Maintain year-round protection

With early 2014 lamb prices running ahead of 2013 levels, sheep producers are being urged to realise full value for this year’s crop by making sure the newborns on the farm are vaccinated against pasturellosis and the main clostridial diseases.

Lambs can succumb to pasteurellosis and clostridial diseases within hours, often without any warning signs. Pasteurellosis in sheep may occur in two different forms: pneumonia pasteurellosis and systemic pasteurellosis. These are caused by bacteria from the Pasteurella group, with *Mannheimia haemolytica* and *Bibersteinia trehalosi* being the most important types to cause disease in sheep. Around 80-90% of healthy sheep carry the bacteria on their tonsils and in the upper respiratory tract where they usually do no harm. However, if a trigger factor such as weaning, bad weather or a change of food occurs, the bacteria can suddenly multiply rapidly to cause septicaemia and often death. In fact, flock problems usually start with sudden deaths, often in lambs. But disease occurs in other age groups.

Clostridial diseases like pulpy kidney, braxy, blackleg and tetanus are also a key threat to unprotected lambs. For example, every year veterinary investigation centres see cases of lamb dysentery in young lambs presented for post mortem. This is despite the availability of highly effective vaccines that would have helped protect these animals from the clostridial bacterium that causes lamb dysentery, *C.perfringens* type B. If newborn lambs do not obtain the necessary passive immunity from drinking colostrum from ewes correctly vaccinated with Heptavac®-P Plus, they are extremely vulnerable. Affected lambs lose appetite, lie away from their mothers and may develop a blood stained scour. Death typically occurs between two hours and three days from onset of disease symptoms.

**Only limited protection from colostrum**

If ewes are on the Heptavac®-P Plus system and have been boosted in the run up to lambing then their lambs will also gain immunity from drinking her colostrum. But this so called passive immunity only lasts for so long. Lambs that receive a good intake of colostrum only have antibodies against pasteurella for up to four weeks and clostridia for up to 12 weeks. This means that some early season lambs may already be unprotected and at real risk from these prevalent disease threats unless they are vaccinated themselves.

Lambs can be protected themselves by vaccinating them with either Heptavac®-P Plus (for protection against a wide range of clostridial diseases, including those that affect both young and older sheep, as well as pasteurellosis) or Ovivac®-P Plus (for protection against four key clostridial disease threats: pulpy kidney, tetanus, braxy and blackleg; as well as pasteurella) from three weeks of age. The primary course involves two 2ml vaccinations 4-6 weeks apart. The first dose is a primer, while the second produces effective immunity. Animals that are intended to be kept for breeding and have been given a primary course of Heptavac®-P Plus simply need a booster of Heptavac®-P Plus within 12 months – given at the same time as the rest of the flock get their annual pre-lambing booster – with an annual booster 4-6 weeks before lambing every year thereafter.

In this next TRADEdge refresher we highlight the importance of reminding sheep farmers of the need to protect their valuable finishing lambs from the threat of pasturellosis and clostridial diseases.

A good start deserves a good finish, but unfortunately the protection newborn lambs receive from drinking colostrum from ewes on the Heptavac®-P Plus system only lasts for so long. It’s crucially important therefore that lambs are vaccinated themselves from three weeks of age to maintain disease protection – either with Heptavac®-P Plus or Ovivac®-P Plus.

Study this latest bulletin and then take the usual CPD quiz so that you can continue to build up those valuable extra AMTRA points.
Ovivac-P Plus offers lambs proven protection against four key clostridial diseases (pulpy kidney, braxy, blackleg and tetanus). The clostridial diseases covered are those that lambs from three weeks of age are most likely to encounter.

**WHAT YOUR FARMER NEEDS TO KNOW**

Your SQP discussion with the farmer needs to cover the following essentials:

- Lambs born to vaccinated ewes and drinking colostrum only have protection against *pasteurella* for up to 4 weeks and clostridia for up to 12 weeks. **Lambs therefore need to be vaccinated themselves for on-going disease protection**
- Primary vaccination course: 2 vaccinations, 4-6 weeks apart
- **Dosage is 2ml**, given subcutaneously in the neck
- Vaccine can be given from 3 weeks of age
- Animals to be kept for breeding should be started on the Heptavac®-P Plus regime with a primary course

Heptavac-P® Plus offers proven protection against a wide range of clostridia plus *pasteurella* and is designed for breeding animals.

**WHAT YOUR FARMER NEEDS TO KNOW**

Your SQP discussion with the farmer needs to cover the following essentials:

- Primary vaccination course: **two vaccinations 4-6 weeks apart**
- Dosage is 2ml, given subcutaneously in the neck
- Vaccine can be given from 3 weeks of age
- All vaccinated sheep should receive a **booster** within 12 months as the rest of the flock receive their pre-lambing dose, with a booster annually thereafter
- **To provide maternal transfer of immunity via the colostrum, pregnant ewes should be vaccinated 4-6 weeks prior to lambing**
- Lambs that receive a good intake of colostrum may have antibodies against *pasteurella* for up to 4 weeks and clostridia for up to 12 weeks

**Immunity**

**What it is and how it works**

Vaccines contain inactivated elements of diseases in order to stimulate the animal’s immune system to produce the antibodies to tackle that disease. Vaccination increases the ability of the sheep to fight off potential infections and remain healthy. Ewes pass on immunity to their lambs via the colostrum, but this natural immunity only lasts for a few weeks.

**Giving two doses**

For lambs and ewe replacements a course of two doses is necessary to reach maximum levels of protection. The first is a primer or sensitising dose, while the second is needed to prompt effective immunity. For example, once an animal has received an initial course of two doses of Heptavac-P® Plus, it only requires a single boosting dose within 12 months – as the rest of the flock get their pre-lambing dose – with a booster each and every year thereafter.

Further information is available from MSD Animal Health, Walton Manor, Walton, Milton Keynes MK7 7AJ. Tel: 01908 685805 Fax: 01908 685555 E: vet-support.uk@merck.com Internet: www.msd-animal-health.co.uk
1. What proportion of healthy sheep carry *pasteurella* bacteria on their tonsils and in their upper respiratory tract?

60-70%  □  70-80%  □  80-90%  □

2. What is the name of the clostridial bacterium that causes lamb dysentery?

- C. perfringens A  □  C. perfringens B  □  C. novyi  □

3. How quickly can clostridial bacteria and/or *pasteurella* kill lambs?

Within hours  □  Within days  □  Within weeks  □

4. If lambs drink colostrum from ewes correctly vaccinated with Heptavac®-P Plus, for how long may immunity last against *pasteurella* bacteria?

For up to 4 weeks  □  For up to 12 weeks  □  For up to 6 weeks  □

5. From what age can lambs be vaccinated themselves with either Ovivac®-P Plus or Heptavac®-P Plus?

- From 2 weeks of age  □
- From 3 weeks of age  □
- From 4 weeks of age  □

6. If lambs drink colostrum from ewes correctly vaccinated with Heptavac®-P Plus, for how long may immunity last against *clostridial* bacteria?

For up to 4 weeks  □  For up to 12 weeks  □  For up to 6 weeks  □

7. Why do previously unprotected ewes and lambs need a priming vaccination course of two doses, 4-6 weeks apart?

- Every animal needs to receive 4mls of vaccine.  □
- The animal needs to recover from the first dose before getting another dose.  □
- The first dose is a primer or sensitising dose, while the second is needed to prompt effective immunity.  □

8. What diseases does Ovivac®-P Plus provide cover against? (tick all that apply)

- Pasteurella  □
- Lamb dysentery  □
- Braxy  □
- Tetanus  □
- Blackleg  □
- Black disease  □
- Pulpy kidney  □

9. What diseases does Heptavac®-P Plus provide cover against? (tick all that apply)

- Pasteurella  □
- Lamb dysentery  □
- Braxy  □
- Tetanus  □
- Blackleg  □
- Clostridial metritis  □
- Struck  □
- Black disease  □

10. What is the dose rate of both Ovivac®-P Plus and Heptavac®-P Plus?

- 2ml  □  4ml  □  6ml  □

**Quiz 17 closing date:** 31 July 2014
‘Use Medicines Responsibly’. Please see: www.noah.co.uk/responsible for more information.

Ovivac®-P Plus is only available via your animal prescriber or veterinary surgeon from whom advice should be sought. Registered trademark. Ovivac®-P Plus contains antigens from four clostridial species and antigens from the most important serotypes of Mannheimia (Pasteurella) haemolytica and Bibersteinia (Pasteurella) trehalosi. Legal category POM-VPS

Contra-indications:
Although the vaccine may be safely used in pregnant ewes as an aid in the control of pulpy kidney, tetanus and pasteurellosis in their lambs, the vaccine contains no lamb dysentery component and therefore control of this important disease cannot be achieved by its use. Use of Ovivac®-P Plus as a breeding stock vaccine is therefore not recommended. The combined 7 in 1 clostridial plus pasteurella vaccine, Heptavac®-P Plus, is the recommended breeding stock vaccine since it provides optimal aid in the control of the predominant clostridial diseases in adult sheep by active immunisation and in young lambs by passive immunisation.

Special warnings for each target species:
Ovivac®-P Plus should not be used in lambs less than 3 weeks of age. Should Ovivac®-P Plus be used in breeding stock, the nutritional and metabolic status of pregnant ewes is extremely important at the time of vaccination. If in doubt, advice should be sought from a veterinary surgeon.

Special precautions for use:
In any group of animals, a small number of individuals may fail to respond to vaccination as a result of immunological incompentence. Satisfactory immune responses will only be attainable in healthy animals, thus it is important to avoid vaccination of animals which have intercurrent infection or metabolic disorder. As with most killed vaccines, significant levels of immunity cannot be expected until two weeks after the second dose of vaccine in the primary vaccination course.

User warnings:
The vaccine bottle must be shaken well before use. Do not freeze. Syringes and needles must be from gamma irradiated packs or freshly sterilised by boiling for 20 minutes. No alcohol or other disinfectants should be used for sterilisation. It is recommended that an automatic vaccinator is used. Since the bottle containing this product is non-collapsible the vaccinator must have a vented draw-off spike or similar device. The instructions supplied with such syringes should be noted and care should be taken to ensure the delivery of the full dose, particularly with the final few doses from the bottle.

Adverse reactions:
Occasional hypersensitivity reactions may occur. The vaccine contains an adjuvant and, as with most adjuvanted vaccines, may result in small transient injection site reactions possibly lasting for up to 3-4 months after vaccination. Withdrawal periods Zero days. Ovivac®-P Plus is the property of Intervet International B.V. or affiliated companies or licensors and is protected by copyrights, trademark and other intellectual property laws.

Heptavac®-P Plus is only available via your animal prescriber or veterinary surgeon from whom advice should be sought. Registered trademark. Heptavac®-P Plus contains antigens for the active immunisation of sheep against seven clostridial species and the most important serotypes of Mannheimia (Pasteurella) haemolytica and Bibersteinia (Pasteurella) trehalosi. Legal category POM-VPS

Contra-indications, warnings, etc:
In any group of animals a small number of individuals may fail to respond to vaccination as a result of immunological incompetence. Satisfactory immune responses will only be attained in healthy animals, thus it is important to avoid vaccination of animals which have intercurrent infection or metabolic disorder. As with most killed vaccines, significant levels of immunity cannot be expected until two weeks after the second dose of vaccine in the primary vaccination course.

The nutritional and metabolic status of pregnant ewes is extremely important at the time of vaccination. If in doubt consult your veterinary surgeon for advice.

When handling sheep, stress should be avoided, particularly during the later stages of pregnancy when there is a risk of inducing abortion and metabolic disorders. Because sheep are very sensitive to contamination of the injection site (which may result in non-product related tissue reactions and even in abscesses), it is advised to follow strict aseptic injection techniques. Vaccination may result in small transient injection site reactions, usually characterised by swelling, possibly lasting for up to 3-4 months after vaccination. Occasional hypersensitivity reactions may occur. In the event of an anaphylactic reaction appropriate treatment should be administered without delay.

No information is available on the safety and efficacy of this vaccine when used with any other veterinary medicinal product. A decision to use this vaccine before or after any other veterinary medicinal product therefore needs to be made on a case by case basis. Do not mix with any other veterinary medicinal product.

In the case of accidental self-injection seek medical advice immediately and show the package leaflet or the label to the physician. Withdrawal period Zero days.

For animal treatment only. Keep out of the reach and sight of children. Heptavac®-P Plus is the property of Intervet International B.V. or affiliated companies or licensors and is protected by copyrights, trademark and other intellectual property laws.

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Further information is available from: MSD Animal Health, Walton Manor, Walton, Milton Keynes MK7 7AJ Tel: 01908 685685 • vet-support.uk@merck.com • www.msd-animal-health.co.uk