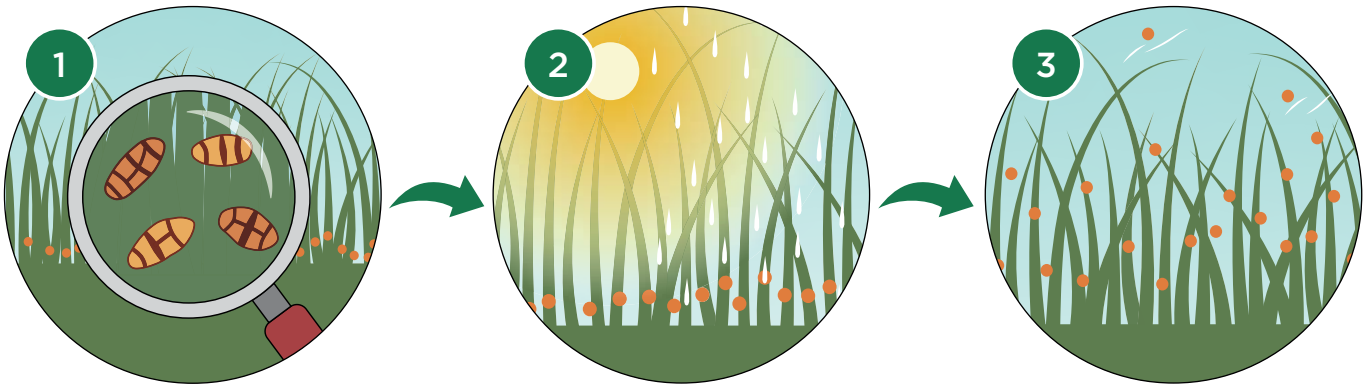
Spores to sores

THE FACIAL ECZEMA (FE) JOURNEY BEGINS IN THE PASTURE

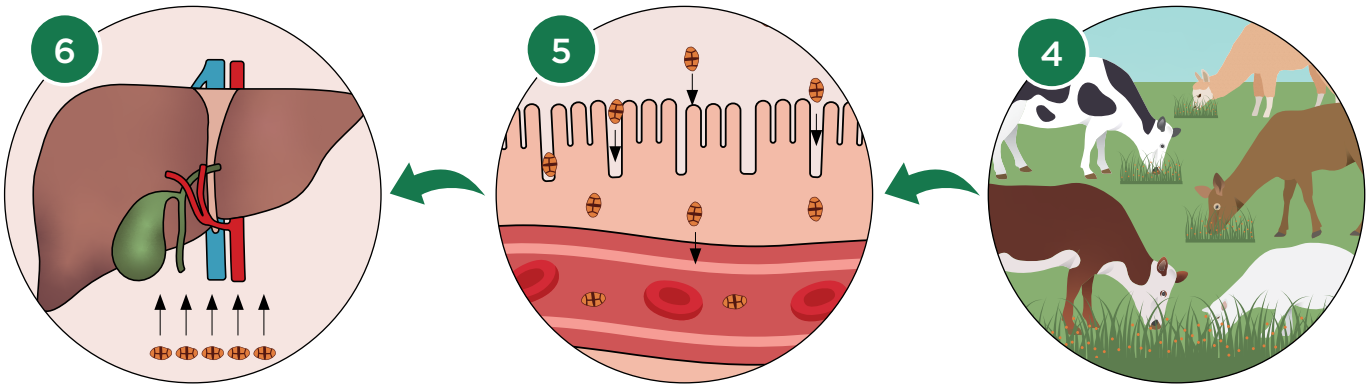
How toxic pasture spores turn into the livestock liver damaging disease that we know as facial eczema. When we understand what is happening then we can better understand what we can do to eliminate the impact.



There are **2 fungal species** associated with FE – Toxicarius (toxic), Chartarum (non toxic)

Spores are **produced** in response to changes in the environment

Spores **move**



Livestock **ingest** spore affected pasture

Sporidesmin (toxin) is rapidly **absorbed into the bloodstream** from the gastrointestinal tract (where specifically is unknown, but it is thought the small intestine)

Sporidesmin **travels** via the bloodstream to the liver

Why it matters

Understanding this journey helps us protect our animals from FE.

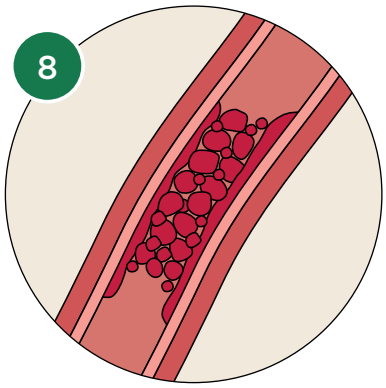
Know the risk

Manage pasture

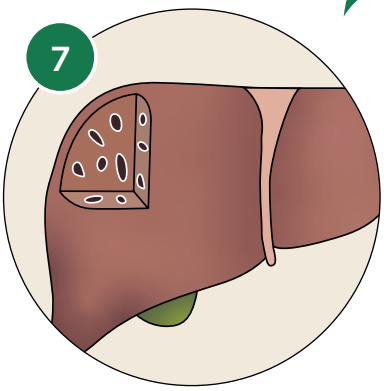
Protect livestock

Factsheet 435. June 2026

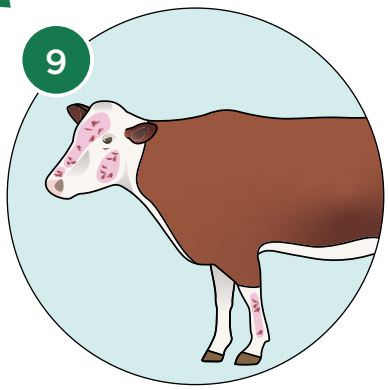
THE IMPACT INSIDE THE ANIMAL



With damaged bile ducts the liver can't excrete waste products from Chlorophyll (green pigment) called *Phylloerythrin*

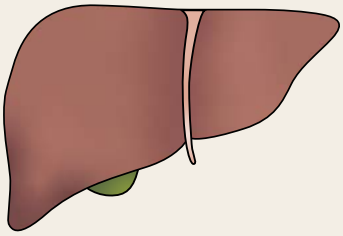


The toxin attacks bile ducts in the liver

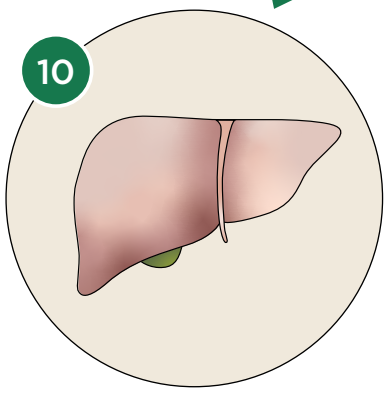


When the waste product builds up in the bloodstream it may lead to development of what we call the clinical signs of FE. See B+LNZ's Iceberg models in the Farmer Facial eczema toolkit beeflambnz.com/knowledge-hub/facial-eczema-resources/farmers-facial-eczema-toolkit

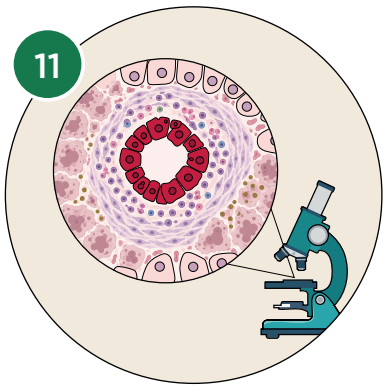
HEALTHY LIVER



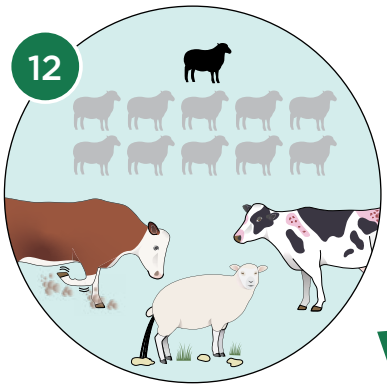
FE progressively damages the liver, reducing its ability to function and affecting animal health and productivity.



Over time this process causes scarring, shrinking or deformation of the liver and long-term loss of liver function



When a Vet carries out histology on an FE liver, damage will look like this under the microscope. Liver cells dying, bile ducts blocked and damaged



For every animal with obvious signs (clinical) there could be at least 10 more with hidden signs of disease

What can you do to eliminate the impacts of facial eczema?

Monitor pasture spore counts, monitor faecal spore counts in livestock, monitor and manage pasture, understand more about safe forages.

For more information, check out Beef + Lamb New Zealand's Factsheet "Tackle FE risk with forages" beeflambnz.com/knowledge-hub/PDF/tackle-fe-risk-forages