

0:00:08.559,0:00:13.200
Hello and welcome to Ear to the Ground,

0:00:11.120,0:00:15.120
the agricultural podcast brought to you

0:00:13.200,0:00:17.039
by Farming Connect.

0:00:15.120,0:00:18.400
Now, many of our sheep farming listeners

0:00:17.039,0:00:19.359
might already be in the middle of

0:00:18.400,0:00:22.000
lambing right now,

0:00:19.359,0:00:24.400
or just about to start. Now, farmers

0:00:22.000,0:00:25.199
around lambing would routinely treat ewes

0:00:24.400,0:00:27.599
with wormers,

0:00:25.199,0:00:28.960
to reduce the risk of ewes contaminating

0:00:27.599,0:00:30.960
grazing pastures with

0:00:28.960,0:00:32.880
any worm burdens that they may

0:00:30.960,0:00:35.600
carry. Whole flock

0:00:32.880,0:00:37.520
blanket treatments can be costly, and it

0:00:35.600,0:00:39.680
adds to the speed with which worms

0:00:37.520,0:00:40.239
develop resistance to wormers, which is a

0:00:39.680,0:00:43.040
major

0:00:40.239,0:00:45.600
issue. That's why a group of six farmers

0:00:43.040,0:00:46.480
from Wales are developing new strategies

0:00:45.600,0:00:49.120

to reduce

0:00:46.480,0:00:50.640
wormer use with their ewes by making sure

0:00:49.120,0:00:53.039
their treatments are better

0:00:50.640,0:00:53.680
targeted. In order to do this, they've had help

0:00:53.039,0:00:56.320
from two

0:00:53.680,0:00:58.000
leading experts in this area, and support

0:00:56.320,0:01:01.680
from the European Innovation

0:00:58.000,0:01:02.800
Partnership (EIP Wales). EIP Wales is

0:01:01.680,0:01:04.879
delivered alongside

0:01:02.800,0:01:06.720
Farming Connect and encourages farmers

0:01:04.879,0:01:08.640
to work together as a group

0:01:06.720,0:01:13.040
and bring in advice and guidance from

0:01:08.640,0:01:15.119
relevant specialists.

0:01:13.040,0:01:17.040
Well, joining us

0:01:15.119,0:01:19.600
today is the sheep consultant,

0:01:17.040,0:01:22.000
Lesley Stubbings and Eurion Thomas,

0:01:19.600,0:01:24.479
European operations manager for Techion,

0:01:22.000,0:01:25.119
which is a disease management company from New

0:01:24.479,0:01:27.520
Zealand.

0:01:25.119,0:01:29.439
Welcome to you both. This is the first

0:01:27.520,0:01:31.600
time we've had you on the podcast

0:01:29.439,0:01:32.720
and I'm delighted that you've been able

0:01:31.600,0:01:35.680
to join us.

0:01:32.720,0:01:37.119
Lesley, if I can come to you first.

0:01:35.680,0:01:39.040
You're a very experienced

0:01:37.119,0:01:40.640
sheep consultant having worked in the

0:01:39.040,0:01:42.880
industry for many years

0:01:40.640,0:01:44.399
and developed an expertise in sheep

0:01:42.880,0:01:46.640
nutrition and parasite

0:01:44.399,0:01:48.079
control, which we'll talk about in a

0:01:46.640,0:01:49.680
moment. Firstly,

0:01:48.079,0:01:51.119
could you tell us about your

0:01:49.680,0:01:52.840
background and

0:01:51.119,0:01:54.240
where did your interest in sheep come

0:01:52.840,0:01:56.079
from?

0:01:54.240,0:01:58.560
Well, that goes back a long way, Aled. That

0:01:56.079,0:02:00.799
goes back to my childhood when

0:01:58.560,0:02:02.399
I was very much into horses, and in order

0:02:00.799,0:02:04.159
to be able to keep my horses I had to

0:02:02.399,0:02:06.159
start working on a farm.

0:02:04.159,0:02:08.000
One of my first jobs to do with sheep

0:02:06.159,0:02:09.360
was to go around at weekends, around

0:02:08.000,0:02:12.000
the wintering hogs,

0:02:09.360,0:02:13.440
with wire clippers down my riding boots

0:02:12.000,0:02:15.599
and go and get all the wintering

0:02:13.440,0:02:19.599
Herdwick hogs out of the briars,

0:02:15.599,0:02:19.599
and it continued from there.

0:02:19.920,0:02:23.040
Then, I graduated from the University of Nottingham,

0:02:21.760,0:02:25.360
which I chose to specialise in sheep.

0:02:23.040,0:02:28.400
From there, I went to work for ADAS for quite

0:02:25.360,0:02:30.160
a few years before going out on my own.

0:02:28.400,0:02:32.080
Brilliant We'll refer to some of

0:02:30.160,0:02:34.480
those experiences in just a moment,

0:02:32.080,0:02:36.319
but Eurion, I'm proud to say that we

0:02:34.480,0:02:38.000
share similar farming routes.

0:02:36.319,0:02:39.360
We've been brought up on family farms

0:02:38.000,0:02:41.840
in Cwrt y Cadno,

0:02:39.360,0:02:42.800
North Carmarthenshire. For the benefit

0:02:41.840,0:02:44.800

of our listeners,

0:02:42.800,0:02:48.080
can you share some of your background

0:02:44.800,0:02:50.959
and the nature of the work that you do?

0:02:48.080,0:02:52.879
Yes, Aled. Hello everybody.

0:02:50.959,0:02:54.560
As you say Aled, we grew up

0:02:52.879,0:02:56.239
on farms, nearly neighbouring

0:02:54.560,0:02:57.920
farms in Cwrt y Cadno, The Cothi Valley, that is

0:02:56.239,0:03:01.040
a stronghold

0:02:57.920,0:03:03.840
of sheep and beef farming.

0:03:01.040,0:03:04.400
I always wanted to be a

0:03:03.840,0:03:06.560
farmer,

0:03:04.400,0:03:07.840
and then, I graduated in

0:03:06.560,0:03:09.599
agriculture.

0:03:07.840,0:03:11.280
I spent some time in New Zealand

0:03:09.599,0:03:13.760
and learnt new things there,

0:03:11.280,0:03:15.360
and then,

0:03:13.760,0:03:16.959
I returned to farming before

0:03:15.360,0:03:18.400
working for the University of

0:03:16.959,0:03:20.640
Aberystwyth as

0:03:18.400,0:03:23.040
part of the sheep research team.

0:03:20.640,0:03:23.360
Then, as many may know, we went to work

0:03:23.040,0:03:25.760

0:03:23.360,0:03:27.920
with Innovis which was a spin out

0:03:25.760,0:03:28.480
company.

0:03:27.920,0:03:29.920

0:03:28.480,0:03:32.720

0:03:29.920,0:03:34.879
From there, I got this link

0:03:32.720,0:03:36.480
into a New Zealand crowd who had this

0:03:34.879,0:03:38.000
quite exciting kind of technology,

0:03:36.480,0:03:39.200
looking at faecal egg counts and

0:03:38.000,0:03:41.200
parasites.

0:03:39.200,0:03:42.640
That very much took my interest.

0:03:41.200,0:03:44.159
It's strange how life

0:03:42.640,0:03:46.560
evolves, and I've become very much

0:03:44.159,0:03:48.560
involved in the parasitology world now,

0:03:46.560,0:03:50.560
and have moved on to work for the New

0:03:48.560,0:03:53.439
Zealand company, Techion,

0:03:50.560,0:03:55.120
selling faecal egg count

0:03:53.439,0:03:55.840
monitoring kits, and also getting

0:03:55.120,0:03:57.840
involved

0:03:55.840,0:04:00.159
in many research knowledge transfer

0:03:57.840,0:04:02.799
activities. I've worked with Lesley

0:04:00.159,0:04:03.519
for probably 15-17 years.

0:04:02.799,0:04:06.080
Isn't it quite

0:04:03.519,0:04:06.640
scary how goes by

0:04:06.080,0:04:10.000
very quickly.

0:04:06.640,0:04:10.720
Absolutely. Well, it's brilliant

0:04:10.000,0:04:12.720
to have two

0:04:10.720,0:04:15.120
very experienced and well-informed

0:04:12.720,0:04:16.880
guests on the podcast. Eurion, thanks

0:04:15.120,0:04:18.320
for your introduction, but Lesley,

0:04:16.880,0:04:19.440
if I can come back to you. We're here to

0:04:18.320,0:04:21.759
talk about your involvement with the

0:04:19.440,0:04:23.440
group of six sheep farmers based in

0:04:21.759,0:04:25.040
mid and south west Wales.

0:04:23.440,0:04:26.720

0:04:25.040,0:04:29.360
What's the purpose of the group? Why

0:04:26.720,0:04:31.360
was it formed initially?

0:04:29.360,0:04:32.720
Well, it actually goes back quite a long

0:04:31.360,0:04:37.040
way, back

0:04:32.720,0:04:38.639
to about 2009-10.

0:04:37.040,0:04:40.479
When I first got involved with the group

0:04:38.639,0:04:41.440
and at that stage, it was known as the

0:04:40.479,0:04:44.720
TAG group,

0:04:41.440,0:04:47.919
and they were working on how to

0:04:44.720,0:04:50.240
employ EID and get more out of it,

0:04:47.919,0:04:51.440
particularly at the slaughter end and

0:04:50.240,0:04:53.840
receiving more information

0:04:51.440,0:04:55.680
from slaughterhouse. That

0:04:53.840,0:04:56.880
would have been Dunbia in Llanybydder at

0:04:55.680,0:04:59.360
that stage.

0:04:56.880,0:05:01.039
The group jelled very well. Then,

0:04:59.360,0:05:02.240
we started looking at other things such

0:05:01.039,0:05:05.440
as

0:05:02.240,0:05:07.680
harnessing the potential for EID.

0:05:05.440,0:05:09.680
At the time, I was involved with a big project

0:05:07.680,0:05:12.400
in England with

0:05:09.680,0:05:14.320
AHDB, which was the Key

0:05:12.400,0:05:16.400
Performance Indicator (KPI) project,

0:05:14.320,0:05:17.440
looking at body condition scoring and

0:05:16.400,0:05:20.720
how we could

0:05:17.440,0:05:22.880
use EID to gather more information

0:05:20.720,0:05:24.639
and use it in a more powerful way.

0:05:22.880,0:05:27.120
This group got involved with that.

0:05:24.639,0:05:30.240
They did a lot of body condition scoring,

0:05:27.120,0:05:33.919
used their readers and their tags and

0:05:30.240,0:05:36.080
very much sat alongside the AHDB

0:05:33.919,0:05:38.160
project and showed very clearly how

0:05:36.080,0:05:41.759
important body condition score was

0:05:38.160,0:05:43.039
as a management tool. Now, it's

0:05:41.759,0:05:45.199
almost like a

0:05:43.039,0:05:47.520
second nature, body condition scoring.

0:05:45.199,0:05:50.240
It's something that the group does

0:05:47.520,0:05:52.720
as a matter of course, and this

0:05:50.240,0:05:54.880
current project was the next move

0:05:52.720,0:05:56.319
to look at how we might be able to use

0:05:54.880,0:05:58.319
body condition scoring

0:05:56.319,0:05:59.840
to minimise the number of ewes that we

0:05:58.319,0:06:03.280

actually treat

0:05:59.840,0:06:05.280
for worms around lambing time.

0:06:03.280,0:06:07.039
Thinking about body condition scoring as

0:06:05.280,0:06:09.039
a management tool within flocks,

0:06:07.039,0:06:10.720
would you say

0:06:09.039,0:06:12.319
that many sheep farmers now or

0:06:10.720,0:06:14.639
increasing numbers of sheep farmers are

0:06:12.319,0:06:16.800
doing it on a regular basis?

0:06:14.639,0:06:18.560
Yes, I think they are.

0:06:16.800,0:06:20.720
Interestingly, I've been banging

0:06:18.560,0:06:22.080
the body condition drum for over 40

0:06:20.720,0:06:24.400
years,

0:06:22.080,0:06:25.840
but until we started doing the project

0:06:24.400,0:06:27.520
with the EID,

0:06:25.840,0:06:30.000
it was actually something that people

0:06:27.520,0:06:32.240
did from time to time,

0:06:30.000,0:06:33.680
something that they did in passing, as

0:06:32.240,0:06:35.840
they wanted the ewes

0:06:33.680,0:06:37.520
to be in the right condition in the run-up to

0:06:35.840,0:06:38.319
tupping. That was about as far as it

0:06:37.520,0:06:41.120
went. It wasn't

0:06:38.319,0:06:42.960
used as a dynamic management tool, but

0:06:41.120,0:06:45.440
what we've been able to do with EID is

0:06:42.960,0:06:47.759
show its dynamic impact

0:06:45.440,0:06:49.120
in the longitudinal effects of body

0:06:47.759,0:06:52.080
condition score,

0:06:49.120,0:06:53.840
and it's been very interesting and

0:06:52.080,0:06:55.840
very pleasing to see

0:06:53.840,0:06:58.000
how now people are talking about body

0:06:55.840,0:07:01.840
condition scoring everywhere -

0:06:58.000,0:07:03.599
researchers, advisors. I think it's only within the last five years

0:07:01.840,0:07:04.319
that we've started to get

0:07:03.599,0:07:05.840
into it properly

0:07:04.319,0:07:07.520
because we can apply it and we can

0:07:05.840,0:07:09.280
monitor it.

0:07:07.520,0:07:11.280
Is the assessment a visual

0:07:09.280,0:07:13.360
one or does it require a level of

0:07:11.280,0:07:14.720
physical inspection to determine the

0:07:13.360,0:07:16.639
score?

0:07:14.720,0:07:18.080
It definitely needs physical inspection.

0:07:16.639,0:07:20.160
There is a

0:07:18.080,0:07:21.039
definite technique to body condition

0:07:20.160,0:07:23.280
scoring,

0:07:21.039,0:07:24.080
over the end of the last rib, on

0:07:23.280,0:07:27.440
the back. It's

0:07:24.080,0:07:29.039
relatively easy to learn, extremely

0:07:27.440,0:07:30.720
repeatable. One of the

0:07:29.039,0:07:34.240
things that we found within the

0:07:30.720,0:07:35.840
TAG and the AHDB project was

0:07:34.240,0:07:37.280
once people were trained, they were

0:07:35.840,0:07:40.400
doing it regularly.

0:07:37.280,0:07:44.160
It is highly repeatable.

0:07:40.400,0:07:46.240
People can depend on that,

0:07:44.160,0:07:48.240
and just getting into the habit of

0:07:46.240,0:07:50.479
it to be honest. Now,

0:07:48.240,0:07:52.720
with the EID, we can record a condition

0:07:50.479,0:07:55.280
score against each individual animal

0:07:52.720,0:07:57.520
and look at what's happening over time,

0:07:55.280,0:07:58.319

rather than just one point in

0:07:57.520,0:08:00.160
time,

0:07:58.319,0:08:02.080
organising them into groups and then when it comes to

0:08:00.160,0:08:04.240
next time, you've lost all of

0:08:02.080,0:08:07.440
the historical information.

0:08:04.240,0:08:09.039
In the context of

0:08:07.440,0:08:11.599
worm control,

0:08:09.039,0:08:12.080
it's an obvious place to go because one

0:08:11.599,0:08:14.080
of the things

0:08:12.080,0:08:16.160
that I've been working on

0:08:14.080,0:08:18.400
over the last few years is

0:08:16.160,0:08:21.039
targeting the treatments

0:08:18.400,0:08:22.639
to the animals that need it, and body

0:08:21.039,0:08:24.319
condition is a

0:08:22.639,0:08:26.479
very important metric

0:08:24.319,0:08:29.280
to decide whether an animal

0:08:26.479,0:08:30.960
is living with it, with its parasite load

0:08:29.280,0:08:33.039
and doesn't need to be treated

0:08:30.960,0:08:35.200
or maybe does need some extra help

0:08:33.039,0:08:36.719
from a treatment.

0:08:35.200,0:08:38.479
Eurion, if I can bring you in

0:08:36.719,0:08:39.680
there, would you say that body condition

0:08:38.479,0:08:41.760
scoring is a key

0:08:39.680,0:08:42.959
indicator of whether the animal is

0:08:41.760,0:08:45.279
suffering from

0:08:42.959,0:08:47.360
worms and in need of some

0:08:45.279,0:08:49.440
treatment?

0:08:47.360,0:08:50.959
Yes, it certainly can be.

0:08:49.440,0:08:53.680
There are other things that will affect

0:08:50.959,0:08:55.839
body condition, but

0:08:53.680,0:08:58.160
working alongside

0:08:55.839,0:08:59.120
things like monitoring faecal egg counts

0:08:58.160,0:09:01.680
for example, is a great help.

0:08:59.120,0:09:02.240
If we know there is a moderate

0:09:01.680,0:09:04.720
burden

0:09:02.240,0:09:06.560
within a group of lambs,

0:09:04.720,0:09:08.720
by all means do faecal egg counts.

0:09:06.560,0:09:10.480
If it's not massively

0:09:08.720,0:09:13.440
high, maybe there is no need to treat every single

0:09:10.480,0:09:14.080

lamb within that group. Body

0:09:13.440,0:09:16.800

condition score and

0:09:14.080,0:09:18.399

for those who have

0:09:16.800,0:09:19.839

EID monitoring, the

0:09:18.399,0:09:21.600

growth rates can contribute to decide on appropriate treatment. Growth rate could be

0:09:19.839,0:09:22.080

another indicator,

0:09:21.600,0:09:23.519

but

0:09:22.080,0:09:25.680

you can use what you know. You might have to target the ones who have a

0:09:23.519,0:09:27.920

low condition score, the ones who have poorest

0:09:25.680,0:09:30.080

growth rates,

0:09:27.920,0:09:32.480

leaving

0:09:30.080,0:09:34.160

those who are in good

0:09:32.480,0:09:36.080

condition and growing well untreated,

0:09:34.160,0:09:38.480

which

0:09:36.080,0:09:42.480

is massively important in terms

0:09:38.480,0:09:46.399

of delaying that resistance

0:09:42.480,0:09:48.399

development. How big an issue is

0:09:46.399,0:09:50.399

worm resistance? We've heard many people talking about

0:09:48.399,0:09:53.440

it for many years,

0:09:50.399,0:09:54.720
is it becoming worse? Yes.

0:09:53.440,0:09:57.360
I might start off on this and Lesley

0:09:54.720,0:09:58.640
will have a view. Most probably

0:09:57.360,0:10:00.399
it has worsened

0:09:58.640,0:10:02.800

0:10:00.399,0:10:04.079
over the last 20-30 years.

0:10:02.800,0:10:06.320

0:10:04.079,0:10:08.320
We've done a lot of work, we

0:10:06.320,0:10:10.880
did some work with Hybu Cig Cymru

0:10:08.320,0:10:11.839
back in 2014-15 as part of the Ward

0:10:10.880,0:10:14.480
Project.

0:10:11.839,0:10:16.000
Resistance is present on

0:10:14.480,0:10:17.760
the majority of farms,

0:10:16.000,0:10:20.160
and it's commonly

0:10:17.760,0:10:22.320
thought that resistance is a

0:10:20.160,0:10:24.240
white wormer issue. It's more than

0:10:22.320,0:10:26.240
that. It has extended to

0:10:24.240,0:10:29.279
other wormer families, the yellows

0:10:26.240,0:10:30.240
and the Ivermectin's as well. We

0:10:29.279,0:10:32.720
are seeing a

0:10:30.240,0:10:34.480
significant amount

0:10:32.720,0:10:35.839
of resistance on farm,

0:10:34.480,0:10:37.519

0:10:35.839,0:10:39.200
farms who have

0:10:37.519,0:10:40.880
tested positive for resistance.

0:10:39.200,0:10:42.720
Farms which are part of

0:10:40.880,0:10:43.760
project know their

0:10:42.720,0:10:45.440
status,

0:10:43.760,0:10:47.040
they know what they're dealing

0:10:45.440,0:10:48.720
with, and there are other options. There are

0:10:47.040,0:10:51.040
things that we can use.

0:10:48.720,0:10:51.839
The important thing is knowing which treatment

0:10:51.040,0:10:54.640
is working, and which one's

0:10:51.839,0:10:55.920
don't, because if you were unknowingly

0:10:54.640,0:10:58.640
using wormers that

0:10:55.920,0:11:00.160
aren't effective, that will

0:10:58.640,0:11:04.160
potentially have a big impact

0:11:00.160,0:11:04.160
on your performance and profitability.

0:11:04.880,0:11:09.440
I agree with

0:11:07.600,0:11:10.640
Eurion. I think it has

0:11:09.440,0:11:13.040
worsened.

0:11:10.640,0:11:14.000
You need to

0:11:13.040,0:11:16.160
remember that

0:11:14.000,0:11:17.760
anthelmintic resistance is the

0:11:16.160,0:11:19.920
result of us using

0:11:17.760,0:11:22.000
the product. Every time we use an

0:11:19.920,0:11:23.680
anthelmintic, there is a selection pressure

0:11:22.000,0:11:26.399
on the worms in that animal.

0:11:23.680,0:11:28.480
One of the things that we try to do

0:11:26.399,0:11:30.800
is reduce our reliance

0:11:28.480,0:11:32.720
on chemical control,

0:11:30.800,0:11:35.279
the anthelmintics,

0:11:32.720,0:11:36.000
and as Eurion alluded,

0:11:35.279,0:11:37.680
there are

0:11:36.000,0:11:39.440
all sorts of management things that we

0:11:37.680,0:11:40.720
can do.

0:11:39.440,0:11:42.079
The other thing we've got to

0:11:40.720,0:11:43.839
remember is that one of the

0:11:42.079,0:11:45.760
reasons why things have accelerated in

0:11:43.839,0:11:47.360
recent years is that people have been

0:11:45.760,0:11:50.160
using endectocides

0:11:47.360,0:11:52.959
to control scab. That has

0:11:50.160,0:11:55.200
accelerated things quite dramatically.

0:11:52.959,0:11:57.040
Not only

0:11:55.200,0:11:59.360
the scab mites have developed resistance to the

0:11:57.040,0:12:01.519
product,

0:11:59.360,0:12:02.880
but those two things have combined. Also,

0:12:01.519,0:12:05.279
one of the

0:12:02.880,0:12:07.519
things about the

0:12:05.279,0:12:10.639
work that we do with sustainable control

0:12:07.519,0:12:11.120
is we need people to try and adopt

0:12:10.639,0:12:13.440
these

0:12:11.120,0:12:14.240
strategies and reduce their reliance on

0:12:13.440,0:12:16.720
wormers

0:12:14.240,0:12:17.920
before they get to a situation where

0:12:16.720,0:12:21.200
resistance is tested

0:12:17.920,0:12:22.800
positive in one or

0:12:21.200,0:12:25.440
two or three groups.

0:12:22.800,0:12:26.880

The sooner they do that, the more impact

0:12:25.440,0:12:28.079
it will have on their

0:12:26.880,0:12:30.560
long-term

0:12:28.079,0:12:31.519
ability to control worms. It's quite

0:12:30.560,0:12:33.360
a difficult one.

0:12:31.519,0:12:35.200
Once resistance is tested positive,

0:12:33.360,0:12:38.560
you

0:12:35.200,0:12:40.000
can't go backwards. If you

0:12:38.560,0:12:42.079
can look and

0:12:40.000,0:12:43.680
perhaps find it at a very early stage,

0:12:42.079,0:12:44.639
then as Eurion said, there are things that

0:12:43.680,0:12:47.040
we can do

0:12:44.639,0:12:47.920
to actually make that a longer term

0:12:47.040,0:12:50.560
prospect,

0:12:47.920,0:12:53.839
and better for worm control for

0:12:50.560,0:12:53.839
in the future.

0:12:55.040,0:12:58.880
Aled, can I just add one more thing.

0:12:57.040,0:13:00.320,
One message that we try to

0:12:58.880,0:13:02.480
get across is

0:13:00.320,0:13:04.240
resistance is nothing to be ashamed

0:13:02.480,0:13:06.720
of. I often think

0:13:04.240,0:13:07.839
whether Lesley agrees, resistance

0:13:06.720,0:13:09.920
is a

0:13:07.839,0:13:11.680
problem for farmers who historically

0:13:09.920,0:13:13.440
were very proud

0:13:11.680,0:13:15.440
farmers. 20-30

0:13:13.440,0:13:16.639
years ago, the advice was to treat on a

0:13:15.440,0:13:18.639
regular basis.

0:13:16.639,0:13:20.959
Treat your ewes twice a year maybe just

0:13:18.639,0:13:22.959
in case, and that was at the stage when

0:13:20.959,0:13:24.480
we knew very little about resistance. We

0:13:22.959,0:13:25.920
weren't sure how quickly resistance could develop. We

0:13:24.480,0:13:27.360
knew resistance was present but we didn't know how

0:13:25.920,0:13:28.639
quickly it would develop and become a

0:13:27.360,0:13:31.279
problem.

0:13:28.639,0:13:32.800
We shouldn't

0:13:31.279,0:13:34.160
feel guilty and ashamed about it

0:13:32.800,0:13:36.480
because

0:13:34.160,0:13:37.279
historically, you are a very proud and good farmer.

0:13:36.480,0:13:39.360
You were giving

0:13:37.279,0:13:40.880
treatments to your animals on a regular basis

0:13:39.360,0:13:43.760
to try and avoid

0:13:40.880,0:13:44.240
diseases and issues caused by worms.

0:13:43.760,0:13:46.399

0:13:44.240,0:13:48.079
What we need to do now is

0:13:46.399,0:13:50.480
learn from our mistakes.

0:13:48.079,0:13:52.160
By now, we've learned

0:13:50.480,0:13:52.480
worms have adapted. We

0:13:52.160,0:13:54.800
have

0:13:52.480,0:13:57.040
to adapt and deal

0:13:54.800,0:13:57.040
with it.

0:13:57.279,0:14:00.880
That's absolutely

0:13:58.560,0:14:02.639
right, Eurion. There is no shame in it, and

0:14:00.880,0:14:03.920
unfortunately, as you say, some of the

0:14:02.639,0:14:05.839
farms who have

0:14:03.920,0:14:08.320
perhaps more serious cases of

0:14:05.839,0:14:09.680
resistance are those that historically

0:14:08.320,0:14:12.160
would have been doing a very good

0:14:09.680,0:14:14.000
job with clean grazing systems etc.

0:14:12.160,0:14:15.360

I would like to mention about another thing.

0:14:14.000,0:14:18.160

We're

0:14:15.360,0:14:19.920

not saying that

0:14:18.160,0:14:23.600

farmers who rely

0:14:19.920,0:14:25.440

on anthelmintics are going to have

0:14:23.600,0:14:26.320

poorer worm control, in fact quite the

0:14:25.440,0:14:28.240

opposite.

0:14:26.320,0:14:29.600

The farmers who are now using the faecal

0:14:28.240,0:14:32.399

egg counting system

0:14:29.600,0:14:32.959

regularly, are using all the other

0:14:32.399,0:14:34.560

things.

0:14:32.959,0:14:35.920

We'll talk a

0:14:34.560,0:14:37.760

little more about the

0:14:35.920,0:14:38.399

TAG project and the new nutrition side

0:14:37.760,0:14:40.000

of things in a minute.

0:14:38.399,0:14:42.079

Farmers who are doing all of these things

0:14:40.000,0:14:43.519

are actually getting better results

0:14:42.079,0:14:45.040

because they're harnessing all of the

0:14:43.519,0:14:45.519

other management options.

0:14:45.040,0:14:47.360

0:14:45.519,0:14:48.800
They're targeting the treatments but

0:14:47.360,0:14:50.639
not

0:14:48.800,0:14:52.480
missing the boat by going in and doing

0:14:50.639,0:14:53.199
things routinely, because that's the way

0:14:52.480,0:14:54.560
that we did.

0:14:53.199,0:14:56.320
I think that's quite important

0:14:54.560,0:14:57.920
that farmers understand

0:14:56.320,0:14:59.600
that it

0:14:57.920,0:15:02.959
potentially

0:14:59.600,0:15:04.639
could give them better results. Yes, 100%.

0:15:02.959,0:15:06.320
We've got plenty evidence to support it.

0:15:04.639,0:15:08.399

0:15:06.320,0:15:10.480
It's a situation where

0:15:08.399,0:15:11.279
years of custom and practice have been built

0:15:10.480,0:15:12.959
where

0:15:11.279,0:15:14.639
good farmers, as you mentioned,

0:15:12.959,0:15:16.560
historically have

0:15:14.639,0:15:17.279
been using treatments on a regular basis,

0:15:16.560,0:15:19.199
and

0:15:17.279,0:15:20.880
it requires a change of mindset. What

0:15:19.199,0:15:22.320
you alluded there is potentially, when

0:15:20.880,0:15:24.480
you do adopt these

0:15:22.320,0:15:26.480
new strategies,

0:15:24.480,0:15:27.279
profitability and productivity gains

0:15:26.480,0:15:29.040
could be made

0:15:27.279,0:15:31.519
within your flocks, which I'm sure we'll

0:15:29.040,0:15:33.440
come on to. Lesley, you mentioned that

0:15:31.519,0:15:35.120
the TAG project was initially

0:15:33.440,0:15:39.519
established as a nutrition

0:15:35.120,0:15:40.800
focused group. Clearly, it's now moved on

0:15:39.519,0:15:43.199
to looking at reducing

0:15:40.800,0:15:44.480
wormer use, particularly in ewes around

0:15:43.199,0:15:47.680
lambling. Perhaps you could talk

0:15:44.480,0:15:49.360
a little more about that? Yes, sure. Well,

0:15:47.680,0:15:51.680
these guys within the group,

0:15:49.360,0:15:52.480
several of them had already been using

0:15:51.680,0:15:54.480
FECPAK

0:15:52.480,0:15:56.240
because they were part of another

0:15:54.480,0:15:57.920

project, and they

0:15:56.240,0:15:59.279
were very keen on doing their faecal

0:15:57.920,0:16:01.759
counting anyway.

0:15:59.279,0:16:03.680
Also, they were keen to improve or reduce

0:16:01.759,0:16:05.920
their reliance on medicines, including

0:16:03.680,0:16:06.800
anthelmintics.

0:16:05.920,0:16:08.959

0:16:06.800,0:16:11.759
What we're looking at

0:16:08.959,0:16:14.160
is using body condition scoring

0:16:11.759,0:16:15.839
and following ewes through, making

0:16:14.160,0:16:18.079
sure their diet is

0:16:15.839,0:16:20.160
absolutely as good as we can get it. We

0:16:18.079,0:16:22.240
need to get nutrition right,

0:16:20.160,0:16:23.920
and then we make sure we follow the body

0:16:22.240,0:16:25.440
condition score through.

0:16:23.920,0:16:27.040
What we're looking at

0:16:25.440,0:16:29.839
is how the

0:16:27.040,0:16:30.959
egg count in these ewes varies as

0:16:29.839,0:16:33.600
they run up to lambing.

0:16:30.959,0:16:35.440
What's happening or what people

0:16:33.600,0:16:36.880
conventionally think is happening

0:16:35.440,0:16:38.880
in the run-up to lambing

0:16:36.880,0:16:41.440
is

0:16:38.880,0:16:43.279
that the ewes become under pressure as

0:16:41.440,0:16:45.839
they get into late pregnancy,

0:16:43.279,0:16:47.680
and at that point, their immune system

0:16:45.839,0:16:48.880
loses control of the worm burden that

0:16:47.680,0:16:51.519
they are carrying.

0:16:48.880,0:16:53.600
Normally, an adult ewe will carry a

0:16:51.519,0:16:54.079
small worm burden along,

0:16:53.600,0:16:56.320

0:16:54.079,0:16:57.759
they are passengers and they will stay there and

0:16:56.320,0:17:00.399
they keep the immune system

0:16:57.759,0:17:03.040
tuned. It doesn't do her any harm at

0:17:00.399,0:17:06.079
all. It's a normal thing for her to do.

0:17:03.040,0:17:07.439
But around lambing, if she suffers from

0:17:06.079,0:17:09.199
nutritional stress,

0:17:07.439,0:17:10.959
her immune system will allow

0:17:09.199,0:17:12.240
the worms to suddenly produce a

0:17:10.959,0:17:14.160
lot of eggs.

0:17:12.240,0:17:15.360
Of course, when she will

0:17:14.160,0:17:16.959
go out onto pasture, the eggs will be

0:17:15.360,0:17:19.360
dropped onto the pasture, which

0:17:16.959,0:17:20.880
will then form a

0:17:19.360,0:17:24.000
challenge for lambs

0:17:20.880,0:17:24.720
later in the season. One of the

0:17:24.000,0:17:26.319
things that

0:17:24.720,0:17:27.960
farmers have always done is wormed

0:17:26.319,0:17:30.160
their ewes around lambing.

0:17:27.960,0:17:31.919
Unfortunately, many of them think they're

0:17:30.160,0:17:34.640
doing it for the sake of the ewe.

0:17:31.919,0:17:35.760
In most cases, that isn't the case. What

0:17:34.640,0:17:37.679
we've been doing

0:17:35.760,0:17:39.440
is to try and reduce the level of

0:17:37.679,0:17:42.960
contamination

0:17:39.440,0:17:45.280
for lambs later in the season. As

0:17:42.960,0:17:46.000
Eurion said

0:17:45.280,0:17:47.520
earlier,

0:17:46.000,0:17:50.160
we know that within a group of

0:17:47.520,0:17:50.880
animals, the old 80:20 rule roughly

0:17:50.160,0:17:53.440
speaking.

0:17:50.880,0:17:55.360
80% of the contamination

0:17:53.440,0:17:58.480
is probably produced by 20%

0:17:55.360,0:18:00.960
or less of the of the animals. We want

0:17:58.480,0:18:03.200
to be able to pinpoint those ewes

0:18:00.960,0:18:04.480
that are likely to produce a lot of

0:18:03.200,0:18:07.280
contamination,

0:18:04.480,0:18:08.960
as opposed to those who are unlikely to

0:18:07.280,0:18:11.120
produce much contamination,

0:18:08.960,0:18:13.520
and only target those that are likely to

0:18:11.120,0:18:14.960
give us a lot of egg contamination on

0:18:13.520,0:18:17.039
pasture.

0:18:14.960,0:18:18.320
Generally, we've used body

0:18:17.039,0:18:20.640
condition score and

0:18:18.320,0:18:22.480
so far, the results for the first year

0:18:20.640,0:18:25.520
which was 2020,

0:18:22.480,0:18:27.520
really uphold that. There's one flock

0:18:25.520,0:18:28.160
in particular, where the body condition

0:18:27.520,0:18:30.160

score

0:18:28.160,0:18:31.600
started to come under a bit of pressure

0:18:30.160,0:18:33.600
in the run up to lambing.

0:18:31.600,0:18:35.520
Those ewes that were losing a little bit

0:18:33.600,0:18:38.640
of condition were treated,

0:18:35.520,0:18:40.320
the others weren't, and the

0:18:38.640,0:18:42.160
total egg count for the group just came

0:18:40.320,0:18:44.320
down virtually

0:18:42.160,0:18:46.320
to nothing and stayed down at

0:18:44.320,0:18:47.520
nothing, because we targeted the right

0:18:46.320,0:18:49.919
animals.

0:18:47.520,0:18:51.039
We're taking the hypothesis

0:18:49.919,0:18:53.679
out onto

0:18:51.039,0:18:55.039
commercial farms, testing it and using

0:18:53.679,0:18:57.120
nutrition and

0:18:55.039,0:18:58.880

0:18:57.120,0:19:01.520
underlining the fact that

0:18:58.880,0:19:02.160
we can use that to decide which

0:19:01.520,0:19:05.360
number of

0:19:02.160,0:19:06.960
ewes need treating. Lesley,

0:19:05.360,0:19:09.600

perhaps you can talk us through

0:19:06.960,0:19:11.120

the work that's involved, amongst those

0:19:09.600,0:19:13.360

farmers which are part of the project?

0:19:11.120,0:19:15.200

What do they have to do and the data

0:19:13.360,0:19:16.960

that they need to capture, not only to

0:19:15.200,0:19:19.120

inform the work of the project but

0:19:16.960,0:19:21.760

to tackle those key management

0:19:19.120,0:19:24.160

decisions that you've just mentioned there?

0:19:21.760,0:19:25.280

We

0:19:24.160,0:19:27.280

start about six

0:19:25.280,0:19:28.799

weeks before lambing.

0:19:27.280,0:19:30.559

Some are a couple of weeks in and

0:19:28.799,0:19:32.960

some are due to start this week.

0:19:30.559,0:19:34.640

What we'll do is we'll follow a group of

0:19:32.960,0:19:37.600

twin bearing ewes. They'll

0:19:34.640,0:19:40.320

follow one mob, might

0:19:37.600,0:19:41.520

be a mob of 50, 100 or 150 ewes, it doesn't matter

0:19:40.320,0:19:45.039

as long as it's

0:19:41.520,0:19:48.000

50 or more. We'll follow them with

0:19:45.039,0:19:48.320

mob faecal egg counts on a weekly basis,

0:19:48.000,0:19:50.720
from

0:19:48.320,0:19:52.320
six weeks before lambing up to eight

0:19:50.720,0:19:55.120
weeks after lambing,

0:19:52.320,0:19:55.840
on a weekly basis. Within that mob, we

0:19:55.120,0:19:58.160
also have

0:19:55.840,0:19:59.440
ten ewes which we call sentinels. Their

0:19:58.160,0:20:02.080
individual

0:19:59.440,0:20:03.440
EID will be recorded, and we'll follow those

0:20:02.080,0:20:06.159
individual animals

0:20:03.440,0:20:07.520
as well. We will get an individual faecal

0:20:06.159,0:20:10.559
egg count from all of them on

0:20:07.520,0:20:13.120
five different occasions -

0:20:10.559,0:20:14.559
three and six weeks out,

0:20:13.120,0:20:17.679
at lambing,

0:20:14.559,0:20:19.760
post three weeks and again at

0:20:17.679,0:20:20.960
probably eight weeks when we

0:20:19.760,0:20:22.559
weigh the lambs.

0:20:20.960,0:20:24.720

0:20:22.559,0:20:26.480
We'll also do score their

0:20:24.720,0:20:26.880
body condition

0:20:26.480,0:20:30.159
regularly.

0:20:26.880,0:20:31.280
We're aloud to take saliva

0:20:30.159,0:20:33.200

0:20:31.280,0:20:35.200
and blood samples

0:20:33.200,0:20:37.039
from this week. We can go back

0:20:35.200,0:20:39.360
out and take blood samples,

0:20:37.039,0:20:40.400
and in those samples, we're looking at

0:20:39.360,0:20:42.080
the ewe's immune

0:20:40.400,0:20:43.600
status. Now, many people

0:20:42.080,0:20:45.280
will be much more used to

0:20:43.600,0:20:46.960
thinking about this considering the

0:20:45.280,0:20:49.200
situation we've been within the last 12 months

0:20:46.960,0:20:49.679
(COVID-19). We're actually looking

0:20:49.200,0:20:52.720
for

0:20:49.679,0:20:54.799
an immune response antibodies that

0:20:52.720,0:20:56.159
the ewes are carrying against her worms, and

0:20:54.799,0:20:59.120
seeing how high or

0:20:56.159,0:21:00.559
low that is. We are doing this

0:20:59.120,0:21:02.320
to

0:21:00.559,0:21:04.400
try and match

0:21:02.320,0:21:06.320
the body condition score hypothesis which is,

0:21:04.400,0:21:08.240
if it drops

0:21:06.320,0:21:09.919
does that also mean that the antibodies

0:21:08.240,0:21:11.919
are also dropping? That is what we're

0:21:09.919,0:21:14.720
looking for within that, to

0:21:11.919,0:21:16.640
underpin the importance of using body

0:21:14.720,0:21:18.720
condition score.

0:21:16.640,0:21:20.240
Now, we're not suggesting that

0:21:18.720,0:21:21.919
all farmers should

0:21:20.240,0:21:24.080
conduct saliva and blood tests.

0:21:21.919,0:21:26.000
We want to be able to show

0:21:24.080,0:21:26.880
everybody that actually, they can

0:21:26.000,0:21:29.520
confidently

0:21:26.880,0:21:30.159
use body condition score. But, we

0:21:29.520,0:21:33.120
need that

0:21:30.159,0:21:34.320
underlying extra data to be able to do

0:21:33.120,0:21:38.000
that successfully.

0:21:34.320,0:21:40.240
Some of you may say, 'Well, it's

0:21:38.000,0:21:41.600
fine, we haven't drenched

0:21:40.240,0:21:43.760
all the ewes.'

0:21:41.600,0:21:45.520
Well, what we're

0:21:43.760,0:21:46.559
hoping is to show and prove

0:21:45.520,0:21:48.799
that it hasn't

0:21:46.559,0:21:50.080
had any adverse effect on lambs'

0:21:48.799,0:21:52.480
performance.

0:21:50.080,0:21:53.520
Then, the group will

0:21:52.480,0:21:55.919
begin to use their own

0:21:53.520,0:21:56.880
FECPAKG2.

0:21:55.919,0:21:58.559

0:21:56.880,0:22:00.480
They all have one. It will allow them to

0:21:58.559,0:22:03.120
monitor their lamb egg counts

0:22:00.480,0:22:03.679
all the way through. Also,

0:22:03.120,0:22:05.919
we have

0:22:03.679,0:22:07.679
eight-week weights and

0:22:05.919,0:22:09.840
weaning weights for the lambs.

0:22:07.679,0:22:11.520
We can follow the information all the

0:22:09.840,0:22:13.360
way through and make sure

0:22:11.520,0:22:15.600
that what we're doing isn't having an

0:22:13.360,0:22:18.320
adverse effect.

0:22:15.600,0:22:19.440
Eurion, Lesley mentioned about the

0:22:18.320,0:22:21.600
FECPAK,

0:22:19.440,0:22:22.640
the faecal accounting system that you

0:22:21.600,0:22:24.799
work with.

0:22:22.640,0:22:26.000
Tell us a bit about that and what's

0:22:24.799,0:22:27.600
involved. I know that

0:22:26.000,0:22:28.880
farmers which are part of this group

0:22:27.600,0:22:30.240
are familiar with this system and it's

0:22:28.880,0:22:32.080
something they do almost

0:22:30.240,0:22:33.679
as second nature now. But, for other farmers

0:22:32.080,0:22:35.520
who might not be that familiar with it,

0:22:33.679,0:22:36.720
what is actually involved in that

0:22:35.520,0:22:38.640
process?

0:22:36.720,0:22:40.480
As you mentioned

0:22:38.640,0:22:42.320
earlier, a few of the farmers

0:22:40.480,0:22:43.679
had been involved from the very early

0:22:42.320,0:22:45.919
days

0:22:43.679,0:22:47.360
when the technology was very new, back

0:22:45.919,0:22:49.280
in 2014.

0:22:47.360,0:22:51.120
They are very familiar with

0:22:49.280,0:22:52.960
it, and it was decided that all other members

0:22:51.120,0:22:55.760
of the group should also use it.

0:22:52.960,0:22:57.520
The most

0:22:55.760,0:22:59.360
difficult part was getting farmers to

0:22:57.520,0:23:01.200
go out and physically pick up

0:22:59.360,0:23:02.799
faecal samples, going out to the

0:23:01.200,0:23:03.600
paddock with a plastic bag or

0:23:02.799,0:23:05.679
whatever.

0:23:03.600,0:23:07.120
Some farmers waited until their

0:23:05.679,0:23:07.760
neighbours weren't looking, but it's about

0:23:07.120,0:23:10.000

0:23:07.760,0:23:10.880
picking up the faecal material,

0:23:10.000,0:23:12.960

0:23:10.880,0:23:14.720
and quite importantly getting a

0:23:12.960,0:23:16.240
representative sample. There are clear

0:23:14.720,0:23:18.559
instructions on that. That's quite an

0:23:16.240,0:23:20.720
important element for anybody listening,

0:23:18.559,0:23:22.000
whether they send samples to a vet,

0:23:20.720,0:23:24.159
a lab or whatever.

0:23:22.000,0:23:25.919

0:23:24.159,0:23:26.559
Rather than sending the samples

0:23:25.919,0:23:28.480
away,

0:23:26.559,0:23:30.480
farmers can process the samples on farm. It's a very

0:23:28.480,0:23:32.880
simple process - add water,

0:23:30.480,0:23:35.520
filter, add saline, which will

0:23:32.880,0:23:38.320
allow the eggs to float.

0:23:35.520,0:23:39.600
With the FECPAKG2,

0:23:38.320,0:23:41.919
the

0:23:39.600,0:23:44.480
microscope has been replaced with a

0:23:41.919,0:23:45.919
with a camera fitted device. It is an

0:23:44.480,0:23:49.440
electronic device which is controlled by a

0:23:45.919,0:23:51.520
a computer, a

0:23:49.440,0:23:52.640
a smartphone or any digital device

0:23:51.520,0:23:55.120
with wi-fi.

0:23:52.640,0:23:56.320
The

0:23:55.120,0:23:57.679
imaging device

0:23:56.320,0:23:59.120
takes a picture of the sample.

0:23:57.679,0:23:59.760
We put it into a cassette,

0:23:59.120,0:24:02.400
and the

0:23:59.760,0:24:03.120
eggs will all collect together. Then,

0:24:02.400,0:24:06.400
a picture is

0:24:03.120,0:24:08.799
taken and it's

0:24:06.400,0:24:10.159
uploaded to the internet. That could

0:24:08.799,0:24:11.360
be a challenge to some farmers who have

0:24:10.159,0:24:13.440
poor internet

0:24:11.360,0:24:15.520
connection and live-in rural areas, but

0:24:13.440,0:24:16.880
generally, it's working very well.

0:24:15.520,0:24:19.279

0:24:16.880,0:24:20.240
The picture is uploaded to our

0:24:19.279,0:24:22.400
cloud system,

0:24:20.240,0:24:24.240
and we have technicians who

0:24:22.400,0:24:27.279
can be sat anywhere in the world, and

0:24:24.240,0:24:29.440
we will still be able to read those images, count the eggs

0:24:27.279,0:24:31.039
and send the results back, normally within

0:24:29.440,0:24:32.799
an hour

0:24:31.039,0:24:35.200
or sometimes

0:24:32.799,0:24:37.279
within 20 minutes. The idea is

0:24:35.200,0:24:39.440

you can use the system on the farm, process

0:24:37.279,0:24:41.679
the sample yourself,

0:24:39.440,0:24:42.880
but the technical side of things can be completed by one of

0:24:41.679,0:24:44.480
our technicians, and

0:24:42.880,0:24:46.240
results could quickly be returned within a short period of time.

0:24:44.480,0:24:49.360
That

0:24:46.240,0:24:49.679
will help to take regularly faecal accounts.

0:24:49.360,0:24:52.400

0:24:49.679,0:24:53.919
We have found that the farmers who

0:24:52.400,0:24:54.559
have been using it themselves

0:24:53.919,0:24:56.880
will

0:24:54.559,0:24:57.919
use it often and monitor on a

0:24:56.880,0:24:59.200
regular basis,

0:24:57.919,0:25:01.039
which I think is a keynote. There are

0:24:59.200,0:25:03.360
options to send samples away

0:25:01.039,0:25:04.400
to vet practices, retailers who may be

0:25:03.360,0:25:07.120
using

0:25:04.400,0:25:08.640
technology similar to ours.

0:25:07.120,0:25:09.440
Having the ability to receive

0:25:08.640,0:25:11.279
results immediately is valuable.

0:25:09.440,0:25:13.120

If lambs are indoors, they can actually get

0:25:11.279,0:25:13.360

a test and receive the results before the lambs are turned

0:25:13.120,0:25:14.400

out. It's important to know

0:25:13.360,0:25:16.400

whether they will need to be

0:25:14.400,0:25:17.840

wormed or not. On the whole,

0:25:16.400,0:25:19.279

farmers

0:25:17.840,0:25:20.880

have very much

0:25:19.279,0:25:22.000

grasped this technology and they've been

0:25:20.880,0:25:23.520

great users.

0:25:22.000,0:25:25.440

I think we've got one of the star

0:25:23.520,0:25:27.679

user in the project. She will

0:25:25.440,0:25:28.159

do between 70-80 tests a

0:25:27.679,0:25:30.799

year,

0:25:28.159,0:25:32.240

and she's been doing that since 2015.

0:25:30.799,0:25:33.360

Every year, from our data,

0:25:32.240,0:25:34.960

we can say that the

0:25:33.360,0:25:37.520

majority of farmers

0:25:34.960,0:25:40.240

will do over 30-40 tests.

0:25:37.520,0:25:42.640

It's important to remember that these might be

0:25:40.240,0:25:44.320

the farmers who didn't monitor in the past. They only

0:25:42.640,0:25:46.000
did a handful of

0:25:44.320,0:25:47.360
samples for faecal egg counts and

0:25:46.000,0:25:49.760
monitoring,

0:25:47.360,0:25:51.279
if any at all, and we moved them to

0:25:49.760,0:25:53.760
regular monitoring.

0:25:51.279,0:25:54.640
We have the ability to share the results

0:25:53.760,0:25:56.880
by email

0:25:54.640,0:25:58.720
with the farmer's vet, and

0:25:56.880,0:25:59.919
the likes of

0:25:58.720,0:26:01.679
Lesley,

0:25:59.919,0:26:03.279
who is monitoring things on behalf of

0:26:01.679,0:26:05.039
the project. In terms of research,

0:26:03.279,0:26:05.840
we're able to monitor

0:26:05.039,0:26:08.240
what's happening,

0:26:05.840,0:26:10.480
advisors, like Lesley, and

0:26:08.240,0:26:12.000
vets are able to look at that information

0:26:10.480,0:26:14.000
and help them. They've

0:26:12.000,0:26:17.039
taken it on board and we've

0:26:14.000,0:26:18.080
got some great users within the project. Have

0:26:17.039,0:26:20.159

you noticed, Lesley,

0:26:18.080,0:26:22.720

when farmers start to see the results

0:26:20.159,0:26:25.120

and the benefits of using the system,

0:26:22.720,0:26:27.200

it encourages them or incentivise them

0:26:25.120,0:26:29.360

to use it more often?

0:26:27.200,0:26:31.279

Definitely. Absolutely.

0:26:29.360,0:26:33.679

They start to see the benefit

0:26:31.279,0:26:35.440

of having that regular information and

0:26:33.679,0:26:36.080

then start getting into it.

0:26:35.440,0:26:37.760

With

0:26:36.080,0:26:39.600

the star user that Eurion's talking

0:26:37.760,0:26:41.200

about, we began

0:26:39.600,0:26:43.360

to look at contamination,

0:26:41.200,0:26:44.960

mapping the contamination. Not

0:26:43.360,0:26:46.000

only were we looking at what was happening in

0:26:44.960,0:26:48.000

real time,

0:26:46.000,0:26:50.000

but we were also able to think

0:26:48.000,0:26:51.200

ahead and discover which field were going

0:26:50.000,0:26:52.960

to cause problems

0:26:51.200,0:26:54.480
further in the future, or look at the

0:26:52.960,0:26:56.240
previous year, to discover the

0:26:54.480,0:26:58.559
problem fields.

0:26:56.240,0:27:00.159
The more you do, the more you

0:26:58.559,0:27:02.080
get out of it.

0:27:00.159,0:27:03.600
With worm control,

0:27:02.080,0:27:04.000
we are asking

0:27:03.600,0:27:05.600
farmer

0:27:04.000,0:27:07.679
to

0:27:05.600,0:27:09.760
monitor their faecal egg counts,

0:27:07.679,0:27:11.360
use the capacity that they've got to

0:27:09.760,0:27:13.039
weigh their lambs often.

0:27:11.360,0:27:14.880
It's all about confidence.

0:27:13.039,0:27:16.720
It's all about knowing what's going on,

0:27:14.880,0:27:20.080
and making decisions based on

0:27:16.720,0:27:22.080
very good information as opposed to

0:27:20.080,0:27:23.919
guessing or waiting for lambs with

0:27:22.080,0:27:25.600
dirty bottoms or so on.

0:27:23.919,0:27:27.840
By which case, their growth

0:27:25.600,0:27:30.880

rate has gone off the boil

0:27:27.840,0:27:31.600
to a large extent. Absolutely. The

0:27:30.880,0:27:33.919
beauty of

0:27:31.600,0:27:35.360
the system

0:27:33.919,0:27:36.320
is that the results are

0:27:35.360,0:27:38.880
electronic.

0:27:36.320,0:27:40.480
From an advisor's point of view,

0:27:38.880,0:27:41.679
it's not a scrap of paper or

0:27:40.480,0:27:44.799
something that comes into your

0:27:41.679,0:27:47.039
email inbox or a Word document.

0:27:44.799,0:27:48.399
We can actually store them. They're on

0:27:47.039,0:27:50.399
the

0:27:48.399,0:27:52.880
web for people to at. We've got

0:27:50.399,0:27:55.679
a historical record as well.

0:27:52.880,0:27:57.600
Eurion, with the data that's captured, do

0:27:55.679,0:28:00.480
you use a software package

0:27:57.600,0:28:02.640
to provide the analysis or the result

0:28:00.480,0:28:05.919
to farmers? How is that data

0:28:02.640,0:28:06.320
managed once it's recorded?

0:28:05.919,0:28:08.960

0:28:06.320,0:28:10.000

The data is all recorded on our

0:28:08.960,0:28:12.399

web-based system.

0:28:10.000,0:28:14.000

It's accessible for all farmers

0:28:12.399,0:28:17.200

and we can make it accessible for

0:28:14.000,0:28:19.120

for advisors as well. We can export

0:28:17.200,0:28:20.960

the data onto an Excel

0:28:19.120,0:28:21.919

spreadsheets for the

0:28:20.960,0:28:23.760

likes of Lesley

0:28:21.919,0:28:25.120

to make pretty graphs,

0:28:23.760,0:28:25.679

like we've seen for this project.

0:28:25.120,0:28:28.159

We can

0:28:25.679,0:28:30.000

start to track trends, and we're

0:28:28.159,0:28:31.760

recording this information and data

0:28:30.000,0:28:34.159

year on year. It is recorded on our

0:28:31.760,0:28:35.360

software, and there are some tools we're

0:28:34.159,0:28:37.120

developing in the background

0:28:35.360,0:28:38.640

to try and make that a little bit more

0:28:37.120,0:28:40.640

intuitive in terms of

0:28:38.640,0:28:42.399

what we can do with the data. For me,

0:28:40.640,0:28:44.640
there are two exciting elements -

0:28:42.399,0:28:46.480
the

0:28:44.640,0:28:48.159
imaging part which is a chain from

0:28:46.480,0:28:50.799
a microscope part, but the other part

0:28:48.159,0:28:51.679
is the storing and capturing of

0:28:50.799,0:28:54.080
data.

0:28:51.679,0:28:56.240
This is becoming a

0:28:54.080,0:28:57.760
a very valuable tool

0:28:56.240,0:28:59.600
for farmers now. We're always saying

0:28:57.760,0:29:00.720
the importance of recording growth rate data

0:28:59.600,0:29:03.520
and all

0:29:00.720,0:29:04.559
other kind of information with EID.

0:29:03.520,0:29:06.799
We're looking at ways of

0:29:04.559,0:29:07.679
how we can actually integrate that. You

0:29:06.799,0:29:09.520
can

0:29:07.679,0:29:11.120
put the data alongside things like

0:29:09.520,0:29:13.120
growth rates for example.

0:29:11.120,0:29:14.399
The other part as Lesley

0:29:13.120,0:29:15.919
mentioned, the great work

0:29:14.399,0:29:17.440

that was done with contamination.

0:29:15.919,0:29:19.360
There are prospects for us in

0:29:17.440,0:29:21.200
the future to be able to

0:29:19.360,0:29:23.520
be a little bit clever about how we

0:29:21.200,0:29:25.919
can use faecal egg data to predict

0:29:23.520,0:29:27.039
when the fields are going to be the most

0:29:25.919,0:29:29.679
infectious,

0:29:27.039,0:29:30.320
and which are the safer fields for

0:29:29.679,0:29:32.000
grazing,

0:29:30.320,0:29:33.840
fattening lambs and growing

0:29:32.000,0:29:35.039
lambs etc. It's got lots of

0:29:33.840,0:29:38.399
potential.

0:29:35.039,0:29:40.080
Yes, and I guess using the

0:29:38.399,0:29:41.919
ever-growing bank of data and the

0:29:40.080,0:29:44.080
historical data can give you

0:29:41.919,0:29:45.200
a lot of information and help inform

0:29:44.080,0:29:47.120
decisions. Lesley,

0:29:45.200,0:29:49.600
do you think

0:29:47.120,0:29:51.520
trends will emerge whereby you could

0:29:49.600,0:29:54.320
look at the relationships of the

0:29:51.520,0:29:57.600
environment and also genetics in

0:29:54.320,0:29:59.440
flock performance? Definitely, yes.

0:29:57.600,0:30:00.080
All of those strands of

0:29:59.440,0:30:02.080
work are beginning

0:30:00.080,0:30:03.919
to

0:30:02.080,0:30:05.600
come together.

0:30:03.919,0:30:07.200
We started by talking

0:30:05.600,0:30:08.880
about

0:30:07.200,0:30:10.960
how resistance has worsened

0:30:08.880,0:30:12.559
in recent years. Now,

0:30:10.960,0:30:14.240
we know that there are

0:30:12.559,0:30:17.679
farms which are showing

0:30:14.240,0:30:19.840
some resistance to the three main groups,

0:30:17.679,0:30:21.679
plus, to some extent, one of the

0:30:19.840,0:30:24.159
Moxidectin which is

0:30:21.679,0:30:26.000
one of the three groups. But, it

0:30:24.159,0:30:27.760
becomes all the more important when you

0:30:26.000,0:30:30.399
do get to that stage that you

0:30:27.760,0:30:32.080
know what to do, manage it,

0:30:30.399,0:30:32.720
and all of those things come together -

0:30:32.080,0:30:34.559

0:30:32.720,0:30:36.480
genetics, and

0:30:34.559,0:30:38.960
nutrition.

0:30:36.480,0:30:40.880

0:30:38.960,0:30:42.799
With some of

0:30:40.880,0:30:44.640
the flocks that I work with, and

0:30:42.799,0:30:45.760
within the TAG group,

0:30:44.640,0:30:48.640

0:30:45.760,0:30:49.600
the majority of their ewes are not

0:30:48.640,0:30:52.799
drenched

0:30:49.600,0:30:55.039
at all from one year to the other.

0:30:52.799,0:30:56.320
That isn't because they've gone and

0:30:55.039,0:30:58.720
taken a risk and

0:30:56.320,0:31:00.240
thrown caution to the wind, it's because

0:30:58.720,0:31:01.200
they're monitoring, they know

0:31:00.240,0:31:02.720
what they're doing and their

0:31:01.200,0:31:04.320
body condition

0:31:02.720,0:31:07.440
score is where it should be.

0:31:04.320,0:31:10.240
That reliance on

0:31:07.440,0:31:12.559

chemical control has

0:31:10.240,0:31:14.240
very much reduced dramatically.

0:31:12.559,0:31:15.200

0:31:14.240,0:31:17.039

0:31:15.200,0:31:19.120
Ten years ago, farmers would have been

0:31:17.039,0:31:22.320
treating their ewes, as Eurion said,

0:31:19.120,0:31:25.039
twice a year as a matter of

0:31:22.320,0:31:26.080
routine. Again, that's all underpinned

0:31:25.039,0:31:28.000
with the fact that

0:31:26.080,0:31:29.600
we'll always continue to

0:31:28.000,0:31:33.279
monitor

0:31:29.600,0:31:35.360
in order to be able to keep on top of it.

0:31:33.279,0:31:37.600
All of those

0:31:35.360,0:31:39.679
things are interesting actually.

0:31:37.600,0:31:41.679
One member of the group last

0:31:39.679,0:31:42.480
year, when we did the individual ewe

0:31:41.679,0:31:44.799
monitoring,

0:31:42.480,0:31:46.399
bred his own replacements, and

0:31:44.799,0:31:47.679
it was interesting to see that not one

0:31:46.399,0:31:50.159
or two ewes

0:31:47.679,0:31:51.600

showed any egg count

0:31:50.159,0:31:53.039
whatsoever.

0:31:51.600,0:31:54.480
There were some

0:31:53.039,0:31:56.640
interesting conversations about

0:31:54.480,0:31:58.399
the next step

0:31:56.640,0:31:58.720
which was

0:31:58.399,0:32:00.640
beginning

0:31:58.720,0:32:02.480
to look at perhaps

0:32:00.640,0:32:03.840
getting some rams in, one's that were

0:32:02.480,0:32:06.799
bred for

0:32:03.840,0:32:07.840
a high immune response, and also him

0:32:06.799,0:32:10.080
identifying

0:32:07.840,0:32:11.600
the ewes that we're showing the same

0:32:10.080,0:32:13.519
response as well.

0:32:11.600,0:32:16.399
As soon as you've got the information,

0:32:13.519,0:32:18.159
you start to ask the right questions.

0:32:16.399,0:32:19.360
Eurion, that's when

0:32:18.159,0:32:21.600
you start opening up some of the

0:32:19.360,0:32:24.720
exciting developments this technology

0:32:21.600,0:32:26.399
can allow farmers to pursue isn't it?

0:32:24.720,0:32:28.000

Absolutely. We're

0:32:26.399,0:32:31.760

already helping breeding

0:32:28.000,0:32:32.559

groups to identify sheep

0:32:31.760,0:32:34.480

which are

0:32:32.559,0:32:35.840

more resistant to wormers

0:32:34.480,0:32:37.600

than others. I think it's important to have the

0:32:35.840,0:32:39.120

balance between resistant sheep

0:32:37.600,0:32:40.720

and resilient. Resistant

0:32:39.120,0:32:41.440

sheep are very good at fighting

0:32:40.720,0:32:43.440

worms,

0:32:41.440,0:32:45.200

and resilient sheep which will have a

0:32:43.440,0:32:46.799

worm burden can still cope and

0:32:45.200,0:32:48.399

grow with it.

0:32:46.799,0:32:50.640

We're working with various breeding

0:32:48.399,0:32:52.159

groups on that, but it's very

0:32:50.640,0:32:53.919

little I suppose in terms of the whole

0:32:52.159,0:32:56.399

breeding population.

0:32:53.919,0:32:58.320

In terms of technologies, it's there to

0:32:56.399,0:33:01.279

help with those kinds of things.

0:32:58.320,0:33:02.480
There

0:33:01.279,0:33:05.919
are a lot of things that you can do

0:33:02.480,0:33:08.559
to help reduce the worm burdens

0:33:05.919,0:33:09.600
without having to go for the drench gun

0:33:08.559,0:33:11.279
every single time.

0:33:09.600,0:33:13.039
Don't get me wrong, the chemical approach

0:33:11.279,0:33:14.640
is still going to be massively

0:33:13.039,0:33:16.240
important for us to be

0:33:14.640,0:33:17.440
able to farm sheep. We're still going to

0:33:16.240,0:33:19.360
need the chemicals,

0:33:17.440,0:33:21.279
but we need to look at how we can use other

0:33:19.360,0:33:22.000
tools to reduce the burden in the first

0:33:21.279,0:33:24.159
place, because

0:33:22.000,0:33:26.159

0:33:24.159,0:33:27.919
it's probably more effective. I

0:33:26.159,0:33:29.679
always believe it's more effective to

0:33:27.919,0:33:32.240
reduce the worm burden

0:33:29.679,0:33:34.159
on a farm by using management tools and

0:33:32.240,0:33:35.039
not just accepting that there is a high worm

0:33:34.159,0:33:36.559
burden and

0:33:35.039,0:33:38.159
relying on the chemical approach to

0:33:36.559,0:33:39.760
control it. We've seen

0:33:38.159,0:33:40.799
the benefits of avoiding it in

0:33:39.760,0:33:42.320
the first place. You don't get a

0:33:40.799,0:33:44.399
challenge in the first place and the

0:33:42.320,0:33:46.960
performance is not compromised.

0:33:44.399,0:33:48.880

0:33:46.960,0:33:51.279
There's a lot in this space

0:33:48.880,0:33:52.240
for the future as well. Eurion,

0:33:51.279,0:33:54.240
for our listeners which are

0:33:52.240,0:33:55.440
farmers

0:33:54.240,0:33:56.799
who are either

0:33:55.440,0:33:59.360
in the middle of lambing or about to

0:33:56.799,0:34:01.200
start lambing, what decisions

0:33:59.360,0:34:02.880
can they make with regards to worming their

0:34:01.200,0:34:05.200
ewes? What do they need to

0:34:02.880,0:34:07.120
consider?

0:34:05.200,0:34:08.560
The first thing we always

0:34:07.120,0:34:10.000
advocate, we're in early March

0:34:08.560,0:34:11.280

now, there's a lovely sunshine outside

0:34:10.000,0:34:12.399
the window here at Aberystwyth.

0:34:11.280,0:34:13.919
There are people,

0:34:12.399,0:34:16.159
especially within this group, who have

0:34:13.919,0:34:18.639
lambled, and ones who are about

0:34:16.159,0:34:19.520
to begin,

0:34:18.639,0:34:21.520
but I recommend you to

0:34:19.520,0:34:23.280
gather some faecal samples,

0:34:21.520,0:34:25.280

0:34:23.280,0:34:26.879
and maybe compare the

0:34:25.280,0:34:28.639
singles to the twins.

0:34:26.879,0:34:30.240
One of the things we're

0:34:28.639,0:34:31.839
advocating, and we've been

0:34:30.240,0:34:34.000
advocating this for years,

0:34:31.839,0:34:35.520
the other part of faecal egg counting

0:34:34.000,0:34:35.919
allows you to get the timing

0:34:35.520,0:34:37.839
right.

0:34:35.919,0:34:39.839
We can identify which sheep need

0:34:37.839,0:34:41.280
worming, but it also allows farmers

0:34:39.839,0:34:43.440
to get the timing correct. A

0:34:41.280,0:34:45.280
a couple of faecal egg count pool samples,

0:34:43.440,0:34:47.440
twins, triplet, singles,

0:34:45.280,0:34:49.520
just to see if the ones that are lambing indoors

0:34:47.440,0:34:51.599
need worming at turnout or not.

0:34:49.520,0:34:53.240
We grew

0:34:51.599,0:34:54.639
up at

0:34:53.240,0:34:56.240
Cwrt y Cadno,

0:34:54.639,0:34:58.000
where a lot of farmers

0:34:56.240,0:34:59.920
use to do the spring

0:34:58.000,0:35:01.599
worming for the spring rise

0:34:59.920,0:35:03.040
and four or five weeks after

0:35:01.599,0:35:04.400
lambing, the same time as ear

0:35:03.040,0:35:06.240
marking and turning up to the hills.

0:35:04.400,0:35:08.160
One farmer from the project

0:35:06.240,0:35:10.079
was doing the same, and we'd already

0:35:08.160,0:35:10.800
moved that timing to be closer to

0:35:10.079,0:35:13.200
lambing.

0:35:10.800,0:35:15.040
But, on some farms it might be the

0:35:13.200,0:35:16.880
most appropriate time possibly.

0:35:15.040,0:35:18.160

We can use

0:35:16.880,0:35:19.839
faecal egg counts,

0:35:18.160,0:35:21.760
do a couple of mob samples, take some

0:35:19.839,0:35:23.359
into our vet or retail store, whoever's

0:35:21.760,0:35:25.359
offering faecal egg counts,

0:35:23.359,0:35:26.560
and provide some tests. On the

0:35:25.359,0:35:29.119
basis of those tests,

0:35:26.560,0:35:30.640
you can then decide to worm or not. It's

0:35:29.119,0:35:32.400
important that we

0:35:30.640,0:35:34.160
try and avoid worming.

0:35:32.400,0:35:35.680
Things like body condition

0:35:34.160,0:35:38.000
scoring plays a crucial role

0:35:35.680,0:35:39.440
in terms of

0:35:38.000,0:35:42.000
deciding

0:35:39.440,0:35:44.000
what proportion of ewes need

0:35:42.000,0:35:45.839
worming within those groups.

0:35:44.000,0:35:48.320
Lesley, what about you? What would be your

0:35:45.839,0:35:50.480
advice to farmers at this time of year?

0:35:48.320,0:35:52.000
Well, to echo what Eurion

0:35:50.480,0:35:53.680
said, the

0:35:52.000,0:35:55.440
most important thing at this stage,

0:35:53.680,0:35:57.119
well, a lot of

0:35:55.440,0:35:57.760
guys over here are well into lambing,

0:35:57.119,0:35:59.440
so

0:35:57.760,0:36:02.240
they're well away, but farmers who

0:35:59.440,0:36:04.960
are still sort of five, six weeks away,

0:36:02.240,0:36:06.640
if you haven't sorted the

0:36:04.960,0:36:08.720
dietary recommendations, the

0:36:06.640,0:36:09.839
nutrition, you will need to do so.

0:36:08.720,0:36:12.079
If you haven't had your

0:36:09.839,0:36:13.280
forage tested, get it tested and get the

0:36:12.079,0:36:17.040
right diet.

0:36:13.280,0:36:19.200

0:36:17.040,0:36:21.200
In terms of lamb

0:36:19.200,0:36:23.599
birth weights and lamb performance,

0:36:21.200,0:36:25.520
we also know that the better lambs are

0:36:23.599,0:36:27.839
more likely to withstand

0:36:25.520,0:36:28.880
a challenge from parasites. So get

0:36:27.839,0:36:31.280
your nutrition right

0:36:28.880,0:36:32.720

at this stage, and start monitoring your

0:36:31.280,0:36:34.640
body condition score,

0:36:32.720,0:36:35.760
and as Eurion said, do some faecal egg

0:36:34.640,0:36:38.800
count monitoring,

0:36:35.760,0:36:41.200
just to work out what is going on.

0:36:38.800,0:36:42.560
Only treat those ewes who

0:36:41.200,0:36:44.320
needs it.

0:36:42.560,0:36:45.760
If it looks like it's going up then

0:36:44.320,0:36:47.680
the work that we're doing now

0:36:45.760,0:36:49.440
suggests that it is those that are in

0:36:47.680,0:36:51.119
poorer body condition, not

0:36:49.440,0:36:52.720
necessarily thin or

0:36:51.119,0:36:54.480
in poor condition, but the ones that are

0:36:52.720,0:36:55.839
losing condition.

0:36:54.480,0:36:57.359

0:36:55.839,0:36:58.880
They might have been pretty good at six

0:36:57.359,0:37:00.400
weeks, but if they're losing a lot within the

0:36:58.880,0:37:03.520
last two-three weeks,

0:37:00.400,0:37:05.280
they are being challenged. Think about

0:37:03.520,0:37:07.440
it, just imagine what's happening with

0:37:05.280,0:37:09.440
that immune system.

0:37:07.440,0:37:11.119
Those that are going ahead and

0:37:09.440,0:37:13.440
looking fine, they're holding their body

0:37:11.119,0:37:15.839
condition score, their immune system

0:37:13.440,0:37:17.280
is highly likely to cope

0:37:15.839,0:37:19.520
with life as well.

0:37:17.280,0:37:21.599
Try to minimise,

0:37:19.520,0:37:23.599
try to leave at least 10%,

0:37:21.599,0:37:24.800
preferably 20% or more of your ewes

0:37:23.599,0:37:27.440
untreated.

0:37:24.800,0:37:29.599
Don't do as some farmers in the

0:37:27.440,0:37:31.520
past and only

0:37:29.599,0:37:32.880
leave the singles untreated,

0:37:31.520,0:37:34.960
and drench all of the

0:37:32.880,0:37:36.000
twins and triplets. You need to be

0:37:34.960,0:37:37.760
thinking about

0:37:36.000,0:37:39.599
how you're going to turnout after

0:37:37.760,0:37:40.960
lambing, because you tend to

0:37:39.599,0:37:43.040
turn singles out

0:37:40.960,0:37:44.560

separately, and twins will be separate.

0:37:43.040,0:37:46.400
Well, there isn't a lot of advantage of

0:37:44.560,0:37:48.960
having all of the untreated sheep

0:37:46.400,0:37:49.760
in one group and all the treated sheep

0:37:48.960,0:37:52.079
in another.

0:37:49.760,0:37:54.240
Leave at least one

0:37:52.079,0:37:58.079
in ten or two in ten

0:37:54.240,0:38:00.160
of each mob as they go out

0:37:58.079,0:38:03.359
to try and keep some

0:38:00.160,0:38:05.520
selection pressure on the wormers down.

0:38:03.359,0:38:06.960
With regards to the group Lesley,

0:38:05.520,0:38:08.480
what are the next steps? I know

0:38:06.960,0:38:10.000
you're still very much in the early days

0:38:08.480,0:38:10.640
in terms of gathering the data, and

0:38:10.000,0:38:13.520
you're not

0:38:10.640,0:38:15.040
in a position yet to confirm

0:38:13.520,0:38:15.760
some of the headline results, but

0:38:15.040,0:38:17.119
what are the

0:38:15.760,0:38:19.599
next steps over the next

0:38:17.119,0:38:21.119
coming years? Well, we've got another

0:38:19.599,0:38:22.800
two, we've got this season and next

0:38:21.119,0:38:24.640
season with this project. With this

0:38:22.800,0:38:26.079
season, due to the

0:38:24.640,0:38:27.839
different set of

0:38:26.079,0:38:28.880
circumstances of course, we're just

0:38:27.839,0:38:30.800
starting.

0:38:28.880,0:38:32.000
My job involves the results.

0:38:30.800,0:38:33.040
I've had two sets of

0:38:32.000,0:38:36.160
results from

0:38:33.040,0:38:36.400
Eurion this morning, and I will need to keep

0:38:36.160,0:38:38.720
an

0:38:36.400,0:38:40.320
eye on those. My next job is to talk

0:38:38.720,0:38:41.440
to each farmer as we get

0:38:40.320,0:38:44.480
nearer to lambing,

0:38:41.440,0:38:45.359
and discuss what worming strategies, if

0:38:44.480,0:38:48.640
appropriate,

0:38:45.359,0:38:50.640
and which animals to target

0:38:48.640,0:38:52.880
and keep those results

0:38:50.640,0:38:55.520
coming in and make sure that

0:38:52.880,0:38:57.440
we keep monitoring the lambs.

0:38:55.520,0:38:58.800
The big test of what we're doing is, how

0:38:57.440,0:39:02.400
well the lambs do,

0:38:58.800,0:39:04.480
how much contamination is out there and

0:39:02.400,0:39:06.320
measure the success by doing

0:39:04.480,0:39:08.960
lamb faecal egg counts

0:39:06.320,0:39:09.440
later on. What we're hoping to do is

0:39:08.960,0:39:12.400

0:39:09.440,0:39:13.760
reaffirm what we learned last year. I'm

0:39:12.400,0:39:15.680
sure they'll be slightly different

0:39:13.760,0:39:18.400
because the change in weather.

0:39:15.680,0:39:20.640
If you think back to last spring, it was

0:39:18.400,0:39:23.280
a very dry period

0:39:20.640,0:39:24.800
not long after lambing, especially for

0:39:23.280,0:39:26.560
flocks near where Eurion lives,

0:39:24.800,0:39:29.839
near Aberystwyth and

0:39:26.560,0:39:31.680
for upland flocks. We

0:39:29.839,0:39:33.599
hardly saw any worm activity at all

0:39:31.680,0:39:36.320
until it rained, and then things

0:39:33.599,0:39:37.760
changed quite dramatically. When we

0:39:36.320,0:39:40.320
take all that into consideration,

0:39:37.760,0:39:42.400
and hopefully after three years,

0:39:40.320,0:39:45.280
we'll have seen some variations,

0:39:42.400,0:39:45.680
but generally, we will be able to

0:39:45.280,0:39:48.960

0:39:45.680,0:39:51.599
decide and be able to tell

0:39:48.960,0:39:54.560
other people about it in more detail.

0:39:51.599,0:39:56.160
As we draw this podcast to a close, I

0:39:54.560,0:39:58.160
must ask you both the same question

0:39:56.160,0:39:59.920
I've been asking all of our guests on

0:39:58.160,0:40:01.440
Ear to the Ground this year,

0:39:59.920,0:40:04.079
how would you define

0:40:01.440,0:40:04.720
a successful farmer? I'll come to you

0:40:04.079,0:40:06.480
first, Eurion,

0:40:04.720,0:40:07.760
and Lesley can have the final

0:40:06.480,0:40:09.920
word.

0:40:07.760,0:40:12.319
Eurion, in your view, if you had the chance

0:40:09.920,0:40:15.200
to pull together a description

0:40:12.319,0:40:16.240
of a successful farmer, what would it be?

0:40:15.200,0:40:17.520

0:40:16.240,0:40:19.280

It's difficult to put it into a couple

0:40:17.520,0:40:20.240

of sentences, but a successful farmer

0:40:19.280,0:40:22.560

equals

0:40:20.240,0:40:24.240

profitability, and I think that's

0:40:22.560,0:40:25.839

going to be the focus. I imagine a lot of

0:40:24.240,0:40:27.359

people would say it's the profitability

0:40:25.839,0:40:30.400

of the enterprise, but

0:40:27.359,0:40:31.119

it's looking at doing that sustainably

0:40:30.400,0:40:34.079

as well.

0:40:31.119,0:40:36.160

I think there's a lot of

0:40:34.079,0:40:38.079

pressure on complete things sustainable -

0:40:36.160,0:40:39.440

environmental etc.

0:40:38.079,0:40:41.119

It's possible to have

0:40:39.440,0:40:43.440

a profitable business

0:40:41.119,0:40:45.359

as well as

0:40:43.440,0:40:47.359

looking after the environment at the same time.

0:40:45.359,0:40:49.119

That's going to become

0:40:47.359,0:40:51.119

increasingly important, but I think

0:40:49.119,0:40:52.560

to embrace that, who have to

0:40:51.119,0:40:54.160
look after the environment, and things

0:40:52.560,0:40:55.839
like emissions

0:40:54.160,0:40:57.359
goes hand in hand with profitable

0:40:55.839,0:40:59.520
farming.

0:40:57.359,0:41:01.119
Roundworms has a massive role to play in

0:40:59.520,0:41:02.640
how we can achieve that, how we can

0:41:01.119,0:41:05.680
achieve sustainable

0:41:02.640,0:41:07.760
performance to give us

0:41:05.680,0:41:09.040
a profitable enterprises while

0:41:07.760,0:41:10.560

0:41:09.040,0:41:12.640
looking after the environment.

0:41:10.560,0:41:16.319
Thank you, Eurion.

0:41:12.640,0:41:18.000
What about you, Lesley? Well, I

0:41:16.319,0:41:20.079
agree with what Eurion said. I think

0:41:18.000,0:41:21.920
it's quite interesting because

0:41:20.079,0:41:23.359
these days, within any research and

0:41:21.920,0:41:25.359
development context,

0:41:23.359,0:41:27.920

0:41:25.359,0:41:28.480
if we're looking at farmer's attitude,

0:41:27.920,0:41:30.880
farmers should change their

0:41:28.480,0:41:32.319
mindset.

0:41:30.880,0:41:34.640

0:41:32.319,0:41:35.440
Worm control

0:41:34.640,0:41:38.000
comes from

0:41:35.440,0:41:39.839
a pretty deeply ingrained behaviour,

0:41:38.000,0:41:42.400
historical behaviour.

0:41:39.839,0:41:44.160

0:41:42.400,0:41:46.240
We ask farmers increasingly -

0:41:44.160,0:41:47.760
what makes them feel like a good farmer?

0:41:46.240,0:41:50.079
In this context, I would put good and

0:41:47.760,0:41:50.720
successful alongside each

0:41:50.079,0:41:52.560
other. Some will

0:41:50.720,0:41:54.560
answering by saying

0:41:52.560,0:41:56.240
profitability. Those of us in

0:41:54.560,0:41:57.920
consultancy likes to think that

0:41:56.240,0:41:59.520
it's all about profitability,

0:41:57.920,0:42:01.920
but as Eurion said, there are other

0:41:59.520,0:42:03.599
things. Other things makes

0:42:01.920,0:42:05.839
farmers feel good

0:42:03.599,0:42:07.599
about farming. I think for

0:42:05.839,0:42:08.960

a lot of farmers it's about

0:42:07.599,0:42:10.480

getting up in the morning and wanting to

0:42:08.960,0:42:11.040

go out there, wanting to be with their

0:42:10.480,0:42:12.640

stock,

0:42:11.040,0:42:14.079

wanting to be proud of their stock.

0:42:12.640,0:42:15.920

0:42:14.079,0:42:17.760

As a consultant, I think the most

0:42:15.920,0:42:19.119

successful farmers are the ones that

0:42:17.760,0:42:21.040

know what they're doing weekly,

0:42:19.119,0:42:21.680

know what their priorities are

0:42:21.040,0:42:24.480

today,

0:42:21.680,0:42:26.800

tomorrow and for the rest of the week,

0:42:24.480,0:42:27.599

and they're ahead of the game.

0:42:26.800,0:42:29.040

0:42:27.599,0:42:31.119

Again,

0:42:29.040,0:42:32.960

monitoring is about

0:42:31.119,0:42:35.040

having information to make informed

0:42:32.960,0:42:36.800

decisions, and not wait until it comes up and

0:42:35.040,0:42:39.040

bites you up the posterior,

0:42:36.800,0:42:40.160

and then you've got to do something about it.

0:42:39.040,0:42:42.160

I think

0:42:40.160,0:42:43.520

positive affirmations

0:42:42.160,0:42:44.000

allows someone to be successful.

0:42:43.520,0:42:45.599

0:42:44.000,0:42:47.359

If they've got the information to

0:42:45.599,0:42:50.480

make good decisions,

0:42:47.359,0:42:51.440

then they're going to be successful.

0:42:50.480,0:42:53.520

I'm reminded

0:42:51.440,0:42:55.520

of something that I was brought up with,

0:42:53.520,0:42:56.079

quite a nice mantra to be honest -

0:42:55.520,0:42:58.079

0:42:56.079,0:42:59.359

0:42:58.079,0:43:01.359

In life,

0:42:59.359,0:43:02.720

when you get up, be content but

0:43:01.359,0:43:04.720

never satisfied.

0:43:02.720,0:43:06.240

I would like to think that I'm

0:43:04.720,0:43:07.839

quite content at the moment, I'd like to

0:43:06.240,0:43:08.800

think my sheep farmers are quite content,

0:43:07.839,0:43:09.760

that they're going in the right

0:43:08.800,0:43:12.000

direction,

0:43:09.760,0:43:13.359
but we are never satisfied. We've always

0:43:12.000,0:43:14.960
got more to learn.

0:43:13.359,0:43:17.280
This project that we've been

0:43:14.960,0:43:18.800
talking about, we're learning

0:43:17.280,0:43:21.040
so much all the time,

0:43:18.800,0:43:22.480
and one of the things that we've learned within the last 15 years

0:43:21.040,0:43:23.680
of

0:43:22.480,0:43:26.880
working together is

0:43:23.680,0:43:28.960
the process is constant.

0:43:26.880,0:43:29.920
Well, what a wonderful way to end the

0:43:28.960,0:43:31.760
podcast, and

0:43:29.920,0:43:34.079
as you said there Lesley, it's that

0:43:31.760,0:43:36.800
constant hunger, hunger for learning,

0:43:34.079,0:43:37.920
hunger to constantly improve what

0:43:36.800,0:43:39.839
you're doing, and

0:43:37.920,0:43:41.119
feeling good about farming as well. On a

0:43:39.839,0:43:42.720
day like today, we're recording on a

0:43:41.119,0:43:43.119
glorious day particularly in Wales,

0:43:42.720,0:43:44.640

0:43:43.119,0:43:46.560
there's beautiful sunshine through the

0:43:44.640,0:43:48.240
window and that does certainly make

0:43:46.560,0:43:49.839
make everybody feel a little bit better

0:43:48.240,0:43:52.240
at this time of year, and spring

0:43:49.839,0:43:53.760
is certainly on its way. Well, Lesley

0:43:52.240,0:43:55.599
Stubbings and Eurion Thomas, thank you

0:43:53.760,0:43:56.640
ever so much for joining us on Ear to

0:43:55.599,0:43:59.200
the Ground podcast.

0:43:56.640,0:44:00.800
No doubt we'll probably be picking your

0:43:59.200,0:44:02.319
brains at some point in the future,

0:44:00.800,0:44:04.560
wanting to find out more about the

0:44:02.319,0:44:06.960
results of the project as

0:44:04.560,0:44:08.000
the data flows over the next few

0:44:06.960,0:44:10.000
months and years,

0:44:08.000,0:44:11.520
But for today, thank you very much.

0:44:10.000,0:44:13.200

0:44:11.520,0:44:14.800
Thank you for joining

0:44:13.200,0:44:17.599
us on Ear to the Ground.

0:44:14.800,0:44:19.200
If you would like more

0:44:17.599,0:44:21.200
information about the support

0:44:19.200,0:44:22.800

available through Farming Connect, then

0:44:21.200,0:44:24.560
please contact your local

0:44:22.800,0:44:26.000
development officer or the Service

0:44:24.560,0:44:29.119
Centre on 08456 000 813.

0:44:31.599,0:44:35.440
That's the end of yet another episode.

0:44:33.680,0:44:37.200
We'll be back in two weeks with

0:44:35.440,0:44:39.200
plenty more to talk about.

0:44:37.200,0:44:41.680
In the meantime, don't forget to hit

0:44:39.200,0:44:44.160
subscribe on whichever platform you are using in order

0:44:41.680,0:44:45.839
to keep notified of all new episodes of

0:44:44.160,0:44:47.599
Ear to the ground.

0:44:45.839,0:44:49.520
On behalf of the team at Farming

0:44:47.599,0:44:53.200
Connect, myself Aled Jones would like to

0:44:49.520,0:44:53.200
thank you for listening and goodbye.

0:45:02.839,0:45:05.839

0:45:12.400,0:45:14.480