Hello, I'm Aled Jones and you're listening to episode 32 of Ear to the Ground, a podcast brought to you by Farming Connect.

As we're getting closer to the end of the year we thought we'd take a look back at the 2020 grazing season. We had an extremely dry spring if you remember followed by some very wet conditions over the summer but how has these weather extremes impacted on grass growth rates on farms this year. Well to help understand the impact of weather and grass management on pasture production, Farming Connect has been
working with 43 farms across Wales
to monitor their grass growth as a part of the welsh pasture project. I caught up with two people who've been involved in the project to find out more. My name is Sarah Morgan. I'm based in south Shropshire where I was lucky enough to grow up on a beef and sheep farm and then from there I went to study at Harper Adams where I studied agriculture with farm business management and in my gap year there, or placement year, I went to work on a dairy farm in New Zealand. After graduating, I was lucky enough to get a job at Precision Grazing
where I work alongside Rhys Williams and James Daniel.

We have a focus on grassland management to allow us to advise and promote profit performance and environmental sustainability on livestock farms in the UK and through that as well we do a lot of work with Farming Connect. We work with the discussion groups through the Prosper from Pasture programme and also recently the Welsh Pasture Project.

I’m Tomos Huws from the Llyn Peninsula. I grew up on a small holding, about 40 acres with some sheep and dairy beef cattle, then went to Aberystwyth and graduated in countryside management. I struggled to find some work.
post-graduation

so I turned my eyes to dairying where I got an opportunity by

David Wynn Finch and Rhys Williams. Then the ball started rolling and then they offered me some time to go to New Zealand to further my skills and then from that I went back to work for them for 18 months. I then got a farm manager job here in Carmel by Llanrwst where I work with Huw Clwyd and Gareth Meirion where I run a 350 cow spring block calving system in a new dairy unit. Well fantastic, thank you very much both to you Sarah and Tomos for joining us on this podcast. Both of you referred there to your experiences
in New Zealand where I understand you
both worked on the same dairy farm some
years ago.
Sarah talk to us about that experience. Yes.

Me and Tomos both worked down in the South
Island in Canterbury
on a little farm, well not a little
farm but a farm just outside Fairlie.
That was in 2017 to 2018 or
something Tomos?
Yes, it was. And the farm
was owned by
Libby and Kieran Guiney and they
owned
four farms Tomos? Yes, it
was four.
I think they had six in
total with
the runoff for dry cows and the
young stock farm. Yes, so me and Tomos worked alongside each other there with Wil Green as our manager who is also from Shropshire actually and then Chris Garner, he was from the same area as you Tomos? Yes, he was from the Llyn Peninsula as well.

We milked 860 cows there and four of us working over a 240 hectare platform. Then two of us were milking twice a day through a 45 side parlour. It was a seriously low cost system, very basic, fully irrigated which took a lot of our time during the summer but it was such a low cost
low input system it was unbelievable.

They had a rule didn't they on the farm that each cow couldn't have over 300 kilograms of supplement over the grazing period and things like that just kept you on your mark really. And I guess Tomos the experience of working there has influenced the way you manage your dairy farm?

Yes, the grass is the key and I just learned so many small things. Wil was a great manager and it showed because he got second through
New Zealand for the dairy manager of

the year so I picked up a lot of tips

and his

way to manage people on the farm which

I can implement here, which is

great. And Sarah,

have you noticed that working with

the 43 farms which are part of the Welsh

Pasture Project, have you noticed

that there is a lot of influence from

the New Zealand style of thinking

particularly amongst dairy farmers?

Yes, I think it's becoming more and more

now and

I found by working in New Zealand, they've

just got some set

morals really. Even the

work-life balance was so clear there.

If anyone was working past 5 pm

they were almost looked on badly upon,
they did look after their staff really well and we had a good road to set up.

Just simple things like that.

Even the weekly farm walk would be a team effort wouldn't it Tomos? Yes, everyone was involved which was great because everyone knew then, for the week, what was the plan of grazing, what covered targets was supposed to be and the round length.

Everyone was involved not just the manager and the owners.

We're here today of course to talk about the Welsh Pasture Project, Sarah talk us through some of
the aims and objectives of that project.

Some of the broad aims is to take advantage of that ability for Wales to grow so much pasture and high quality pasture as well.

Unlike maybe South Canterbury, New Zealand, Wales doesn't need irrigation as we found out over the last couple of months with the constant rain, or high reliance on inputs like fertiliser.

Farms can grow a lot of grass in Wales and it's just trying to encourage Welsh farmers really to increase the grass growth on their farm and utilise as much as possible because it's just got such a good direct correlation to
profit and performance on farm.

And there are 43 farms as a part of the project,
give us an overview of what type of farms are they?
We've got 16 dairy farms in the project
and then 25 beef and sheep farms and they're a range of systems and a range of farm types from lowland to upland.
Each farmer was asked to measure a minimum of 30 hectares and they were asked to measure this in a sort of consistent manner so each had to measure at least 30 measurements in a field to ensure they were consistent.

Tomos is one of the dairy farmers up in North Wales aren't you Tomos?
Yes I am. Tomos,
were you measuring grass before joining this project? I was, well since I've started dairying I've been drilled to measure the grass every week. I didn't start until the end of March because our parlour wasn't ready until then, so it was a bit of a juggling act and we had a lot of work going on. After that I measured every week probably throughout the summer. Because it was a new farm, it's pretty hard to measure it to start off with because you don't know the land, but
after a couple of weeks it was quite easy. I bought a plate meter for the first time. On the other farms I worked on we used to cut and weigh but I felt, because of the area we've got which is just over 100 hectares, it would take me a while to cut and weigh every field so I bought a plate meter to just walk along and drop it and then got all the measurements. I set up Agrinet just before I started here as well and from then it's been going really well and the farm has adapted well to the change from beef and sheep to dairying. It looked really well throughout the...
summer. It's a

0:08:37.839,0:08:43.120
heavy farm so we did

0:08:41.200,0:08:46.160
a lot of silage throughout the summer

0:08:43.120,0:08:47.040
to think it was quite dry in April, May

0:08:46.160,0:08:50.320
and June we

0:08:47.040,0:08:51.120
cut a lot of the winter forage

0:08:50.320,0:08:54.399
from the

0:08:51.120,0:08:56.080
platform. And Sarah,

0:08:54.399,0:08:57.839
there are some beef and sheep farms

0:08:56.080,0:09:00.080
involved in this project as well?

0:08:57.839,0:09:01.760
Yes, there are. A lot of the beef and

0:09:00.080,0:09:02.480
sheep farms originally hadn't actually

0:09:01.760,0:09:05.040
had any

0:09:02.480,0:09:06.480
experience measuring grass. They're

0:09:05.040,0:09:07.200
all part of the Prosper from Pasture

0:09:06.480,0:09:08.800
programme

0:09:07.200,0:09:10.240
so they understood the benefits of

0:09:08.800,0:09:11.519
managing grass but some

0:09:10.240,0:09:13.360
just lack the confidence to actually

0:09:11.519,0:09:14.959
start and go out and measure.
At the beginning of the project we ensured everyone was set up with Agrinet, which is a grass measuring software, and also a plate meter.

It was good. A lot of farmers gained confidence throughout the project as they were measuring more and more. During the first couple of weeks you'd get some random measurements but as we guided them and to reassure them on their measurements and how to do it and the correct route to take throughout the fields they got better and better each week. Within a couple of weeks they were really confident with measuring grass.

And did you find that Tomos, the more
you did it the quicker it became the process of measuring grass?

It became a much quicker process the more experience you had?

It's unbelievable once you’ve done a couple of weeks in.

On the dairy farm, you've got your three weeks rotation.

You kind of get your eye in as well so you don't have to you use the plate meter as a guide but usually I would alter it a little bit with my eye because your eye tells you much more.

The plate meter gives you the guide but the eye gives you a real good insight of what the grass looks like and
and what you're going into and what

you're coming out of.

And Sarah, you mentioned earlier on about

Agrinet, tell us a bit more about that

software?

It's an

Irish-based software and its

basic role is to help you manage

your grass.

All the farmers each week,

they'd measure their pasture with their

plate meters

and they'd record down their average

farm cover for each field.

They would have their fields names, the

area maybe and the cover that they

measured with their plate meter

and then each week they'd upload the

figures themselves

onto Agrinet. From that, they would
something called a grazing wedge. It basically orders your fields from left to right. On the left you're filled with the highest pasture cover and on the right your lowest and then each bar represents a field. It gives a clear visual automatic indication of where your farm's at. Tomos, having been through that now and capturing the data and recording all the information that the plate meter and your eye has given you, does it become almost addictive, you're looking at the software, you're doing the analysis because it's really fascinating?
It's great. You can do your budgets, you can do your planners,
you can see how much you've grown throughout the year and
which fields are best performing.

Every week, I try to print it out or give a screenshot on our Whatsapp group for the farm so everyone knows which paddocks are we going to go into for the coming week and decide how long it should last and then see if it works out well.

Because some of the staff are quite new to dairying it just gives them a good way of knowing, all right that field's supposed to last a day
so they can leave

0:12:24.800,0:12:28.240
the cows there for a day.

0:12:27.600,0:12:30.240

0:12:28.240,0:12:31.519
It doesn't always work out but most of

0:12:30.240,0:12:33.440
the time it does.

0:12:31.519,0:12:34.720
It's great because

0:12:33.440,0:12:36.480
you can add people

0:12:34.720,0:12:38.000
into your group so you can look at what

0:12:36.480,0:12:41.120
other farms are growing and

0:12:38.000,0:12:41.519
compare and see what covers they've got

0:12:41.120,0:12:44.000
and

0:12:41.519,0:12:45.920
see if you're behind. Because I'm

0:12:44.000,0:12:47.040
quite new I follow people like Rhys

0:12:45.920,0:12:50.639
Williams

0:12:47.040,0:12:53.760
or Sam Carey so I know then

0:12:50.639,0:12:55.120
where to benchmark myself and try

0:12:53.760,0:12:57.600
and follow what they're doing because

0:12:55.120,0:12:58.959
they've been doing it for years.

0:12:57.600,0:13:01.040
Yes and that's interesting isn't it,

0:12:58.959,0:13:02.720
that to the extent where there's
influencers within the agricultural industry, have you found that Sarah? You know key players high-profile farmers who are doing this, having a great influence on other farms across Wales?

Yes definitely, and as Thomas said, people like Rhys Williams are really strong in the dairy industry for that and then we've got other people in the beef and sheep industry now more and more starting to play that role as well.

I think as soon as farmers see people starting to rotationally graze and measure grass, increasing their grass growth on farm by a lot and then cutting costs and,
as

Tomos said, it's addictive when you start measuring grass you carry on and you can't stop almost because you just see the value.

You know as soon as you're cutting maybe a ton of concentrate out of the System, that's an automatic reward there.

Yes as soon as you start seeing the financial gains it almost gives you that encouragement to do more and do it more often, but looking back at the 2020 grazing season

Sarah,

how has it been overall from the data you've gathered and the work you've done with all those farms?

Obviously the project only started in
September so
from then we've seen really good growth rates much better than expected.
The wet weather especially in Wales has made that grass growth hard to utilise but towards the end of the project all of our farms are in a really good position. We had our last measurement at the end of November and dairy farms are finishing then on an average farm cover of 2,300 kg/DM/ha and beef and sheep farms were at 2,100 kg/DM/ha. They'd took advantage of that grass growth and really managed it well to save it up and that'll be ready for now for spring for them to get out and
graze.

And Tomos, how's it been for you in Llanrwst there? What's the grazing season been like with you?

It's been a good year for us on this farm because it's a quite a heavy farm. When the dry period started we were growing ridiculous amounts of grass. I think we did about nearly 550 surplus bales on the farm out of just over 100 hectare block and we carried about extra 80 cows. We got 80 extra cows to the herd because it was a new herd, all heifers. We would love to get more milk so we got extra 80 cows on top of that as
well so that's given us an insight for
next season that we can grow
plenty of grass. We're increasing
numbers at the moment.
We calved 300 last year so we're going up
to 350 this year
and hopefully maybe we'll chuck a
little bit more in there
to utilise all this grass that we
can grow on the farm.
And I guess having the data, having the
software available to tell you exactly
where
your grazing wedge is and how each
paddock and field is performing, that
gives you the confidence
to say that you can increase your
stocking numbers because you've
got that grass to support them.
Exactly that's the key.

If you've got the data and you can utilise then you can see, right next season I can maybe carry an extra 30 cows and then you can alter the farm and produce cheap milk from cheap forage which is grass.

It's so valuable as well to produce good quality milk and because we've got predominantly Jersey herd or Jersey crosses, we've used a lot of Jersey semen this year to get a smaller cow. Because there's a quite an incline and a fair bit of walking for the cows
we're trying to breed the smaller cow which produce high solids which is ideal for where we sell our milk.

Sarah, if I can turn to you quickly now, what are the key figures you get out of measuring grass? What's the things you're looking for when you're trying to assess the performance of the grassland management? There's probably four key figures that we get.

Average farm cover, which is the supply of grass on farm. This is measured in kilograms of dry matter per hectare.

An average farm cover is good for measuring and you can get
different targets for different times of year. So for example

Tomos do you know your closing farm cover target?

I think if I can remember the top of my head I've done a couple weeks ago it's about 2,250 kg/DM/ha.

Throughout the year, Tomos will have different targets for opening his farm in spring and then on magic day and then throughout the summer so he'll know where his farm needs to be and then he can compare it to other farmers like he was looking at Rhys Williams's Agrinet and see if he's on track. It's a very comparable figure to discuss between farms. Then
another one is growth rates.

This is displayed on the Pasture Project map. We've averaged the growth rates for each region.

For dairy farms and beef and sheep farms growth rates it's an automatic indication really to see if you're heading into a surplus or deficit on farm. Once you've been measuring for a while you can get an idea of how much grass is expected to grow based on the weather or your type of management or just the nature of the field. Then once you've got this, you know you can benchmark your fields between one another.

If one's growing 20 a week and another's growing 60 you know
why is that or you can either just benchmark against different farms for example within the project. Then there's also demand on farm which we can enter into Agrinet. You can put your animal number, their weight and their demand in which is their intake from grass and then this gives a total demand per hectare which is automatically worked out on Agrinet. This is something we can directly compare to growth. So you know if your grass growth rate one week is 60 and your demand's only at 40 then you've got a surplus of grass on farm that week and it's likely that your average farm
cover is going to increase.

There's some really key bits of data that once you start measuring and getting used to using they become really essential for your farming system.

And I guess the major variable in all this is the weather isn't it.

How does the software adjust its predictions depending on the weather conditions because it can be very different from locality to locality?

So weather-wise it's kind of because you're putting in your own data, you're putting in your farm cover measurements each week then that really takes account of the weather on just on your own farm system.
Agrinet then is just processing the data that you put in.

Unless you've got a weather station on farm you can put in your soil moisture and rainfall each week but that doesn't actually affect the end results, it's just based on your farm. And how important has benchmarking been for you Tomos, comparing your performance with other similar farms across Wales? It's been really good because it's a new farm.

It'll take a couple of years to get up to speed but fair play to the farm she's reacted well.

We've been reseeding a lot,
we've fed the soil well.

We've got enough slurry now to pump throughout the summer to help P and K and we haven't used that much nitrogen this year because of the way the farm's grown.

We've missed a couple rounds and we've still been in a good situation. I don't think I've been in a deficit throughout the summer.

I haven't fed much or since mid-august because we had enough grass on the platform and which has helped us to produce cheap milk.

But benchmarking against other
farms is good.

Our farm is quite similar to Sam Carey's in Bala so I take a lot of notes of what he's doing and which way he goes around stuff.

I take a lot of notes of what he's doing and which way he goes around stuff. It helps me a lot because I'm not new but I'm still learning a lot. It's good to follow someone like him and benchmark what he does and see if I can do something similar and grow more grass every year.

Yes and I think that's a good mindset because we never stop learning do we.

And Sarah, what would you say to farmers in Wales who are currently set stocking and possibly not maximising the use of the grass on their farms?
farm?

What advice would you give them?

Firstly, you need to have an understanding of the value of the grass on the farm.

Quality can easily outweigh bought-in concentrate and the trick to managing grass is keeping its high quality and having enough of it.

I know part of the Pasture Project, we've got 16 farms actually, measuring the pasture quality on farm, and Tomos is actually one of them. I think his last quality sample Tomos was very high in ME and protein. Yes it was.

I've deferred a field
since I've closed it up since start of September to winter so my in-calf heifers are on it.
I've got about 10 days left of that and then I'm on to kale but it's worked out really well.
Heifers love it. They've got a bit of silage as well with that.
It was a good way of wintering it because straw has been so expensive. We've tried to cut the amount of straw bales and kept them out. I've just brought a couple of the smaller ones in this week and getting the quality of the grass gives you an insight of what you've got on the ground and what qualities you've got to feed the cows.
Yes definitely and I think a lot of the difficulty with beef and sheep farms is you've got so many different groups.

You might have your lambs, your weaned calves, your dry cows and it makes it really hard to manage.

I'd almost recommend if you had one maybe good performing field and one stock class so say you're growing lambs and just start rotationally grazing on that and see how it goes and start measuring, maybe even measure on one field just to get to grips with it so you can understand the value.

Then make it onto a larger scale on your farm.
What's the plans for next year's
Project Sarah?

Next year we're hoping to start
off the project
in spring 2021 and increase the
number of farmers to
50. We'll increase the beef and sheep
numbers slightly.

Hopefully by starting
from spring we'll have
data for the whole growing season
and hopefully we'll
maybe be able to get onto farm and get
some case studies from the farmers
depending on Covid but
just really keep encouraging
farmers in Wales to
measure pasture and get more
confident with measuring pasture as well.

And of course managing your grass over
the autumn and winter's key for the

spring.

What's your management tips going into

next spring?

Now's the time you

need to save any grass that you have

left on your farm for spring. It's worth

a lot more in spring than it is now so

as soon as we start getting

stock turned out as well

this incentivises the growth of grass.

It's almost like when you're cutting the

lawn for the first time with the lawn

mower

you'll cut it once and then you'll have

to keep cutting it all year.

You know you need to get out and
graze if you can.

You know if the weather conditions allow,

don't be afraid to
cut concentrate in your system if you
have
sufficient quantity of quality grass.

Like we said before about
the pasture quality samples,
if you're worried about your ewes getting
enough high quality feed just
go and
take a sample of grass and send it off
to the labs and just see
what the ME and protein is and see if
it's good enough with you
which I'm sure is because spring grass
is generally better than anything that
you can buy in the bag.
And Tomos, as we draw this podcast to a

0:25:26.640,0:25:31.279
close what would you say to beef, sheep
0:25:29.120,0:25:33.039
and dairy farmers who are looking into
0:25:31.279,0:25:35.200
starting measuring grass on their farms,
0:25:33.039,0:25:37.600
what would your advice be to them?
0:25:35.200,0:25:39.360
Go for it, it's just such a
0:25:37.600,0:25:41.919
handy tool.
0:25:39.360,0:25:43.120
You can save so much money on
0:25:41.919,0:25:45.760
concentrate and
0:25:43.120,0:25:47.520
get the same ME out of grass if you
0:25:45.760,0:25:51.919
manage it well,
0:25:47.520,0:25:55.440
look after it and know exactly how to
0:25:51.919,0:25:57.600
to manage it. Farming Connect is
0:25:55.440,0:25:59.440
really good at this and there's a lot of
0:25:57.600,0:26:02.880
projects going on
0:25:59.440,0:26:04.159
like the Prosper from Pasture and stuff
0:26:02.880,0:26:06.400
like that and
0:26:04.159,0:26:07.200
a business like Precision Grazing get
0:26:06.400,0:26:08.799
them involved,
0:26:07.200,0:26:11.520
they'll put you on the right
track and
just measure and make use of the
data and
you'll be flying.
And Sarah, what about you? What's your
last word of advice?
Similar to Tomos really. You just
need to get going.
Give it a go and as soon as
you start doing it, as
as we said before, it
becomes addictive.
When I went to New Zealand I had
no idea what measuring grass was, why
people was measuring grass.
They're flying these numbers around,
we'd walk into a field and
because we had to eyeball everything
there
they'd be saying these numbers out loud

and I was just like 'it’s 2,000 kg/DM/ha'

what does that mean?

As soon as you start getting used to the numbers

and going out and making a start then

it becomes clear. And it's just

got out and make a start.

You picked it up so quickly and anyone can do it, it's not rocket science. There's plate meters and there's other different ways of measuring grass

as well.

It's just the confidence to get into it and get going.

It's all about having the confidence to
do it and also making the most of the

support that's available as well to help

farmers

through that journey.

The future of farming

is under increasing pressures which will mean that

we'll all have to focus on

efficiency and making the most

of some of our natural resources and our

grass-growing abilities is clearly one of

our major advantages

as Welsh farmers. Well Sarah and Tomos,

thank you ever so much for joining us on

Ear to the Ground. It's been brilliant

having you

on. Thank you very much. Thank you

and there we are, we've reached the end

of episode number 32

our last episode for 2020. On behalf of

the team at Farming Connect
I'd like to thank you for tuning in and supporting our podcast.

2020 has been a challenging year on many fronts but we look forward to 2021 with hope and enthusiasm.

We've got some very exciting content planned for next year and I hope you will join us again.

In the meantime, have a wonderful Christmas and best wishes for the new year.