New South Wales worm update

February 2012

Rad Nielsen, Veterinary Health Research, Armidale (rnielsen@vhr.com.au):

We are seeing some extreme worm egg counts in the VHR laboratory at the moment. Haemonchus is the main culprit; however Scour worm burdens have also been surprisingly high in a number of properties in the New England region, typically involving young sheep. This fact highlights the need for graziers to be aware not only of the worm egg count when monitoring their sheep, but also the nature of the infection.

Drench failure due to resistance is a common occurrence, however immediate and rapid re-infection of stock is also a major problem at this time. The latter can be minimized by incorporating a grazing plan within the farm system, enabling paddocks to be "spelled" for sufficient time periods in order to reduce the larval load. Summer "rest" periods ideally should be 3 months in order to prepare a "low worm paddock", however a 4-6 week break will be much better than remaining "set stocked".

The failure of Naphthalophos based drenches to remove immature Haemonchus at sufficiently high levels (particularly when under high challenge) is also proving problematic. Interestingly, we are seeing the Pyraclofos + BZ combination (Colleague®) perform well in this situation.

Steve Love, State Coordinator-Internal Parasites NSW DPI, Armidale (stephen.love@industry.nsw.gov.au):

As you all know, there has been quite a bit of rain this summer in many parts of NSW, due to La Nina as meteorological boffins know.

This is the second year running for La Nina, so the effect on sheep worm numbers has been greater. Going into winter last year, paddocks on many properties were much wormier than usual. A proportion of these larvae on pasture, frosts notwithstanding, made it through to spring, providing a larger than normal launch pad for worm numbers to build up through spring and summer.

In the summer rainfall zone of north eastern NSW, Barber's Pole worm (and also Black Scour worm) problems (deaths, illthrift) are particularly common in summer and autumn, except in dry years. In seasons like this, they are an even bigger problem.

But, in non-seasonal and winter rainfall areas in central and southern parts of NSW, Barber's Pole is not usually as much an issue, except in years like this.

So, producers in central and southern NSW are getting a caning from Barber's Pole worm as well. Add to the mix very high Black Scour worm burdens in some flocks also.

Commonly worm egg counts (eggs per gram of faeces) have been in the thousands in some mobs of late. The very high egg counts commonly are due to Barber's Pole, a very fecund worm. But some surprisingly high counts have been due to Black Scour worm. This shows the value of worm typing/larval cultures. They cost an extra $25 or so on top of around $50 for a WormTest involving 10 individual egg counts.

At say $75, that means a WormTest in a mob of 250 sheep costs 30 cents per sheep. Compare that to the annual cost of worms: about $5-$10 or more per sheep, most of which is down to production losses (including deaths), not drenching or WormTesting.

Flooding in the north western slopes and plains, where worms are usually less of an issue, will also cause worm and other problems (e.g. foot abscess, Coccidiosis), because of moisture but also because of stock congregating on small areas.

Worm problems can be exacerbated further by the unwitting use of drenches that are less than effective because of the development of resistance of worms to drenches. Resistance is very, very common.

Problems will be better or worse for producers depending on other factors, including grazing management. For example, set-stocking is perfect for Barber's Pole worm. A well-thought out system of grazing management can cut Barber's Pole worm off at the knees.

Worm egg counts (WormTests) are a vital part of rational worm control at any time, not least in seasons like this. You can make decisions on whether to drench or not based on data rather than guess work. By the time sheep are obviously wormy, the horse has half bolted. *(…and you know which half you are left with - Ed)*

WormTests also give you objective information on how well drenches are working on your property. The most expensive drench is the one that doesn't work. The simplest and quickest method is to do a worm egg count 10 days after giving a mob of sheep a drench, in the case of short-acting drenches.

Let's not forget Liver Fluke either. Conditions have also been excellent in many areas for Fluke and their intermediate host snail. Properties that normally get by with a Fluke drench in April/May (the single most important time to give a Fluke drench), may also need to give a Fluke drench this month: February. Get good local advice on this.

For those who lamb in spring, lambing might seem like a long time away, but a lot of your success in worm control next spring and summer will depend on what you do with lambing paddocks in the 6 months before lambing.

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A month before joining, i.e. 6 months before lambing, you need to keep sheep (and goats and alpaca) off your lambing paddocks, because it takes about 6 months of keeping paddocks sheep free in late autumn and winter (in the cooler eastern third of NSW) for about 90% of the infective larvae already on the paddock (from summer/autumn grazing) to die off.

As a bonus, if you live in colder areas, you can put sheep into the lambing paddock in those winter months with day time temperatures consistently below 16 degrees. At these temperatures, it is too cold for most Barber's Pole and Black Scour worm eggs to develop and produce infective larvae.

NSW LHPA District Veterinary Officer reports

North-West LHPA

Derek Lunau, Moree (derek.lunau@lhpa.org.au):

Many producers have not been able to access their stock due to the flooding. Many losses have been put down to the floods but their real cause of death may be any number of conditions including wormy sheep confined to small areas. Producers were generally more aware of worm issues this season and have been on top of their worm control programs resulting in only a few investigations for suspect deaths associated with Barber's Pole. Again the extent of the problem is hard to quantitate due to flood affected stock.

Lachlan LHPA

Eliz Braddon, Young. (eliz.braddon@lhpa.org.au):

The eastern area of the Lachlan LHPA has seen a build-up of worm numbers again in the Dec-Jan period due to the moist conditions. The overall average of all submissions for the month was 422epg with a range of 4-1832epg. The typical populations have been the scour worms - Black Scour and Small Brown Stomach (Trichostrongylus and Teladorsagia) with smaller numbers of Barber's Pole worm (Haemonchus).

The drench resistance study being performed in the district is well underway and the general trend emerging so far is that the mectins appear to be holding up relatively well as a drench class. There are some exceptions to this rule, however, that have been very hard to predict. The message here is that there is no other tool more valuable than drench performance data on your property for making decisions about what is the right drench for you. So if in doubt, the practice of either doing a drench resistance profile every few years or at the least doing post-drench checks 10-14 days after drenching with a new class (e.g. At summer rotation) to develop this property information would be highly recommended.

Belinda Edmonstone, Forbes (belinda.edmonstone@lhpa.org.au):

In the central area of the Lachlan LHPA average faecal egg counts for the month of January have ranged from 0-6360 with individual counts ranging from 0-11400. Worm species have varied on properties with small brown stomach worm and black scour worm still being a major player in some worm infestation. The wet mild condition will be resulting in a build-up of larvae on paddocks running sheep therefore it is highly important to properly prepare lambing and weaning paddocks.

Katherine Marsh, Condoblin (katharine.marsh@lhpa.org.au):

A number of WormTests have been conducted in the past month with the average count being 2,570epg (range 0-19,660epg). The lower counts have tended to be in older sheep or those that have already been drenched early in summer; however, counts over 1,000epg have been seen in mobs that have already received a summer drench. Barber's Pole Worm has been problematic for some producers, particularly those north of Condobolin. The property with an average count of 19,660epg, had individual counts as high as 43,800epg.There had been some deaths and approximately 15% of the mob had signs consistent with a Barber's Pole Worm problem. High percentages of Barber's Pole Worm have been seen in other counts.

With warm, wet conditions persisting Barber's Pole Worm is likely to continue to be problematic for some months. It is recommended producers monitor their sheep for worm burdens, particularly those mobs that have not been drenched already this summer.

New England LHPA

Steve Eastwood, Northern New England (steve.eastwood@lhpa.org):

The New England is experiencing very favourable conditions for Barbers Pole worm. Producers must undertake worm egg count monitoring every 4-6 weeks.

Producers at high risk of suffering heavy losses are those that did not prepare weaning paddocks; don't know the effectiveness of their drenches; and/or don't perform worm egg count monitoring.

If drenching is required'- use a known effective drench and move onto a clean paddock. Avoid set stocking.

Tablelands LHPA

Bill Johnson, Goulburn, (bill.johnson@lhpa.org.au):

Sheep producers in the Goulburn district are nervous. Frequent showers and storms have set us up for a third consecutive good autumn, and conditions are ideal for Barber's Pole worms. But rather than just sit about worrying, a huge number of sheep managers have been doing worm egg counts

and cultures on their sheep. And the results are well worth the effort. Few mobs have been shown to have low worm egg counts. Roughly half of the properties sampled have significant Barber's Pole worm levels, while the others have only scour worms. It is difficult enough to map out a worm control program where you know what worms are present; it is impossible where you have no idea. A worm egg count and culture is essential information, as the smartest operators already know.

It is important to recall the worm crashes we experienced during lambing last year. These were most severe where lambing ewes grazed paddocks used by weaners in the previous autumn. Look a few months ahead; make sure your grazing program now doesn't leave you exposed to the same level of contamination in lambing paddocks later this year.

Jim McDonald, Yass, (jim.mcdonald@lhpa.org.au):

The Yass District continues to have rain events every 7-10 days which will make the life of worm larvae very easy going into autumn.

Most producers have been on their guard through summer and as a result worm control has been generally good with most counts below 200epg with the odd outstanding WEC at 2800epg.

Current weather conditions dictate that autumn is now shaping up to be a difficult time controlling parasites in young sheep especially, due to their lack of natural age resistance.

A regimented worm testing program will need to be implemented on most farms to determine when treatments are required and whether long acting treatments [capsules or injection] are warranted. Most important to include a larval differentiation test to know if Barbers Pole worm is contributing to the worm burden which will help to fine tune your control strategies.

Central West LHPA

Evelyn Walker, LHPA DV, Dubbo (evelyn.walker@lhpa.org.au):

The Central West is still seeing high worm egg counts particularly in young weaner sheep. Worm types vary from property to property. The predominant worm type overall still remains the Barber's Pole. However, the Black Scour worm appears to be gaining momentum this month. Although Black Scour is traditionally a winter worm, wet summers like the ones we have been having, ineffective drenching, and possible drench resistance may be contributing to a rise in Black Scour worms.

A few producers have been caught out by the Black Scour worm when using older style single active drenches. While the single active drenches did a nice job of cleaning up the Barber's Pole worm, the Black Scour worm was now the "problem worm." It is important to remember that drench resistance can develop to a particular worm type and not necessarily all of the worms inside the sheep. It's possible on these particular farms that there was some underlying Black Scour worm resistance. To

find out how well your drench is working for you and what worms are left over, be sure to do a worm test with a larval type 10-14 days after drenching. This way you can get an idea of how effective your drenches are against each worm type. In addition, don't forget that immunity and underlying stressors play a role in combating worms. I have seen a few sheep die with only small to medium infestations of Barber's pole worms but when combined with fly strike and poor nutrition; this was a "triple whammy" and made it impossible for the sheep to recover.

Riverina LHPA

Colin Peake, Hay (colin.peake@lhpa.org.au):

Dan Salmon reports that most of the FECs have been low with a fair number coming through in preparation for the summer drench. Many of the low FECs have not had a drench for over 12 months.

One interesting set of results is some high counts for 2010 drop ewes when other age groups (including the 2011 drop lambs) have low counts.

One explanation is the persistence of the high worm burdens through the past couple of relatively cool wet summers in sheep which were lambs when the worms were so bad in 2011. Another explanation is that they did not develop resistance because the high worm burdens that they had as lambs limited their growth. I don't think that is the case because they seem to be pretty well-grown.

Gabe Morrice reports that in the small number of Wormtests she has seen, there has been a mixed bag of results. Older pregnant ewes running on a dry area property were found to have counts of up to 1600epg (larval diff not yet available). The ewes were drenched immediately following the results and the owner reports that they have improved dramatically. Weaned lambs drenched in September on dry area were found to have negligible FEC's. Weaned lambs on irrigated Lucerne and grain feeding were found to have post mortem signs indicative of a significant Ostertagia burden, in spite of being drenched at weaning.

Scattered heavy rainfalls throughout the area over the past month have resulted in some areas having green feed in amounts which are unusual for this time of the year. Producers are urged to monitor their sheep and lambs using WormTests and to seek advice on drenching.

The FEC's in the west of the Riverina have increased for the summer drench, they have all been low. Some sheep had spring drenches and some didn't. The summer has been a lot cooler this year, so egg and larval survival should be longer in the pasture. I think the saviour was that as it has been dry and most sheep are browsing well off the ground, thus reducing larval intake. Multiple FEC with zero Nematodirus. It is good to see the increase in WormTests as there is potential for another nasty year reports Colin Peake.

Hume LHPA

Tony Morton, Wagga Wagga (tony.morton@lhpa.org.au):

Counts have been all over the place with examples of very low counts where effective drenches in early summer were combined with moves to paddocks prepared for by grazing with cattle or stubbles to high counts with mixtures of barbers pole worms &/or small brown stomach worms &/or black scour worms were seen.

A well-structured drench resistance test revealed Ivermectin resistance in small Brown Stomach worms on one property while a post drenching monitoring of Cydectin treated sheep revealed high counts almost certainly due to resistance rather than reinfection on another.

The message from all of this is it's been a wetter than normal summer and counts are often high. This is causing some immediate problems with production loss, potentially means some Barbers Pole smash up will occur in unmonitored flocks and almost certainly means winter and early spring will see ongoing problems with Black Scour and Small Brown Stomach worms. There has been enormous variation between farms and between mobs on the same farm both in counts and species so it's vital to monitor your own sheep rather than rely on guess work or some ones else's experience.

Charlotte Cavanagh, VO, NSW DPI, Bourke (charlotte.cavanagh@idpi.nsw.gov.au):

With up to 250mm of rain recorded in the latter half of January, floodwaters and generally warm, humid weather conditions are ideal for worms in the Darling LHPA area.

Only four WormTests have come in throughout February, but according to local rural merchandisers, drench sales are strong, indicating that producers continue to drench without monitoring. Unfortunately, the time and expense of mustering limits access to livestock and animal husbandry may only occur by necessity at crutching, shearing or lamb marking time. The increase in Dorper numbers in the west decreases the need to muster, with generally no shearing or crutching required.

Producers who have taken on regular worm testing are reaping the rewards. One producer who used to drench twice a year as per habit, reports that he hasn't drenched now for over 12 months.

WormTests are currently running at an average of 500epg, with typing trending towards Barber's Pole on the black/river country and Scour worms predominating on the red country.

A warning has been issued in the local press to producers to ensure sustained action worm control is in place prior to stock isolation in the floods. Recent drench sales reflect an increased demand for long acting and combination drenches and injections.