

COCCIDIOSIS: WHAT IT IS AND WHY IT MATTERS.

Coccidiosis is a gut infection primarily caused by *Eimeria bovis* and *Eimeria zuernii*, pathogenic protozoa that spread through contaminated soil, feed and water. While all cattle are exposed at some point, infection severity varies. Subclinical coccidiosis can quietly undermine performance through reduced weight gain and feed efficiency. Clinical outbreaks lead to visible illness including bloody diarrhea, loss of appetite and lethargy. Mature cattle may appear symptom-free yet continue shedding oocysts, increasing exposure risk for younger animals.

71% of the coccidia life cycle occurs in the small intestine where early protection matters most.

 Stress events like shipping, weaning, weather changes or ration transitions can trigger outbreaks.

SCALE & TYPES

WHAT A SINGLE OOCYST CAN DO:

$$1 \text{ OOCYST} \times 8 \text{ SPOROZOITES} \times 120,000 \text{ 1ST GENERATION MEROZOITES} \times 30 \text{ 2ND GENERATION MEROZOITES} \times 80\% \text{ MACRO-GAMETOCYTES} = 23,040,000 \text{ OOCYSTS}$$

Major *Eimeria* Species



Eimeria bovis (Most Common)

Although the shape can vary considerably, the oocysts are generally ovoid, measuring approximately 28 x 20 µm and are somewhat blunted across the narrow end (micropyle).



Eimeria alabamensis

The oocysts are usually ovoid, measuring approximately 19 x 14 µm, with a smooth one- or two-layered shell wall with no micropyle.



Eimeria zuernii (Most Common)

The oocysts are spherical to bluntly ellipsoidal, measure 18 x 16 µm and contain no visible micropyle.



Eimeria auburnensis

The oocysts are elongated ovoid, sometimes yellowish in color and nearly 1.5x larger than those of *Eimeria bovis*, measuring 38 x 23 µm. A micropyle is located at the more pointed end.



Eimeria ellipsoidalis

The oocysts are ellipsoidal, occasionally spherical or cylindrical. The oocyst wall is thin, homogeneous and transparent. There is no micropyle. Mean size is 17 x 13 µm.

COCCIDIOSIS DIAGNOSTIC PROCESS

STEP 1

Is It Coccidiosis?

Daily observation is key, signs include:

- Bloody diarrhea
- Slight fever
- Feebleness
- Loss of appetite
- Rectal tenesmus and anal paralysis

STEP 2

Call Your Vet

Clinical coccidiosis can only be diagnosed by fecal flotation.

STEP 3

Submit Fecal Samples

- Collect random samples
- Don't sample too early in disease course
- Submit to diagnostic laboratory

STEP 4

Assess Results

RESULT: Low total oocyst count

DIAGNOSIS: Not coccidiosis

ACTION: Pursue other potential causes including bovine viral diarrhea (BVD) and *Salmonella*

STEP 5

RESULT: High total oocyst count with low *Eimeria bovis* and *Eimeria zuernii*

DIAGNOSIS: Not coccidiosis

ACTION: Pursue other potential causes including BVD and *Salmonella*

STEP 6

RESULT: High total oocyst count with high *Eimeria bovis* and *Eimeria zuernii*

DIAGNOSIS: Coccidiosis

ACTION: Whole-group treatment using products that are labeled for treatment

STEP 7

If It's Coccidiosis: Obtain Bunk Samples and Assay for Drug Levels.

If drug concentration is CORRECT, check:

Feed Intakes

- Bunk space
- Ration palatability
- Concurrent disease
- Ration changes

Feed Delivery System

- Improper truck mixing
- Incorrect feed delivered to bunk
- Not enough feed delivered

Unrealistic Drug Expectations

• Overwhelming oocyst challenge*

• Past asexual stage when drug initiated

*There are occasional coccidiosis events that may require utilization of both a control coccidiostat (Deccox, Bovatec, monensin) and a treatment product like amprolium. Be sure to follow label directions when using a combination strategy.

If drug concentration is INCORRECT, check:

Formulations

- Inclusion rates not correct for ration supplement
- Incorrect drug in supplement
- Incorrect concentration of drug in supplement

Milling Procedures

- Incorrect inclusion of supplement in ration
- Incorrect supplement in bin
- Micro-machine error

A Shared Commitment to Health and Performance.

Phibro is focused on advancing animal health through science-based innovation and field-proven solutions. Our beef portfolio extends beyond coccidiosis control—supporting gut health, growth and overall performance across all production phases.

Contact your Phibro representative to learn more.

www.pahc.com

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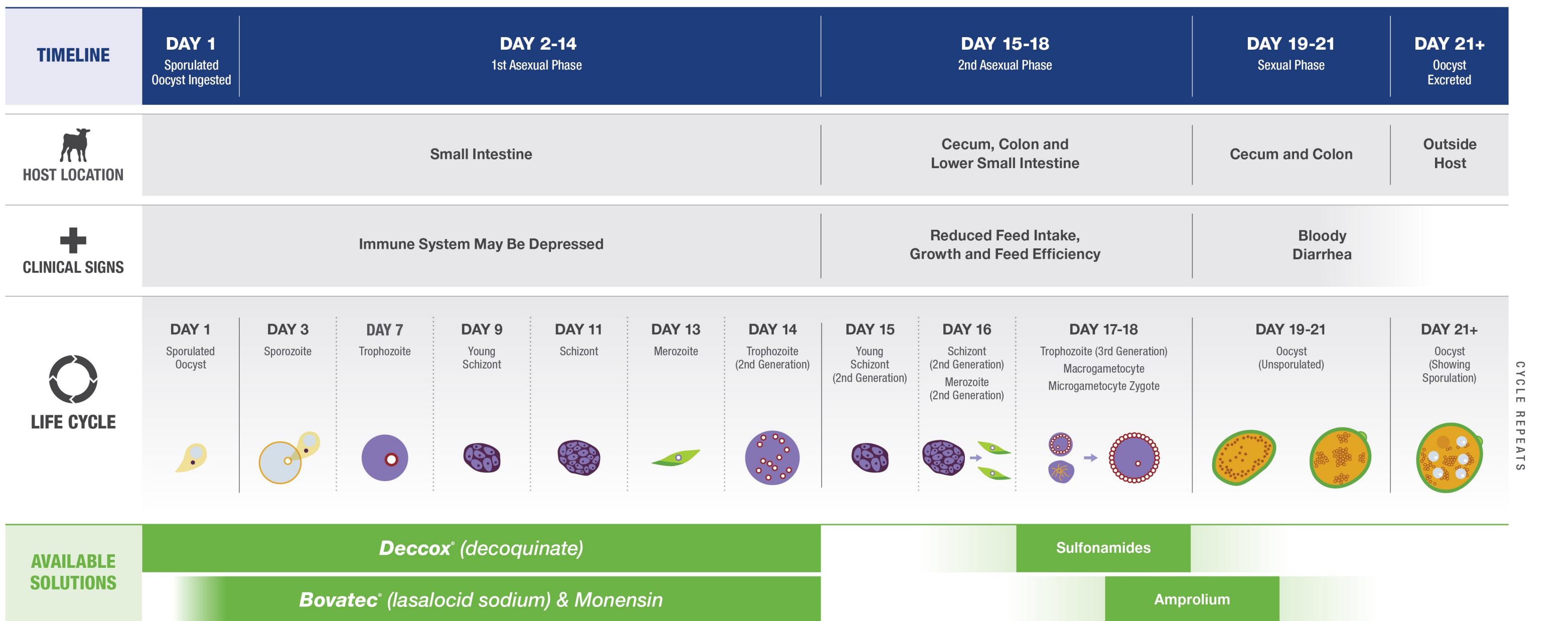
800.677.4623

**GUARD
YOUR CATTLE**

AGAINST COCCIDIOSIS

**Protect your cattle from the
damaging effects of coccidiosis
before it impacts performance.**

COCCIDIOSIS LIFE CYCLE CHART



**TWO PRODUCTS.
ONE CONTINUOUS LINE OF DEFENSE.**

Deccox®

Decoquinate (synthetic quinoline) is an antiprotozoal, nonantibiotic feed additive approved for the prevention of coccidiosis caused by *Eimeria bovis* and *Eimeria zuernii*. Deccox prevents coccidiosis by stopping the development of coccidia early in their life cycle, thus controlling both clinical and subclinical coccidiosis and reducing treatment costs and performance losses associated with clinical outbreaks.

- Deccox stops coccidiosis before it starts, helping calves grow without setbacks.
- Investing in coccidiosis prevention with Deccox helps avoid costly outbreaks, weight loss and treatment expenses.
- Deccox carries an extremely low risk of toxicity, making it a safe choice for the starting period on feed.
- Deccox can be easily incorporated into feed rations without the need for additional handling or management adjustments.

Bovatec®

Lasalocid sodium is a divalent ionophore that forms complexes with essential metal cations, particularly sodium (Na^+), potassium (K^+) and calcium (Ca^{2+}). These complexes shuttle the ions across the bacterial and protozoal membrane, essentially acting as carriers, to disrupt the natural balance (gradient) of ions inside and outside the cell. Without proper ion gradients, the gram-positive bacteria and protozoa can't maintain their internal environment or produce energy (ATP), halting essential functions like protein transport and growth.

On protozoa, Bovatec acts during the asexual stages of the coccidia life cycle and functions as a coccidiocidal ionophore, reducing parasite load. Additionally, it modifies the rumen bacterial population, mainly the gram-positive, supporting improved rumen function and better weight gain.

- Controls coccidiosis caused by *Eimeria bovis* and *Eimeria zuernii*.
- Supports higher feed intake while improving feed efficiency and weight gain, setting cattle up for long-term success.
- Works across both starting and growing phases, offering flexibility without restricting intake.
- Bovatec requires no step-up program, allowing easy integration without intake drops or reduced coccidiosis control.