APPENDIX 8 - EXAMPLE DRENCH CHECK REPORT – UNITED KINGDOM

FECPAK^{G2} DRENCH CHECK PROJECT

In association with:

Sainsbury's

Season: Autumn

Date: XX/XX/20XX

Farmer Name: XXXX XXXXX	**Farm Name: XXXXXX**
Email: youremail@domain.com	Telephone: XX-XXX-XXXX
LAB ID CODE: SF(XX) (provided by Techion)	Vet Name: XXXX XXXXX

DRENCH SUMMARY

Drench Active	Species	Starting FEC	End FEC	Percentage Reduction	Quick Drench Selection
Benzimidazole (1BZ)	Strongyle	525	315	40%	
	Nematodirus	0	0	N/A	N/A

Availability Legend

 Available for Use – this active has not demonstrated a lack of efficacy at this point in time. Adopt SCOPS* guidelines to maintain this status.

 Use Cautiously – this treatment hasn't been fully effective and may be down to resistance. Adoption of SCOPS* guidelines can maintain this as a useful group – seek advice.

 This active does not appear to be working. Advice required regarding the role for this group on the farm in the future and to determine if this is resistance.

RESULTS INTERPRETATION AND RECOMMENDATIONS

The interpretation and recommendations have been compiled by Eurion Thomas of Techion UK.

DRENCH CHECK OVERALL SUMMARY

The results show that the Benzimidazole (1 BZ) or white drench you tested has failed to control the strongyle group of worms with only a 40% reduction in the egg count. There was no Nematodirus count at day 1 so we can't determine its effectiveness against Nematodirus – but this is rarely seen so this wormer can still be used to control Nematodirus earlier in the season.

Although this test indicates a treatment failure, we need to think carefully if this is down to resistance as there is also the chance that the animals weren't treated correctly – see notes on the last page. If you are confident all the animals in the test were drenched correctly, then it certainly indicates you have resistance.

You didn't test the other wormers so we don't know how effective they are. Please be aware that we have found extensive resistance to the other wormers as well with 60% of farms tested last year in Wales showing resistance to 3 or 4 of the 4 wormers listed above.

Although the results are a concern as it shows resistance, all is not lost, and by following the recommendations below and working closely with your vet then you should be able to improve the control of parasites on your farm which should hopefully reflect in better stock performance.

RECOMMENDATIONS

ADOPTING SCOPS GUIDELINES (SUSTAINABLE CONTROL OF PARASITES IN SHEEP)

We will focus on 2 of the main guidelines here but please see the link other important information.

For the latest SCOPS guidelines visit the SCOPS website www.scops.org.uk

QUARANTINE TREATMENTS

All incoming stock should be:

- Double treated with either 4AD (Zolvix) **OR** 5SI (Startect) **AND** Moxidectin (e.g. Cydectin / Zermex)
- Using Moxidectin in injectable form will also deal with any threat of scab
- Kept off pasture for 24 – 48hrs
- Then turn out to 'dirty pastures'

FEC MONITORING

To maintain the wormers to work effectively it is important that we only use wormers when necessary. Monitoring will be key to managing the situation.

Lambs:

- FEC (Faecal Egg Counts) can be carried out from 6 weeks of age but be wary of Nematodirus issues for young lambs early in the season as Nematodirus can cause issues without being picked up on a FEC
- If decision is made to treat, then you don't need to monitor that group for another 3 or 4 weeks (unless you are checking that the treatment has worked)
- If decision is made not to treat, then another FEC test should be done in 10 to 14 days' time. Any longer and you may miss a significant burden that can cause performance loss
- Each group of animals should be tested separately (where feasible) as each group will have different challenges based on age, litter size, and grazing history

Ewes:

- Pre-Tupping – most ewes should not require worming at this time of the year and a FEC test will help confirm this – especially on the thinner / younger ewes
- Lambing – FEC can be used to determine when is best to give this dose and which groups of animals need it. This will vary from farm to farm and from year to year. Work done already has shown most of us get the timing if this wrong and not all ewes need treating

SAINSBURY'S SUPPORT FOR FEC TESTING

Your Drench Check tests were funded through Sainsbury's and there is further support available from them to help you with monitoring worm burdens. You are eligible for 50% funding towards a brand new FECPAK^{G2} unit and 1 year's subscription (project ends March 2017). Please see enclosed leaflets for more information.

GRAZING MANAGEMENT

New control strategies show that reducing the parasite burden on pasture is just as if not more effective than regular wormer treatments. Discuss with your vet / advisor on how you can use some of the following tools:

- Contamination mapping. Use FEC data to help detect your worm 'hotspots' and avoid grazing with fat lambs (something we are developing for those using our FECPAK^{G2} system)
- Reducing burden in the 'hotspots' – cross grazing with cattle / dry ewes in summer, reseeding, use of clover and novel forages such as chicory and plantain
- Reducing contamination of pastures – Targeting spring ewe treatments, using sheep bred so they carry less worms

It is recommended that a detailed 'Flock Health Plan', incorporating some of the above points is drafted in association with your veterinarian.

We would also encourage you to discuss this with your animal health distributor (SQP) if you use one as they should be aware of the issues when they sell wormers to you in the future.

ADDITIONAL DRENCH CHECK INFORMATION

DETECTING DRENCH RESISTANCE

The test used to test the sheep drenches on your property is called a Drench Check which is a simple treatment efficacy test. Caution must be exercised with interpreting treatment failures in terms of whether it is due to wormer resistance or not, as a lot depends on sampling and treatment accuracy. Confidence in the results all rely on your own confidence in carrying out the dosing and accuracy correctly. To confirm the results and to truly determine the drench resistance status you need to carry out a full Faecal Egg Count Reduction Test (FECRT) and you should speak to your vet about this.

GENERAL NOTES ON TESTING FOR DRENCH RESISTANCE

- This test is based around the fact that when parasites are first ingested by grazing animals, it will take 18 - 21 days before it is able to produce eggs and betray its presence. Put another way, if a fully effective drench treatment has been administered, the earliest we would expect to see eggs in faecal samples is 18 - 21 days later. If we drench accurately and see eggs in samples 7 or 14 days' post-treatment (depending on which active is used), this is normally accepted as evidence that some worms have survived the treatment, i.e. the treatment has not worked properly

- Reduction tests are normally expressed as the percentage reduction in eggs counted between the pre and post-drench (7 or 14 days) periods. A treatment that is 100% successful would result in all worms being killed and egg counts at day 7 or 14 would be 0. In this case, the reduction would be 100%. In other words, the higher the percentage (%) figure the better the treatment has performed. When the reduction % has dropped below 95% we start getting concerned about the usefulness of that treatment

- Because sheep and cattle do not generally share the same worms, a drench type that is failing to control sheep worms may still work effectively on cattle worms, I.e. don't extrapolate sheep results to cattle and vice versa

- There are many different parasite species on each farm and the mix of these species is likely to change through the season. Often when resistance is detected it is to an individual species only. By identifying the times of the year that the species is not present or stock classes the species does not affect, then the use of the drug may still be possible at these times

DRENCH CHECK LIMITATIONS

1. As Drench Check tests aren't carried out by certified contractor's Techion takes no responsibility where treatment failures are down to poor product administration or sampling technique

2. The Drench Check protocol for the starting strongyle FEC is a minimum of 500epg. While all endeavors are made to have all animals involved with the evaluation at 500epg or higher, due to natural composite mob FEC distribution some animals or treatment groups may have FEC lower than the optimal 500epg minimum. A starting FEC of 500epg or higher is required to be able to deliver the Drench Check Results with a high level of confidence

3. Sample collection protocols and equipment have been designed to protect the sample from degradation during collection and transportation. Where equipment or procedures have not been followed, or events beyond the parties control occur, no responsibility can be taken for the sample quality prior to reaching the Techion Laboratory