herd rather than looking at which cows are culled. Following detailed examples, he concluded that the cost of keeping the wrong cow is nearly 50% more than the cost of replacing a forced cull with a new heifer.

It is important to be accurate and record the health status of culled cows as part of health management, he said.

Fatty liver disease
Glasgow University, Tim Geraghty and Lorenzo Viora teamed up with farmer David Hamilton to present the sad story of cow 28 and monitoring for a better future.

The 500-cow herd has a 305-day yield of 11,000 litres with an overall production of 6 million litres. There are six full-time milkers and one tractor driver who make up the management team.

The point was made that the staff become critical to performance success as the herd expands. The cell count has fallen to below 150,000 cells per ml, fertility is calculated with a submission rate of 52%, a conception rate of 39% and the herd has a pregnancy rate of 20% with heifers calving at 25 months. These figures are below target.

Lameness has improved with approximately 5% of the herd being classed as chronic or new cases.

The routine veterinary visit involves scanning and fresh cow checks followed by an hour of herd health discussion. This is comprehensive and addresses all the various factors relevant to herd health.

Fatty liver disease was the cause of the sad story of the death of cow 28. Following analysis and investigation, it...
Mastitis survey reveals a steady fall in cell counts

IT has become an institution that every year Andy Biggs delivers a state of the nation assessment of mastitis, from information volunteered by farmers in response to a questionnaire.

The data are gathered by MSD Animal Health and the numbers crunched, within the depths of the Vale Veterinary Group, into graphs and charts to illustrate the various elements.

As the information is viewed with a background in veterinary mastitis awareness, any obviously flawed responses are excluded. What is available is an overview drawn from over 6,000 responses from the five years 2009 to 2013.

There is a clear trend that herds with more cases of clinical mastitis have lower herd yields per cow. More than 80% of the farmers claim a clinical mastitis incidence of less than 50 cases per cow per year.

None of the herds in the 2013 responses with over 500 cows indicated that they treat more than 50 cases per cow per year. What appears to be an anomaly is that more herds with a low incidence of mastitis say that they never foremilk.

Andy speculates that if they are not foremilkling then fewer cases of mastitis will be detected. However, if they are not foremilkling then maybe they are not spreading bacteria from quarter to quarter before putting on the units. Pre-milkling hygiene without foremilkling is then an issue.

The in-depth analysis could go on and on but this is voluntary information there is a limit to the relevance of the minutiae to indicate good practice. Smaller herds have lower yields.

Higher cell count herds have lower yields and higher cell count herds have more cases of clinical mastitis. The general trend is a steady fall in cell counts.

Pre-dipping and spraying

A higher proportion of herds in the lower cell count bands pre-dip. Most herds (about 95%) are carrying out post-milking disinfection in some form or other. Lower cell count herds have a higher proportion of dippers than sprayers. It is apparent that the larger herds work their parlour harder with more milk produced per unit and per milk.

There is an issue with the correct time to change the milking machine liners. If 2,500 milkings per liner is the benchmark, then some herds are changing according to time rather than work done. This could be significant in terms of teat end damage and efficiency of milk extraction.

The questions relating to the use of therapy indicate that more farmers are treating cows with 4-6 tubes (i.e. off label). Extended therapy use, of 7-10 tubes, has reduced but those herds using extended therapy have lower cell counts as do herds applying combination treatments. The current use of therapy would appear to be an area worthy of deeper investigation.

The survey shows a higher proportion of herds with mid to late lactation clinical mastitis and herds with a higher incidence in the first 30 days of lactation never use teat sealant.

Overall, the use of dry cow therapy plus teat sealant is greater in herds with lower cell counts, with over 70% of herds in the lowest cell count group (up to 50,000 cells per ml) applying the products in all cows.

There is a relationship between winter bedding materials and the incidence of clinical mastitis and the herd cell count. More herds in the higher incidence groups utilise straw rather than sand or sawdust. Lime is the most common bedding conditioner.

A new question for 2013 was whether the farms had a dynamic milking test with 57% recording that they do. The significance of the use and efficiency of the milking machine related to increasing cow numbers, with cell count and mastitis incidence, is yet another area worthy of further investigation.

Full details of the 2013 National Mastitis Survey are available from MSD Animal Health.

Room for improvement in mastitis control strategies by dairy farmers

About 40% of UK dairy farmers still don’t use a teat seal at drying off. That statistic emerged from over 600 visitors to the Livestock Event last month who attended the Bovisic Quality Milk and Mastitis Workshop.

But results from the workshop showed that most farmers could expect to see a significant return from using a seal. Via a Mastitis Calculator available as part of the workshop, dairy farmers not currently using an internal teat seal at drying off could input their farm data to calculate the value of a seal. Some results showed a five-fold return on investment.

Pádraig Hyland, Bimeda’s head of technical services, said the workshop showed there’s more to be done to improve mastitis management. “The aim of the ‘drop in’ workshop was to look at mastitis on a farm by farm basis, but it also revealed some critical statistics. Less than a third of farmers change teat cup liners at the recommended intervals and a similar percentage fail to recognise the importance of post-dipping for contagious mastitis and cell count control,” he said.

“The workshop highlighted that improvements can be made in control strategies and even the application of a seal itself. Many dairy farmers are not aware of the need to squeeze the base of the teat during application to ensure that the seal remains within the teat canal.

“The data gathered at the workshop also showed that only about half routinely undertake California mastitis testing.”

From previous page was shown that cows fat at drying off have a greater risk of transition cow disease, that low-yielding cows have the greatest risk of being fat at drying off, that cows with the lowest genetic merit for milk have the highest risk of being fat at drying off.

To get ahead of the problem, the team is identifying low genetic merit cows and has introduced a planned culling programme.

Breeding programmes are to be flexible with consideration of milk production and genetic merit and heifers will be screened for genetic merit for production when selecting replacements. Bull selection now forms part of the veterinary visit discussions.

Data for mastitis control

James Breen of Quality Milk Management Services and Nick Tyler of Kingsplay Farming Company combined to demonstrate the use of data for mastitis control. The farm has a new rotary dairy for the 600 Holstein Friesian cows with 550 youngstock and followers.

From 70 to 90 animals per year are being lost to TB and the 305-day yield is 10,300 litres per cow. Data are inputted daily to the SUM-IT software database with milk recording results and sample analysis imported. Emphasis is placed not only on having quality, robust data but an understanding of the information allows all involved to have confidence in decision making.

In-depth analysis from 2006-07 formed the basis of ongoing monitoring and from the many charts and graphs produced the new infection rate has been shown to be more valuable than cell count data. Specifically, infections in early lactation arising during the dry period have been identified and addressed with teat sealant and dry cow antibiotic therapy.

The dry period new infection rate is still too high at 39%, new infections in lactation rise during the summer and changes to the milking routine and cubicle management are yet to show a reduction in infection.

Work is ongoing to extend the monitoring to other diseases of concern and bovines are tested to manage the risk, not to identify and shoot cows.

There was a comprehensive commercial exhibition and platinum sponsors of the event were Elanco and Zinpro. Further information is available at www.largeherds.com.