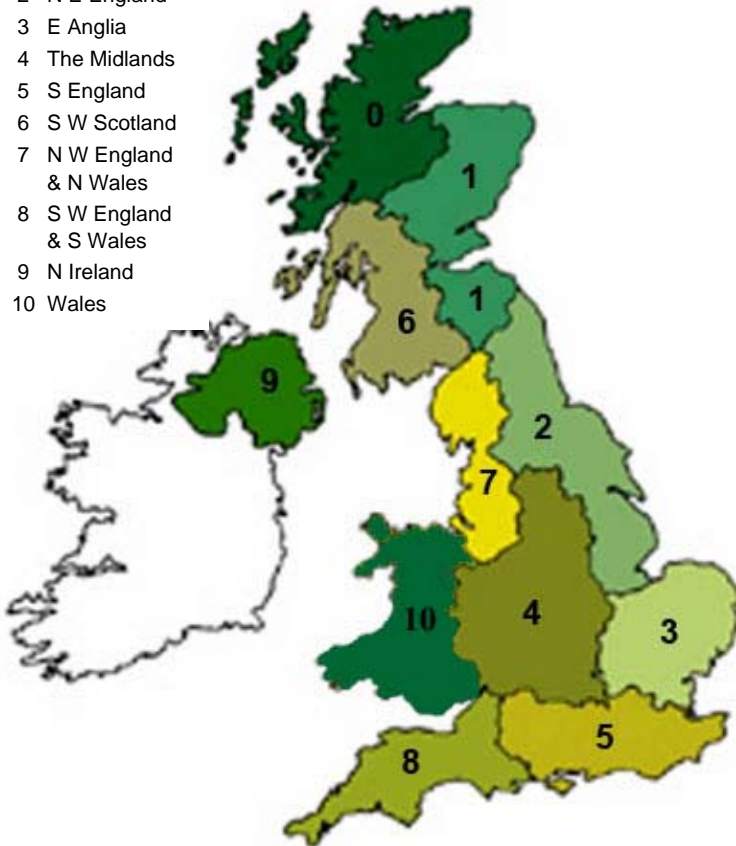


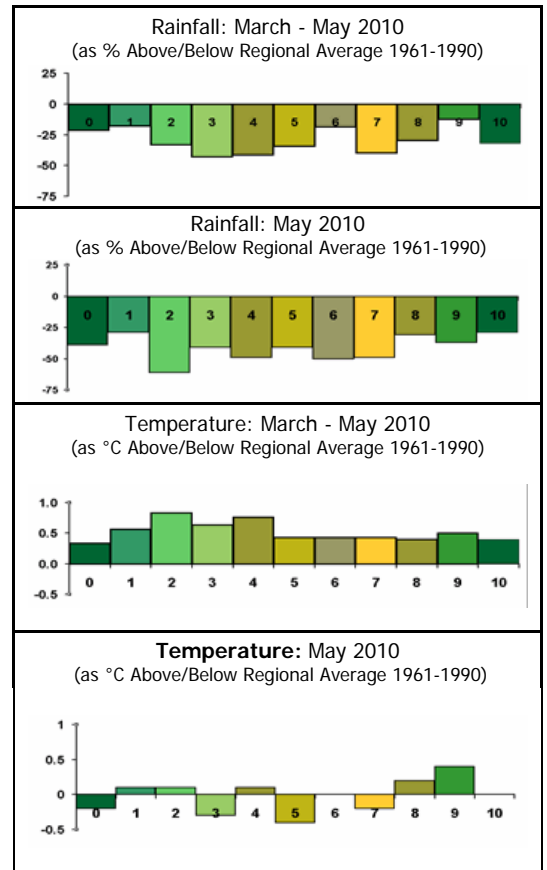
NADIS Parasite Forecast – July 2010

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)



May 2010

May temperatures were close to the 1961-1990 average across the UK this year, ranging from more than half a degree below the regional average in parts of East Anglia and south-east England, to more than half a degree above in parts of south Wales and Northern Ireland. In general the first half of the month was cooler, warming up towards the latter part of the month. Mean temperatures over the latest three-month period are still above average in all regions.

The UK experienced dry conditions in May, from around 30 per cent below the regional average in eastern Scotland to 60 per cent below in north-eastern England. This led to the driest May across the UK since 1998.

Three-month mean rainfall figures are also below average in all regions, although closer to average in Scotland and Northern Ireland than in England and Wales.

June started very warm but became cooler during the second week. Forecasts for the rest of the month predict temperatures average or above, with unsettled conditions later in the month.

The middle two weeks of **July** are often warm and sunny, under the influence of the Azores high. Thunderstorms and low pressure often feature in the last week of the month.

July Parasite Update and Forecast

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

SHEEP NEMATODES

Peak pasture larval availability usually occurs in July or August. This peak primarily consists of larvae developing from eggs passed by lambs, which became infected by larvae originating from the ewes during the peri-parturient rise (PPR) or by overwintered larvae.

The magnitude of the peak will therefore be lower where ewes and lambs were turned out onto pastures with a very low larval population. Prolonged cool conditions may delay this peak, although this is not expected this year. Extended dry spells may also delay



the pasture larval peak, which may occur anywhere depending on local weather conditions. Forecasts suggest these conditions may occur in places this year.

Ewes on contaminated pasture, which were treated with persistent anthelmintic (moxidectin) at lambing, may themselves be contributing to pasture larval contamination now as the effective period of the anthelmintic ends, and a post-treatment rise in faecal egg count occurs. The need for this treatment is the subject of debate at present, and it may best to target lambing treatments to part of the ewe flock (based on condition, age or litter size) to reduce selection for anthelmintic resistance, as recommended by SCOPS. The effects of grazing infected pasture can be minimised by then moving lambs to cleaner pasture, often at weaning. However, clinical experience indicates that if ewes are not treated at lambing, then their lambs may be at increased risk of parasitic gastroenteritis

before weaning. Lamb faecal worm egg counts can be used to help determine if dosing is required, particularly if clean pasture is not going to be available post-weaning.

High worm populations are associated with wet summers, and therefore a higher than usual incidence may be seen in areas that experience such conditions. This has been the most likely reason for the high levels of summer parasitic gastroenteritis seen in the last couple of years. Prolonged dry conditions are associated with a reduced summer disease incidence as larvae are unable to migrate onto the herbage and become infective. Significant outbreaks may however occur when a dry period of around 10 days or more is followed by wet weather allowing the migration of larvae onto the herbage. Decisions about when to dose lambs should take into account any such recent weather patterns.



Even frequent dosing with anthelmintic may not control scour and poor growth if lambs are grazing pastures heavily contaminated with worm larvae. It is often the constant challenge from these larvae, rather than the worm burden carried by the lambs, which causes the lambs most problems.

The temperature-based *Nematodirus* forecast suggested an above-average incidence this year, due to the cold spring. In addition, dry May conditions will have further delayed hatching in many areas. The risk period for disease may extend into July this year, especially in the north of the UK.

Parasitic gastroenteritis control programs need to be worked out on an individual farm basis as part of a veterinary flock health plan taking into account animal history, farm and paddock history, disease history, environment and husbandry system etc, and must be adapted according to climatic conditions.

In general, if lambs are to be dosed and moved to safe pasture (e.g. silage aftermath) at weaning, they should be allowed to carry some anthelmintic-susceptible

worms over onto the new pasture to avoid heavy selection for anthelmintic resistance. For example, a proportion of the lambs (perhaps around 10 per cent) could be left untreated, or the lambs allowed to graze the contaminated paddock for up to a week after treatment before moving to safe grazing (unless a persistent anthelmintic is used), in line with SCOPS guidelines.

At least once a year, faecal egg counts should be performed on some 10-14 day post-treatment faecal samples as an initial screening test for anthelmintic resistance. This should be done even if there is no evidence of poor anthelmintic efficacy on the farm in order to identify resistance at an early stage.

CATTLE NEMATODES

Lungworm disease typically occurs from June/July onward. An increased incidence of lungworm disease has been associated with wet summers. However, thundershowers following a dry spell can break down faecal pats and make larvae available to grazing stock, leading to a local increase in disease incidence.

Dose and move strategies or suppressive regimes that do not last the whole grazing season can still allow lungworm disease to occur late in the season, especially if conditions are wet, and prompt treatment is needed. Animals destined to be breeding replacements, and perhaps suckled calves from farms with a history of lungworm disease, are best protected by vaccination.

Suppressive regimes for the control of ostertagiasis (e.g. in set-stocked calves vaccinated against lungworm) can end around mid-July when pasture larval infectivity will have substantially died off.

Although anthelmintic resistance is less common in cattle nematodes than in sheep nematodes, it is important to avoid undue selection for resistant parasites. A technical manual for cattle, based on the format of the SCOPS manual for sheep, has been produced (Control of Worms Sustainably [COWS]; Taylor, 2010) and is available via several websites, including DairyCo and NFU Online.

FLUKE

- Winter infection of snails

Generally dry conditions last August, September and October are likely to have led to relatively few fluke-infected snails overwintering. In addition, dry conditions in May in many places will have further reduced the level of infection passing from infected snails onto the pasture. The risk from the winter infection, which may cause acute disease in June/July, is therefore expected to be low this year, although a wet June could increase the risk. This will be clearer after the regional Mt figures for June are known, and the fluke forecast for the winter infection of snails will be available with the August forecast at www.nadis.org.uk from early July.

- Summer infection of snails

May temperatures will have allowed the development of fluke eggs and the start of mud snail activity given

suitable ground moisture. Dry conditions across much of the UK mean that habitats in which this can occur may not be as extensive as recent years. A high level of environmental contamination with metacercariae is expected to be present in many areas this year due to increased egg deposition, which is itself the effect of several consecutive wet summers. Rainfall patterns in June, July and August this year will be important in determining the incidence of fluke. A forecast will be produced at the end of August.

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