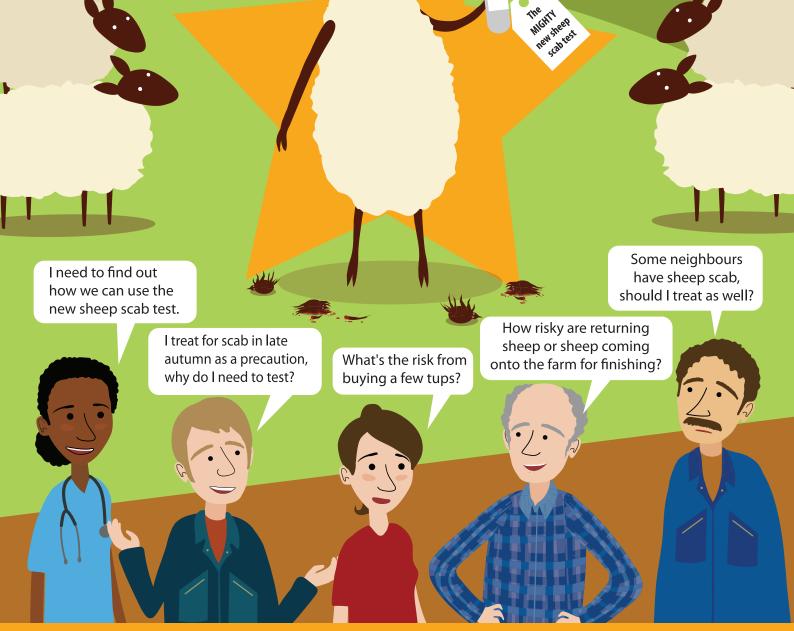
\`↓' Moredun

Imagine taking control of sheep scab



Find the comic that answers your question!

- Use the new blood test for sheep scab, which can pick it up before clinical signs appear
- Testing is cheaper than treating and can be used to target treatments
- Find out the status of your flock first and see if you even need to treat
- Mites resistant to the injectables are spreading. Testing first ensures that we only use injectables when necessary, maintaining efficacy for when we need it.



SHEEP SCAB - KEY FACTS

- Sheep scab, or psoroptic mange, is caused by infestation of the skin surface with the scab mite, *Psoroptes ovis*
- The disease is characterised by yellow scabs on the skin surface and is accompanied by restlessness, scratching, loss of wool, bleeding wounds and loss of condition
- One of the most contagious endemic parasite diseases affecting sheep, causing annual loses of >£8M to the UK sheep industry
- Scab is common throughout the year; but majority of outbreaks occur between September and March
- *Psoroptes* mites can survive off-host for 16-19 days and sources of infestation include anything the infested sheep has contacted, i.e. fence posts, trees, equipment and trailers
- Treatment options limited to organophosphate (OP) plunge dips and macrocyclic lactone (ML) injectables
- Resistance to MLs has recently been reported in the UK
- Diagnosis is crucial to ensure that the correct treatment is given at the right time
- Other skin infections can appear similar to scab but may require different treatments
- Diagnosis is classically performed by a skin scrape but sensitivity can be low and often fails to detect sub-clinical disease
- A diagnostic blood test for sheep scab, developed at Moredun, is available and can diagnose the disease before clinical signs appear



...which identifies antibodies produced in response

Mite faeces contain

proteins.

to a protein in the sheep scab mite faeces.

The proteins break through

the skin and the sheep

reacts by making

antibodies.

It's a flock level test and we've worked out that testing 12 sheep per management group gives us the best chance of finding scab if it's there. Testing 12 works with any size of group.

How many sheep do I need to test?

What is the new sheep scab test and how does it work?

It's a blood test...

It detects sheep scab before any clinical signs appear.

Initially, relatively few sheep will be affected following the infestation of a flock.

If we collect a sample from a single sheep, the test should detect the infestation but only if we are lucky and collect it from an infested animal.

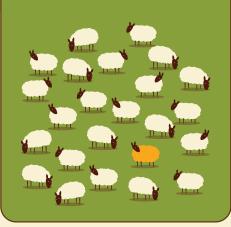
The more animals we test, the more likely we are to find at least one infested animal, but we also need to balance that against the cost of testing more sheep than necessary.

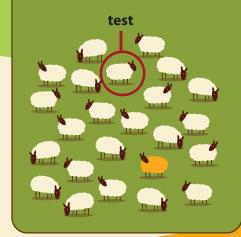
Those antibodies are

detected in the blood test

and can be picked up from

2 weeks after an infestation.





Because it is very important to detect scab if it's present, we want to have a very high chance of finding it. Based on what we know about the test and the spread of mites in a flock, we've calculated it's best to test 12 animals. test

Now I understand how the test works! 12 it is!

INVEST IN THE TEST!



I treat for scab in late autumn as a precaution, why do I need to test? Do you really need to treat? If you test your sheep first then you only need to treat them if they have scab – you could save yourself a lot of time and money.

But I've gathered the animals anyway so it's easier to just treat them and have peace of mind. There's a few itchy ones.





But if you test first, you won't waste money and effort. Your sheep may actually have lice, which can show similar clinical signs.*

You could save yourself a lot of money by testing first.

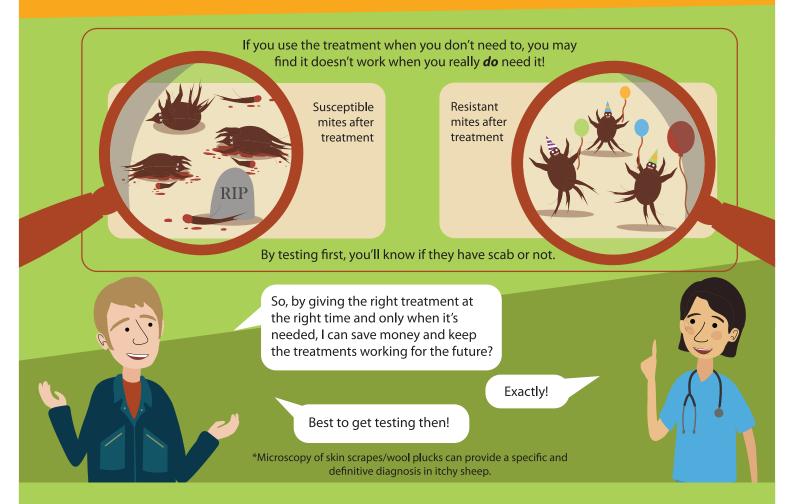
Treating a flock of 500 sheep - £1100

£1.80/ewe for injectables or £1.50/ewe for contract dipping (plus £150 for dip disposal).

£200 for 2 days labour required for either method.

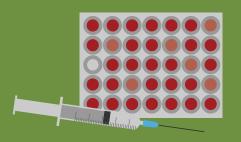
Testing 12 sheep from a flock of 500 ewes - £160

£72 for diagnostic testing of 12 sheep. £60 for vets' costs: bleeding, postage, etc. £28 for call out fee.





The test can detect scab from 2 weeks after an infestation. If the blood test is used after at least 2 weeks of isolation, then it's a sensitive indicator of exposure to scab.



Once we buy them we should isolate them for at least 2 weeks, then test them and when we know they're clear, we can turn them out.



3 weeks later



A RACE TO THE FINISH

Right! Time to get the store lambs home so we can get them finished on time.

Yep, OK son.

Hold on dad! We have no idea if they have scab or not! Remember last year? The store lambs we brought in had scab, so they took longer to finish, we missed the best price and it cost us a lot to treat them all!

Let's try something different this year. First, we need some advice.



There's a new test that you can use to find out if your sheep have scab, before any signs appear. That way you'll know if you need to treat or not and you can avoid a long withdrawal period.



How does that work? We've brought in the store lambs for finishing already. If you then you'l in 7 d



Test 12 sheep per group**

If the test is negative then you can get them finished without further cost.



If the test is positive, then at least you can get on and treat the whole flock straight away and they will finish in good time.

Mund





The tests for scab were positive so we'll need to get the flock treated as soon as possible.



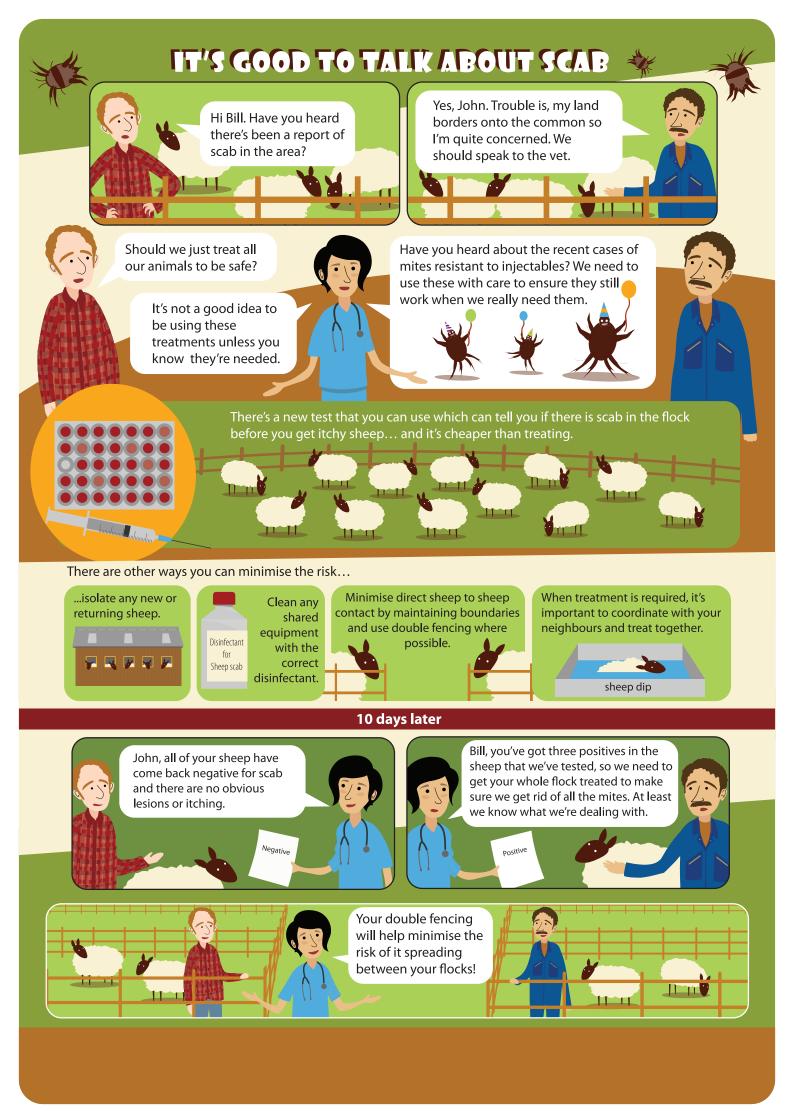
or

That was a close one Dad, we treated everything in good time and the withdrawal period passed nicely while they were finishing on the turnips. We didn't lose any time!

FINISH

*Samples are tested once a week. Expected turnaround time is 7 working days from receipt at the testing lab.

**Where lambs are brought in as separate batches or from different sources, the optimal response is to manage these groups separately, testing 12 animals from each group, mixing the groups only after the results are known.





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