Fast Worm ID
- Gastrointestinal nematode (GIN) PCR

- quick reference guide for cattle and sheep

GIN PCR fills the gap: fast, species-specific insight that supports better decisions. Always interpret the result alongside an FEC and the animal's drench history.

Why use GIN PCR?

Faecal egg counts tell us how many eggs, but not which worms are driving disease, production loss, or poor drench performance. Larval culture gives species information, but it is slow and has practical limitations, especially in cattle and low-count situations.

The GIN PCR test is a multiplex, semi-quantitative PCR that:

- Identifies key gastrointestinal nematode species
- Detects parasite DNA present in the sample tested, not eggs per gram
- Can be used on individual animals
- Paired with a faecal egg count (FEC) it supports targeted drenching and reduces guesswork in clinical cases.

Validated species

Sheep	Cattle
Haemonchus contortus	*Ostertagia ostertagi*
Teladorsagia circumcincta	*Trichostrongylus axei*
Trichostrongylus axei	*Trichostrongylus vitrinus / colubriformis**
*Trichostrongylus colubriformis / vitrinus**	*Trichostrongylus vitrinus*
Trichostrongylus vitrinus	*Cooperia* spp.
Nematodirus spathiger	
Cooperia spp.	

**This test cannot fully distinguish between Trichostrongylus vitrinus and Trichostrongylus colubriformis, so any sample containing T. colubriformis will be reported as T. colubriformis/T. vitrinus, while a sample containing only T. vitrinus will be reported as T. vitrinus.*

Reading the result

Not detected - Very low - **Low** - Medium - **High** - Very high

Interpret categories as trend and clinical significance, not as absolute egg numbers.

Please refer to our current price book for sample types, test turn-around times and pricing. If you have any questions or would like any further information, please contact your local laboratory or Business Development Manager.

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How GIN PCR differs from larval culture

GIN PCR: Detects worm DNA directly and does not rely on egg hatching.

Larval culture: Identifies species from larvae that successfully hatch and grow. Results depend on hatching, morphology, and culture time.

Important limitations: *PCR detects parasite DNA, not egg numbers, and cannot distinguish living worms from dead worms or different life stages. It uses 100mg of faeces, compared with approximately 3g for a FEC, so uneven egg distribution has a greater effect at low counts. GIN PCR is not suitable for calculating FECRT reduction percentages - FEC/larval culture remains the reference method for formal reduction testing. Speak to a parasitologist if you are unsure which test is applicable.*

When should I use it?

Choose the test that matches the situation

Situation	GIN PCR	FEC / Larval culture
Sick animal where rapid species identification may improve treatment decisions	Yes - pair with FEC	Provides egg-count context
Rapid differentiation of *Haemonchus* spp. from other species	Yes - pair with FEC	Speciation is slower
Post-drench: identify which species may be passing through	Yes - sample 10-14 days after drenching	Yes
Formal drench check with pre- and post-treatment counts	No – not numerical	Yes
FECRT / resistance reduction percentage	No	Yes – reference method
Egg count below 100epg	Not recommended	Yes

Sheep: Pre-drench decision-making; post-drench species checks interpreted with an FEC; early detection of *Haemonchus* spp.; and clinical cases where species matters.

Cattle: Pre-drench assessment of *Ostertagia* versus *Cooperia*; post-drench species checks interpreted with an FEC; clinical parasitism; and situations where larval culture is impractical.

Sample collection and handling

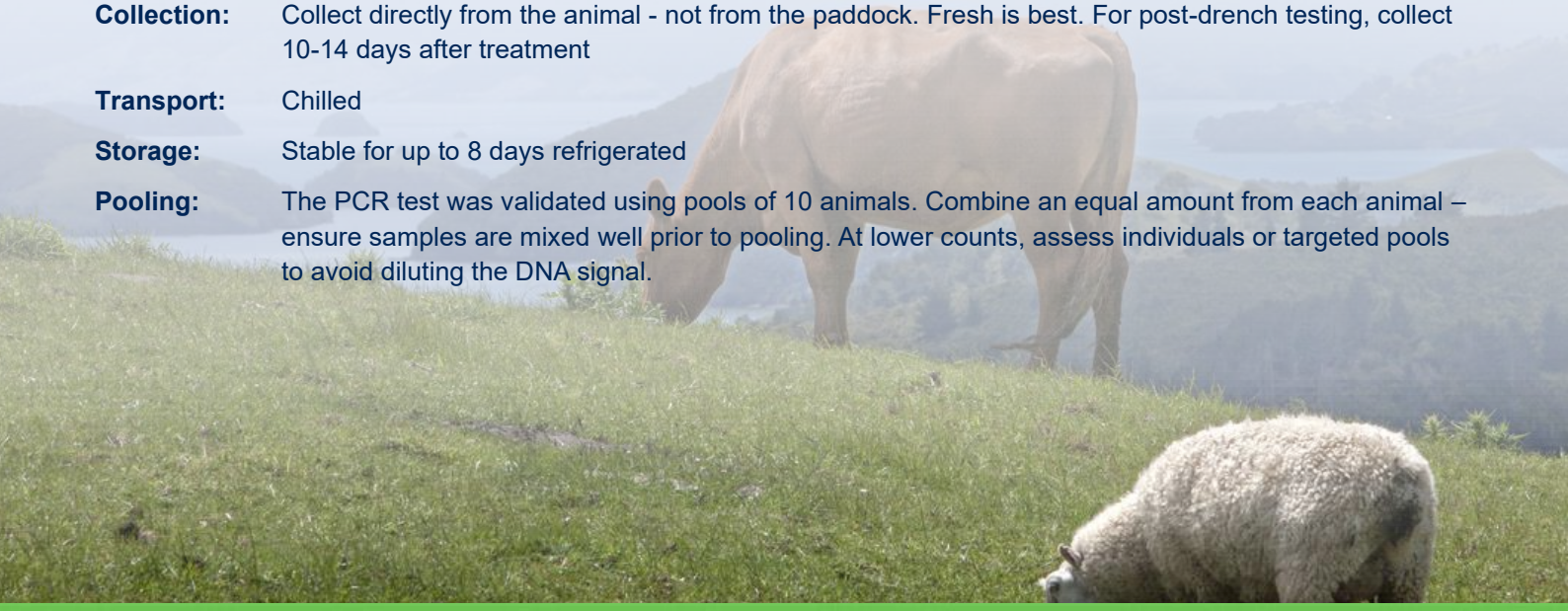
Sample type: Faeces – individual or pooled

Collection: Collect directly from the animal - not from the paddock. Fresh is best. For post-drench testing, collect 10-14 days after treatment

Transport: Chilled

Storage: Stable for up to 8 days refrigerated

Pooling: The PCR test was validated using pools of 10 animals. Combine an equal amount from each animal – ensure samples are mixed well prior to pooling. At lower counts, assess individuals or targeted pools to avoid diluting the DNA signal.



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