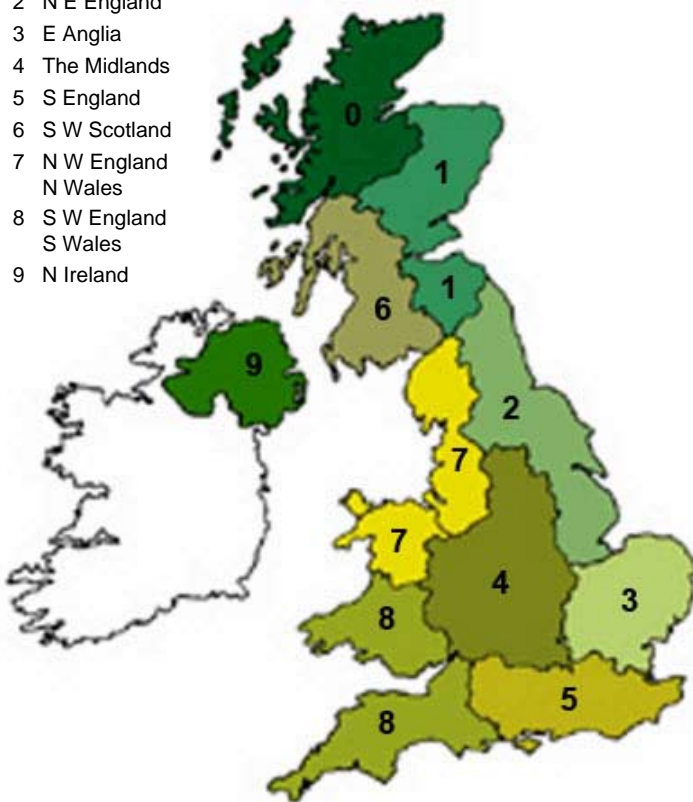


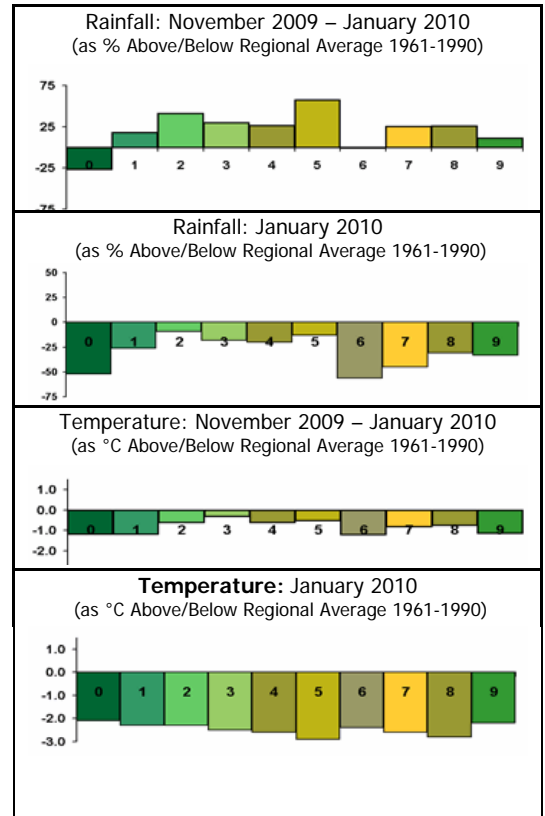
Parasite Forecast – March 2010

REGIONS

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



Regional Weather (based on Met Office figures)



January 2010

Mean regional January temperatures were around 2 to 2.5 °C below the 1961-1990 average across the UK. The first half of the month and the end of the month were particularly cold periods, resulting in the coldest January across the UK since 1987. Following on from the cold December, this meant that 3-month mean temperatures were below the long-term average in all regions, particularly in Scotland and Northern Ireland.

January rainfall was below the 1961-1990 average in all regions, particularly in the west. It was closer to

average in the east; some parts of eastern Scotland received significantly more than their average rainfall for the month. Three-month rainfall figures were still generally above average, due to the wet November.

Forecasts for the **period to mid-February** suggest low temperatures, with some rain, sleet and snow expected.

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 global warming is not clear.

March Parasite Update and Forecast

The most recent version of this monthly parasite forecast may always be accessed at www.nadis.org.uk.

Low December and January temperatures give an early indication that 2010 may see a **high incidence of nematodirois** in young lambs (see below).

LIVER FLUKE

Stock on premises with a known fluke population will already have been dosed in the autumn/winter and should not need dosing again until later in the spring. Stock at grass in March may be exposed to fresh infection from overwintered metacercariae but levels should be low, particularly following the prolonged freeze over the winter. Most fluke present within host animals should be adult by now, so fluke egg counts at this time may be useful for the following:

- Diagnosis of disease: signs of chronic fluke may include ill thrift, anaemia, peripheral oedema (e.g. bottle jaw), reduced production, metabolic disease in dairy cows and terminal diarrhoea. Additional diagnostic methods include post mortem examination,

biochemistry (raised GGT, low albumin and raised globulin) and haematology (eosinophilia).

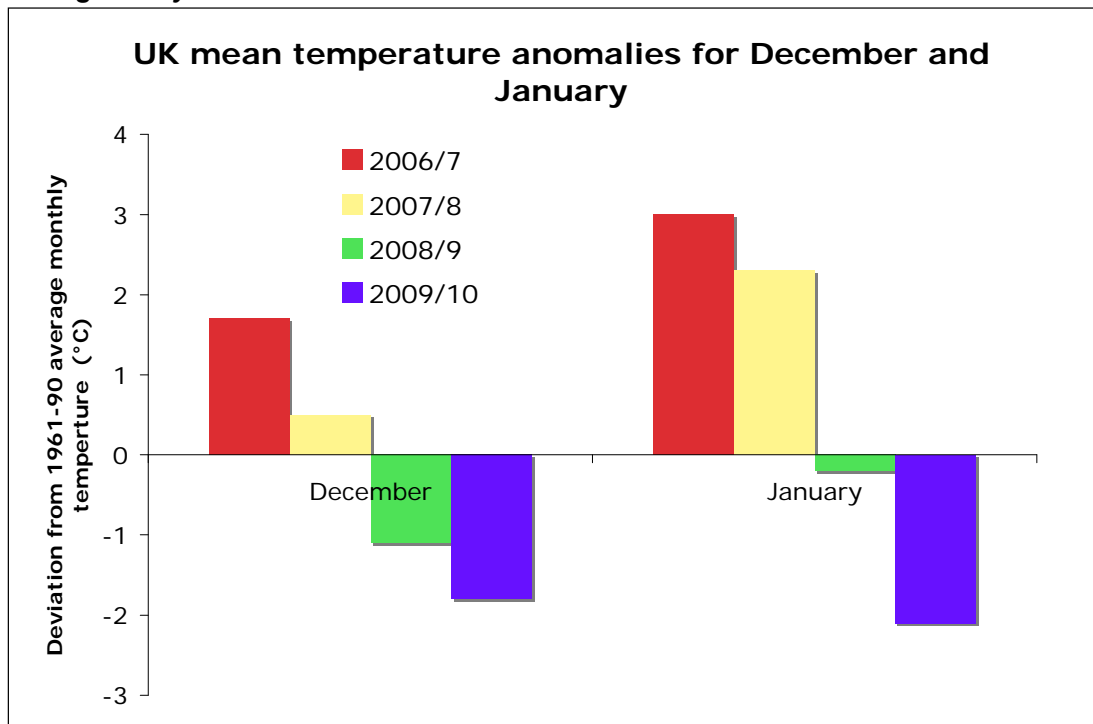
- Monitoring for fluke infection on farms with potential fluke habitats but no previous evidence of infection. Biochemistry and post mortem exam are also useful methods, as is serology, particularly in cattle, on serum or bulk milk samples.

Fluke eggs passed onto pastures in the spring will develop over the summer and produce infective metacercariae in the autumn. Fluke populations are likely to be starting from high levels this year, following three consecutive wet summers. A wet summer this year could lead to another year of very significant disease problems across most of the UK.

SHEEP NEMATODES

Nematodirus

Fig. below: The low December and January mean UK temperatures this winter give an early indication that this may be a high-risk year for nematodiro-sis.



In March there are normally very few cases of nematodiro-sis diagnosed. However, mean UK temperatures in December and January have been well below the long-term average this winter, following the decreasing trend seen in recent years (see Figure 1). There is a significant correlation ($p < 0.05$) between low January UK mean temperatures and high annual numbers of *Nematodirus* diagnoses in sheep (VIDA and Met Office data, 2002-2008).

If low temperatures continue through February, as they are forecast to do, and into March, then there is likely to

be a late *Nematodirus* hatch leading to a **high risk of disease** in main-crop lambs later this year, typically in May and June. A nematodiro-sis forecast will be produced when March meteorological data are available.

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 nematodiro-sis risk on such pasture should be low. Otherwise, prophylactic treatments will be needed during the risk period, which will be discussed when the forecast is available.

Parasitic Gastroenteritis

Parasite control should be planned between vet and client on an individual farm basis. A principle aim around lambing time is to avoid the contamination of

pastures by larvae developed from eggs passed by the ewes. The peri-parturient rise in faecal egg count of ewes turned out onto clean pasture can be controlled

by a short acting anthelmintic before turnout. In order to avoid undue selection for anthelmintic resistance, SCOPS recommend that this dose be targeted so that not all ewes are dosed, and some anthelmintic-susceptible parasites are carried over onto the clean pasture. 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 persistent anthelmintic to prevent immediate re-infection with overwintered larvae. This dose may also be targeted.

Many larvae that have overwintered on the pasture will be picked up by late pregnant or lactating ewes as well as early grazing lambs. Eggs passed by these animals will maintain the infectivity of the pasture as the weather warms up, and lead to infective larvae being available

as large numbers of susceptible lambs graze the pastures in early summer. Unless control is adequate, these infected lambs can give rise to the heavily infected pastures in late summer and autumn that cause clinical disease and reduced productivity.

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. Overwintering pasture larval populations may therefore be somewhat lower this year, due to last year's wet summer, although many other factors will influence this.

CATTLE NEMATODES

Most cattle will still be housed in March and the major endoparasite risks are type 2 ostertagiasis, untreated liver fluke and lungworm in youngstock not adequately dosed at housing or in less susceptible groups not usually given a housing dose; for example, adults. The risk of type 2 ostertagiasis may be relatively low this year, as high-incidence years tend to follow dry summers.

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 the best 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. The earlier-born lambs pick up infection passed by the ewes and increase the environmental contamination, often without becoming ill. Disease is then more common when later-born lambs are exposed to this increased level of infection. 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.

To try a quiz based on this article and have it immediately electronically marked, click [QUIZ](#)

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NADIS Parasite Forecasts are produced by leading parasitologists based on parasite profiling, detailed monthly Met Office weather data and reports from NADIS sentinel practices. The comments are general; veterinary advice should be taken for individual farm circumstances as part of a veterinary health plan.

NADIS Health Bulletins are designed to improve farm income, animal health and welfare by promoting disease control and prevention.

Discuss how health planning can improve the profitability of your farm with your veterinary surgeon.

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