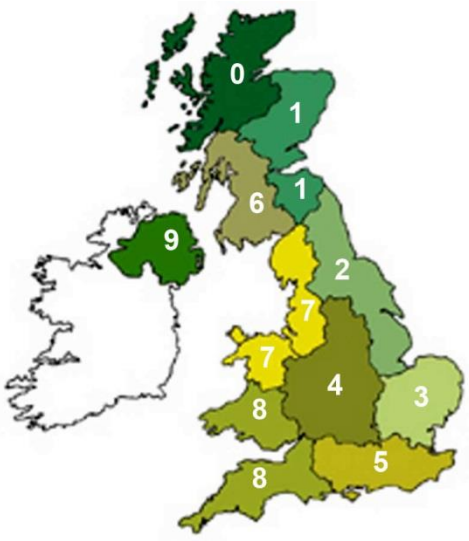
SQP – CPD Programme

As part of AMTRA`s online CPD Programme for livestock SQPs, each month AMTRA will send you the Parasite Forecast which will highlight the parasitic challenge facing livestock in your area for that month. At the end of the Parasite Forecast you will find a series of multiple choice questions (quiz button) based on its contents. Answer the quiz online and you will be emailed a certificate with your score. This will form part of your SQP CPD requirement. The Parasite Forecast has been developed by NADIS (National Animal Disease Information Service) and is written by leading veterinary parasitologists and based on detailed data from the Met Office

NADIS Parasite Forecast – June 2019

Use of meteorological data to predict the prevalence of parasitic diseases



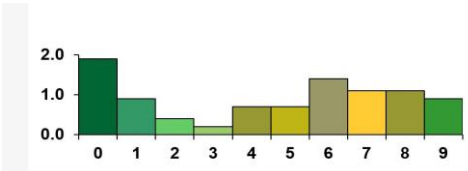
REGIONS

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		

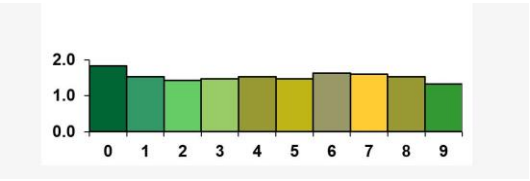
Regional Weather

(based on Met Office figures)

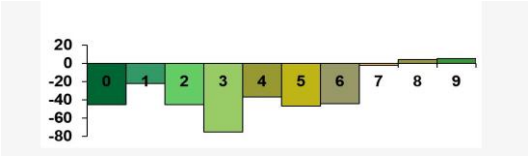
Temperature: April 2019
(as °C Above/Below Regional Average 1961-1990)



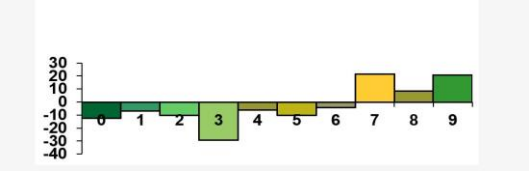
Temperature: February – April 2019
(as °C Above/Below Regional Average 1961-1990)



Rainfall: April 2019
(as % Above/Below Regional Average 1961-1990)



Rainfall: February – April 2019
(as % Above/Below Regional Average 1961-1990)



Weather conditions varied considerably in April, starting cool with showers and longer spells of rain as well as sleet and snow in some parts, settling to warm sunny conditions around the Easter weekend, then turning more unsettled again in the last week due to Storm Hannah.
The provisional UK mean temperature in April was 8.4 °C, 1.0 °C above the 1981-2010 long-term average. This was the case across all UK regions, particularly Northern Ireland and the west of Great Britain. Average temperatures for temperatures for the three months of February-April collectively were also above the long-term average for all regions.
Rainfall in April was only 71% of the long-term average overall, and was below normal for most regions of the UK with the exception of the west coast of England, Wales and Northern Ireland. Average rainfall for the three months of February-April collectively were more comparable to the long-term average, although these varied between regions in a similar manner.

June Parasite Forecast/Update

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

Supported by QMS *Improving sheep and cattle health*

SHEEP

Parasitic Gastroenteritis (PGE)

As the season progresses, build-up of contamination on pastures through the continuous shedding of eggs by infected individuals can lead to disease in lambs. A control plan based on a combination of diagnostics, pasture management and the strategic use of anthelmintics will reduce both risk of disease, and selection for anthelmintic resistance on your farm. Egg count data from Parasite Watch showed some moderate and high counts across England and Wales in March and April.

Advised actions include:

- Monitor for signs of disease, particularly anorexia, diarrhoea, dehydration and unexplained weight loss.
- Routine worm egg count testing can be used to monitor infection levels and inform treatments.
    - Ideally, perform these every 2-4 weeks.
    - Egg counts can be performed on pooled faecal samples if taken from 10-12 individual animals.
    - For performance monitoring to be effective, accurate record keeping is essential.
- Reduce pasture build-up and exposure through grazing strategy:
    - Try to graze animals on “safe” pastures, such as those not grazed by lambs the previous season.
        - If safe grazing is limited at turn-out, reserve this for ewes with twins and triplets.
    - Move animals to additional safe pastures (e.g. hay or silage aftermath) later in the season as these become available.
        - Weaning is a good time to move lambs on to safe pastures.
        - Pastures grazed by last season’s lambs may be infective early in the season due to the presence of overwintered larvae, but will become safe as temperatures increase and these die off.
- Lambs grazing permanent pastures will usually require worming to limit build-up of infective larvae. Where possible, avoid blanket treatments. “Targeted Selected Treatments” (TSTs) can be used to reduce selection for anthelmintic resistance.
    - TSTSs can be directed at those animals most in need based on weight gain (Figure 1), body condition or worm egg counts.
    - Usually only around 40-60% of lambs should require treatment.
- If dosing lambs ahead of moving them to safe grazing, it is important to avoid selecting for anthelmintic resistance by introducing only resistant parasites to the new pasture. The SCOPS group recommend reducing risk of this occurring by:
    - Avoiding use of long-acting products such as injectable group 3-MLs.
    - Leaving animals on contaminated pastures for 2-3 days after treatment ahead of moving so that these animals become re-infected with a small burden of untreated parasites and/or…
    - Leaving some animals untreated, ideally not less than 10% of the flock.
- Consider post-treatment egg counts to confirm treatments have been effective.
- For more information and advice, please speak to your vet or SQP and see the SCOPS website.

Figure 1: Regular weighing of lambs over the grazing season enables targeted selected treatment (TST) for animals and accurate dosing by weight.

Nematodirosis

This year’s NADIS *Nematodirus* forecast predicted an early hatch, while the SCOPS *Nematodirus* forecast has been predicting increasing risk to “high” and “very high” across most of the UK from the beginning of May. The unsettled weather means that local farm conditions should be compared to those recorded at the national and regional level when assessing your on-farm risk. Egg count data from Parasite Watch shows generally negative or low nematodirus egg counts in March and April.

The early predicted hatch this year is likely to have happened before many lambs have started to graze extensively. It should however be noted that in wet, cool conditions infective larvae can survive on pastures for several months. Pastures grazed by last season’s lambs should therefore still be considered high risk into the coming months.

Advised actions include:

- Continue to monitor for signs of disease, including sudden onset diarrhoea, dehydration and death.
- Where disease occurs, treatment with group 1-BZ

is usually effective.
    - While worm egg counts cannot be used to identify acute (sudden onset) nematodirosis, they can be used to confirm treatment efficacy if taken 7-10 days after the date of treatment.
- For more information please speak to your vet or SQP.

Blowfly Strike

The NADIS blowfly alert is based on daily temperature and rainfall data and is updated every 2 weeks over the course of the grazing season. This was predicting moderate risk for most of England, Wales and Northern Ireland by the end of April, with some early cases already reported around this time.
Blowfly strike is a hugely important disease in terms of its animal welfare and economic impact affecting around 80% of UK sheep flocks each year at an estimated cost of £2.2 million per annum.
Female flies are attracted to odours produced by decomposing matter. Soiled back ends resulting from PGE, foot rot lesions (Figure 2), dermatophilosis (lumpy wool), urine scalding around the prepuce and shearing injuries are all common sites for fly strike. Failure to treat even very small lesions promptly is a welfare issue and can lead to disrupted grazing, loss of condition, secondary infections and death.
Disease severity depends upon a variety of factors including weather, with warmer, humid conditions favourable.

Figure 2: Wounds and footrot lesions are a common site for blowfly strike.

Advised actions include:

- Inspect stock daily for evidence of strike, particularly during high-risk periods.
- Management of fly populations early in the season through fly traps and prompt removal of dead stock can significantly reduce their numbers and consequently incidence of disease.
- Prevention of diarrhoea through good parasite control will greatly reduce the risk of blowfly strike.
- Dagging, crutching, shearing and treating lame sheep promptly can help to limit the effects of flystrike.
- Consult the NADIS blowfly alert for up-to-date disease risk in your area and further advice on treatment and control strategies.
- A number of chemical formulations can be used to aid in the prevention of blowfly strike.
    - These should be used in conjunction with the management points listed above.
    - Many of these products can also be used to treat blowfly strike where it occurs.
- For more information and advice, please speak to your vet or SQP.

CATTLE

Parasitic Gastroenteritis (PGE)

PGE can have a major impact on the health and productivity of youngstock, particularly autumn and winter-born weaned calves entering their first grazing season and spring-born beef suckler calves entering their second grazing season (Figure 3). Growth rates in infected animals can be reduced by up to 30%, even with low levels of infection. It is also important to remember that adult dairy cattle can be affected, with roundworm burdens causing losses in milk production of up to 1kg per day (Figure 4).

Figure 3: PGE in cattle causes diarrhoea and up to a 30% reduction in the growth rates of youngstock. Commonly affected animals include growing dairy heifers in their first grazing season (left) and weaned autumn-born suckler calves in their second grazing season (right).

Whilst *Ostertagia ostertagi* is the most important disease-causing roundworm in cattle, burdens of other species such as *Cooperia* can build up over the season due to their greater resilience to wormers.
Set stocking with strategic dosing early in the season to control PGE in grazing calves and young stock is designed to protect animals against over-wintered larvae present on pastures in the early grazing season, and to limit further pasture contamination and reduce disease risk later into the season. If taking this approach:

- Where animals are set stocked on “safe” pastures (previously arable fields or those grazed by sheep the previous year), it is unlikely worming will be required until later into the grazing season since there will be no overwintered larvae present, otherwise:
- Use appropriate strategic dosing in the form of bolus wormers at turnout or repeated administration of shorter duration group 3-ML products at 6-8 week intervals until mid- to late summer.
- Keep animals on the same pasture for the entire season, or plan moving to safe grazing such as hay or silage aftermaths towards the end of the season as these become available.

Figure 4: Whilst PGE is most commonly associated with production losses in young stock, infections in adult dairy cattle can also lead to losses in milk yield.

Advised actions include:

- Regular performance testing through weight gain or body condition.
- Worm egg counts (including post-treatment efficacy testing) are a useful way to check parasite control is effective.
- Be alert for signs of disease, specifically loss of appetite, weight and body condition and diarrhoea.
- When choosing a worming product for cattle, it is worthwhile considering the COWS group's "5 Rs" to ensure your worming strategy is both effective and sustainable.

For more information on treatment and control options for PGE in cattle, please speak to your vet or SQP and visit the COWS group website.

Lungworm

Lungworm infection (or "husk") can start to occur from June onwards. Outbreaks are difficult to predict, but may be associated with wetter summers and following periods of wet weather. Unvaccinated calves and animals not part of strategic dosing programmes should be considered at risk. Older cattle may also be at risk if they have not previously developed immunity.

In areas where lungworm is present, it is recommended first season calves are vaccinated prior to turn-out.

- Monitor for infection in the group, particularly widespread coughing, increased respiratory rate and difficulty breathing, rapid loss of weight and body condition, milk drop and death in severe cases (Figure 5).
- Where infection is suspected:
    - Treat animals with an anthelmintic (most products are effective).
        - Consider withdrawal periods for lactating animals.
    - Affected cattle should be removed from contaminated to "safe" pasture (e.g. aftermath) or housed in a well-ventilated building.
- For more information, please speak to your vet or SQP, see "COWS" group guidelines and see our recent NADIS lungworm webinar.

Figure 5. Early signs of lungworm infection include widespread coughing and elevated respiratory rates.

Don't forget to try the interactive quiz

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

To watch a webinar (video) based on this article and take an electronic quiz worth 3 CPD points, click WEBINAR