switch, equine



Parasites, Pasture & the Quiet Revolution in Equine Management

A practical guide for horse owners and land managers

a changing landscape

For many years, parasite control in horses followed a familiar pattern: routine worming every few months, short grass, tidy paddocks, and the belief that “clean” land was healthy land. It felt simple and safe.

But the science has moved on. This approach reflects the direction of the latest BEVA parasite control guidance, which prioritises testing and targeted treatment over routine worming.

Across the UK and internationally, researchers and veterinary parasitologists now agree that routine, untargeted worming is no longer sustainable. Wormer resistance is rising, biodiversity is declining, and many traditional practices — including the old “worm after the first frost” rule — have been shown to be ineffective.
Modern parasite management is shifting toward a quieter, more ecological approach. It protects horses, strengthens land, and preserves the effectiveness of wormers for the future.

At the centre of this shift is one essential tool:
the Faecal Egg Count Reduction Test (FECRT).

why the old approach no longer works

Traditional parasite management relied on two assumptions:

- Wormers will always work
- Short, closely grazed pasture is safest

Both assumptions have been overturned by recent research.

Routine worming accelerates resistance. Short grass exposes horses to the highest concentration of larvae.
Tidy, overgrazed paddocks often have compacted soils, low biodiversity, and stressed swards — all of which increase parasite pressure. The result is a cycle of more worming, more resistance, and poorer land health.

Modern guidance now emphasises testing, targeted treatment, and ecological land management.

switch, equine



Parasites, Pasture & the Quiet Revolution in Equine Management

A practical guide for horse owners and land managers

why resistance matters

Wormer resistance is one of the most significant challenges facing modern parasite management. Over time, parasites can evolve the ability to survive a wormer that once worked effectively. Once this happens, that wormer will never work for that population again — resistance is permanent.

Routine, untargeted worming accelerates this process. Each unnecessary treatment increases the chance that resistant worms survive and pass their genes on. These resistant worms shed eggs onto the pasture, other horses ingest them, and resistance gradually becomes established across the whole herd or yard.
This matters because we have a limited number of wormer classes available, and no new ones are expected soon. If we lose the effectiveness of the products we have, we lose our ability to protect horses from serious parasite-related disease.

This is why FECRT is so important. It is the only way to confirm whether a wormer still works on your yard. By identifying resistance early — before it becomes widespread — FECRT protects both your horses and the long-term usefulness of the wormers we rely on.

environmental impact of wormers

Modern parasite management also considers the wider environmental impact of wormers. Many products pass through the horse unchanged and enter the pasture in dung, where they can harm the insects and soil organisms that naturally help keep parasite levels in check. Dung beetles are particularly sensitive to certain wormer residues, and when their populations decline, dung breakdown slows, pasture contamination increases, and the whole ecological system becomes less resilient.

These residues don't just stay on the field. Heavy rain and surface run-off can carry wormer chemicals into ditches, streams, and rivers, where they may affect aquatic invertebrates and disrupt freshwater ecosystems. Even low concentrations can interfere with the insects and larvae that form the foundation of river food webs. Over time, repeated use across many yards contributes to a wider environmental load that affects biodiversity well beyond the grazing field.
Reducing unnecessary wormer use therefore protects more than just the effectiveness of the medicines we rely on — it supports soil health, water quality, and the wider ecosystems your horses depend on.

switch, equine



Parasites, Pasture & the Quiet Revolution in Equine Management

A practical guide for horse owners and land managers

the main parasite groups

You don't need to memorise species — but understanding the broad groups helps you interpret test results.

Small redworms (cyathostomins)
The most important group for adult horses.
Larvae can encyst in the gut wall and emerge in large numbers.

Large redworms
Now rare due to decades of control, but still serious when present.

Tapeworm
Detected via saliva or blood tests rather than FECs.

Bots
Bot fly eggs are ingested during grooming and the larvae overwinter in the stomach. They are generally low-risk and do not show up on FECs.

Pinworm
Irritating but not typically harmful.

This context helps us to understand why testing, not guessing, is essential.

understanding parasites on pasture

To manage parasites effectively, it helps to understand how they behave:

- Most larvae climb only a few centimetres up the grass blade.
- They thrive in short, stressed, overgrazed pasture.
- They decline in taller, diverse swards with strong root systems.
- Dung beetles and soil organisms break down dung quickly, reducing larval survival.
- Mixed grazing (sheep, cattle) interrupts parasite lifecycles.

This means that short, tidy paddocks are the highest-risk environments, while messier, more diverse, well-rested pastures naturally suppress parasite pressure.

Healthy land is your strongest parasite-management tool.

switch, equine



Parasites, Pasture & the Quiet Revolution in Equine Management

A practical guide for horse owners and land managers

managing your paddocks for parasites

Parasite management begins long before a wormer is ever considered. The way a pasture is grazed — its height, its rest periods, its biodiversity, and its soil life — has a greater influence on parasite pressure than any chemical treatment. When we manage land ecologically, we work with the natural processes that suppress parasites rather than fighting against them.

why rest and rotation matter

Every time horses graze a paddock, they leave behind dung containing parasite eggs. These eggs hatch into larvae that migrate onto the surrounding grass. If horses continue to graze the same area without a break, they repeatedly encounter the highest concentration of larvae at the base of the sward.

Resting a paddock interrupts this cycle.

During rest:

- Larval numbers decline naturally as they age, dry out, or are exposed to UV light.
- Grass grows taller, lifting the grazing zone above the height most larvae can reach.
- Dung beetles and soil organisms break down dung, reducing larval survival and returning nutrients to the soil.
- Plant diversity rebounds, strengthening the whole ecosystem and improving resilience.

Rotation doesn't need to be complex. Even a simple two-paddock system — one grazed, one resting — dramatically reduces exposure. Longer rest periods (6–12 weeks depending on season) are even more effective, especially when combined with taller swards and healthy soil biology.

Rest is not about eliminating every larva. It's about reducing density, diluting exposure, and supporting the ecological processes that keep parasite pressure low.

Rotation doesn't need to be complicated. Even a simple two- or three-paddock system dramatically reduces parasite pressure by allowing grass to grow taller, larvae to decline, and soil biology to recover.

switch, equine



Parasites, Pasture & the Quiet Revolution in Equine Management

A practical guide for horse owners and land managers

grazing height: the most overlooked factor

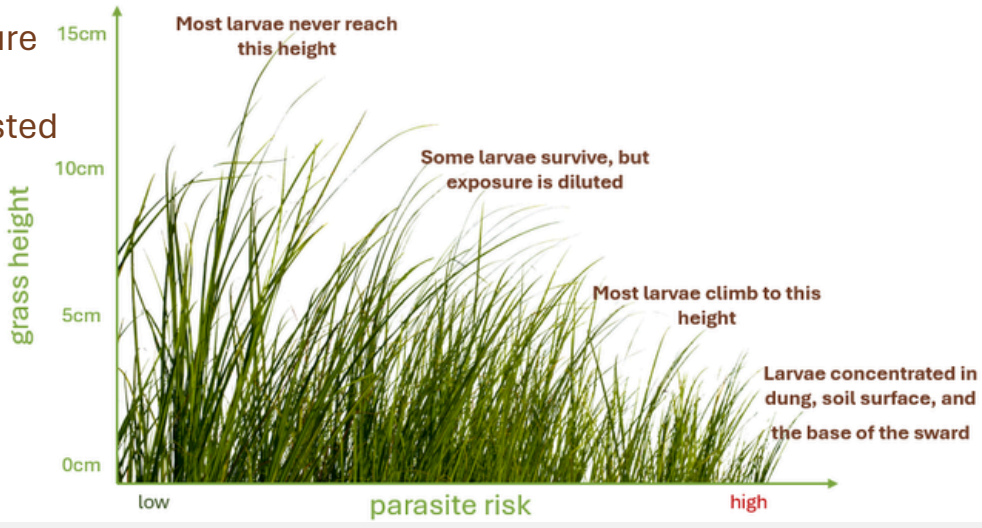
Most equine parasites climb only a few centimetres up the grass blade. This means the height of your sward directly affects how many larvae your horses ingest.

0–5 cm: High-risk zone
This is where the majority of larvae live. Horses grazing very short grass are exposed to the highest larval load.

5–10 cm: Moderate-risk zone
Fewer larvae survive at this height. Exposure is naturally diluted.

10 cm+: Low-risk zone
Larvae rarely reach this height. Taller, healthier swards act as a natural barrier.

Short, stressed, overgrazed pasture is the perfect environment for parasites. Taller, diverse, well-rested pasture is the opposite: it dilutes exposure, supports soil life, and strengthens the land's natural defences.



the ecological bottom line

You can't worm your way out of poor grazing management — but you can graze your way out of high parasite pressure.

Rest, rotation, and sward height are the most powerful parasite-management tools available to horse owners. They reduce reliance on wormers, protect dung beetles and soil organisms, and create healthier, more resilient land for your horses.

switch, equine



Parasites, Pasture & the Quiet Revolution in Equine Management

A practical guide for horse owners and land managers

the quiet revolution: ecological parasite management

This approach doesn't rely on more chemicals or more control.
It relies on better land function.

Key principles:

A. Rest and rotation
Resting land breaks parasite lifecycles and allows grass to recover. Even short rest periods reduce larval load dramatically.

B. Taller, healthier swards
Longer grass supports deeper roots, stronger soil biology, and fewer larvae at grazing height.

C. Biodiversity as a management tool
More plant species = more insects = faster dung breakdown = fewer parasites.
Dung beetles alone can reduce parasite larvae by up to 90% when populations are healthy.

D. Targeted worming, not routine worming
Use faecal egg counts, saliva tests, and risk-based assessments.
Worm only when necessary.

E. Mixed grazing where possible
Sheep and cattle "hoover up" horse parasites without becoming infected.

F. Avoid over-tidying
Leaving some roughs, tussocks, and dung patches supports the insects that support your horses.

switch, equine



Parasites, Pasture & the Quiet Revolution in Equine Management

A practical guide for horse owners and land managers

when to worm: updated guidance

Modern recommendations, including BEVA's latest guidance, now emphasise testing and risk-based decisions rather than calendar-based worming.

The outdated rule: "worm after the first frost"
This advice is no longer supported because:

- Frosts are increasingly unreliable due to climate change
- Frost does not reliably kill larvae: instead we now know that they go dormant and reawaken to infect your pasture in spring

Current understanding:
Encysted stages require attention before spring, based on:

- your horse's risk profile
- your pasture management
- your FEC and FECRT results
- veterinary guidance

The key message:
worming should be based on evidence, not the calendar.

why FECRT matters — and why every yard should do one annually

A Faecal Egg Count Reduction Test (FECRT) is the only way to know whether a wormer still works on your yard.
It measures egg counts before and after treatment to confirm whether the wormer has been effective. Without this test, you may be using a product that no longer works at all.
Every yard should complete at least one FECRT per year.

Not for every horse — but for a representative sample.

This single action:

- protects the effectiveness of wormers
- identifies resistance early
- prevents unnecessary treatments
- supports evidence-based parasite control
- saves money long-term

FECRT is now considered best practice in modern equine management.

switch, equine



Parasites, Pasture & the Quiet Revolution in Equine Management

A practical guide for horse owners and land managers

high shedders: why they matter (and why a high FEC doesn't always mean a high burden)

Not all horses shed parasite eggs at the same rate. Research consistently shows that around 20–30% of horses shed the majority of eggs on a pasture. These individuals are known as high shedders, and they contribute disproportionately to pasture contamination. Others remain low shedders for life, even when exposed to the same grazing environment.

This is where faecal egg counts (FECs) are useful — but also where they are often misunderstood. An FEC measures how many eggs a horse is shedding at the moment the sample is taken. It does not measure how many worms are inside the horse. Some horses naturally shed more eggs even when their internal burden is moderate, while others shed very few eggs despite carrying larvae that are not currently producing eggs.

This means a high FEC does not automatically mean a high worm burden, and it does not mean that horse needs worming immediately. Equally, a low FEC does not guarantee a horse is parasite-free, because FECs cannot detect encysted small redworm, tapeworm, or bots, and they are often low in winter when larvae encyst rather than shed eggs.

FECs are therefore a monitoring tool, not a diagnostic tool. They must always be interpreted in context: the season, the horse's history, their shedding pattern, and the condition of the land they graze. When used well, FECs help identify consistent high shedders — the horses most responsible for pasture contamination — allowing you to target treatments where they are most effective, reduce unnecessary wormer use, and protect low shedders from medication they do not need.

Understanding shedding patterns, rather than reacting to single numbers, is a cornerstone of modern, sustainable parasite control. When combined with FECRT, FECs become even more powerful, helping you understand both the parasite pressure on your land and whether the wormers you rely on are still effective.

switch, equine



Parasites, Pasture & the Quiet Revolution in Equine Management

A practical guide for horse owners and land managers

a seasonal overview of parasite testing

Modern parasite management is guided by testing, not the calendar — but understanding the seasonal patterns of parasite biology helps you plan ahead.

Spring

- FECs become meaningful again as egg shedding increases.
- Useful time to identify high shedders for the season.
- A good point to review FECRT results from the previous year.

Summer

- Peak egg shedding for most horses.
- Regular FECs help monitor high shedders and pasture contamination.
- FECRT can be carried out if egg counts are high enough to test wormer effectiveness.

Autumn

- Another key window for FECs.
- Saliva or blood tests for tapeworm are often performed at this time due to seasonal biology.
- Pasture management decisions (rest, rotation, mixed grazing) have a big impact here.

Winter

- FECs are often low because larvae encyst, so results may not reflect true burden.
- The traditional advice to “worm after the first frost” is now outdated:
  - frosts are increasingly unreliable due to climate change
  - frost does not reliably kill larvae
  - waiting for frost often delays action too long
- Modern guidance focuses on risk assessment and testing, with attention to encysted stages before spring, not after frost.

This seasonal rhythm supports evidence-based decisions without relying on outdated routines.

switch, equine



Parasites, Pasture & the Quiet Revolution in Equine Management

A practical guide for horse owners and land managers

how to complete a FECRT

Step 1: Select horses.
Choose horses that typically show measurable egg counts

Step 2: Collect pre-treatment samples.
Submit faecal samples to your chosen lab.

Step 3: Treat with a single wormer.
Use the product you want to test

Step 4: Wait 10–14 days.
Timing depends on the wormer used.

Step 5: Collect post-treatment samples.
Submit to the same lab.

Step 6: Compare results:
A reduction of 95% or more indicates the wormer is still effective. Anything less suggests resistance.

switch, equine



Parasites, Pasture & the Quiet Revolution in Equine Management

A practical guide for horse owners and land managers

practical steps you can take today

Step1: Assess your pasture

Look for:

- short, stressed grass
- compaction
- low species diversity
- areas horses avoid (often high-larval zones)

Step 2: Introduce rest periods

Even a simple two-paddock rotation helps

Step 3: Allow grass to grow taller

Aim for varied heights, not unifrom short turf

Step 4: Support dung beetles

Avoid wormers that harm them unless absolutely necessary.

Step 5: Use evidence-based worming

Test first. Treat only when needed.
Complete at least one FECRT annually.

Step 6: Increase biodiversity

Herbs, wildflowers, hedgerows, and shelterbelts all support ecological balance.

switch, equine



Parasites, Pasture & the Quiet Revolution in Equine Management

A practical guide for horse owners and land managers

what this means for your horse

A more ecological approach reduces parasite pressure while improving:

- gut health
- grazing behaviour
- soil structure
- pasture resilience
- long-term land function

This is not about doing more.

It's about doing differently — and letting the land do more of the work for you.

the quiet revolution

Good management used to mean short grass, frequent worming, and tidy paddocks.

Now, good management looks like:

- evidence-based testing
- annual FECRT
- taller, healthier swards
- rest and rotation
- thriving dung beetle populations
- diverse, functioning pasture

This is the quiet revolution: a shift from fighting nature to working with it.

next steps

If you'd like support designing a parasite-smart grazing system or want help planning FECRT and FEC schedules for your yard, Switch Equine offers:

- grazing system design
- parasite-aware pasture planning
- land and soil assessments
- whole-farm ecological mapping

Small changes, made consistently, transform both horses and land.

a note on veterinary guidance

This guide is designed to support your understanding of modern, evidence-based parasite management and aligns with the principles of current BEVA guidance. It does not replace veterinary advice, and any decisions about testing or treatment should be made in consultation with your vet.

Parasitology is a rapidly evolving field, and recommendations have changed significantly in recent years. Not all practitioners will be familiar with the latest research or ecological approaches, so it can be helpful to discuss your testing results, pasture management, and FECRT findings with your vet to ensure your approach is aligned with current best practice.



Parasites, Pasture & the Quiet Revolution in Equine Management

A practical guide for horse owners and land managers

summary: putting it all together

Modern parasite management is no longer about routine worming or keeping paddocks short and tidy. It's about understanding how parasites behave, how horses shed eggs, and how land health shapes risk. Testing sits at the centre of this approach, supported by ecological grazing and thoughtful pasture management.

A sustainable, modern parasite-management plan includes:

- Regular FECs from spring to autumn to monitor shedding patterns
- Identifying high shedders so treatments can be targeted where they matter most
- One FECRT per year to confirm whether wormers still work on your yard
- Pasture management that prioritises rest, taller swards, and biodiversity
- Supporting dung beetles and soil life by avoiding unnecessary wormer use
- Seasonal awareness, not calendar-based worming
- Risk-based decisions, not blanket treatments
- Working with your vet to interpret results and plan evidence-based actions

Small, consistent changes — in testing, grazing, and ecological thinking — create healthier horses, healthier land, and a more resilient parasite-management system.

risk categories

Risk categories help you understand why different horses may need different levels of monitoring. These are not medical diagnoses — they're practical, land-based indicators that help you plan testing and grazing.

Low risk horses	Medium risk horses	High risk horses
Typically: • adult horses in good condition • consistent low shedders • stable herd with no new arrivals • grazing on rested, diverse, well-managed pasture • low stocking density These horses usually maintain low FECs and contribute minimally to pasture contamination.	Typically: • horses with unknown history • new arrivals to the yard • horses moving between grazing areas • moderate stocking density • inconsistent FEC patterns These horses benefit from closer monitoring until their shedding pattern becomes clear	Typically: • youngsters (under 5) • horses with high or fluctuating FECs • known high shedders • horses on overgrazed or stressed pasture • yards with limited rest or high stocking density These horses contribute most to pasture contamination and are the priority for targeted testing and management