

CYDECTIN®
(moxidectin)

A DIFFERENT CLASS OF **CATTLE DEWORMER.**



Elanco™

WHY DEWORMING MATTERS:

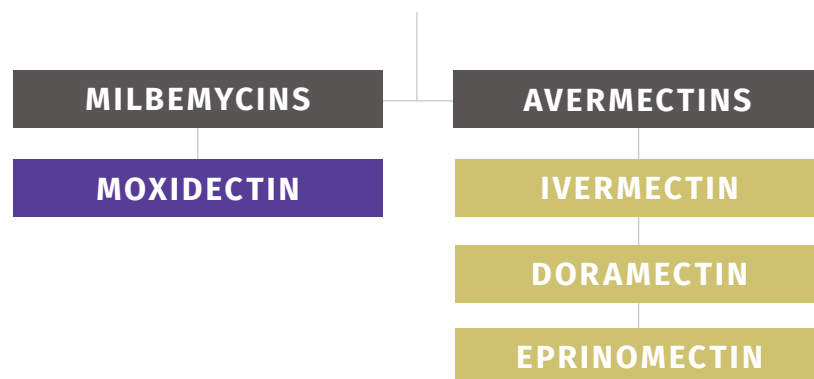
Cattle parasites can cause a host of problems in cattle, from reduced milk production and reproductive performance to increased disease susceptibility.^{1,2} This can occur even with subclinical infection, when symptoms may not be noticeable.

That's why having a consistent deworming protocol is so important. And when it comes to choosing a dewormer, many products are in the same chemical class, even if the brand name is different. This can make it confusing when trying to choose the right dewormer for your operation's needs.

ONLY Cydectin® (moxidectin) cattle dewormers are in the milbemycin chemical class.

This puts Cydectin in a class of its own compared to other macrocyclic lactone (ML) dewormers.

MACROCYCLIC LACTONES



MOXIDECTIN HAS A UNIQUE MOLECULAR STRUCTURE.

1

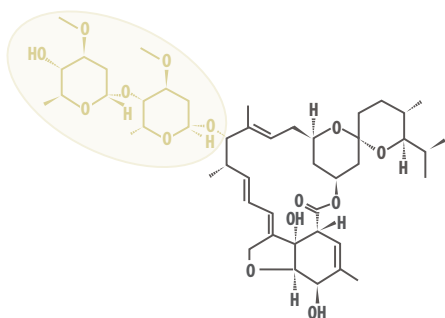
The structure differs from those of avermectin products e.g., ivermectin, doramectin and eprinomectin.

2

It allows for wide distribution in the fat, which enables extended activity to kill key parasites for up to 42 days.³

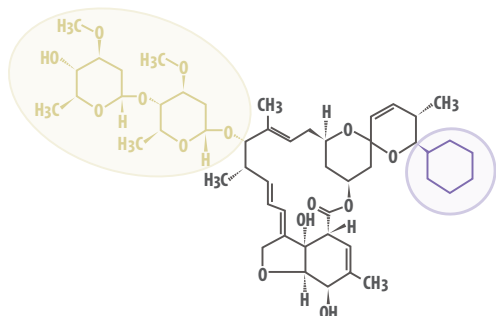
IVERMECTIN

e.g., Ivomec® (ivermectin) Injection



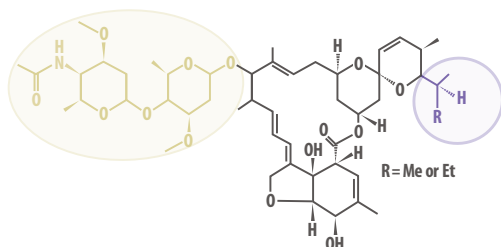
DORAMECTIN

e.g., Dectomax® (doramectin) Injectable



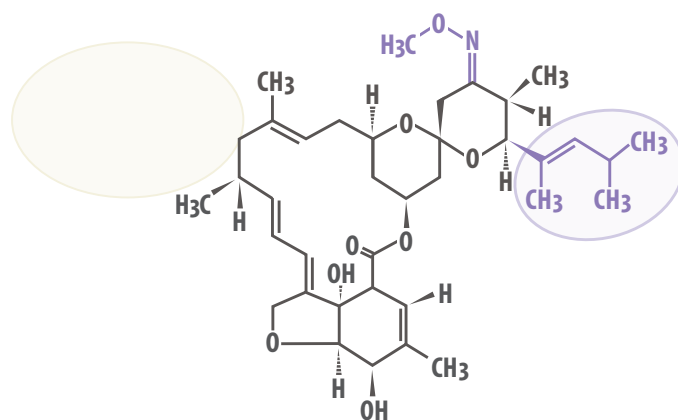
EPRINOMECTIN

e.g., LongRange® (eprinomectin)



MOXIDECTIN

e.g., Cydectin® (moxidectin) Injectable



Researchers have estimated that **without dewormers, cow-calf producers would sacrifice more than \$165 per head** in lost returns on break-even selling price.⁴ And for the beef production system overall, the impact of eliminating dewormers on break-even prices totaled **\$190 per head.**⁴

SHORT WITHDRAWAL. LONG PERSISTENCY.

Cyductin® (moxidectin) Injectable has a **short withdrawal period** and offers **long-lasting, persistent control of key internal parasites.***

PERSISTENT KILLING ACTIVITY

	Ostertagia ostertagi (brown stomach worm)	Haemonchus placei (barber pole worm)	Trichostrongylus axei (stomach hairworm)	Oesophagostomum radiatum (nodular worm)	Dictyocaulus viviparus (lungworm)
Cyductin Injectable	14 days	35 days	14 days	42 days	42 days
Ivomec® (ivermectin) Injection	21 days	14 days	21 days	28 days	28 days
Dectomax® (doramectin) Injectable	21 days	14 days	0 days	28 days	28 days

WITHDRAWAL PERIOD

Cyductin Injectable	21 days
Ivomec Injection	35 days
Dectomax Injectable	35 days

*Based on 11/27/18 label comparisons to Cyductin.



TREAT INFECTIONS AND INFESTATIONS DUE TO:

CYDECTIN[®]
(moxidectin)

ROUNDWORMS (12 types)

Inhabit the abomasum:

- *Ostertagia ostertagi* (brown stomach worm)
- *Haemonchus placei* (barber pole worm)
- *Trichostrongylus axei* (stomach hairworm)

Inhabit the small intestine:

- *Trichostrongylus colubriformis*
(black scour worm)
- *Cooperia oncophora* (parasitic roundworm)
- *Cooperia pectinata* (parasitic roundworm)
- *Cooperia punctata* (parasitic roundworm)
- *Cooperia spatulata* (parasitic roundworm)
- *Cooperia surnabada* (parasitic roundworm)
- *Nematodirus helvetianus*
(parasitic roundworm)

Inhabit the large intestine:

- *Oesophagostomum radiatum* (nodular worm)
- *Trichuris* spp. (whipworm)

LUNGWORMS

Inhabit the lungs:

- *Dictyocaulus viviparus* (lungworm)

CATTLE GRUBS (2 types)

Inhabit the hair and skin:

- *Hypoderma bovis*
(northern cattle grub)
- *Hypoderma lineatum*
(common cattle grub)

MITES

Inhabit the hair and skin:

- *Psoroptes ovis* (sheep scab mite)

LICE (2 types)

Inhabit the hair and skin:

- *Linognathus vituli*
(long-nosed cattle louse)
- *Solenopotes capillatus*
(little blue cattle louse)



FOR USE IN:

Beef cattle and non-lactating dairy cattle

Not for use in female dairy cattle 20 months of age or older, including dry dairy cows, veal calves and calves less than 8 weeks of age.

CYDECTIN® (MOXIDECTIN) INJECTABLE NUMERICALLY OUTPERFORMS OTHER ML DEWORMERS IN 2017 STUDY.⁵

The results of a 2017 independent study showed how the effectiveness of three ML dewormers was impacted by previous deworming treatments administered 118 days earlier. Effectiveness was measured by the percent reduction in the total number of nematode eggs in the feces of cattle — also known as fecal egg count reduction (FECR) — 15 days after treatment.

FIG. 1: Percent FECR of cattle previously treated with a saline solution (control group)^{*5}

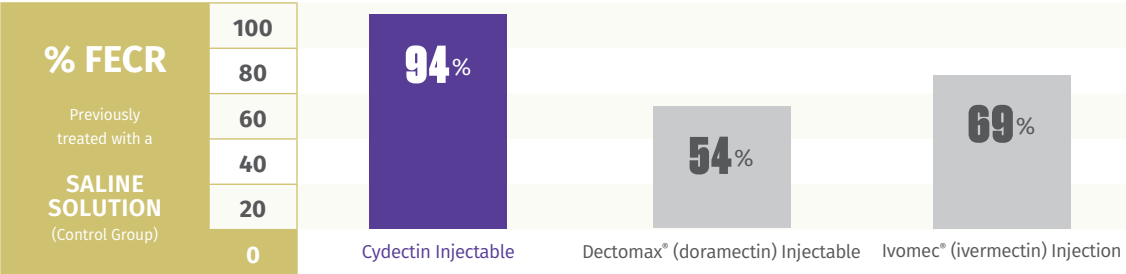


FIG. 2: Percent FECR of cattle previously treated with LongRange® (eprinomectin)^{*5}

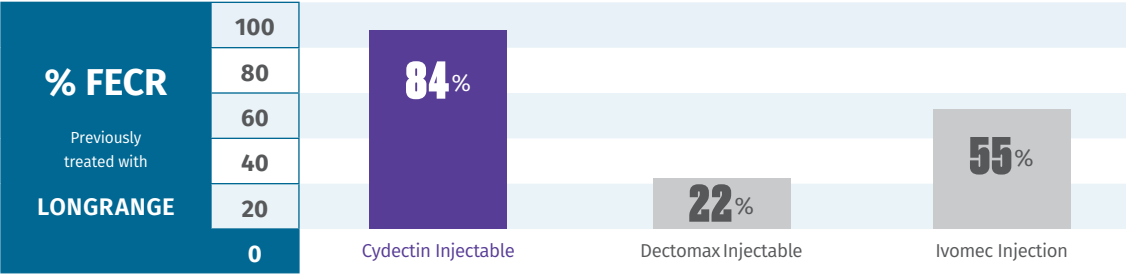
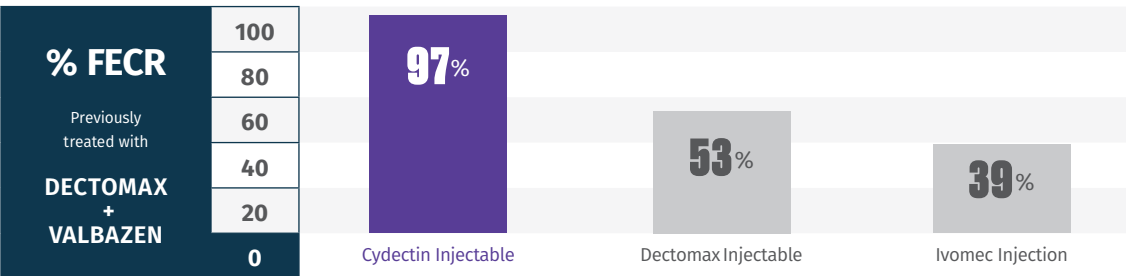


FIG. 3: Percent FECR of cattle previously treated with Dectomax + Valbazen® (albendazole) Suspension^{*5}



^{*5}Based on group arithmetic means.

Regardless of previous treatments, there was a significant difference in mean Fecal Egg Count Reduction over all pastures with Cydectin compared to Ivomec and Dectomax. (Figs. 1-3).^{*5}

FAQs

Q: WHY SHOULD I USE AN INJECTABLE FORMULATION?

A: If you haven't considered using one on your operation, you should know that an injectable has its own benefits.

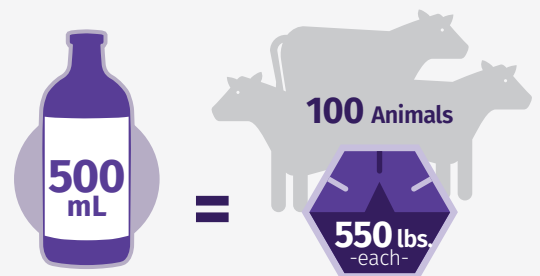


CYDECTIN INJECTABLE BENEFITS:

- Helps ensure proper dosage.
- This helps optimize efficacy while limiting the chance for resistance.
- Controls key internal parasites.
- Provides some external parasite control.
- Is easy to use.
- No messy drench required.

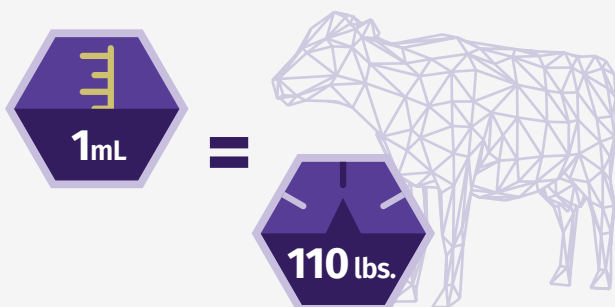
Q: HOW MANY CATTLE CAN I TREAT WITH A BOTTLE OF CYDECTIN INJECTABLE?

A: Cydectin Injectable is available in a 500 mL bottle, which will treat 100 animals weighing 550 lbs. each.



Q: HOW DO I APPLY CYDECTIN INJECTABLE?

A: Administer one quick subcutaneous injection under the loose skin in front of, or behind, the shoulder. Apply at a rate of 1 mL for each 110 lbs. of bodyweight.



Q: WHERE CAN I LEARN MORE?

A: Contact your Elanco sales representative or visit ElancoLivestock.com for Cydectin product information, rebates and more.



RAISE

YOUR DEWORMING EXPECTATIONS.

CYDECTIN (MOXIDECTIN) INJECTABLE:

- **Unique active ingredient.**
- **ONLY cattle dewormer in the milbemycin chemical class.**
- **Short 21-day withdrawal period.**
- **Long-lasting, persistent control** of key internal parasites for up to 42 days.³
- **27% superior efficacy over Ivomec and Dectomax.**

91% fecal egg count reduction compared to 41% for cattle treated with Dectomax® (doramectin) Injectable and 57% for cattle treated with Ivomec® (ivermectin) Injection based on group arithmetic means. A significant difference in mean Fecal Egg Count Reduction over Ivomec and Dectomax.⁵



Learn more at **Elanco.US**

Keep out of reach of children.

IMPORTANT SAFETY INFORMATION:

Cattle must not be slaughtered for human consumption within 21 days of treatment. This drug is not approved for use in female dairy cattle 20 months of age or older, including dry dairy cows. Use in these cattle may cause drug residues in milk and/or in calves born to these cows. A withdrawal period has not been established for prerinuating calves. Do not use in calves to be processed for veal.

¹Gadberry, S., Powell, J. "Internal parasites in beef and dairy cattle." University of Arkansas Division of Agriculture Cooperative Extension Service website. Available at: <https://www.uaex.uada.edu/publications/pdf/FSA-3045.pdf>. Accessed November 1, 2018.

²Smith, R., Rogers, K., Huse, S., et al. 2000. "Pasture deworming and (or) subsequent feedlot deworming with fenbendazole and its effects on grazing performance, feedlot performance and carcass traits of yearling steers." Bovine Practitioner. 34(2):104-114.

³Freedom of Information Summary, NADA: 141-220.

⁴Lawrence, J., Ibarburu, M. 2006. "Economic analysis of pharmaceutical technologies in modern beef production." Available at: www2.econ.iastate.edu/faculty/lawrence/pharmaeconomics2006.pdf. Accessed November 9, 2018.

⁵Yazwinski, T., Tucker, C., Powell, J., et al. 2017. "A fecal egg count reduction test evaluating macrocyclic lactones using cattle treated 118 days earlier with saline, albendazole in combination with doramectin, or an extended-release formulation of eprinomectin." Bov Pract. 51(1):28-33.