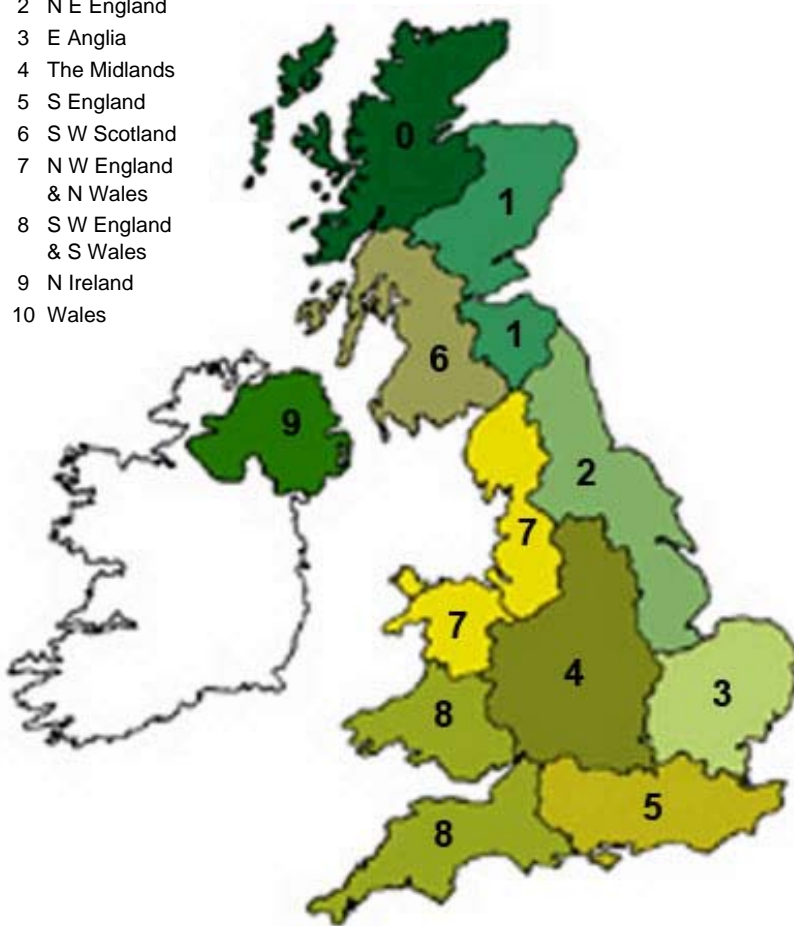


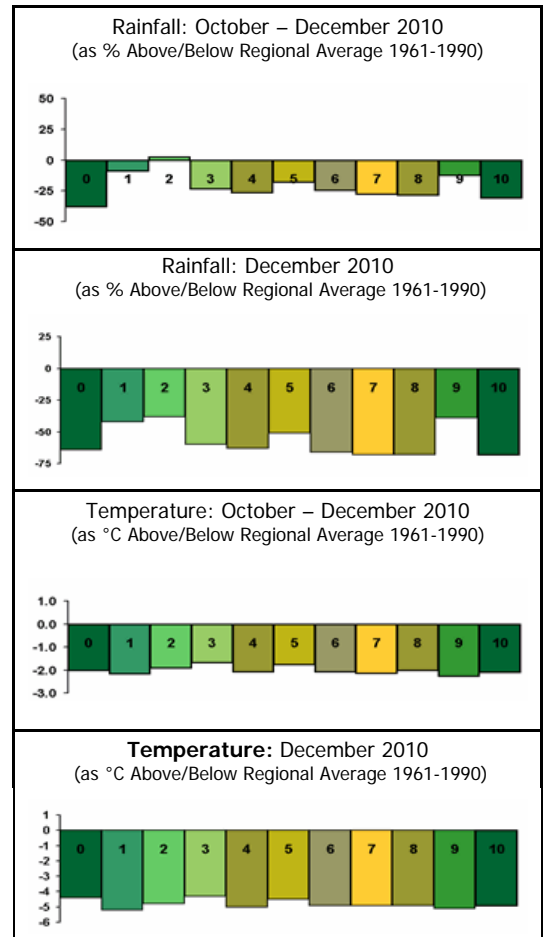
NADIS Parasite Forecast – February 2011

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
- 10 Wales



Regional Weather (based on Met Office figures)



December 2010

December 2010 was the coldest December for more than 100 years. The mean temperature in all regions was more than 4 °C below the 1961-1990 average. A minimum temperature of -21.3 °C was recorded at Altnaharra in the Highlands. When combined with the low November temperatures (and the more normal October ones) three-month mean temperatures in all regions up to the end of December were between 1.5 and 2.5 °C below expected levels.

December was dry across the UK, with all regions receiving 40 to 70 per cent less rain than their 1961-1990 averages. Rainfall was closer to average along the eastern edge Scotland and northern England. It was generally sunny in the west and the north, but dull in south-east England.

The **first week of January** has experienced temperatures closer to average than during December, but still occasionally cold in some areas, with some periods of heavy rain.

Temperatures for the rest of the month are likely to remain around or above average, getting colder towards the end of the month. Some heavy rain is expected, particularly in the west of the country, and perhaps some snow. It is expected to be windy with a risk of gales.

Any late January gales and snow often cease during **early February** and the second week usually sees high pressure and cold temperatures. Northerly conditions with low pressure and snow are often seen during the last week of February.

February Parasite Update and Forecast

FLUKE

Numbers of infective metacercariae decline through the winter, and by February any stock that have been excluded from high risk pastures for the autumn and winter are often allowed access again. Some infectivity may still survive, however, although this is a greater risk in mild and wet years, as the metacercariae are susceptible to desiccation and prolonged freezing. This year, pastures in some areas will have been heavily contaminated during the summer and into the autumn, although the prolonged freeze may well have seen a decline in infectivity over the winter.

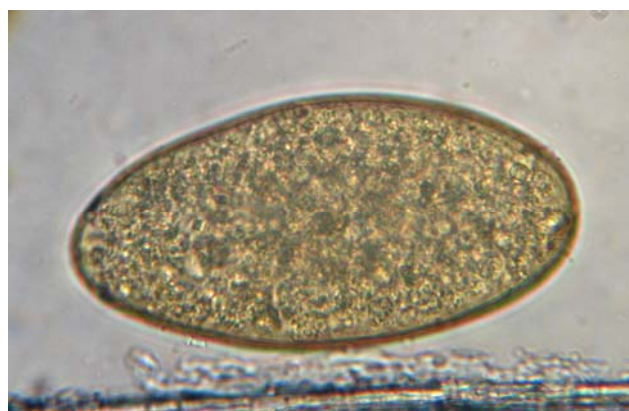
Sheep on infected premises will have picked up infection over the late summer and autumn, although access to the infective stages may then have been greatly reduced by a heavy blanket of snow. Even if infective burdens were not high enough to produce acute or subacute disease, many infected animals will suffer from chronic fluke, causing ill thrift and poor production, if not effectively treated. Chronic cases are seen in every month of the year but usually peak in the late winter/spring.



Submandibular oedema (bottle-jaw) is often seen associated with chronic fascioliasis

Sheep on farms with a history of fluke will probably have been dosed with a flukicide effective against immature fluke in January, although exposure risk prior to this may have been assessed as being significantly lower this year due to snow cover. If continuing exposure to risky pasture seems likely, then a follow-up treatment four to six weeks later may be a good idea.

If animals have not been treated, then faecal samples from around 10 ewes should identify any surviving infection acquired during the peak of pasture infectivity in the autumn and indicate the need to treat the group. Undosed cattle, or cattle dosed in October then re-exposed to infective pastures, could now be treated or checked for the presence of fluke eggs in faeces. Serology can indicate previous exposure but does not indicate current status.



Fasciola hepatica eggs are large (130-150µm long), operculate and yellow brown. Their presence in sheep faeces indicates the presence of live adult fluke in the animal within the last 3 weeks. This can be important in the diagnosis of chronic fascioliasis along with history, clinical signs, post mortem examination and/or biochemical evidence of chronic liver damage (e.g. raised serum GGT levels, hypoalbuminaemia).

SHEEP NEMATODES

Parasitic Gastroenteritis (PGE)

Although PGE is often diagnosed in every month of the year, infectivity is relatively low when temperatures are below 5 °C and larval movement and metabolism are minimal. Infectivity is further reduced by the presence of snow. These inactive larvae can actually survive the winter well, and they may contribute heavily to the infective pasture larval population in the spring.

Milder spells may lead to a continuing risk of PGE in store lambs and hogs through the winter, particularly on paddocks heavily contaminated earlier in the season; for example, by an outbreak of clinical PGE. This can continue into February given suitable conditions. The need to dose overwintered store or replacement lambs during the winter can be assessed using mean or pooled faecal egg counts. Adult sheep may also develop PGE during the winter, often concurrently with diseases such as fascioliasis or

Johne's disease, nutritional stress and/or late pregnancy.

Contaminated pastures can only be considered "safe" after the majority of larvae have died. Rising spring temperatures cause the larvae to become more active and, if they are not ingested by a potential host, they use up their energy reserves and die. This often begins to occur around April, with pastures classed as low-risk from late June if no sheep have grazed them in the spring, or medium risk if grazed in the spring by adult non-lactating sheep.

A veterinary parasite control plan for the forthcoming grazing season should be formulated on an individual farm basis including identifying any safe grazing available at turnout in spring (e.g. last year's cattle pastures) or in midsummer (e.g. aftermath for weaned lambs). Following the guidelines in the Sustainable

Control of Parasites in Sheep (SCOPS) manual should reduce selection for anthelmintic resistance.

Nematodirus

Autumn *Nematodirus* infection has been identified again in 2010. It has previously been associated with wet conditions, so the dry December may reduce the risk going into 2011. In most areas, the major impact of nematodirois remains as an acute disease of young lambs in spring/early summer. Forecasts for this will be

produced when the March 2011 meteorological data are available. December 2010 temperatures were much lower than average, and if temperatures continue to be below average, a cold February/March could slow down parasite development and delay the appearance of infective larvae on the pasture until there are large numbers of susceptible grazing lambs, leading to a high-risk year for nematodirois.

Coccidiosis may appear in February, in intensively reared January-born lambs, particularly in heavily stocked sheds. Lambs show scour, dullness and abdominal pain. The early-born lambs tend to 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.

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