

SheepSense:

an applied research brief

Considerations to Prevent the Importation of Parasites and Diseases in Your Operation

Quarantine 101:

Quarantining newly acquired sheep is a simple yet effective method to ensure flock biosecurity. A proper quarantine involves maintaining physical separation between the new sheep and the rest of the flock, with enough distance to prevent any direct contact between individuals.

Key biosecurity measures include using separate feeding and watering equipment and disinfecting boots and clothing to minimize the risk of disease transmission. The quarantine period is an ideal time to vaccinate ewes against common diseases (e.g., clostridial diseases or foot rot), treat for both internal and external parasites, and conduct diagnostic tests such as *Brucella ovis* screening, fecal egg counts, or tests for prior exposure to *Campylobacter jejuni* and *Chlamydia abortus*.

More detailed information on managing internal and external parasites, as well as addressing abortifacients, can be found later in this article. A quarantine should last 21-30 days, allowing the animals to acclimate to their new environment, receive test results, and monitor for any clinical symptoms during disease incubation periods.



Internal and External Parasites:

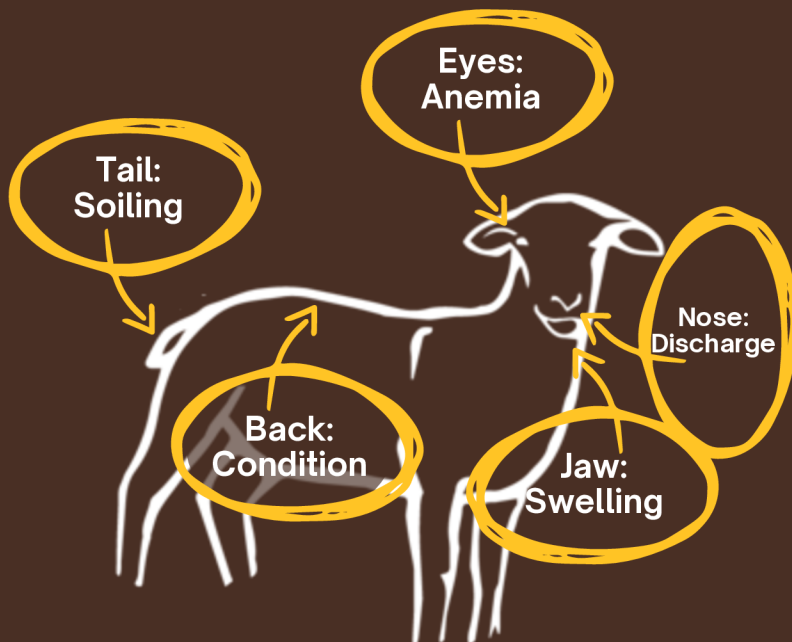
Internal Parasites

The biggest health concern in our industry is anthelmintic resistance. *Haemonchus contortus*, commonly known as the barber pole worm, is an abomasal blood-sucking parasite that can make sheep severely anemic and if left untreated, can lead to death. Recent research from the UWyo sheep program surveyed operations in Montana, Wyoming and Utah, and found that common white dewormers called albendazoles (Valbazen®, Safeguard®), due to their overuse, are not working to control the barber pole worm. Another class of dewormer, moxidectin (Cydectin®), was shown to be more effective. The third dewormer, Ivermectin (Ivomec® Drench), was shown to have mixed results. All recently purchased sheep should be administered a combination treatment using more than one class of dewormer. Producers can use the Five Point Check to determine if the rest of their flock need to be dewormed. This approach ensures that parasites resistant to dewormers do not make their way into the flock. As an additional precaution, consider placing ewes administered dewormer in a dry lot to prevent the spread of larvae onto pasture.

External Parasites

Nothing is worse than finding out on shearing day that a newly purchased sheep brought *Melophagus ovinus*, or sheep keds, into your wool clip. Sheep keds are commonly found on the neck, breast, flank, and rump. Newly arrived sheep should be sprayed with a permethrin-based product to reduce risk of introducing sheep keds. Optimal treatment of external parasites occurs immediately after shearing when contact with the insecticide can be administered close to the skin. Because insecticides are not able to kill the pupated larvae, sheep should be treated again 20 to 25 days after first spray to fully eradicate any remaining keds.

5 Point Check for Parasites and Diseases:



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Abortifacients:

There are many causes of abortion in sheep, but two of the main concerns when introducing new sheep into a flock are *Campylobacter jejuni* and *Chlamydia abortus*. In the case of *Campylobacter jejuni*, low-level infections can occur sporadically, often going undetected, which can lead to a certain degree of flock immunity. Similarly, *Chlamydia abortus* primarily affects ewes that are lambing for the first time or those that are newly introduced into the flock.

The combined effect of stress and the potential for either group to harbor infectious agents can trigger an abortion storm, particularly in late gestation when the risks are highest. The most effective prevention strategy involves careful flock management, including quarantining and monitoring new or young ewes before introducing them to the main flock. Ideally, these groups should be mixed prior to breeding or very early in gestation to reduce stress and disease transmission. Regular vaccination, biosecurity measures, and minimizing stress during pregnancy, especially in the final trimester, are critical to preventing abortions caused by pathogens like *Chlamydia abortus* and *Campylobacter jejuni*.

Treatments and Health Strategy:

For sheep producers looking to expand their operations with new genetics during the fall and winter months, a comprehensive health management strategy is essential for safeguarding the existing flock. Implementing proper quarantine protocols, alongside targeted treatments for both internal and external parasites, is key to preventing costly disease outbreaks. With the rising concern over dewormer resistance, particularly against the barber pole worm, producers should use a combination of dewormers and the Five Point Check to minimize the introduction of drug-resistant parasites.

Similarly, permethrin-based treatments and strategic timing around shearing are effective in controlling external parasites, such as sheep keds. To minimize the risk of abortion storms caused by *Chlamydia abortus* and *Campylobacter jejuni*, producers should focus not only on quarantine but also on careful timing of flock integration, regular vaccination, and stress management throughout pregnancy. Consulting with a veterinarian is highly encouraged, especially for pregnant sheep, as some products may not be suitable for use in gestating ewes. By following these preventative measures, sheep producers can reduce the risk of introducing costly parasites and diseases.

Sources:

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Conclusion:

For sheep producers, fall and early winter can often mean bringing new genetics into the operation. Established ram sales and up-and-coming bred ewe sales across the region are promoting a lucrative entry point or expansion for operators. While many factors in our industry are out of our control (e.g. markets and moisture), preventing the importation of costly parasites and diseases can easily be accomplished by a proper quarantine protocol.

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