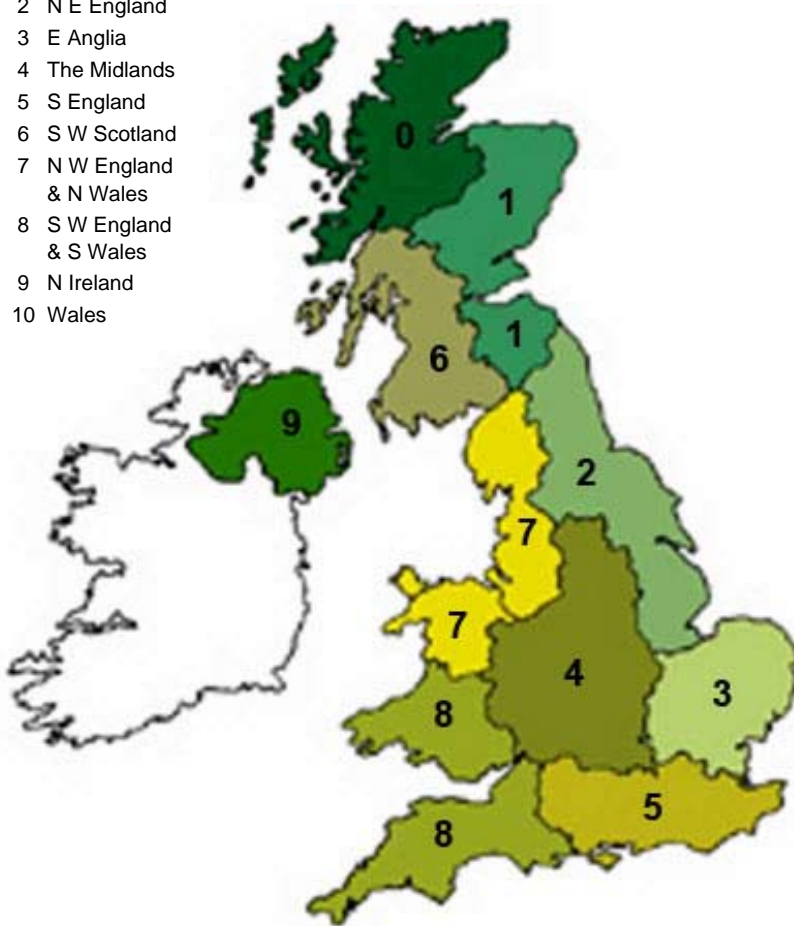


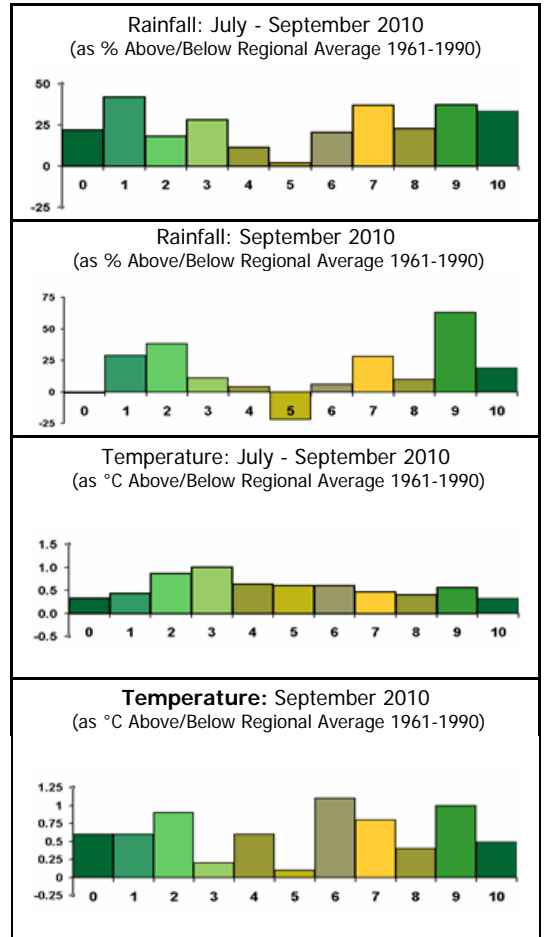
NADIS Parasite Forecast – November 2010

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
- 10 Wales



Regional Weather
(based on Met Office figures)



September 2010

Mean September temperatures were above 1961-1990 averages in all regions; around 0.5 to 1 °C above in most regions apart from East Anglia and the south-east of England, which were closer to their expected figures. Three-month mean temperatures were also above their expected values in all regions, particularly in north-east England and East Anglia.

Many regions had close-to-average rainfall in September, except south-east England which received only three-quarters of expected rainfall, northern England and eastern Scotland which received around a third more than expected, and Northern Ireland which received about two-thirds more. This led to three-month rainfall figures very close to average in south-east England, but above average everywhere else: 10 per cent above in the Midlands, 20 per cent above in northern and western Scotland, north-east England and southwest England/south Wales, and 30 to 40 per cent

above in eastern Scotland and East Anglia, north-west England and Northern Ireland.

October started with very wet conditions, although becoming less so by the second week. Temperatures were generally a degree or two above average. Forecasts to the end of the month suggest cloudy conditions with patchy rain and showers, with brighter spells towards the end of the month, but with temperatures becoming cold. Snow may be seen in the extreme north and frosts may be more widespread.

The first two weeks of **November** are often wet and windy, followed by a quiet, high-pressure period for most of the month. Wet and windy weather often returns in the last week of November.

Long-term forecasts for the winter are unreliable, but they suggest a colder and drier-than-average season may be likely.

November Parasite Update and Forecast

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

FLUKE

This month's updated forecast continues to suggest the risk of a **high prevalence of liver fluke disease in northern and western Scotland**. Although figures are not available to produce a **Northern Ireland** forecast, climate data also suggest the risk of a high prevalence there. Figures for **Wales, western England and eastern Scotland** suggest a moderate prevalence of disease, while the forecast suggests that the fluke disease prevalence in the rest of the country should be low.

Those habitats that have remained wet through the summer will be the high-risk grazing areas, and may well carry infective metacercariae through November. In these habitats, the risk period for acute fluke disease

may well extend into the winter. Even in the absence of acute fluke disease, smaller burdens of fluke acquired now may lead to subacute or chronic disease later in the year.

Individual farm and field history, in addition to disease forecasts, will need to be considered when formulating and monitoring a fluke control plan for a farm. Sheep at risk will probably already have been dosed (probably with triclabendazole) earlier in the autumn, but a second autumn dose four to six weeks after the first, if not already given, should be considered in the high risk regions this year. A winter dose to remove adult and immature fluke should be considered and will be discussed future forecasts.

SHEEP NEMATODES

Parasitic Gastro-enteritis

Outbreaks of trichostrongylosis and mixed parasitic gastroenteritis (PGE) in store and replacement lambs are often seen in late autumn/winter. Faecal egg count monitoring of batches of lambs on contaminated pasture is an invaluable tool in controlling PGE without the over-use of anthelmintics, as recommended by SCOPS. Around 10 fresh samples can be collected from the pasture following gathering in a field corner for 10 minutes and these can be examined ideally individually, otherwise pooled at the laboratory or vet practice. Decisions about dosing and further sampling can then be made with veterinary advice.

Locally, dry spells leading to dry ground conditions may prevent nematode larvae from either leaving the faecal mass, or migrating onto the herbage. Thus, drier

contaminated pastures may not be very infective until the onset of wetter weather, when a flush of infective larvae may appear on the pasture. This may be dangerous for grazing stock. Any significant rainfall following a dry spell may indicate the need to treat lambs on contaminated pastures, or at least monitor them closely.

Worm eggs passed by undosed stock may still develop into infective larvae (albeit slowly) if mean temperatures remain around 10 °C or above. Pasture contaminated with worm eggs earlier in the year may remain infective through the autumn and winter, although infectivity is relatively low when temperatures are below 5 °C and larval movement and metabolism are minimal, and the overwintering larval burden will also decline with time.



Chronic parasitic gut damage and larval challenge from highly contaminated pastures may lead to scour and ill thrift in lambs in the autumn, which may not be responsive to anthelmintics or be associated with high faecal egg counts

Nematodirus

In recent years, increased outbreaks of autumn nematodirosis have been identified, often as part of a more mixed worm burden. Some of this appears to be due to overwintered eggs that did not hatch in the spring, and some to eggs passed in the spring that develop and hatch without the need for the winter chill period that would be expected in this parasite.

The effect of climate on the autumn peak of *Nematodirus* larvae on the pasture is unclear, however a positive correlation exists in the published surveillance figures (VIDA 2002-2009) between high

levels of diagnosed nematodirosis in the spring and high levels in the autumn/winter.

Based on this, disease risk in autumn/winter 2010 may be relatively high, as cooler conditions in the spring resulted in a late hatch, and relatively high levels of disease. Attempts to identify high-risk pastures will have to include grazing and disease history this spring and also last autumn, as *Nematodirus* eggs passed then will probably not have hatched in the spring and pastures may now be infective.

Haemonchus

As the weather becomes colder, most acquired *Haemonchus* larvae will inhibit in the abomasal wall of the host sheep, resuming development again in the spring, potentially causing type 2 disease and subsequent egg shedding in the spring/early summer.

If farm history or monitoring for the presence of *Haemonchus* suggests that ewes may be carrying significant arrested larval burdens, then treatment pre-

tupping and/or at lambing may be indicated to avoid type 2 disease, however implications for the selection of anthelmintic-resistant worms on the farm need to be considered. If a lambing dose is to be given to the ewes in these circumstances, it should be one with a good larvicidal activity; the use of levamisole should be avoided.

CATTLE NEMATODES

Dictyocaulus outbreaks are usually decreasing significantly in frequency by November. Local dry spells may reduce the number of outbreaks further, however the disease risk may increase significantly when rain (especially thunderstorms) release infection that has become locked up in faecal pats. Any signs of coughing in unvaccinated susceptible cattle at pasture before housing should alert the stockman to the likely presence of lungworm and should be rapidly investigated/treated.

Any pasture infected with *Ostertagia* larvae over the grazing season may mean a **risk of type 2 ostertagiasis** in any youngstock that graze these

pastures in the autumn and do not receive a larvicidal housing dose of anthelmintic. This dose will also clear any lungworm infections that are present. In most cases, adults do not need a housing dose for gutworms, although this may have implications for ectoparasite and lungworm control, and veterinary advice should be sought. Group 3 (macrocyclic lactone) wormers are often recommended for the housing dose. The persistence of these drugs may be utilised by dosing animals before housing, protecting against lungworm disease during the late grazing season while preventing the acquisition of fresh gastro-intestinal worm burdens in the run up to housing.

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