

# NADIS Parasite Forecast – March 2013

Use of meteorological data to predict the prevalence of parasitic diseases

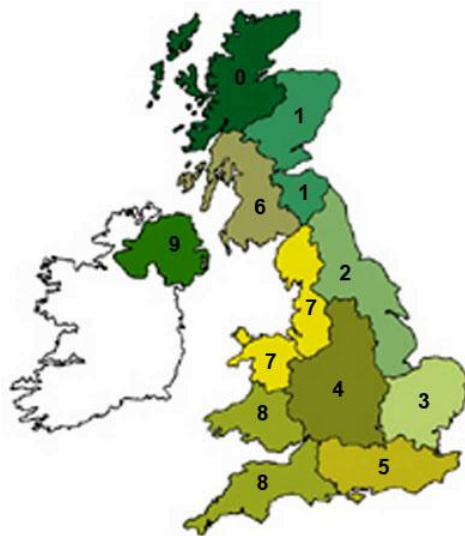
## Regional Weather (based on Met Office figures)

The mean January temperature in England and Wales exactly equalled the 1961-1990 average, while temperatures were between 0.5 and 1 °C above the local averages in Scotland and Northern Ireland. East Anglia and the Midlands were the regions with lower than expected January temperatures.

Temperatures over the November to January period have been equal to or slightly above the long-term average for the period in all regions.

Rainfall for the month of January was slightly below the 1961-1990 average in England, Wales and Scotland, but slightly above in Northern Ireland.

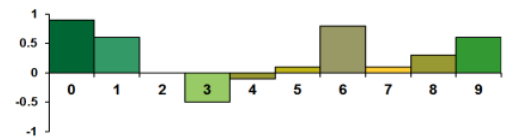
Over the three month period November to January, all regions experienced 20 to 45 per cent more rainfall than would normally be expected, except Northern Ireland and northern Scotland, which received very close to expected levels of rainfall.



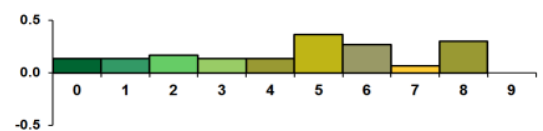
### REGIONS

- |                |                         |
|----------------|-------------------------|
| 0 N W Scotland | 6 S W Scotland          |
| 1 E Scotland   | 7 N W England & N Wales |
| 2 N E England  | 8 S W England & S Wales |
| 3 E Anglia     | 9 N Ireland             |
| 4 The Midlands |                         |
| 5 S England    |                         |

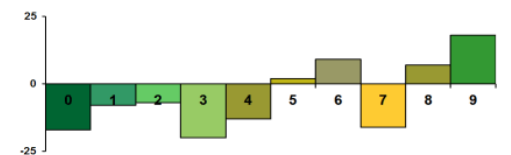
Temperature: January 2013  
(as °C Above/Below Regional Average 1961-1990)



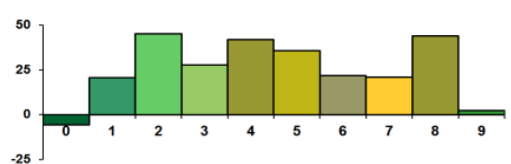
Temperature: November 2012 – January 2013  
(as °C Above/Below Regional Average 1961-1990)



Rainfall: January 2013  
(as % Above/Below Regional Average 1961-1990)



Rainfall: November 2012 – January 2013  
(as % Above/Below Regional Average 1961-1990)



The first half of **February** has generally been colder and wetter than average with some snow. The rest of the month is forecast to be initially cold with significant rain or snow, becoming colder but drier towards the end of the month.

**March** often begins and ends with wet and windy weather, with storms in the first and last week. The first of the spring anticyclones often appear in mid-month with sunshine during the day, and hard frosts at night. How these patterns will be affected by climate change is not clear.

## March Parasite Forecast/Update

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The most recent version of this monthly parasite forecast may be accessed at [www.nadis.org.uk](http://www.nadis.org.uk).

### FLUKE IN SHEEP

In most years, sheep only pick up low levels of overwintered fluke infection (metacercariae) from the pasture in March. This year, with the potential for massive contamination of the pasture last year and the lack of a hard frost in many places to reduce fluke numbers, the risk is much greater. Occasional losses due to acute fluke disease regularly occur in March, but there may be many more this year. Perhaps even more importantly, burdens of fluke may be acquired leading to chronic disease which may not be treated for many months.

Treatment of potentially infected stock in the spring with a drug to kill adult fluke is generally recommended in order to reduce fluke egg contamination of the pasture, reducing the risk later in the year. In addition, this year there may be many cases of undiagnosed chronic liver fluke which require treatment for their own immediate benefit, and furthermore animals grazing this month may be picking up fresh infection and require re-treatment effective against immature fluke (perhaps after 5 or 6 weeks). It is important that local risk factors

are taken into account and a treatment/control plan drawn up with veterinary advice.



***Sheep may still be picking up significant fluke burdens, even in March this year***



***Many thin ewes this year may be suffering from chronic fluke disease, or from liver damage following earlier disease***

Most fluke infections at this time of year are likely to be chronic, so fluke egg counts are useful for the diagnosis of disease, and monitoring for fluke infection on farms with potential fluke habitats but no previous evidence of infection. Post-mortem examinations and abattoir feedback are also valuable diagnostic/monitoring tools.

## **SHEEP NEMATODES**

### ***Nematodirus***

In March there are normally very few cases of nematodiosis diagnosed. Peak incidence usually occurs in May/June. Mean UK temperatures in December 2012 and January 2013 were very close to expected levels, and colder than last year. Given that February is forecast to be colder than average, it may be a higher-risk spring for nematodiosis this year.

If low temperatures continue through February and March, then a late *Nematodirus* hatch is likely, leading to a higher risk of disease in main-crop lambs. However, warmer conditions could decrease the

forecast risk. A nematodiosis forecast will be produced when March meteorological data are available.



***The risk of these lambs developing nematodiosis after turnout is greatly increased if February and March have been cold months, delaying the hatching of Nematodirus eggs on the pasture***

If possible, arrangements should be made to graze lactating ewes and lambs on pastures that did not carry pre-weaning lambs last year, as the nematodiosis risk on such pasture should be low. Otherwise, prophylactic treatments are likely to be needed during the risk period, which will be discussed when the forecast is available.

### **Parasitic Gastroenteritis (PGE)**

Ewes very often develop high egg counts around lambing time. It's important to try and ensure that this does not lead to lambs being faced with large numbers of worm larvae when they start grazing.

When ewes are turned out onto clean pasture, a short-acting anthelmintic before turnout should be effective; however, in order to avoid undue selection for anthelmintic resistance, best advice is often that not all ewes should be dosed. The dose may be targeted on the younger ewes, multiple bearing ewes, and/or those of lower condition score.

Ewes turned onto contaminated pastures may need a longer-acting anthelmintic to prevent immediate re-infection with worms. This dose may also be targeted to reduce selection pressure for resistance.



***A blanket treatment of all ewes at lambing time may be a high-risk strategy with regard to wormer resistance***



High levels of rainfall in May, June and July are associated with a high late-summer peak in pasture larvae, and increased summer/autumn PGE. Drier conditions during this period, although often associated with fewer PGE problems overall, have been associated with more late autumn/winter disease and a larger overwintering larval population surviving into the following spring.

## FLUKE IN CATTLE

Clinical cases of fluke disease in cattle are usually around their peak numbers from February to April, with signs of ill thrift, anaemia, reduced production, metabolic disease and terminal diarrhoea. Spring calving cows with a history of grazing poor pasture are usually at greatest risk of severe disease.



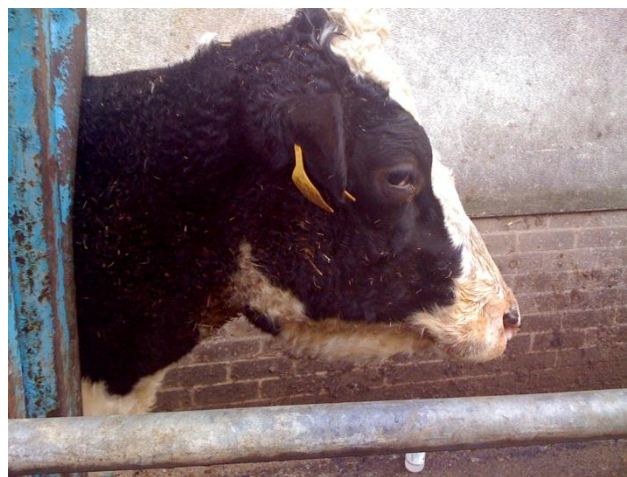
***Outwintered cattle may have been exposed to fluke infection on pasture right the way through to the spring this year***

Housed cattle at this time may be screened by faecal examination for fluke eggs. Several individuals per group should be sampled, particularly those displaying signs suggestive of chronic disease. This may indicate the need to treat animals not previously given a flukicide, or the survival of fluke despite previous treatments, either because the fluke were too young to be effectively killed by the product given, or because the flukicide has not worked as would be expected, which may be due to resistance.

It is generally recommended that outwintered cattle are given a flukicide to kill adult fluke infection around this time (following on from previous treatments) to reduce the contamination of the environment with fluke eggs. This year, they may also have been exposed to significant levels of fresh infection on the pasture during February and March and so local risk factors should be assessed with veterinary advice when deciding on a treatment strategy.

Post mortem examination of any losses is important. Blood samples can be checked for signs of liver damage or antibodies to previous or current infection. Bulk milk can be tested to give an indication of the likely levels of exposure to liver fluke infection within dairy herds.

***Local farm conditions may vary so consult your veterinary surgeon. Parasite control should be part of your veterinary health plan***



***Bottle jaw can be one sign of fluke disease in cattle; however, simple weight loss is much more common***

## CATTLE NEMATODES

Most cattle will still be housed in March and the major endoparasite risks are type 2 ostertagiasis, untreated liver fluke and occasionally lungworm in youngstock not adequately dosed at housing or in adults. High incidence years for type 2 ostertagiasis tend to follow dry summers, so risk may be lower this year.

Plans need to be put in place for parasite control during the coming grazing season as part of a veterinary health plan taking into account the type and age of stock, and the history of the available pasture. Vaccination (Huskvac) is often a very successful way to control lungworm in dairy replacements, and in suckler herds with a history of disease. Animals over two months old require two doses four weeks apart, ideally finishing two weeks before turnout or weaning.

## COCCIDIOSIS

This is a significant risk in March, usually in intensively reared January and February born lambs, particularly in heavily stocked sheds and paddocks. Lambs show scour, dullness, dehydration, weight loss and abdominal pain.

Adverse weather conditions leading to poor colostrum supply, poor grass growth, wet muddy paddocks and/or extended housing periods can increase incidence.

Control is best achieved through avoiding overcrowding or stress. Hygiene during the lambing period will keep oocyst numbers down. Later lambs should graze different areas to the earlier lamb groups. Chemical control if needed should be part of a veterinary health plan - coccidiostats may be given in feed to lambs and pregnant ewes, or prophylactic drenches may be used before the onset of clinical signs.

In cattle, coccidiosis can be seen in any month, usually in 3 week to 6 month-old calves. Most cases are seen over the summer, with March seeing relatively few cases.

NADIS hopes that you have found the information in this forecast useful. Now test your knowledge by attempting the quiz below. You will be emailed an animal health certificate for this subject if you attain the required standard.

[Click here](#) **Health Quiz**

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