CEVAC® CHLAMYDOPHILA Freeze dried vaccine and diluent. COMPOSITION For one vaccine dose of 2ml: live attenuated freeze dried vaccine containing Chlamydophila abortus (at least 10^5 IFU per dose). Diluent 2ml. USES For the active immunisation of susceptible breeding sheep as an aid in the prevention of abortion caused by Chlamydophila abortus infection and to reduce excretion of Chlamydophila abortus in infected animals. INDICATIONS For breeding sheep, active immunisation against enzootic abortion. CONTRA INDICATIONS Do not vaccinate animals less than 4 weeks before mating. Do not vaccinate pregnant animals. Do not vaccinate animals which are being treated with antimicrobials, particularly tetracyclines. INTERACTION WITH OTHER MEDICINAL PRODUCTS AND OTHER FORMS OF INTERACTION Safety and efficacy data are available which demonstrate that this vaccine can be administered the same day but not mixed with a commercial Toxoplasma gondii vaccine containing live tachyzoites of the S48 strain. However, other live vaccines should not be administered within 4 weeks of the administration of CEVAC® Chlamydophila. UNEXPECTED EFFECTS A transient temperature rise may be observed after vaccination (average of 1.5°C for a maximum of 3 days). DOSAGE AND METHOD OF ADMINISTRATION 2 ml of reconstituted vaccine by intramuscular or subcutaneous injection. Ewe lambs, where it is intended to breed from them, may be vaccinated from 5 months of age. Shearlings and older ewes should be vaccinated during the 4 month period prior to mating. WITHDRAWAL PERIODS Animals should not be slaughtered for human consumption until at least 7 days after vaccination. PRECAUTIONS Operators should wear gloves when handling the vaccine. CEVAC® Chlamydophila should not be handled by pregnant women or women of child bearing age as the vaccine may cause abortion. CEVAC® Chlamydophila should not be handled by people who are immuno-deficient. Care should be taken to prevent self-administration. If this occurs seek immediate medical advice. For animal treatment only. Keep out of the reach of children. STORAGE Keep refrigerated between 2 and 8°C and protect from light. After reconstitution keep cool and use within 2 hours. DISPOSAL Discard of any unused vaccine safely: empty containers and all used equipment into an Approved Disinfectant, prior to disposal by incineration. PRESENTATION Box with vial containing 20 doses of freeze dried vaccine and bottle with 40ml diluent. LEGAL CATEGORY POM-V MARKETING AUTHORIZATION NUMBER Vm 15052/4031.
Help prevent abortions

ME AND RAY ARE PLANNING TO HAVE UNPROTECTED SEX TOGETHER. FADDY? HE AND I WERE PLANNING THE SAME! SAME HERE! HE SAID HE LOVED ME AND I LOVED ME TOO!

CEVAC® Chlamydophila

Vaccine against enzootic abortion
Chlamydiosis is a disease caused by *Chlamyphila abortus*, a small Gram-negative bacterium that only multiplies in the cytoplasm of eukaryotic cells. This bacterium, which has a tropism for ruminants’ placentas, has two forms:

- **The elementary body**: extra-cellular, infectious, metabolically inactive and resistant in external media.
- **The reticulate body**: intra-cellular, metabolically active and sensitive to antimicrobials.

**The main cause of abortion**

Chlamydiosis is the main cause of infectious abortion of sheep in the UK. Approximately 50% of diagnosed infectious ovine abortions are caused by *Chlamyphila abortus*. In a newly infected flock, 30 - 60% of pregnant ewes may abort during the first two years.

The effects of chlamydiosis in small ruminants are mainly:

- abortion towards the end of pregnancy
- premature births
- birth of frail lambs which soon die

Other possible symptoms are: epididymitis, pneumonia, conjunctivitis, arthritis, etc.

Abortive chlamydiosis is a zoonotic disease that is especially dangerous for pregnant women, who should avoid all contact with the animals, especially during lambing. Not only does *Chlamyphila abortus* cause miscarriages, but it can be accompanied by serious complications that require hospitalisation.
CHLAMYDIOSIS
A ZOONOTIC DISEASE

Abortive chlamydiosis is a zoonotic disease that is especially dangerous for pregnant women, who should avoid all contact with the animals, in particular during lambing.

Not only does Chlamydophila abortus cause miscarriages, but it may also be accompanied by serious complications that require hospitalisation.

A flare-up in abortions

In a flock, aborting ewes excrete massive amounts of Chlamydomphila abortus in the placenta and the amniotic fluid. This leads to other ewes being contaminated, most often via the oral-nasal route.

Of these newly infected ewes, those that are pregnant are likely to abort, and some of the other ewes become healthy carriers of the infection and may abort during their next pregnancy. This contamination phenomenon largely explains how infection spreads within a flock.

Over 2 to 3 years, abortions are seen to flare up, then the abortion rate drops to below 10%, before a new bout of abortions occurs in first-time lambers and new replacement animals. Ewes that have aborted usually become immune although the Moredun Research Institute recently suggested in 20% of ewes that abort or produce weak infected lambs, the Chlamydomphila abortus can lie dormant until the next pregnancy when it becomes activated and infects the placenta and foetus.

Lambs can be born infected or become infected from aborting ewes. These typically abort themselves at the first (occasionally second) pregnancy.
Vaccination strategy

1st YEAR

- Vaccinate ALL animals:
  - ewes
  - ewe-lambs

FOLLOWING YEARS

- Vaccinate NEW animals:
  - ewe-lambs
  - replacement animals

Ewe-lambs: vaccinate from 5 months old onwards
Ewes: vaccinate 1 to 2 months before tupping

- The vaccine gives efficient protection to non infected ewes
- It does not modify the development of disease in ewes already infected at the time of vaccination
- It is important to continue vaccination because it is not possible to detect infected animals in a vaccinated flock
- It may be useful to perform a booster vaccination after 3 lambings or 4 years
- Vaccinate healthy animals
- Store the vaccine correctly before administration
A living vaccine enables abortion to be prevented and excretion to be controlled.

### Genuine efficacy

Challenge test on ewes during their second pregnancy following vaccination.

<table>
<thead>
<tr>
<th>Inoculation on the 78th day of the second pregnancy</th>
<th>Vaccinated</th>
<th>Non-vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of pregnant ewes</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>Presence of Chlamydophila in the vaginal mucus</td>
<td>0%</td>
<td>90%</td>
</tr>
<tr>
<td>Number of live lambs</td>
<td>23 (74%)</td>
<td>7 (39%)</td>
</tr>
<tr>
<td>Number of dead lambs</td>
<td>8 (26%)</td>
<td>11 (61%)</td>
</tr>
<tr>
<td>Length of pregnancy (days)</td>
<td>143.8 ±1.2</td>
<td>140.9 ± 6.1</td>
</tr>
</tbody>
</table>


### Development of infection following vaccination with CEVAC® Chlamydophila

Abortions may still occur in sheep infected prior to vaccination. The aim is to solve the problem over 2-3 years.
No specific clinical sign points to this pathology. Since clinical diagnosis is based on assumption, only serological or direct diagnosis of the aborted material enables the nature of the infection to be positively identified.

**Detecting the type of infection**

If abortive chlamydyosis is diagnosed

- **NON-PREGNANT EWES**
  - **CHLAMYDOPHILA VACCINE**
    - Stops abortions and excretion
    - Infection controlled

- **PREGNANT EWES**
  - **OXYTETRACYCLINE LA 20mg/kg**
    - Between 105th and 120th day of pregnancy
  - MAY stop abortions
  - Infection not prevented
CEVA’s Sheep Range

**Scourhalt**
Oral Spectinomycin antimicrobial to help prevent watery mouth in lambs.

**Cyclo Spray**
Chlortetracycline antimicrobial spray. Accurate beam with minimal running. It sticks where you spray with more 3 second sprays per can than other cans on the market (CEVA/CS/001).

**Regulin**
For early lambs – a small subcutaneous implant for stimulating early onset of natural reproductive activity. This gives improved reproductive performance in flocks mated early in the season.

**Rehydion**
An oral hydration product that can be added to milk without affecting milk clotting. This is a useful adjunct to lambs as it helps to maintain electrolytes and acid/base balance. Add 2ml per 100ml milk or colostrum top ups, 20ml/litre.