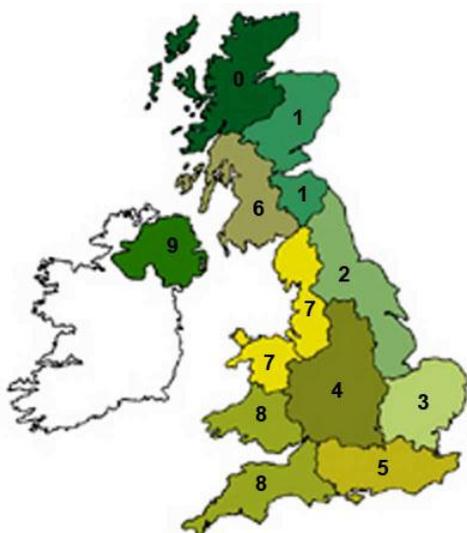


NADIS Parasite Forecast – October 2012

Use of meteorological data to predict the prevalence of parasitic diseases

Regional Weather

(based on Met Office figures)



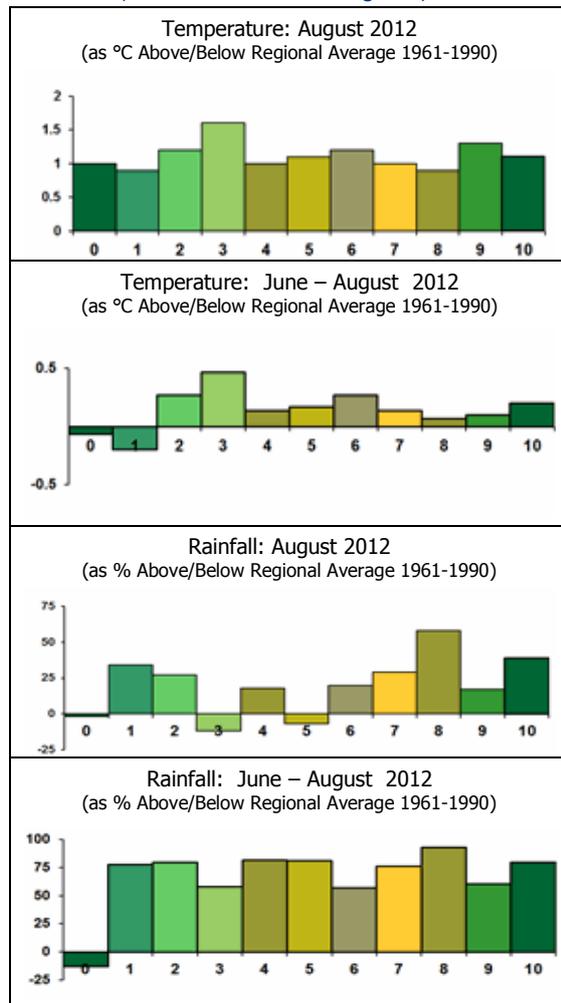
- REGIONS**
- 0 N W Scotland
 - 1 E Scotland
 - 2 N E England
 - 3 E Anglia
 - 4 The Midlands
 - 5 S England
 - 6 S W Scotland
 - 7 N W England & N Wales
 - 8 S W England & S Wales
 - 9 N Ireland
 - 10 Wales

The mean August temperature for the UK this year was around 1 °C warmer than the 1961-90 average for the month, with East Anglia being the warmest region

Three-month average temperatures are slightly below expected for northern and eastern Scotland, and slightly above for the rest of the UK, up to half a degree above in East Anglia.

Rainfall across the UK in August was around 20 per cent higher than the 1961-90 average, although East Anglia, central/southern England and northern Scotland were slightly drier than expected. Wales received around 40 per cent more rain than expected, particularly in the south.

The past three months have been very wet, with all regions experiencing around 60 to 90 per cent more rainfall than the long-term average, except northern Scotland which has had 10 per cent less than the normal amount of rain. Overall, it has been the wettest summer for 100 years.



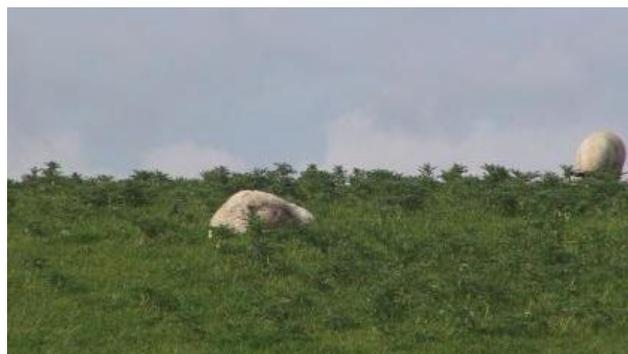
September started with fine weather but it is forecast to become cooler, with unsettled wet and windy conditions. Later in the month, conditions are expected to improve again. In general, the south will see the best of the weather.

October Parasite Forecast/Update

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

LIVER FLUKE FORECAST

Scotland, Wales and western England are still forecast to be at risk of a very high incidence of liver fluke disease this season. The forecast for the Midlands and most of eastern England has fallen slightly from very high to high, while the figures for East Anglia and the central/eastern regions of southern England have fallen out of the high category and now suggest occasional fluke disease.



Sheep affected by acute liver fluke may simply be found dead.



Sudden unexplained deaths must be investigated to confirm the cause.



Normal sheep's liver on right, swollen pale liver (left) with haemorrhagic tracts caused by migrating flukes.

All parasite control plans should be formulated with the knowledge of individual farm circumstances and should include monitoring procedures to aid with decision-making.

High risk sheep farms

Farms with a known liver fluke problem which have not already treated sheep for fluke should treat their sheep in October. Triclabendazole is the drug of choice at this time of year because it is effective against early immature fluke stages. Suspected resistance to this drug must be based upon veterinary post mortem examination of deaths that have occurred after treatment. In the high-risk fluke areas, it may be advisable to give a second flukicide drench of triclabendazole four to six weeks after the first dose. Further winter and spring liver fluke treatments will be discussed in future forecasts. Infection pressure may be reduced by fencing off boggy areas or avoiding such pastures until around February.



There is a high risk of liver fluke disease in many parts of the country this year following the wet summer



It may be advisable to give a second flukicide drench four to six weeks after the first dose on high-risk farms this year

Low risk sheep farms

Flocks with no previous evidence of fluke disease should monitor for the presence of infection via post mortem examination of all sudden deaths and blood sampling by their veterinary surgeon for liver enzyme concentrations.

SHEEP NEMATODES

Parasitic Gastroenteritis (PGE)

Some larval development will continue through October if it remains mild, as it did last year, with mean temperatures averaging below 10 °C only in northern and eastern Scotland. The development from worm eggs to infective larvae slows down as conditions cool, although a mild winter may allow some development to occur throughout the year. Long term forecasts suggest we may be heading for a cold winter this year, but the reliability of seasonal forecasting is low.



As the life cycle slows down, the worm population builds up more slowly and any lambs remaining on contaminated pasture should be able to be dosed less frequently. Group faecal worm egg counts (FECs) used throughout the season can build up a picture of worm infection across a farm, and can be used to give an approximate indication of the likely worm burden in a group of lambs, as recommended in the SCOPS guidelines. This can help to gauge the need to treat the group, although it is not as simple as treating once the FEC rises above a particular figure. Other factors need to be considered such as age, time of year, likely worms present, stocking rate, field history, availability of aftermaths etc. Using FECs and other information to time doses is preferable to just giving regular four-weekly anthelmintic treatments, which may not be needed, and may select for anthelmintic resistance.



Group faecal worm egg counts (FECs) measured throughout the grazing season can build up a picture of worm infection across a farm



Group FECs can help decide when to dose lambs once other factors have been taken into account (see above)



Stocking rate can be an important factor influencing frequency of anthelmintic treatment.

The control of PGE in store lambs can be problematic as they often graze highly contaminated pastures, may be purchased from unknown sources, may have diarrhoea due to nutritional causes or from previous gut damage, and may be suffering concurrent diseases or trace element deficiencies. A veterinary flock health plan based on individual farm circumstances is needed, and may include the use of FECs to time anthelmintic treatments and the use of safe grazing or alternative forage crops.



Concurrent cobalt deficiency and PGE.

Any stock still moving onto farms will need to be quarantined and treated; current best practice (as recommended by SCOPS) involves the use of two highly effective wormers from different groups; for example, sequential full dose treatments with monepantel (Zolvix) and moxidectin, followed by yarding for 24-48 hours, and turnout onto pasture recently grazed by sheep; i.e. NOT clean grazing. The details of these quarantine arrangements (and other treatments necessary to prevent the introduction of diseases such as sheep scab and footrot) must be included in the flock health plan.



All sheep moved onto the farm, including rams, must be quarantined and treated as recommended by SCOPS.

If lambs are grazing highly contaminated pasture, then the effects of constantly fighting off fresh infection must be addressed to achieve satisfactory production, ideally by moving to cleaner pasture (with a targeted treatment of the smaller lambs or perhaps no treatment at all), housing or otherwise by the use of a persistent anthelmintic (moxidectin) if there is no cleaner grazing option.

CATTLE LIVER FLUKE

See section above for detailed liver fluke forecast

Cattle which have been exposed to liver fluke infection at grass should be dosed at housing. A study conducted in the UK and Ireland in 2010 indicated that the majority of fluke infection in cattle from September to December were late immature/adult stage, which allows for a wider choice of flukicides at this time without the need to delay treatment. However, in high/very high risk areas then a second treatment 8 – 12 weeks later should be considered in cattle which show signs suggestive of liver fluke infection or test positive for fluke eggs in the dung; it is possible that very early stages of infection were able to develop into a patent infection.



Cattle exposed to liver fluke infection should be dosed at housing.

Out-wintered cattle exposed to high levels of fluke infection may be treated in late autumn with a flukicide. Further winter and spring liver fluke treatments will be discussed in future forecasts.



Out-wintered cattle exposed to high levels of fluke infection may be treated in late autumn

CATTLE NEMATODES

Lungworm

August to October is usually the peak period for lungworm disease in cattle, and in many areas of the country wet conditions have favoured parasite survival and development. Only a small number of *Dictyocaulus* larvae are needed to cause disease in susceptible animals, and locally wet conditions, especially thunder showers after a dry spell, can quickly increase pasture infectivity. Lungworm is unpredictable and it is important to be aware that all ages of animal remain susceptible to the disease, even adults and second grazing season cattle, if they have not been exposed to regular natural challenges whilst grazing the pasture each season in order to maintain their immunity. Vaccination of youngstock should be considered on farms with a history of lungworm – this allows for the development of immunity before exposure to risk.



Adult beef cow with severe lungworm acquired from purchased store cattle which were not treated upon arrival on the farm. Lungworm can be a serious disease, and may prove fatal in severe cases.

Ostertagiosis



Early signs of Type I ostertagiosis in September.

An increased risk of type II ostertagiosis is associated with moving calves during the autumn back onto pastures infected by calves earlier during the summer. Larvae ingested late in the grazing season become inhibited within the abomasal wall (fourth stomach) and can emerge in the late winter/spring, causing disease.

In general, all calves should receive a Group 3 wormer (ivermectin-type) at housing. An increased risk of type 2 disease has previously also been associated with dry conditions July to October; however, this is not likely to be the situation in many regions this year.

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

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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