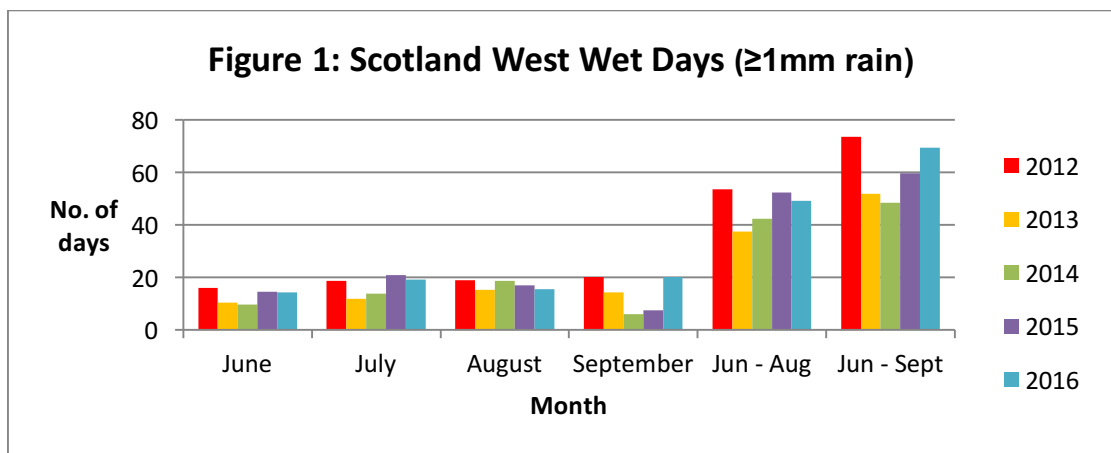




## Liver Fluke Risk Assessment

When planning liver fluke control local knowledge and experience should always be taken into account. The risk of infection will vary by year, region, farm and even individual field.

- **Do you consider your farm to be high or low risk for liver fluke?** If you don't know or if you think that liver fluke is absent or only an occasional problem consider collecting some samples to find out if lambs have been infected this year. Bleed six lambs and test for antibodies to liver fluke. If you are monitoring trace element status this test can be carried out on the same samples.
- **Is it a high or low risk year?** Fluke forecasts are based on climate data particularly rainfall. Wet summers tend to increase the risk of fluke problems in the autumn and winter. Regional forecasts can be found at [www.nadis.org.uk](http://www.nadis.org.uk). You can also check [www.metoffice.gov.uk/climate/uk/summaries/datasets](http://www.metoffice.gov.uk/climate/uk/summaries/datasets) for the number of wet days (days with 1mm or more of rain) for your area from June to September. This can be compared to 2012 which was a very high risk year for liver fluke. Figure 1 shows an example of this information for the Scotland West Met. Office region and indicates a high risk this year. If you have records from your own rain gauge then this is a good local source of information.



- **Where have the sheep grazed from mid August onwards?**
- **Are there any areas where mud snails would like to live?**  
 Liver fluke eggs are passed in dung and after hatching the fluke needs to find a mud snail (*Galba truncatula*) within a few hours. The fluke multiply inside the snail for a number of weeks before leaving it again and forming cysts which stick to surfaces such as blades of grass. Sheep become infected by eating these cysts along with the grass. Cyst numbers are highest during the autumn and early winter which is why most deaths due to liver fluke occur at this time. The mud snails are key: no snails = no risk of liver fluke infection. They like to live in areas that are permanently wet e.g. around ditches, slow flowing water courses, flooded gateways and areas with rushes. You will not find them in water courses that are fast flowing with steep sides and stony bottoms. They also dislike peaty areas and stagnant water. Areas that still squelch and sink when you



walk across them after a short dry spell are danger areas. In order to produce cysts in the autumn the snails need to have been infected with liver fluke earlier in the year leading to the next question .....

- **What grazed the field earlier in the year?**  
Fields with snail habitats that have been continuously set stocked with sheep all year tend to be highest risk in autumn. Fields grazed by cattle in spring/early summer can be lower risk while fields that were ungrazed in spring and summer e.g. re-seeds should be low risk. (There is always a small risk from fluke eggs passed by wildlife such as deer.)
- **Have there been any problems with liver fluke in particular fields in the past?** This suggests that the conditions in those fields suit both snail and parasite. Unless improved or managed differently the same issue could arise.
- **Are there any current problems that could be due to liver fluke?** If so then get them investigated. These could include sudden deaths, weight loss, poor growth rates or lethargy.