

Cattle Veterinarians Face the Future with Uncertainty

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The Harper Adams Agricultural College provided an appropriate setting for the British Cattle Veterinary Association Spring 1984 meeting. Its accessibility meant that well over a hundred members were able to attend. As always the meeting was a mixture of providing scientific information as well as good comradeship. The first major session concerned the liver and its anatomy, function and dysfunction were discussed by **Dr. Ian Reid**, (Compton). The organ has several functions to play in maintaining such as vascular, urinary blood, filtering out organisms; storage of vitamins and iron; bile secretion, detoxification and metabolism of carbohydrates, lipids and protein. Under the electron microscope there are three complete organelle systems, mitochondria for energy metabolism of cells, rough endoplasmic reticulum cells for protein synthesis and bile caniculi.

In cattle a high milk yield, over fat at calving and rapid weight loss after calving all predispose to a fatty liver syndrome. This condition was often associated with higher levels of metabolic disease such as hypocalcaemia, infections and infertility. However, there was no direct evidence of fatty liver causing the conditions. In the case of milk fever it was thought that it might be an indirect effect on blood magnesium levels which causes the problem; in the case of infections it might be a depression in the immune response or reduced ability to mobilise white cells and in the case of infertility, circulatory L.H. levels were depressed. This meant that fatty liver was a good indication as to whether or not the cow had adapted to the onset of metabolism. The condition could be detected either by liver biopsy or a complex formula using blood parameters such as non esterified fatty acids, glutamic oxaloacetic transaminase, and glucose.

The hepatic theme was continued by **Katrine J. Bazeley**, Bristol Veterinary School, who discussed bovine ketosis. She considered the condition was easy for the farmer to diagnose and if treatment was given early then a rapid response was seen. Subsequently many practitioners questioned the simplicity of diagnosing ketosis as it appeared to be changing and there were more cases of the nervous condition seen. Most economically important cases were considered by Mrs. Bazeley to be those which failed to respond to therapy, were treated too late, were overfat or ones which were treated successfully but relapsed when they returned to the same nutritional plane. The condition was one of energy deficiency with a build up of ketone bodies in the blood. Unresponsive cases could be divided into those of

starvation, high production or reduced appetite and these could be diagnosed by condition score, yield returns, the type of food supply and other clinical signs.

"Cattle and copper" was described by **Guy Yeoman**, Beecham Pharmaceuticals. Copper was used in many different forms and although the typical signs of copper deficiency were well known, most cases did not show these signs. Although at one time deficiency was considered regional, it was now widespread throughout England and Wales and was due to pasture improvement, increased stocking densities and more reliance on home produced feeds. Treatment was often with copper injections which needed to be slowly absorbed and so caused marked tissue reactions.

About 20 years ago Lassiter and Bell showed that copper oxide persisted in the alimentary tract. Oral copper usually lodged in the reticulo rumen where it was immobilised by thiomalybdenate, but oxidised copper wire tended to lodge in the abomasum. This observation was now being used in a method of treating copper deficiency with gelatin capsules containing 25 gm of copper oxide needles.

The second major session dealt with bull beef and **Alan Spedding**, Meat and Livestock Commissioner (MLC) first suggested that farms should not be advised to keep altering their beef system. It was best to concentrate on one system and this will then, over the long term, in MLC's experience, produce the most consistent margins. Bulls were reared instead of steers because they had improved daily weight gain, feed conversion efficiency and better slaughter weight. Bulls could be used in any system but the restrictions were considerable if grazing was undertaken. Recently silage fed bulls had produced large grass margins.

David Reid, Manager of National Agriculture Centre Beef Unit, continued the theme of bull beef and said there was considerable prejudice about bulls for instance some butchers were very worried about "boar taint"! One of the major meat problems was dark cutting of meat, but this could be overcome by ensuring animals were kept as quiet as possible, they were kept in the same groups as reared, not mixed with other bulls or heifers and they were not slaughtered soon after arrival at the abattoir. The haulier was also important in that it was often best to let him stay in the lorry otherwise the sight of the animals tended to result in flaying with sticks etc. Over 2,000 bulls had now been reared and of these 95% were of good temperament, 4.5% were "excessively playful" and only three bulls had been rogues. In Mr. Reid's experience the best thing to do was to

slaughter these immediately. The stockman's attitude was also important and he should keep calm.

Bull beef was produced at Harper Adams and **Nigel Dodman** discussed their experiences with it. They were fed on a rolled barley diet with 14% crude protein reducing to 12% after 250 kg. Although there were safety precautions for farmers and increasing awareness of the problems, there was no provision by ADAS or the Health and Safety Executive for regular inspection except for fire extinguishers and first aid. In addition beef buildings no longer get a grant for internal fixtures and so there were no inspections for subsidies and this in turn meant more responsibility being placed on the farmer. There was a safety code of practice for bulls which dealt with areas such as buildings, internal divisions, gates, ramps, lighting, grazing and warning notices.

The code of practice states various measures including bulls should be moved with the minimum interference whether for weighing, loading or whatever. The height of outside divisions and gates should be 1½ metre with the lower metre such that a six year old child cannot climb or project his head or body through the opening. Bars for feeding should be vertical and rubbing boards should be provided, not just for behavioural requirements but to protect the cattle when moving. The lighting should be at floor level. When grazing, the fences and gate must again be 1½ metres high and child proof and it is recommended that an electric fence be placed ½ metre inside.

Although a happy occasion, there was an underlying sense of unease at this BCVA meeting. Most was due to the problems likely to arise from the milk quota system and the BCVA president, **James Booth**, Milk Marketing Board (MMB) kindly provided some information on the subject which at that time was still not finalised. It was likely that quotas would start from 2nd April 1984 and continue for five years. The EEC quota of 97.2 m tonnes was to be divided among the members of the basis of 1981 output. In 1984-85 there would be a slightly larger quota but the co-responsibility allowance would be up by 1% to 0.525 pence per litre (ppl). At present the MMB were starting to break down quotas to on-farm quotas but it was not known if it would be a proportion of individual farm output based on 1981 or 1983. People overproducing would be subjected to a superlevy of 75% of the target price (17 ppl) equivalent to 13.1 ppl. Controls were also to be applied to direct sales. At present there were no details as to whether quotas would be transferred or were tied to the land. There is also the need for provision for special cases.

Mr. Booth said unresolved problems include the basis of allocation, amount of milk to be allocated to special cases. At present it seemed that most farmers would be reducing production by about 10 percent. The quota would be worked out on an annual basis and calculations to determine overproduction or not would be undertaken quarterly. The problem was that of a milk production level of 1981 plus 1 percent, 9,000 herds had increased production by more than

20 percent and some more than 50 percent. Also 2,234 new producers had started since 1981 and 4,371 had ceased production. It meant about 11,000 producers were special cases and must all be considered before an allocation can be made to each producer.

A fascinated audience then listened to **Chris Day**, Stanford-in-the-Vale discuss homeopathy. He said that he became interested in this "200-year-old medical heresy" following use on himself since 12 years old and now he used it in 95% of farm animal work. In large animal practice he used it less both to conform with his colleagues undertaking conventional therapy and because homeopathy worked best in chronic disease conditions. Hahneman started the discipline by observing that one of the few truly efficacious drugs was that of quinine in the use of malaria and it produced the signs of malaria when given to healthy people. Subsequently Hahneman produced 67 remedies including digitalis, sulphur, arsenic, nux vomica. Some of the substances were poisonous such as hemlock, snake venom or mercury. However the substances were used in extreme dilutions, some beyond the molecular dilution level. The product would be potentiated by shaking. Mr. Day went on to describe various trials he had undertaken with the products but as with much work in practice they had to be undertaken without controls. One trial with stillbirths using caulophyllum had resulted in fewer problems. A trial where all of a group of heifers had suffered dystokia resulted in less problems and some success was seen with mastitis and pneumonia problems.

Following discussion at a previous meeting the next session considered "Calves in Markets" and the NFU view was presented by **David Lloyd**, Chairman of the NFU Animal Health Committee. Eighteen years ago he had done a survey on calf mortality in Monmouthshire and at the time 2% were aborted, 5% died at birth, 3% died within six months on the home farm and 3 percent died after going through markets. There was also a potential infertility problem of 11 percent which might mean extra calves being kept or bought in. There were no equivalent figures for today. Probably 1.6 million calves leave farms within the first 28 days after birth and of these 1.3 million go through markets. Other outlets included contract rearing, farm to farm movement usually by dealers or use of marketing groups. Although all these methods were available, the majority still went through markets showing the success of the latter. A major problem was the right of a buyer to reject one calf and many of those not accepted went back to market. Mr. Lloyd considered there would always be a need for auction markets and to assist the study the NFU had undertaken a survey. Fifty percent of markets were inspected routinely by the local authority, 43 percent sometimes were inspected and 7% never. In half the markets, auctioneers refused calves and the RSPCA routinely attended three quarters of the markets although this has gone down recently. "Legislation was sufficient" stated Mr. Lloyd, but there was a need to produce a code of conduct

specifically for calves which would prevent their sale under 7 days old, stop the sale of unfit calves and calves without adequate colostrum. Tethering should be avoided and such calves should be able to lie down. Pens should not be overfull and calves should be of even size. There should be adequate bedding and unfit calves should be isolated and given immediate veterinary attention.

Roger Blowey does routine inspection at Gloucester market and gave the inspecting veterinary surgeon's view. Legislation mainly consisted of the Markets (Protection of Animals) Order 1964, Transit of Animals (Road and Rail) Order 1970 and Protection of Animals Act 1911. The job of the "Maafia LVI" was to ensure that calves were fit or unfit to enter market. Minor injuries and illnesses were treated and announced at the sale, or they went to the local abattoir or returned home for treatment. Very occasionally, and reluctantly, immediate slaughter might be undertaken.

Besides the calves being fit, the environment must be fit insisted Mr. Blowey. The calves need protection from the elements, bedding, adequate space, food and water should be provided. Some conditions and their outcare were highlighted. Thus knuckling of the fetlock or knees resulted in rejection but in lameness cases it depended on the severity. In navel ill mild cases were announced at sale, others were turned out. Scouring calves if bright were sold but if dull with pyrexia they were rejected. Pneumonia was a problem but again severe calves were removed whereas mild cases were returned. Cases of emaciation were rejected, but animals with ringworm, lice or New Forest Eye (keratitis) were a problem.

Ron Davies, Gloucester market, gave "A Livestock Auctioneer's View" and had over forty years experience in the trade. The Gloucester market dealt with 65,000 to 70,000 calves between 7 and 14 days old in 1983. The level fluctuated being up to 1600 a week in September and October and had resulted in offices being knocked down to accommodate the animals. Eighty part-time staff were recruited of which twenty percent were of dubious value. The market used two veterinary surgeons, two R.S.P.C.A. inspectors and six local authority people. All calves were sold with the name of the vendor declared. Mr. Davies agreed that hawking of calves should not be undertaken, but considered it could only be controlled by legislation.

During the following discussion, concern was expressed at the apparent overcrowding of pens although they were stated to be of the correct size. It was also considered that although calves had considerably increased in value this was not reflected in the handling in market. The need for calves to be sent through markets was also questioned. Finally I was privileged to sum up the discussion. It did seem that our speakers had missed one important point in the BVA suggestion that calves should only pass through one market in a period of 28 days, and that was it was to reduce the spread of infection amongst fit calves. Also, although it was stated that methods of sale could not be altered, it had been

shown that farmers were prepared to change their market outlets, depending on supply and demand.

The history of the Harper Adams dairy herd was described by **Miss. M. John** and it reflected many of the problems at present confronting the industry. In 1953 the herd was of the Ayrshire breed and it was gradually changed to Friesians. Following use of a double cow house, a cowbarn was used in 1966. Subsequently the buildings had been changed in 1981 to accommodate 140 cows. It now seemed that the decision to expand the herd was the worst possible one to make. Management was towards autumn calving between September and January, and heifers were aimed to calve early as at the start of the calving period there was less stress on them and with fewer milking more time could be allocated to them.

Miss John said some problems of infertility had arisen in the herd and were at first put down to IBR as high titre levels were found in blood samples. However, some calves born dead were found to have enlarged thyroids and subsequently the use of iodine had improved things. What could now be done with the milk quota system? Yields were not high, 5,000 litres per cow, and there was a high percentage of heifers due to the increase in the herd. There was thus little point in reducing the herd yield. Numbers could be cut back by culling persistently poor performance in terms of fat and protein yields. Culling would also involve those at the end of the calving period, as well as on conformation (legs, feet and udders), and health records. There would be fewer heifers in future, and a selective breeding policy should be looked at to try and improve income from calves for beef production. Miss John finished by warning that farmers were bound to reduce cost by improving utilization of grass and using less concentrates. This could lead to problems of overthin cows.

Thus, time and again, thoughts returned to the problem of the milk quotas. It is to the credit of the BCVA veterinarians that they are aware not only that the profession cannot expect the problem to not affect them, instead they are now seeing how the situation can best be used to minimise problems for the farm and indirectly for themselves. There is much that we can do. Let us hope we have the courage and skill to provide the necessary advice.

BCVA Officers 1984-85

At the Annual General Meeting of the British Cattle Veterinary Association held at Harper Adams Agricultural College, Newport, Shropshire on Friday, 13 April, the following officers were elected:

President	Bryan Jeffrey MA VetMB MRCVS
Senior Vice President	James Booth BVM&S MRCVS
Junior Vice President	Mike Vaughan MA VetMB MRCVS
Honorary Secretary	David Watson BVetMed MRCVS
Programme Secretary	Andy Forbes BVM&S MRCVS
Honorary Treasurer	Ian Baker BVSc MRCVS
Clinical Research Officer	Robin Pepper MRCVS
Public Relations Officer	A. H. Andrews BVetMed PhD MRCVS



President of the British Cattle Veterinary Association, James Booth (right) with one of the speakers, Chris Day.



Incoming President of BCVA, Bryan Jeffrey

*Photos by David Thornton
British Cattle Veterinary Association*

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