

## What can an organic farmer do to protect against liver fluke?




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## Liver Fluke

Over a wet summer . . .





Numbers of snails  
Numbers of fluke within the snails

...leading to



levels of disease in  
autumn & winter

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## Acute Fluke - sheep

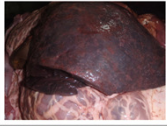


Usually in autumn after a wet summer

Huge numbers of immature fluke travel through the liver


Acute liver damage

Bleeding & anaemia

Sudden death within 6 weeks of sheep eating fluke cysts

NB No fluke eggs in faeces as no adult fluke yet



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## Chronic fluke

Usually in the adult flock in late spring though increasingly seen out of season

ADULT FLUKES in the bile duct suck blood




Anaemia

Dry open fleece


Weight loss

Ill-thrift

Sub-mandibular oedema (bottle jaw or poke)


NB Fluke eggs can be detected in the faeces



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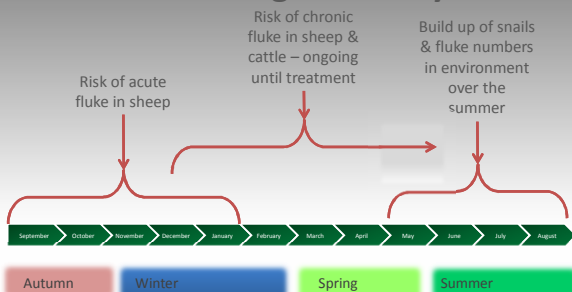
### Costs of liver fluke in adult sheep

- Poor body condition
- Poor fertility
- Poor milk supply
- Reduced scanning %
- Fewer lambs on the ground
- Increased ewe deaths
- Increased involuntary culling
- Increased lamb mortality
- Reduced lamb growth rates



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### Fluke Risk throughout the year



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### FLUKE TOP TIPS

- USE YOUR VET
- CHECK LIVERS OF ALL FALLEN STOCK
- TAKE APPROPRIATE SAMPLES
- USE ABBATOIR RETURNS
- KNOW YOUR FLUKE STATUS



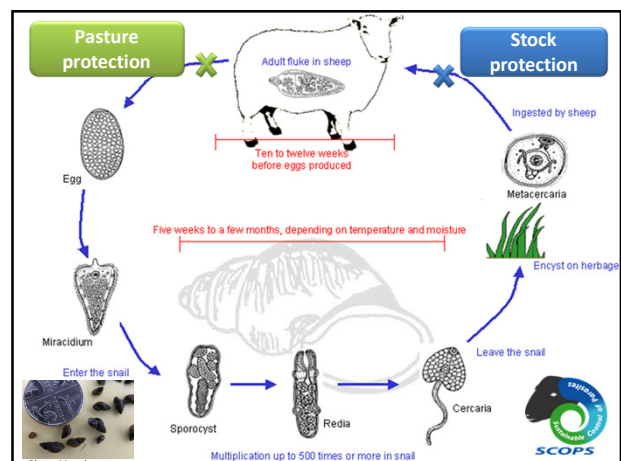
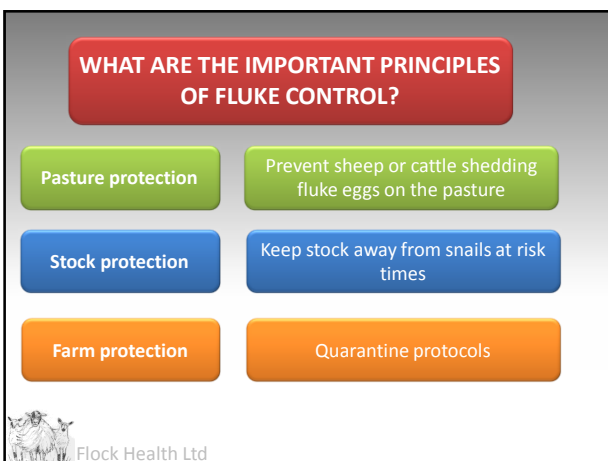
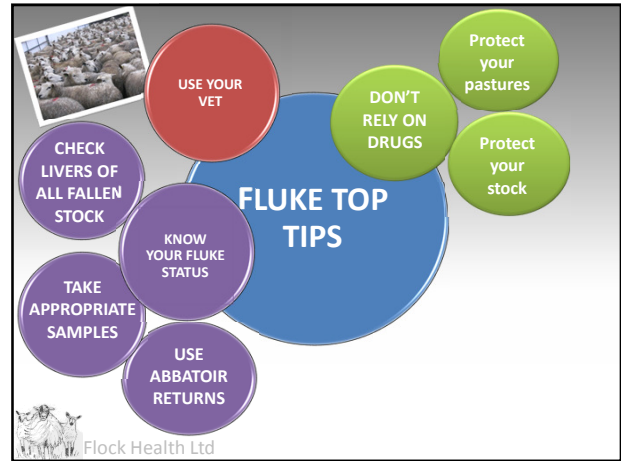
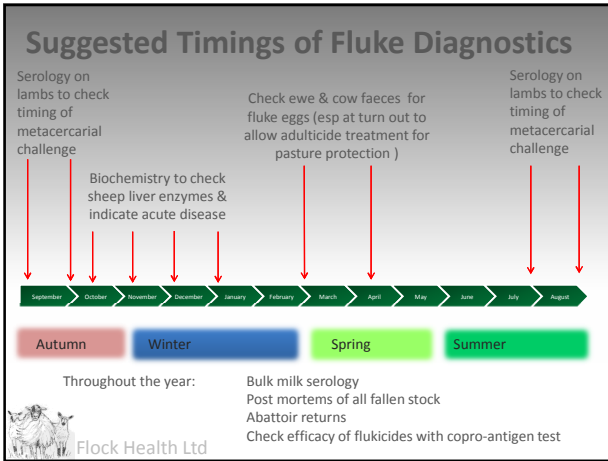
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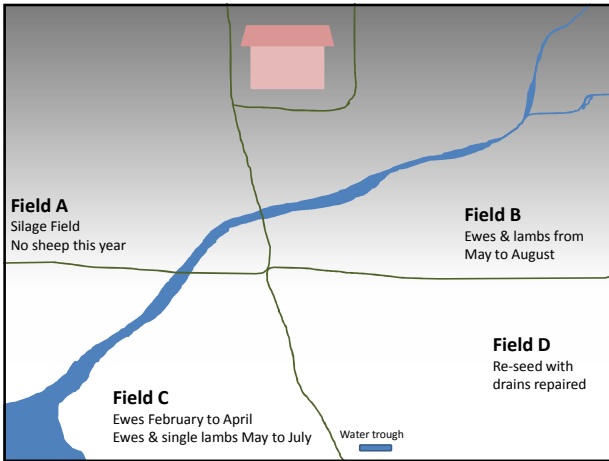
### POST MORTEMS



- Abattoir Feedback
- NB confusion with *Cysticercus tenuicollis*
- Monitor fallen stock

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It is mid September  
All the sheep were fluke-dosed last January  
The cows & calves will be housed in mid November  
Lambs should be fat within the next 6 weeks  
Summer rainfall was above average

**Field A**  
Silage Field  
No sheep this year

**Field B**  
Ewes & lambs from  
May to August

**Field C**  
Ewes February to April  
Ewes & single lambs May to July

**Field D**  
Re-seed with  
drains repaired

Water trough

Idea by Heather Stevenson, SAC

1. Which fields have snails?
2. Which fields have most metacercaria?
3. Which fields are high risk for fluke?
4. Which fields are low risk for fluke?

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**WHERE DO I PUT?**

Fat lambs?

Cows & calves?

Gimmers bought in from wet area?

Ewes?

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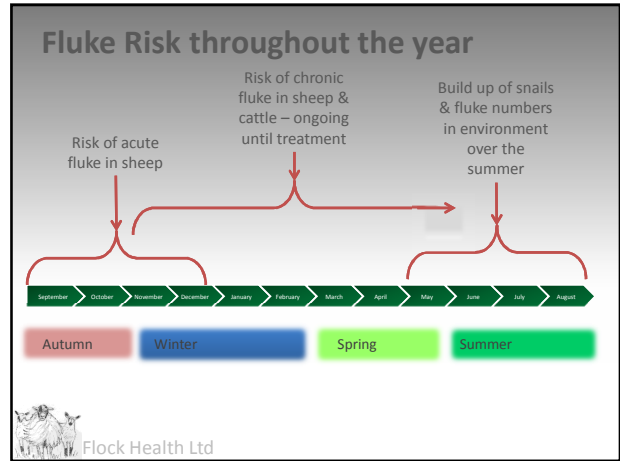
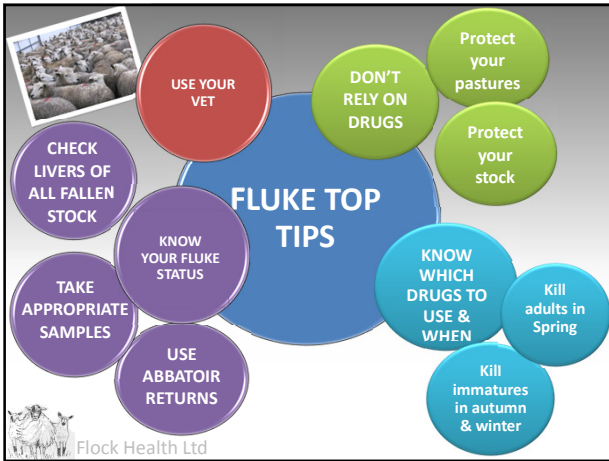
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1. What would reduce the risk on this farm?
2. What happens in a dry year?
3. What happens in a wet year?
4. How can we plan going forward?



**What products to use?**

Trade names	Active ingredient	Meat withdrawal	Activity
Tribex, Fasinex, Combinex, Triclacert, Triclafas or Triclamox	Triclabendazole	27-56 days	Kills all immature stages and adult fluke
Flukiver, Supaverm, Closiver, Closamectin or Mebadown	Closantel	28-65 days	
Trodax	Nitroxynil	49 days	Kills late stage immature and adult fluke
Albacert, Albenil, Albensure, Albex, Endospec, Ovispec, Tramazole or Valbazen	Albendazole	4-8 days	Kills adult fluke only
Levafas Diamond	Oxyclozanide	5 days	
Allverm or Rycoben	Ricobendazole	3 days	

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