BLACKDOWN

FARM VETS

WINTER 2022

Newsletter

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Progression through Teamwork

Welcome to Blackdown Farm Vets Winter Newsletter!

We hope things have gone well for everyone despite the awful weather. Luckily, it is time to prepare for the arrival of Spring. Please feel free to get in touch with one of the team for any further information.

The Animal Health and Welfare Pathway: An Update…

Vet Sam Bowker

You may remember from last year mention of the Animal Health and Welfare Pathway, part of the Agricultural Transition Plan post Brexit. Although progress has been predictably slow, there does appear to be some movement towards the launch of the Pathway, with it's 4 different strands:

- Annual Health and Welfare Review
- Animal Health and Welfare Capital Grants
- Disease Eradication and Control Programmes
- Payment by results

The initial funding available will be for the Animal Health and Welfare Review – this has been designed to be flexible to enable the farmer and vet to focus on the key priorities for the individual farm. They will be able to decide what the time is spent on, but generally will include:

- Some diagnostic testing (BVD for cattle, drench testing for sheep, PRRS for pigs) with test results shared with DEFRA.
- Vet time advising on health and welfare of the livestock, potentially including biosecurity and responsible medicine use.
- Written report with agreed recommendations.

The funding will be available for all who are eligible for BPS and have more than 10 cattle, 20 sheep or 50 pigs (and if you have multiple species you can apply for each species) – see the Table below for the payment rates.

For those of you who are signed up to our Herd Health Planning Packages, we are already covering the vast majority of this, so the funding you receive can be put towards the package. Flock Health Packages will be launched shortly (watch this space), and the funding can be put towards this as well.

For those not on a Health Package, the funding will likely take the form of an annual farm visit to discuss priority areas for your farm – please do speak to one of us about this!

We will let you know when funding applications are open, but if you want any more information do have a look on the DEFRA website: **https://www.gov.uk/guidance/sfi-annual-health-and-welfare-review**

Payment Rates for AHWP review (annual)	
Dairy Cattle (min. 10 cattle)	£372
Beef Cattle (min. 10 cattle)	£522
Sheep (min. 20 sheep)	£436
Pigs (min. 50 pigs)	£684

Why study fertility?

Vet Will Goulden DBR

Having spent the last two years studying Bovine fertility the question arises; what makes fertility important and how does good fertility impact other health traits on the farm?

Up to the early 2000s, the major concern of the dairy industry in most countries traditionally selected predominantly for milk yield, often at the expense of other dairy relevant traits, including fertility and health. This has led to fertility being a significant factor limiting productivity of the dairy industry in the UK.

Efficient milk production in modern dairy systems in the UK and elsewhere relies on cows being regularly calved within a 365-day interval. Given the natural 9-month gestational period in cattle, this demands a cow to be mated within the first 90 days after calving.

However, based on recent figures, calving intervals in UK dairy herds average 425 days, which is 2 months over the current industry target. This means reduced volumes of milk production, and an approximate cost of £12,000 per year for an average 100-cow farm averaging 7,000 litres milk. Moreover, infertility is the top reason for involuntary culling in dairy farms. Adding losses due to cows culled from failure to conceive (£13,000), the total cost of poor fertility amounts to £25,000, equating to ~£475 million for the whole UK herd.

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Why study fertility? continued ...

On a herd level, fertility is a good measure of how other factors on the farm are performing. Where there is good fertility and robust management protocols, cows get in calf within the first 90 days of the lactation. In order to become pregnant, they need to be healthy and show good activity to be served and maintain the pregnancy. Therefore, if the cow has a calving with no transition diseases (milk fever, retained cleansings, ketosis, etc.) she is more likely to resume cycling normally in early lactation. The cow should be able to maintain body condition or have a mild loss during this period as excessive loss will mean she is not able to maintain a pregnancy.

Cows that get pregnant during the first 90 days of pregnancy are not going to have an extended lactation, meaning they will fall correctly into routine foot trimming practices at eg. 100 days and dry off. This routine foot trimming aids with reducing the risk of lameness and therefore a healthier cow. With a shorter lactation, cows are less likely to gain excess body condition meaning they will dry off at the correct body condition score and with the correct management will have a lower risk of transition diseases in the next lactation. Cows that are suffering from transition diseases are at increased risk of mastitis due to the body's immune system being compromised while the cow is under stress.

Along with good transition having an effect on fertility, nutrition has to be correct in order for the cow to get pregnant and maintain the pregnancy. So, fertility is a good measure of the effectiveness of both the dry cow and milking rations. If the cow has the correct dry cow ration, then transition diseases will be lower and if the milking ration is accurate then cows are more likely to be served and maintain pregnancies early in lactation. If the rations are unbalanced, then this will be evident in the fertility performance.

Fertility can also be a measure of disease prevalence on the farm. IBR, BVD, Leptospirosis and Neospora will all have a negative effect on fertility. Where these diseases are prevalent and not under control there will be a poorer fertility performance.

So overall fertility is an important measure in ensuring cows are healthy and performing in their lactation. Where the herd's fertility performance is suboptimal there will be a knock on effect on associated health and diseases. It is also possible to use fertility parameters and KPIs to identify where there are factors reducing the fertility on farm and where to carry out corrective actions.

To discuss your KPIs and where there are factors that you can alter to improve your fertility and herd health, talk to your vet to benchmark your herds performance.

Huge congratulations to Will for passing his DBR (Diploma in bovine reproduction), he's worked very hard and we are extremely proud of him.

Effective use of fluids in ruminants

Vet Nikki Hinman

Oral electrolyte solutions (OES) or intravenous (IV) fluid therapy in animals can greatly improve recovery. However, due to the volumes required, challenging and time-consuming administration and monitoring involved, it is not always used effectively.

Fluid makes up 60% of bodyweight and imbalance occurs when fluid is either reduced overall (Dehydration/ bleeding) or diverted from the circulation (E.g. in shock). Decreased circulation reduces the oxygen available to organs of the body (E.g. Liver and kidneys), meaning they cannot function. This prevents drugs working effectively and toxins build up in the blood. Immune function is compromised, animals feel unwell and lose their appetite.

Fluid imbalance also results in a loss of electrolytes, such as sodium, chloride, calcium etc. These conduct electricity when dissolved in water and are essential for a number of functions in the body (Muscle contraction, nerves working, water absorption etc.). Ruminants can develop a secondary metabolic acidosis and with severe fluid loss, animals go into shock and die.

OES or 'electrolytes' with fluids are a cost effective means

Fluids in ruminants continued...

to treat mild to moderate fluid loss - cattle that can stand, have no abdominal distension, and still show some evidence of gut function. Animals will often not show any obvious symptoms until they are already 5% dehydrated (E.g. Fluid deficit of 2.5 litres in a 50 kg calf) and by 10% dehydration (5L in 50Kg calf), need IV fluid.

Fluid loss (% loss of body weight)	Clinical signs (Guide, not exact, base therapy on the individual)
0-5%	Increased thirst
5-7%	Cold /dry nose, sunken eyes, skin tenting
7-10%	Dull/depressed, weak/ collapsed, cold extremities, very sunken eyes, weak pulse
10%+	Off legs, low body temperature, progressive shock, will lead to death

Table: Clinical signs seen in progressive dehydration

Calves

Diarrhoea is the most common cause of death in calves. Diseases progress for some time before the gut is overwhelmed and scour is seen, so treatment should always be started immediately. Calves need a total daily oral fluid intake of 8 Litres (L) as scour losses can be between 2-6L. Careful consideration should be given to the type of OES used in calves - oral electrolyte therapy should:

- Replenish fluid and electrolyte losses.
- Improve fluid absorption by providing agents, such as glucose and amino acids.
- Provide a digestible nutrient solution.

Table: Summary of types of oral rehydration fluid for treating calf diarrhoea

Type of Fluid	Contents	Uses	Example product
First generation	Sodium, potassium, chloride and (Insufficient) Glucose	Treats dehydration but cannot correct acidosis	Rehydion gel
Second generation	Also contain bicarbonate or bicarbonate precursors	Effective treatment of dehydration and acidosis but do not provide energy	Life-aid extra
Third generation	Contain much higher concentrations of glucose	Electrolytes, + help counter energy deficits.	Diakur Plus
Fourth generation	Contain the amino acid glutamine	Extra energy source, increases fluid absorption and supports gut cells	Hydrafast (Though contains amino acid glycine)

Table modified from Mahendran et al.

It is important to continue feeding milk/ milk replacer as even products containing glucose cannot provide enough energy for the calf to get better. Calves that develop metabolic acidosis usually present depressed, wobbly, puffing and may struggle to stand. The suck reflex is lost very quickly in an acidotic animal. If there are signs of acidosis, an OES including bicarbonate must be used – however these cannot be fed in milk as they prevent milk being digested properly so a gap of three hours between feeds is needed.

Absorption of OES are slightly more rapid following suckling a bottle; however, stomach tubes are less time consuming. Animals unable to stand or suckle, showing signs of severe abdominal pain, or rapidly deteriorating are likely to die unless quickly treated with intravenous fluid therapy instead. Intravenous fluid therapy is not without potential adverse effects and therefore should always be delivered by a vet.

Adult Cows

For effective oral fluid therapy in adult cattle, a minimum of 40 - 45L of fluid should be administered. The rumen of an adult cow can hold roughly 150L, providing a large reservoir into which oral rehydration solutions can be administered.

A healthy, non-lactating, 650Kg Holstein needs a minimum of 40L per day, more than doubling at peak lactation. In sick cattle, an extra 6-8L of water is needed for each degree increase in temperature above normal. Abnormal fluid loss, coupled with the fact that a sick cow often does not feel well enough to drink, will rapidly result in the animal becoming very dehydrated.

IV fluid therapy may be required for very sick cows, such as those with severe mastitis, peritonitis, or right displaced abomasum etc. Although oral fluids are obviously easier to administer, if the animal is severely dehydrated or sick, blood flow will be directed away from the gut to maintain oxygen to the brain, heart and kidney, reducing fluid absorption. Toxins from bacteria can result in ruminal/gut stasis, which means fluid will simply stay in the gastrointestinal system and not be absorbed and be beneficial to the cow.

To successfully treat very sick animals, you need to be aggressive with fluids and other treatments in the first 8-24 hours. If fluid deficits are corrected fully, aggressively, and combined with appropriate therapy, survival rates for critically ill bovine patients will increase. Talk to any of us in the Blackdown team for more information.

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The future of fly control!

Vet Lottie Birchall

An increasing number of livestock farmers have discovered an alternative to chemical pest control. Beneficial insects have proven to be the most effective and environmentally friendly strategy against flies in and around the livestock farm.

Flies cause a serious nuisance to both livestock and humans. They are known vectors of disease, costing the livestock industry thousands in control methods as well as through production losses due to decreased milk yields and growth rates.

During the summer a female fly can lay up to 1000 eggs within 10 days. This rapid life cycle means that an infestation of nuisance flies can happen extremely quickly therefore it is important to gain control early on in the season. Numbers within the fly population are represented by a pyramid where the youngest life stages are the most abundant, meaning that even when a small number of adult flies are visible, a much a larger number of larvae and eggs are already developing on the farm.

The Biowasp is a parasitic mini wasp which controls flies in and around livestock units without the use of insecticides and chemicals. The Biowasp naturally controls flies by targeting fly pupae in and around dairy farm buildings with straw bedding or where dry manure is present. They target the housefly (Musca

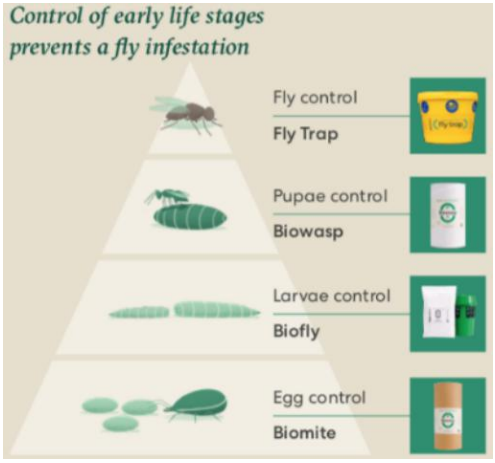

Image: Different products and where they affect the fly lifecycle

T domestica), the lesser house fly (Fannia canicularis) and the stable fly (Stomoxys calcitrans). These 3 species represent about 95% of the nuisance flies present on the farm.

They work by drilling a small hole inside the pupae of a nuisance fly, where they lay their eggs. These eggs will develop into a parasitic mini wasp larvae, which will feed on the contents of the fly pupa. A new mini wasp will grow inside the fly pupa about 3 weeks after parasitisation. Once a fly pupa has been parasitised, only mini wasps can hatch from it, breaking the life cycle of the fly whilst increasing the population of the beneficial organisms.

At Blackdown Farm Vets we are very excited to be offering this service starting Spring 2023. We can advise on the best areas to distribute the wasps and give you a plan tailored to work on your farm.

Biowasp (Fly pupae parasites)
A parasitic mini-wasp which targets fly pupae in and around livestock units with deep litter. The female lays eggs in pest fly pupae and instead of a pest fly emerging from the pupal case another mini-wasp hatches, breaking the life cycle of the flies whilst increasing the population of the beneficial organisms.

Biomite (Fly egg predators)
A predatory mite which targets fly eggs and young fly larvae. It is effective immediately after being released and is ideally used as an additional or corrective tool in combination with Biofly release programs.

Biofly (Fly larvae predators)
A predatory fly which targets fly larvae in wet muck area, such as in pig and dairy units with slurry pits. The larvae of Biofly is a carnivorous predator feeding on the larvae of various pest fly species. As BioFly predatory flies stay close to the slurry, no nuisance is caused to animals or farm personnel.

Fly Trap (Bucket fly trap)
An innovative bucket trap intended to target the adult life stage of flies around the farm yard. When combined with BESTICO's fly bait, it is extremely effective at capturing high volumes of adult flies.

Whilst most farms have found they need to continue using some form of traditional fly control for the first couple of years, we strongly believe this is the best long-term approach to reducing the fly population. This in turn will reduce antibiotic and insecticidal use, increase productivity, and improve welfare.

Talk to us now to take a proactive, cost-effective approach to a sustainable reduction in fly population on your farm.

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Sheep News

Plenty of our clients are well underway into lambing now! We already feel like we are getting into the swing of it with lambings and we did our first caesarean of the season in late December.

Lambings are one of the best bits about being a vet! We are always happy to help and we would MUCH rather you called us sooner rather than later to maximise the chance of some live lambs and a healthy ewe.

Caesarian Success!

This 8kg Suffolk ram belonging to Barry and Jess Haines was born by caesarean section earlier this month. Congratulations on a great looking lamb! We are told ewe and lamb are doing well.

Remember that if a caesarean is required the results will be far better (and therefore cost-effective!) if the ewe hasn't been trying to lamb for ages before we start.

Getting Nutrition Right from Scanning to Lambing

Vet Lucy Morgan

For those of you not due to start lambing for a while it is worth giving more than a little thought to how ewes are fairing nutritionally in these weeks leading up to lambing.

Sadly, scanning this year has not been as positive experience for many as it has been in previous years. The summer has taken its toll and when there isn't any grass around at weaning time we all know it's hard to get that condition back on in time for tupping. Condition at mating will have a significant affect on scanning results.

It is also worth bearing in mind that we sometimes get cases where trace element status can play a part in fertility and overall condition. Blood samples can often give us an answer where we are unable to find one elsewhere. Trace element deficiencies are usually easy to sort with the appropriate bolus.

If you aren't due to start lambing for a few weeks yet, hopefully these are some of the things you will be thinking about at the moment…

- Are you making the most of your scanning results to create management groups during the rest of pregnancy making sure that each individual ewe receives the best nutrition available?
- Are you basing your late pregnancy ewe diet on the results of forage analysis to make sure you know exactly what they are being fed?
- Do you know how your ewes are doing nutritionally now? Have you body condition scored any? Are you planning on doing any blood samples to assess energy or protein status leading up to lambing (these are relevant to reducing the risk of twin lamb disease in ewes and optimising colostrum quality)?
- Do you know the trace element status of your ewes?
- Will you have enough feed space available when/if ewes are housed prior to and during the lambing period? It's all very well having a perfect ration available but if some ewes can't get to the food then it's not much use!
- Are you managing first time lambers separately to ensure they get access to sufficient nutrition?

Giving ewes the best nutrition possible at this time will set lambs up for being born as healthy as possible, and will also enable the ewe to produce high quality colostrum. This is essential in protecting lambs against infections as new-borns. Top notch colostrum (alongside good hygiene) provides better protection against watery mouth and joint ill than any supplement we can give lambs.

Would you like some help with your ration formulation?

If you have forage analysis results and would like some help in formulating your late pregnancy ration we can do a ration formulation for you. Please speak to Will if you are interested in this. If you have good quality silage he may be able to save you money.

Please also remember that if you have more barren ewes than expected then mark them and we can blood sample for infectious causes.

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Managing indoor lambing when the weather isn't helping!

Vet Lucy Morgan

Lambing with rain like this can make life harder for all. Equally, if we get any severe cold weather or snow then things can be harder again.

If it is too wet or cold to turn small lambs out then obviously this puts pressure on shed space, things get overcrowded and, amongst other problems, disease can become a worry, especially later on in lambing.

Most of us are now aware that the use of preventative antibiotics is becoming more and more frowned upon within the industry and in general. Overuse of antibiotics will eventually lead to the development of resistance on farms and the antibiotics will cease to work.

So, what can we do to maximise the health of lambs and keep deaths to a minimum?

There are two aspects of keeping disease to a minimum in the lambing shed.

1.Keep the amount of disease-causing bacteria the lambs are exposed to to a minimum

i)Keep things as clean as possible:
This is the one that can be hardest to sort when you are in the thick of it! It is worth giving ease of cleaning some thought prior to housing the sheep. Eg concreting an old floor or rendering the walls to make them easier to keep clean, avoiding nooks and crannies where bugs can survive. Pressure wash the lambing shed and disinfect with a good quality disinfectant before lambing begins. Obviously keep pens well bedded and clean and disinfect pens periodically if at all possible.
Make sure ewes are clipped so udders are clean and easily accessible, especially certain breeds!
Make sure any feeding equipment such as bottles and stomach tubes are kept scrupulously clean. All equipment used for new-borns should be washed with warm soapy water, disinfected with a sterilising solution and left to dry before the next use. Make sure your hands are clean too (a sink and hot water tap in the lambing shed make all of this SO much easier and really is worth the trouble of installing). Wear gloves as much as possible.
ii)Dress navels with strong (10%) iodine as quickly as possible after birth.
Make sure all sides are covered and no part is missed.

2.Make sure lambs have the best protection possible against any disease-causing bacteria they do encounter – colostrum!

Lambs are born without any antibodies and colostrum is the only source they have. At birth lambs have a store of energy in a supply known as brown fat. However, this supply only lasts 5 hours. After this they also rely fully on colostrum for their energy, hence why lambs will get cold and die so quickly if they do not feed.

Following the '5 Qs' will ensure your lambs get the best possible start.

i) Quickly
The ability of the lamb to absorb colostrum is best within 2 hours of birth. After 6 hours it is reduced and after 24 hours it is a fraction of what it was. The quality of the colostrum produced by the ewe also declines after birth.
ii) Quantity
Lambs should receive 50ml per kg bodyweight of colostrum ASAP (ideally within 2 hours or second best within 6 hours). They need to have had at least 200ml per kg bodyweight within the first 24 hours. This is often more than you think!
iii) sQueaky clean
Muck in colostrum actually decreases the quality of the colostrum just by being there. If lambs are fed dirty colostrum or suck from dirty teats, the dirt in the colostrum is actually reducing the effectiveness of that colostrum.
iv) Quality
Studies have been carried out recently looking at ways of measuring colostrum quality in sheep. A Brix refractometer is a cheap and easy way of measuring protein (antibody) content. Aim for 26% or higher (ideally over 30%).
Thickness and colour are good indicators of protein content but not fat content (relevent to risk of hypothermia). A 2020 study found the greatest contributer to colostrum quality was at flock rather than individual level, with pre-lambing nutrition being the biggest driver.
Good quality colostrum from a high-producing single is usually the best supplement when needed.
If you do need to use an artificial alternative, please speak to Fo or one of the vets. Many commercial preparations have very low antibody levels but we do have some in stock which are proven to contain antibodies. Last year we also found these to be a good alternative to oral antibiotics for preventing problems in high pressure conditions.
v) Quantify
If you would like confirmation that lambs are getting enough colostrum we can blood sample lambs at 2 days old to check levels. This is ideally done earlier on in the lambing season so something can be done if absorption is found to be poor.

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Dates for the diary - Client meetings and courses

First Aid For Feet: Lantra accredited

Where: Cotley Farm, Whimple, Exeter EX5 2QR

When: Thursday 16th February 9am - 5pm or Thursday 13th April 9am - 5pm

LANTRA accredited first aid for feet, delivered by BCVA accredited Foot Health Trainer Sam Bowker, in partnership with CHCSB accredited instructor and level 4 accredited foot trimmer Andrew Fry. This will be a very hands on course, useful for complete novices to those with plenty of experience dealing with lame cows. **The course is accredited for those doing lame cow trims on aligned milk contracts.** Lunch and refreshments provided

Please contact the office at Blackdown Farm Vets on 01404 819150 for more information or to book

Grassland management meeting: Thursday 27/04/23

Making the most of your grass, deficiencies in soil and forage, and how to test and treat cattle and sheep. Please RSVP for more information

On farm mastitis meeting: Thursday 23/02/23

Discussion focusing on prevention and treatment of mastitis. Please RSVP for more information

Medication updates

Practice Manager and RAMA/ SQP Fo Jones

Out of Stock:

Heptavac P all sizes - Hopefully be in the first week of February - but this keeps changing (MSD).

Bravoxin 10 - but Covexin 10 available

Leptospirosis vaccine - Is in short supply but coming through now. Please let us know the number of doses you require.

Scabiguard - (replaced Scabivax) out of stock, awaiting update (Zoetis).

Calciject No5 - is out of stock but no 2 is available

Ubrostar Red Dry cow tubes - still out of stock. In the country but in warehouse, awaiting approval.

HUSKVAC

Please contact us now for dose numbers - only available monthly!

- 2 doses, 4 weeks apart.
- **Courses must be completed 2 weeks before turnout**
- If 2nd year and need to boost as no exposure last year then single dose.
- Packed in 12 this year not individual.

Trymox LA :

We are now stocking Trymox LA, instead of Betamox LA - it seems to mix better!

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