0:00:00.620,0:00:05.150
[Music]

0:00:01.950,0:00:05.150
[Applause]

0:00:08.639,0:00:12.719
hello

0:00:09.200,0:00:13.280
and welcome to episode 39 of ear to the

0:00:12.719,0:00:15.599
ground

0:00:13.280,0:00:17.840
the agricultural podcast brought to you

0:00:15.599,0:00:20.560
by farming connect.

0:00:17.840,0:00:22.320
We're now into April and before long

0:00:20.560,0:00:24.080
some of our listeners will be thinking

0:00:22.320,0:00:26.640
about silage making

0:00:24.080,0:00:28.320
as we've heard on previous episodes

0:00:26.640,0:00:30.080
making quality silage

0:00:28.320,0:00:32.480
can make a huge difference to your

0:00:30.080,0:00:33.680
bottom line by reducing the need to buy

0:00:32.480,0:00:36.719
in concentrates

0:00:33.680,0:00:38.800
and by boosting productivity and

0:00:36.719,0:00:40.800
in this podcast I caught up with the

0:00:38.800,0:00:44.160
renowned silage expert

0:00:40.800,0:00:47.280
Dr dave davis who runs a company called

0:00:44.160,0:00:50.000

Silage Solutions he shared with me

0:00:47.280,0:00:50.559
some of the common mistakes made both in

0:00:50.000,0:00:52.559
the field

0:00:50.559,0:00:54.160
and whilst harvesting that can have an

0:00:52.559,0:00:57.199
impact on the quality

0:00:54.160,0:00:59.440
of your silage and most importantly he

0:00:57.199,0:01:02.719
gives a number of practical pointers

0:00:59.440,0:01:05.439
on how to get it right so here he is

0:01:02.719,0:01:09.360
Dr dave davis with his top tips on

0:01:05.439,0:01:10.840
harvesting high quality silage,

0:01:09.360,0:01:12.479
[Music]

0:01:10.840,0:01:15.119
Enjoy.

0:01:12.479,0:01:15.520
Dave Davis of Silage Solutions welcome

0:01:15.119,0:01:17.520
back

0:01:15.520,0:01:18.560
to Ear to the ground this is the second

0:01:17.520,0:01:21.600
time we've had you

0:01:18.560,0:01:23.600
on the podcast back by popular demand

0:01:21.600,0:01:25.520
now our regular listeners will remember

0:01:23.600,0:01:28.080
that Dave joined us on episode

0:01:25.520,0:01:29.360
35 where he shared some quite striking

0:01:28.080,0:01:31.119
data with us

0:01:29.360,0:01:33.200
showing that those farmers who are

0:01:31.119,0:01:36.320
producing silage within the top

0:01:33.200,0:01:38.799
25 in Wales in terms of quality

0:01:36.320,0:01:40.000
we're achieving significant productivity

0:01:38.799,0:01:42.399
Gains, now for example

0:01:40.000,0:01:44.640
beef farmers were achieving extra daily

0:01:42.399,0:01:46.079
live weight gains of 400 grams per head

0:01:44.640,0:01:48.799
and dairy farmers were seeing an

0:01:46.079,0:01:49.439
increased yield of 2.2 liters of milk

0:01:48.799,0:01:52.159
per cow

0:01:49.439,0:01:53.759
per day compared with the average, you

0:01:52.159,0:01:55.520
can go back and listen to that episode

0:01:53.759,0:01:57.200
on the farming connect website

0:01:55.520,0:01:59.119
or you can find it on all the major

0:01:57.200,0:02:02.159
platforms, Apple, Spotify

0:01:59.119,0:02:04.000
and Google and others but today Dave

0:02:02.159,0:02:05.360
our topic for discussion is the

0:02:04.000,0:02:07.600
harvesting of grass

0:02:05.360,0:02:09.119
for silage, so why do you think It's

0:02:07.600,0:02:11.120
important to talk about

0:02:09.119,0:02:13.920
harvesting and what are the main things

0:02:11.120,0:02:16.720
that farmers should focus on.

0:02:13.920,0:02:18.480
It's an absolutely critical time the

0:02:16.720,0:02:20.560
harvest because

0:02:18.480,0:02:21.680
the nutrients that you harvest at that

0:02:20.560,0:02:24.239
point will

0:02:21.680,0:02:24.800
only decrease during the storage phase

0:02:24.239,0:02:26.080
and

0:02:24.800,0:02:28.400
by the time they get to the animal's

0:02:26.080,0:02:30.879
mouth so if we start from a low point

0:02:28.400,0:02:32.000
we're never going to get to you know any

0:02:30.879,0:02:34.239
any better

0:02:32.000,0:02:35.120
and if we harvest at the right point for

0:02:34.239,0:02:37.360
that stock

0:02:35.120,0:02:38.400
then you know we we've got a chance of

0:02:37.360,0:02:40.480
actually meeting more of their

0:02:38.400,0:02:43.599
nutritional needs from forage which

0:02:40.480,0:02:45.920

is not only the cheapest form

0:02:43.599,0:02:47.840
of feed for cattle and sheep but it's

0:02:45.920,0:02:48.800
also them the healthiest form for them

0:02:47.840,0:02:50.480
because you know that's what they

0:02:48.800,0:02:52.640
evolved to eat and that's what

0:02:50.480,0:02:54.400
reduces some of the production

0:02:52.640,0:02:56.879
diseases that we see all too often

0:02:54.400,0:02:58.640
particularly on dairy farms but also on

0:02:56.879,0:03:01.440
beef and sheep farms,

0:02:58.640,0:03:02.319
and you know the things that farmers

0:03:01.440,0:03:05.360
should think about

0:03:02.319,0:03:07.040
is actually what

0:03:05.360,0:03:08.720
quality of forage they need for the

0:03:07.040,0:03:11.760
stock they're feeding

0:03:08.720,0:03:14.560
and there are you know

0:03:11.760,0:03:16.159
two main aims here one is for the dry

0:03:14.560,0:03:20.000
cows which need very

0:03:16.159,0:03:22.239
poor nutritive value poor protein or

0:03:20.000,0:03:23.760
on the other extreme high value

0:03:22.239,0:03:24.959
Silages for milking cows, fattening

0:03:23.760,0:03:27.360
finishing beef and

0:03:24.959,0:03:28.799
pregnant ewes so that's one of the things

0:03:27.360,0:03:29.680
and it's about monitoring the crop in

0:03:28.799,0:03:33.040
the field

0:03:29.680,0:03:36.080
prior to harvest and

0:03:33.040,0:03:36.959
you know just remembering that if we're

0:03:36.080,0:03:39.840
ready to go

0:03:36.959,0:03:40.159
at the right time then the only variable

0:03:39.840,0:03:41.920
that

0:03:40.159,0:03:43.360
is slightly out of our control or

0:03:41.920,0:03:44.159
totally out of their control I suppose

0:03:43.360,0:03:46.799
is the weather

0:03:44.159,0:03:48.959
so that's really the points I'd like

0:03:46.799,0:03:51.840
to bring over today.

0:03:48.959,0:03:53.200
And you know why is silage quality so

0:03:51.840,0:03:54.720
important I know we mentioned it right at

0:03:53.200,0:03:57.360
the very beginning in terms of

0:03:54.720,0:03:58.319
having good quality silage it makes a

0:03:57.360,0:04:00.159
big impact and

0:03:58.319,0:04:01.519
is a massive benefit to the bottom line

0:04:00.159,0:04:03.760
of the business but

0:04:01.519,0:04:06.480
would you say quality is far more

0:04:03.760,0:04:08.640
important than yield for example?

0:04:06.480,0:04:09.760
I would say quality is more important

0:04:08.640,0:04:11.519
than yield and

0:04:09.760,0:04:14.480
the reason is that as the yield

0:04:11.519,0:04:17.359
increases particularly with grass silage

0:04:14.480,0:04:19.199
in the field we're getting to more stem

0:04:17.359,0:04:22.400
and when we have more stem

0:04:19.199,0:04:23.120
our digestibility drops so that means

0:04:22.400,0:04:25.199
that

0:04:23.120,0:04:26.240
for every mouthful they eat maybe

0:04:25.199,0:04:28.320
they're only getting

0:04:26.240,0:04:29.919
60 percent of the value out of that

0:04:28.320,0:04:32.160
where if it's high quality

0:04:29.919,0:04:34.720
they can get 75 percent value out of

0:04:32.160,0:04:36.560
that so that's one aspect

0:04:34.720,0:04:38.000
but the second aspect is because it's

0:04:36.560,0:04:40.400

more digestible when we

0:04:38.000,0:04:42.720
produce that high quality it actually is

0:04:40.400,0:04:44.560
digested more quickly in the rumen

0:04:42.720,0:04:45.840
which means that the animal can actually

0:04:44.560,0:04:47.520
eat more forage

0:04:45.840,0:04:48.880
because it's flowing out of the room and

0:04:47.520,0:04:51.440
quicker so by

0:04:48.880,0:04:53.280
going for quality not only do we

0:04:51.440,0:04:54.880
increase the nutrients available in

0:04:53.280,0:04:56.800
every mouthful of feed

0:04:54.880,0:04:59.199
we can actually increase the number of

0:04:56.800,0:05:01.840
mouthfuls of feed consumed

0:04:59.199,0:05:04.400
and that gives us a double method of

0:05:01.840,0:05:06.560
improving our nutrition from forage

0:05:04.400,0:05:08.479
and reducing our concentrate input

0:05:06.560,0:05:10.479
making it more profitable.

0:05:08.479,0:05:12.880
What would you say are the common

0:05:10.479,0:05:14.639
mistakes made in the field if we look at

0:05:12.880,0:05:16.240
the harvesting which is one of the

0:05:14.639,0:05:18.000
many components of trying to get your

0:05:16.240,0:05:20.240
silage right and harvesting is going to

0:05:18.000,0:05:21.759
be the focus of today's discussion

0:05:20.240,0:05:24.880
what are the mistakes that you come

0:05:21.759,0:05:26.880
across time and time again?

0:05:24.880,0:05:28.000
There are three and I'll list them and

0:05:26.880,0:05:29.280
then I'll go through them in a bit more

0:05:28.000,0:05:32.240
detail

0:05:29.280,0:05:33.199
one is cutting too low the second one is

0:05:32.240,0:05:36.639
not wilting

0:05:33.199,0:05:38.400
rapidly and correctly

0:05:36.639,0:05:39.759
and the third one is setting the

0:05:38.400,0:05:42.160
tedder and rake wrong.

0:05:39.759,0:05:43.120
So if we just go back to cutting too

0:05:42.160,0:05:44.960
low

0:05:43.120,0:05:47.199
many farmers think that they need every

0:05:44.960,0:05:49.199
scrap of yield out of that field

0:05:47.199,0:05:50.479
into their bales or into their clamp,

0:05:49.199,0:05:52.160
when we cut too low

0:05:50.479,0:05:53.759
and you know you can go back and look at

0:05:52.160,0:05:57.600
your fields after you've done it

0:05:53.759,0:05:59.440
if you cut below five centimeters

0:05:57.600,0:06:01.039
that bottom five centimeters of the stem

0:05:59.440,0:06:03.680
that you've cut is

0:06:01.039,0:06:05.440
more undigestable so that's point one

0:06:03.680,0:06:07.919
with cutting too low. But then

0:06:05.440,0:06:08.560
it also means that the crops regrowth is

0:06:07.919,0:06:10.800
slower

0:06:08.560,0:06:12.319
so actually our total yield in the field

0:06:10.800,0:06:13.360
can be lower over a season

0:06:12.319,0:06:14.720
it doesn't matter whether you're taking

0:06:13.360,0:06:15.520
more cuts of silage or whether you want

0:06:14.720,0:06:17.280
to then

0:06:15.520,0:06:19.280
you now return that field back to

0:06:17.280,0:06:20.880
grazing your yield of forage will be

0:06:19.280,0:06:22.880
Lower.

0:06:20.880,0:06:25.039
By cutting too low we're also increasing

0:06:22.880,0:06:27.360
the risk of soil contamination

0:06:25.039,0:06:28.479
and when we have soil in our crop it

0:06:27.360,0:06:30.319

means that we're actually

0:06:28.479,0:06:32.319
increasing the level of undesirable

0:06:30.319,0:06:33.199
clostridia and when we have clostridia

0:06:32.319,0:06:35.280
growing

0:06:33.199,0:06:36.319
they can actually reduce the dry matter

0:06:35.280,0:06:37.759
yield of silage

0:06:36.319,0:06:40.000
because they're converting some of those

0:06:37.759,0:06:41.440
nutrients to carbon dioxide and water

0:06:40.000,0:06:43.280
so whilst we might be thinking we're

0:06:41.440,0:06:45.919
cutting lower to get more yield

0:06:43.280,0:06:47.120
in effect we could be reducing our yield

0:06:45.919,0:06:49.039
of silage

0:06:47.120,0:06:50.319
but carting more grass to the clamp

0:06:49.039,0:06:52.160
because it's there

0:06:50.319,0:06:53.360
but when we actually measured it at feed

0:06:52.160,0:06:55.759
out we'd have less.

0:06:53.360,0:06:57.599
And the final thing is that

0:06:55.759,0:06:58.080
stubble that you would leave if you cut

0:06:57.599,0:07:00.960
a

0:06:58.080,0:07:01.360
larger stubble actually acts as a bed so

0:07:00.960,0:07:04.960
when

0:07:01.360,0:07:05.599
you mow the grass and it sits on that

0:07:04.960,0:07:08.080
bed

0:07:05.599,0:07:09.039
if that is a larger stubble height

0:07:08.080,0:07:11.759
you're actually allowing

0:07:09.039,0:07:14.000
air flows to come through that crop and

0:07:11.759,0:07:16.000
improve the speed of wilting

0:07:14.000,0:07:18.319
which then nicely comes on to the second

0:07:16.000,0:07:21.520
point which is not wilting correctly.

0:07:18.319,0:07:23.360
It's very crucial that we maximize the

0:07:21.520,0:07:24.400
wilt time in the first few hours after

0:07:23.360,0:07:27.599
we mow

0:07:24.400,0:07:29.520
and the reason for that is that the

0:07:27.599,0:07:30.720
quicker we wilt to a target and our

0:07:29.520,0:07:33.680
target should be 30%

0:07:30.720,0:07:34.400
dry matter for a silage clamp, very

0:07:33.680,0:07:37.520
specific

0:07:34.400,0:07:38.960
and maybe 40% for bales the quicker we

0:07:37.520,0:07:42.319
reach that dry matter

0:07:38.960,0:07:44.400
in the field and bring that harvest in

0:07:42.319,0:07:45.759
the lower our losses and one of the key

0:07:44.400,0:07:47.199
ones is actually sugar

0:07:45.759,0:07:49.120
we lose a lot of sugar during the

0:07:47.199,0:07:50.800
wilting period so it's absolutely

0:07:49.120,0:07:54.240
essential to spread that crop

0:07:50.800,0:07:56.240
as soon as it is mowed and

0:07:54.240,0:07:58.080
by doing that we increase the speed of

0:07:56.240,0:08:00.879
Wilting.

0:07:58.080,0:08:02.479
When the crop is cut the stomata on the

0:08:00.879,0:08:04.879
leaves are open

0:08:02.479,0:08:07.599
they can lose water at a rate of 100

0:08:04.879,0:08:09.759
liters per tonne per hour

0:08:07.599,0:08:10.639
when they close that drops to 20 liters

0:08:09.759,0:08:12.080
per tonne per hour

0:08:10.639,0:08:14.160
and they only stay open for a couple of

0:08:12.080,0:08:14.879
hours after we've cut so the quicker we

0:08:14.160,0:08:17.919
can give a

0:08:14.879,0:08:19.039
bigger surface area for that crop to

0:08:17.919,0:08:21.280

actually

0:08:19.039,0:08:22.479
evaporate that water the quicker our

0:08:21.280,0:08:24.080
wilting time

0:08:22.479,0:08:26.479
and the quicker the wilting time like I

0:08:24.080,0:08:28.319
said the lower the losses of sugar. And

0:08:26.479,0:08:30.080
the other thing is protein so we loose

0:08:28.319,0:08:31.680
those in the field we can loose

0:08:30.080,0:08:34.399
four or five percent D value

0:08:31.680,0:08:37.440
Digestibility during that wilting time

0:08:34.399,0:08:38.880
if we're wilting slowly and the third

0:08:37.440,0:08:41.680
thing the final thing was setting the

0:08:38.880,0:08:43.519
tedder and rake wrong so many people

0:08:41.680,0:08:45.360
don't follow that rake into the field

0:08:43.519,0:08:48.160
the first time it goes around the field

0:08:45.360,0:08:49.760
and very often you'll see clouds of dust

0:08:48.160,0:08:51.600
coming up from the rake

0:08:49.760,0:08:54.720
and that's just again contaminating that

0:08:51.600,0:08:56.720
grass with soil, causing problems in

0:08:54.720,0:09:00.320
terms of the silage fermentation

0:08:56.720,0:09:02.160
and so again the tedder and wilting

0:09:00.320,0:09:03.680
both come back to cutting at the right

0:09:02.160,0:09:05.279
height because

0:09:03.680,0:09:06.800
you know if we cut at a higher cutting

0:09:05.279,0:09:08.880
height we don't need to rake so low

0:09:06.800,0:09:09.920
because we will be picking that grass up

0:09:08.880,0:09:11.680
so it's really is

0:09:09.920,0:09:13.200
there is some compromises going on there

0:09:11.680,0:09:14.880
but they're not real compromises it's

0:09:13.200,0:09:16.640
just about paying that attention to that

0:09:14.880,0:09:18.959
detail to get things right

0:09:16.640,0:09:19.839
and just one more thing on the

0:09:18.959,0:09:22.080
wilting

0:09:19.839,0:09:23.360
I know farms they'll spread the crop and

0:09:22.080,0:09:25.360
then they'll bring the crop in

0:09:23.360,0:09:27.680
in terms of into the rows the night

0:09:25.360,0:09:29.839
before the forage harvesters come in

0:09:27.680,0:09:31.600
and that again reduces that wilting time

0:09:29.839,0:09:33.120
it's like setting up a compost deep

0:09:31.600,0:09:34.640
overnight in the field

0:09:33.120,0:09:36.560
so we're getting heating within that

0:09:34.640,0:09:38.320
we're growing all the wrong bacteria

0:09:36.560,0:09:40.080
yeast and molds that then cause problems

0:09:38.320,0:09:41.760
in terms of silage quality and silage

0:09:40.080,0:09:44.160
fermentation

0:09:41.760,0:09:45.279
and most of these things are

0:09:44.160,0:09:47.200
components which are

0:09:45.279,0:09:48.800
within the farmer's control they can

0:09:47.200,0:09:51.120
adjust their cutting height they can

0:09:48.800,0:09:53.279
adjust the tether and the rake settings

0:09:51.120,0:09:54.640
etc I guess one of the things which

0:09:53.279,0:09:55.120
farmers would argue that's beyond their

0:09:54.640,0:09:57.360
control

0:09:55.120,0:09:59.200
is weather, weather has an impact on

0:09:57.360,0:10:01.680
wilting and sometimes farmers

0:09:59.200,0:10:02.399
can get caught out by unexpected

0:10:01.680,0:10:04.320
rainfall

0:10:02.399,0:10:05.760
you know falling on possibly cut silage

0:10:04.320,0:10:07.680
and then that adding to the

0:10:05.760,0:10:09.279

to the length of time it takes to wilt

0:10:07.680,0:10:11.120
and as you've highlighted there you know

0:10:09.279,0:10:14.320
the longer it takes to wilt the more

0:10:11.120,0:10:15.920
quality you're losing day by day.

0:10:14.320,0:10:18.399
Absolutely and I think you know there's

0:10:15.920,0:10:21.440
some recent work that

0:10:18.399,0:10:23.040
Ecosile a commercial company has done

0:10:21.440,0:10:24.720
looking at some of these very simple

0:10:23.040,0:10:25.440
factors and they've done some trial

0:10:24.720,0:10:26.959
which is just

0:10:25.440,0:10:28.560
trial work last year which has just been

0:10:26.959,0:10:30.880
released on

0:10:28.560,0:10:31.600
cutting time and wilting time and you

0:10:30.880,0:10:34.800
know I've been

0:10:31.600,0:10:36.560
advocating to farmers to cut in the

0:10:34.800,0:10:39.040
morning more frequently than

0:10:36.560,0:10:40.160
maybe farmers do because there's a

0:10:39.040,0:10:42.959
this conflict between

0:10:40.160,0:10:44.079
sugar at cutting time versus sugar in

0:10:42.959,0:10:46.000
the clamp

0:10:44.079,0:10:47.600
and what they showed in this trial work

0:10:46.000,0:10:49.360
was that if you cut in the morning you

0:10:47.600,0:10:50.959
can wilt rapidly during that day and

0:10:49.360,0:10:52.000
actually pick up that evening because

0:10:50.959,0:10:54.880
the wilt

0:10:52.000,0:10:55.920
speed over the first five six hours

0:10:54.880,0:10:58.480
during the day

0:10:55.920,0:10:59.200
is rapid enough to hit that 30

0:10:58.480,0:11:01.920
percent

0:10:59.200,0:11:04.000
dry matter target under many conditions

0:11:01.920,0:11:05.600
whereas if you cut in the afternoon

0:11:04.000,0:11:07.360
you will not reach that and you'll have

0:11:05.600,0:11:09.760
to wilt into the second day

0:11:07.360,0:11:10.800
now considering the weather if we can

0:11:09.760,0:11:13.120
cut in the morning

0:11:10.800,0:11:14.160
you know the forecast can be wrong even

0:11:13.120,0:11:15.600
over the day

0:11:14.160,0:11:17.440
but if we can cut in the morning and

0:11:15.600,0:11:19.839
pick up in the afternoon or

0:11:17.440,0:11:21.040
early evening then actually we're taking

0:11:19.839,0:11:22.000
out some of those vagaries of the

0:11:21.040,0:11:23.920
weather as well

0:11:22.000,0:11:25.519
because hopefully the weather forecast

0:11:23.920,0:11:28.480
is right over that 12

0:11:25.519,0:11:29.600
24 hour period where as if you've got to

0:11:28.480,0:11:31.920
wait another day

0:11:29.600,0:11:33.600
you could get rain on it. But just again

0:11:31.920,0:11:36.000
coming back to spreading the crop

0:11:33.600,0:11:37.519
farmers will think and you know I know

0:11:36.000,0:11:39.600
many farmers say to me well if

0:11:37.519,0:11:41.120
it's in a narrow row it's getting less

0:11:39.600,0:11:43.680
wet if it rains on it

0:11:41.120,0:11:45.519
well actually when you have it spread

0:11:43.680,0:11:47.440
the rainwater will fall through more

0:11:45.519,0:11:49.279
readily because it's a thinner layer

0:11:47.440,0:11:51.279
if you have it in a narrow row okay the

0:11:49.279,0:11:52.000
surface area of the top that's getting

0:11:51.279,0:11:54.240
wet might

0:11:52.000,0:11:55.920

be less but actually it soaks that water

0:11:54.240,0:11:56.480
up into that and doesn't let it go so

0:11:55.920,0:11:58.720
actually

0:11:56.480,0:12:00.560
again takes longer to wilt and there's

0:11:58.720,0:12:02.000
there's trial data that shows this quite

0:12:00.560,0:12:03.279
Clearly.

0:12:02.000,0:12:05.120
And coming back to your point about you

0:12:03.279,0:12:06.720
know what's the optimum time of day

0:12:05.120,0:12:08.560
to cut would you say it is in the

0:12:06.720,0:12:10.480
morning and a lot of farmers would

0:12:08.560,0:12:12.240
would typically try and cut at the

0:12:10.480,0:12:13.040
optimum time where you've got you know

0:12:12.240,0:12:14.880
the sunlight

0:12:13.040,0:12:16.959
adding to the sugar in the crop but your

0:12:14.880,0:12:18.639
point there is, if you can time it just

0:12:16.959,0:12:21.279
right earlier in the morning

0:12:18.639,0:12:22.560
then you can let it wilt in a

0:12:21.279,0:12:24.800
short space of time and

0:12:22.560,0:12:25.680
preserve it quicker but by being

0:12:24.800,0:12:28.320
able to pick it up

0:12:25.680,0:12:29.279
on the same day so would you advocate

0:12:28.320,0:12:32.480
that morning is

0:12:29.279,0:12:34.560
the optimum time to cut? In most

0:12:32.480,0:12:36.160
situations I would advocate that morning

0:12:34.560,0:12:38.000
is the right time to cut I think if

0:12:36.160,0:12:40.000
you've got a heavier yield

0:12:38.000,0:12:41.600
then there is maybe some arguments for

0:12:40.000,0:12:44.880
cutting later but they're not

0:12:41.600,0:12:46.399
that strong I think what the farmers

0:12:44.880,0:12:49.200
need to remember is that

0:12:46.399,0:12:50.079
when you cut in the morning your sugar

0:12:49.200,0:12:51.519
at cutting

0:12:50.079,0:12:53.600
will be lower than if you cut in the

0:12:51.519,0:12:57.519
afternoon if the weather is good

0:12:53.600,0:12:59.360
but because you're wilting so quickly

0:12:57.519,0:13:01.040
the sugar lost because the plant is

0:12:59.360,0:13:02.079
still using that sugar in respiration

0:13:01.040,0:13:04.079
processes

0:13:02.079,0:13:06.079
over that time period is lower so

0:13:04.079,0:13:07.760
actually by cutting in the morning

0:13:06.079,0:13:10.079
short wilt you can have higher sugar

0:13:07.760,0:13:12.800
which is a gauge of how

0:13:10.079,0:13:13.839
good your wilting process has been can

0:13:12.800,0:13:15.279
be significantly

0:13:13.839,0:13:17.120
higher than when you cut in the

0:13:15.279,0:13:19.519
afternoon and give it a longer wilt

0:13:17.120,0:13:21.440
so I think you know it's a challenge

0:13:19.519,0:13:22.800
because obviously you've got to have

0:13:21.440,0:13:24.160
an exceptionally busy

0:13:22.800,0:13:25.600
day to be mowing in the morning and then

0:13:24.160,0:13:27.040
picking up in the evening

0:13:25.600,0:13:28.720
and you've got to have everything lined

0:13:27.040,0:13:30.800
up so the other vagary of

0:13:28.720,0:13:32.839
this is the contractor going to turn

0:13:30.800,0:13:36.160
up when you when you want him

0:13:32.839,0:13:38.000
but my ideal would be that becomes

0:13:36.160,0:13:41.040
more of a normal process

0:13:38.000,0:13:43.120
on farms and I would also just add to

0:13:41.040,0:13:45.199

that 24 hours is

0:13:43.120,0:13:46.839
really should be the maximum wilt length

0:13:45.199,0:13:49.600
for grass

0:13:46.839,0:13:51.920
silage and what about the time of year

0:13:49.600,0:13:53.600
does that have any bearing on how you

0:13:51.920,0:13:55.519
go about harvesting because you know

0:13:53.600,0:13:57.760
farmers you know throughout Wales in

0:13:55.519,0:13:59.519
your trials that we spoke about in

0:13:57.760,0:14:02.560
the previous podcast back in episode

0:13:59.519,0:14:04.320
35 you know this farm is doing silage

0:14:02.560,0:14:06.480
almost all year round? You know

0:14:04.320,0:14:07.440
there's some incredible data that you

0:14:06.480,0:14:09.519
captured there but

0:14:07.440,0:14:12.079
does the time of year have any impact on

0:14:09.519,0:14:15.199
on how you go about harvesting?

0:14:12.079,0:14:16.079
Yeah I suppose if you're harvesting June

0:14:15.199,0:14:19.279
July

0:14:16.079,0:14:20.720
August time then I would be definitely

0:14:19.279,0:14:23.839
looking at cutting in the morning

0:14:20.720,0:14:25.600
because I say definitely obviously with

0:14:23.839,0:14:27.120
climate change things are changing but

0:14:25.600,0:14:29.440
we do have longer day lengths

0:14:27.120,0:14:31.279
and you know I don't think climate

0:14:29.440,0:14:34.560
change is going to change day length

0:14:31.279,0:14:35.120
when you're harvesting in May and you

0:14:34.560,0:14:36.880
know early

0:14:35.120,0:14:38.480
and late April which is happening a lot

0:14:36.880,0:14:41.440
with multi-cut systems

0:14:38.480,0:14:42.800
I think then possibly just possibly we

0:14:41.440,0:14:44.079
need to consider

0:14:42.800,0:14:46.160
whether we cut in the morning or

0:14:44.079,0:14:47.760
afternoon but again where we're cutting

0:14:46.160,0:14:50.480
at that early stage

0:14:47.760,0:14:51.519
particularly the multi-cut system

0:14:50.480,0:14:53.680
we do have a

0:14:51.519,0:14:55.920
lower yield at that time and yield is

0:14:53.680,0:14:56.880
also important in terms of this wilt

0:14:55.920,0:15:00.399
time so if we've got

0:14:56.880,0:15:04.000
high quality lower yield

0:15:00.399,0:15:05.839
grass at a cut then that will also wilt

0:15:04.000,0:15:06.639
very quickly and we can manage that in

0:15:05.839,0:15:09.839
the day

0:15:06.639,0:15:10.320
but obviously the weather and the day

0:15:09.839,0:15:12.160
length

0:15:10.320,0:15:14.000
can impact on that so it's something to

0:15:12.160,0:15:14.720
just bear in mind, so I'm not

0:15:14.000,0:15:16.480
always

0:15:14.720,0:15:17.920
saying that we should cut in the morning

0:15:16.480,0:15:21.199
there are things there that you have to

0:15:17.920,0:15:24.240
take into consideration in your locality.

0:15:21.199,0:15:26.560
And what about a pre-cut grass analysis

0:15:24.240,0:15:28.880
would you recommend that? I think the

0:15:26.560,0:15:31.920
pre-cut grass analysis has some very big

0:15:28.880,0:15:33.920
positives and one or two negatives

0:15:31.920,0:15:34.959
now the thing I like the pre-cut grass

0:15:33.920,0:15:37.759
analysis for

0:15:34.959,0:15:38.720
is actually to monitor our protein

0:15:37.759,0:15:42.720
content

0:15:38.720,0:15:44.480

and our nitrate residual nitrate content

0:15:42.720,0:15:45.839
and for that I think it's excellent

0:15:44.480,0:15:49.759
because

0:15:45.839,0:15:51.519
farmers need to maximize their protein

0:15:49.759,0:15:52.480
as they maximize we need to be hitting

0:15:51.519,0:15:55.199
the target

0:15:52.480,0:15:57.360
of 16 to 18 crude protein in our grass

0:15:55.199,0:15:59.519
silages for productive stock

0:15:57.360,0:16:00.639
and many farmers are missing that target

0:15:59.519,0:16:02.639
and part of that is

0:16:00.639,0:16:04.320
their fertilizer applications

0:16:02.639,0:16:07.440
aren't quite right

0:16:04.320,0:16:10.560
so by doing a pre-cut analysis they can

0:16:07.440,0:16:12.079
get a crude protein content and a

0:16:10.560,0:16:14.880
nitrate

0:16:12.079,0:16:16.639
nitrogen content, now if we have too high

0:16:14.880,0:16:18.480
in nitrate nitrogen content

0:16:16.639,0:16:20.240
we can have a poor fermentation it

0:16:18.480,0:16:21.440
actually stops the pH coming down in the

0:16:20.240,0:16:22.880
silo

0:16:21.440,0:16:24.639
so my reason for doing this pre-cut

0:16:22.880,0:16:25.279
analysis is that we want a crude protein

0:16:24.639,0:16:28.959
content

0:16:25.279,0:16:33.519
16 to 18 percent and a nitrate n

0:16:28.959,0:16:35.360
of 0.15 on a fresh matter basis

0:16:33.519,0:16:37.120
some labs give it on a percent fresh

0:16:35.360,0:16:37.839
matter basis others going to grams per

0:16:37.120,0:16:40.959
kilogram

0:16:37.839,0:16:41.839
fresh matter which is 1 500 on a grams

0:16:40.959,0:16:45.199
per kilogram

0:16:41.839,0:16:46.160
fresh matter basis now if it's above

0:16:45.199,0:16:48.839
that level

0:16:46.160,0:16:50.079
the nitrate we have a risk of a poor

0:16:48.839,0:16:51.759
fermentation

0:16:50.079,0:16:53.199
so my reason for doing this pre-cut

0:16:51.759,0:16:56.639
analysis is that

0:16:53.199,0:17:00.000
ideal grass would be 16 17 crude protein

0:16:56.639,0:17:01.440
0.15 percent nitrate N. If you do your

0:17:00.000,0:17:05.199
pre-cut analysis and it's

0:17:01.440,0:17:07.280
only 14 crude protein and your nitrate N

0:17:05.199,0:17:09.120
was .05

0:17:07.280,0:17:11.039
fresh matter and it shows that your

0:17:09.120,0:17:13.120
fertilizer had run out

0:17:11.039,0:17:14.640
in nitrogen that you'd applied had run

0:17:13.120,0:17:16.559
out before that grass was at the stage

0:17:14.640,0:17:18.640
of growth you wanted to cut

0:17:16.559,0:17:20.079
so you've reduced your ability to

0:17:18.640,0:17:22.160
increase that protein level because the

0:17:20.079,0:17:24.079
grass didn't have enough nitrogen

0:17:22.160,0:17:26.160
and that's probably what more farmers

0:17:24.079,0:17:29.520
will find there will be a few

0:17:26.160,0:17:32.880
that'll be 19 crude protein

0:17:29.520,0:17:34.559
and maybe 0.25 percent

0:17:32.880,0:17:36.000
nitrate N and that's where we've got too

0:17:34.559,0:17:39.200
much nitrate N

0:17:36.000,0:17:40.880
now that's for me that's uh

0:17:39.200,0:17:42.559
a fact that they would look at but I'm

0:17:40.880,0:17:43.919
not using this pre-cut analysis to say

0:17:42.559,0:17:45.520

whether they should or should not cut at

0:17:43.919,0:17:47.600
that point I'm using it for

0:17:45.520,0:17:49.200
subsequent fertilizer applications to

0:17:47.600,0:17:50.559
give them a guide on where they were at

0:17:49.200,0:17:51.600
and whether they could increase that to

0:17:50.559,0:17:52.799
hit that target

0:17:51.600,0:17:54.880
but if you're one of those farmers that

0:17:52.799,0:17:56.960
has got too much nitrate N

0:17:54.880,0:17:58.080
what it tells that farmer is that yes I

0:17:56.960,0:18:00.400
could still cut

0:17:58.080,0:18:01.600
because 0.25 is not drastically high it

0:18:00.400,0:18:04.720
is high

0:18:01.600,0:18:06.080
I need to wilt to 30 to 32 dry matter

0:18:04.720,0:18:10.080
rapidly

0:18:06.080,0:18:13.600
and I might need to use um an additive

0:18:10.080,0:18:14.960
to control that fermentation and in that

0:18:13.600,0:18:16.799
situation I would actually be

0:18:14.960,0:18:18.640
recommending a chemical additive because

0:18:16.799,0:18:19.600
the biological additives need the sugar

0:18:18.640,0:18:21.760
in the crop

0:18:19.600,0:18:23.679
to produce the fermentation additives

0:18:21.760,0:18:25.280
and at that point with a high nitrate

0:18:23.679,0:18:27.440
N there might not be enough sugar

0:18:25.280,0:18:29.760
in the crop to carry out that even with

0:18:27.440,0:18:31.679
a good inoculant.

0:18:29.760,0:18:34.480
And what's the process of going about

0:18:31.679,0:18:36.320
getting a pre-cut grass analysis do you

0:18:34.480,0:18:38.240
have to take some grass samples from

0:18:36.320,0:18:40.000
different areas of the field and send it

0:18:38.240,0:18:42.240
away what would you

0:18:40.000,0:18:43.600
normally do to get that analysis

0:18:42.240,0:18:46.400
Back.

0:18:43.600,0:18:46.880
So what I would do is I

0:18:46.400,0:18:48.799
would

0:18:46.880,0:18:50.480
actually keep the field separate

0:18:48.799,0:18:52.000
I would maybe pick on two fields I

0:18:50.480,0:18:54.720
wouldn't necessarily do them all

0:18:52.000,0:18:56.799
and I'd go in and I'd take what we call

0:18:54.720,0:18:59.200
snip samples at the cutting height

0:18:56.799,0:19:00.720
so seven and a half centimeters or if

0:18:59.200,0:19:01.039
you're gonna go down to five centimeters

0:19:00.720,0:19:03.039
then

0:19:01.039,0:19:04.799
five centimeter snip height with a pair

0:19:03.039,0:19:07.919
of scissors just snip off

0:19:04.799,0:19:09.600
a very small piece every

0:19:07.919,0:19:11.200
five or six yards across the field in a

0:19:09.600,0:19:13.280
diagonal put that in a bag

0:19:11.200,0:19:15.360
fill the bag up as full as possible

0:19:13.280,0:19:19.200
squeeze the air out

0:19:15.360,0:19:21.039
seal it well and in the post, now

0:19:19.200,0:19:23.360
I didn't say anything else about the

0:19:21.039,0:19:24.640
other analyses so on that analysis you

0:19:23.360,0:19:29.200
will have sugars

0:19:24.640,0:19:31.200
you will have NDF and digestibility

0:19:29.200,0:19:33.280
the problem with those is that I think

0:19:31.200,0:19:34.720
the sugars will be inaccurate because as

0:19:33.280,0:19:36.559
soon as we cut that crop

0:19:34.720,0:19:38.160
we start to lose our sugars so that's

0:19:36.559,0:19:40.559

the same when it goes in the post

0:19:38.160,0:19:41.840
so that's I find the sugars

0:19:40.559,0:19:43.280
on there less useful

0:19:41.840,0:19:44.960
in terms of the NDF and the

0:19:43.280,0:19:46.480
digestibility I think we should be able

0:19:44.960,0:19:47.840
to look at the grass see how much stem

0:19:46.480,0:19:49.600
there is, how much leaf there is

0:19:47.840,0:19:51.520
and give us a better gauge

0:19:49.600,0:19:53.840
as well or gives us

0:19:51.520,0:19:55.520
a good enough gauge from eyesight

0:19:53.840,0:19:56.960
that we should be able to tell that.

0:19:55.520,0:19:59.039
Then you get that in the post as quickly

0:19:56.960,0:20:00.320
as possible to one of the commercial

0:19:59.039,0:20:01.919
labs there's three or four good

0:20:00.320,0:20:03.280
commercial labs out there that will do

0:20:01.919,0:20:05.440
fresh grass analysis

0:20:03.280,0:20:06.320
and you should get that analysis back in

0:20:05.440,0:20:10.559

0:20:06.320,0:20:11.600
back by email at least within two

0:20:10.559,0:20:13.280
days but you know

0:20:11.600,0:20:14.880
if the post is good in your area that

0:20:13.280,0:20:16.799
gets the lab the next day by the

0:20:14.880,0:20:19.600
Following evening of the next

0:20:16.799,0:20:21.679
day you should have your analysis back.

0:20:19.600,0:20:23.679
What I would say is that a fresh grass

0:20:21.679,0:20:25.200
analysis should only be taken on a

0:20:23.679,0:20:26.960
Monday Tuesday or Wednesday it should

0:20:25.200,0:20:27.760
definitely not be taken on a Thursday or

0:20:26.960,0:20:29.200
Friday

0:20:27.760,0:20:30.799
because if it ends up sitting in the

0:20:29.200,0:20:32.159
post for more than one day

0:20:30.799,0:20:34.559
then you might as well just forget the

0:20:32.159,0:20:36.480
analysis because it'll be so wrong.

0:20:34.559,0:20:38.080
Yeah some really good advice how many

0:20:36.480,0:20:38.720
farmers would you say as a percentage

0:20:38.080,0:20:42.559
you know

0:20:38.720,0:20:46.240
as a proportion would do this regularly?

0:20:42.559,0:20:49.679
That's a good question, maybe

0:20:46.240,0:20:51.520
your listeners can tell you I

0:20:49.679,0:20:53.200
at a guess I would say it's very low

0:20:51.520,0:20:55.760
maybe five percent

0:20:53.200,0:20:57.360
um and I think you know there are other

0:20:55.760,0:21:00.720
ways we can do it

0:20:57.360,0:21:03.679
And I have

0:21:00.720,0:21:04.240
done a video online showing how you can

0:21:03.679,0:21:07.360
use

0:21:04.240,0:21:11.440
the spectrophotometer the

0:21:07.360,0:21:12.960
colostrum method look it up

0:21:11.440,0:21:14.480
with grass juice and how you can

0:21:12.960,0:21:15.120
actually monitor that yourself in the

0:21:14.480,0:21:16.720
field

0:21:15.120,0:21:18.720
with something that farmers are using

0:21:16.720,0:21:21.120
now to measure cost and quality

0:21:18.720,0:21:22.480
so looking at sugar that way and they

0:21:21.120,0:21:25.520
can also look at

0:21:22.480,0:21:27.039
nitrate N again with online kits so they

0:21:25.520,0:21:29.039
can actually get some of this done

0:21:27.039,0:21:30.640
immediately on farm and some farmers are

0:21:29.039,0:21:32.080

doing that too but I'd say it was a very

0:21:30.640,0:21:33.280
low percentage that we're actually doing

0:21:32.080,0:21:36.000
a pre-cut

0:21:33.280,0:21:38.720
grass analysis. Now we've spoken about

0:21:36.000,0:21:40.559
the common mistakes made in the field

0:21:38.720,0:21:43.039
what are the common mistakes made when

0:21:40.559,0:21:46.559
harvesting itself?

0:21:43.039,0:21:49.120
There are a number and I think you know

0:21:46.559,0:21:51.039
there are things that shouldn't be done

0:21:49.120,0:21:51.440
and the things that unfortunately are

0:21:51.039,0:21:54.640
done

0:21:51.440,0:21:56.720
and are overlooked so one of my big bug

0:21:54.640,0:21:58.480
bears is actually overfilling trailers

0:21:56.720,0:22:00.080
getting that last scrap of grass into

0:21:58.480,0:22:01.760
the trailer can actually lose you five

0:22:00.080,0:22:02.159
percent of your total yield because it's

0:22:01.760,0:22:04.159

0:22:02.159,0:22:05.440
ending up in the trailer it's falling

0:22:04.159,0:22:07.600
out the other side

0:22:05.440,0:22:09.039
and that's a simple thing, the main

0:22:07.600,0:22:11.200
one and this is true of both

0:22:09.039,0:22:12.559
bales and clamps it's actually poor

0:22:11.200,0:22:15.679
consolidation

0:22:12.559,0:22:17.039
so putting a big buck rake full in one

0:22:15.679,0:22:17.600
lump in the clamp and then trying to

0:22:17.039,0:22:21.039
roll that

0:22:17.600,0:22:22.880
and often and uh I don't want to be

0:22:21.039,0:22:24.559
accused to be an ageist but often it's

0:22:22.880,0:22:26.240
some young lad on the buck rake

0:22:24.559,0:22:28.799
trying to show how big a lump he can put

0:22:26.240,0:22:30.799
up in one in one lump and roll it

0:22:28.799,0:22:32.640
and actually we need these even layers

0:22:30.799,0:22:34.159
and you know a lot of contractors are

0:22:32.640,0:22:36.480
much better at putting these even layers

0:22:34.159,0:22:38.000
up now so having a push off buck rake is

0:22:36.480,0:22:40.240
the best way to get this even layer

0:22:38.000,0:22:40.480
because when we put even layers in roll

0:22:40.240,0:22:41.679
it

0:22:40.480,0:22:43.360
and consolidate it we actually

0:22:41.679,0:22:44.720
consolidated much better than putting in

0:22:43.360,0:22:46.720
thicker lumps and when we put thick

0:22:44.720,0:22:47.679
lumps in we cannot consolidate anything

0:22:46.720,0:22:50.880
but the top

0:22:47.679,0:22:53.039
15 20 centimeters, um so that's

0:22:50.880,0:22:55.360
that's consolidation in the clamp if we

0:22:53.039,0:22:58.640
just do the thing on bales

0:22:55.360,0:22:59.679
chopper balers improve compaction and I

0:22:58.640,0:23:01.360
know many farmers

0:22:59.679,0:23:02.960
don't like leaving all the knives in and

0:23:01.360,0:23:05.039
that is generally

0:23:02.960,0:23:07.200
a mistake because the more we get in

0:23:05.039,0:23:09.039
that bale the better the compaction in

0:23:07.200,0:23:11.039
the bale the better the silage quality

0:23:09.039,0:23:13.039
so clamp bale the same there compaction

0:23:11.039,0:23:14.240
wins because actually by compacting more

0:23:13.039,0:23:16.320
stuff into a

0:23:14.240,0:23:18.400
into the same area means we've got less

0:23:16.320,0:23:18.960
oxygen and it's oxygen that's a big bug

0:23:18.400,0:23:20.559

bear

0:23:18.960,0:23:21.919
of silage making when we have oxygen

0:23:20.559,0:23:23.600
we're still carrying on respiration

0:23:21.919,0:23:26.400
we're growing all the wrong bacteria

0:23:23.600,0:23:28.320
we end up with poorer silage quality and

0:23:26.400,0:23:29.919
then coming back to the clamp

0:23:28.320,0:23:31.600
there are two that really really

0:23:29.919,0:23:33.520
irritate me.

0:23:31.600,0:23:35.520
I can understand one of them not the

0:23:33.520,0:23:36.000
other so some people will leave the

0:23:35.520,0:23:38.400
clamp

0:23:36.000,0:23:39.840
open overnight rather than sheeting up

0:23:38.400,0:23:41.279
and I know it's been a long day and I

0:23:39.840,0:23:43.600
know farmers are very busy

0:23:41.279,0:23:44.640
but actually pulling that sheet on even

0:23:43.600,0:23:46.720
if you don't weight it down

0:23:44.640,0:23:48.480
just putting the sheet on will stop any

0:23:46.720,0:23:50.000
oxygen flows through that clamp and we

0:23:48.480,0:23:51.600
can have a huge amount of oxygen throw

0:23:50.000,0:23:53.760
over flow overnight

0:23:51.600,0:23:55.120
and then if you haven't finished and you

0:23:53.760,0:23:56.480
open it up you need just to pull that

0:23:55.120,0:23:57.679
back the next day if you have finished

0:23:56.480,0:23:59.360
then you can come back the next morning

0:23:57.679,0:24:02.000
and seal it properly.

0:23:59.360,0:24:03.760
I would prefer you spent an hour or

0:24:02.000,0:24:04.559
two that night sealing it properly if

0:24:03.760,0:24:06.000
you finished but

0:24:04.559,0:24:07.840
you know that's your decision it

0:24:06.000,0:24:09.520
will make a difference but just pulling

0:24:07.840,0:24:10.559
that sheet on overnight does make a big

0:24:09.520,0:24:11.919
Difference.

0:24:10.559,0:24:13.760
The other one that really really

0:24:11.919,0:24:14.960
frustrates me is I

0:24:13.760,0:24:16.880
didn't roll in enough yesterday so I

0:24:14.960,0:24:18.000
need to pull the sheet off or get on

0:24:16.880,0:24:19.120
there this morning and roll it for a

0:24:18.000,0:24:21.840
couple of hours before we

0:24:19.120,0:24:23.919
seal it that does more damage than good

0:24:21.840,0:24:25.760
if you haven't rolled it properly

0:24:23.919,0:24:27.520
going back the next morning introduces

0:24:25.760,0:24:28.960
more oxygen as soon as you roll that

0:24:27.520,0:24:30.400
tractor over you push out the carbon

0:24:28.960,0:24:32.480
dioxide that's been

0:24:30.400,0:24:34.960
produced overnight that's a good

0:24:32.480,0:24:36.640
gas in some respects in the clamp

0:24:34.960,0:24:38.880
and you suck in more oxygen so you're

0:24:36.640,0:24:40.240
actually reducing the quality.

0:24:38.880,0:24:41.840
And then the other one in terms of

0:24:40.240,0:24:43.679
going back to bales it comes back to

0:24:41.840,0:24:45.520
this oxygen again

0:24:43.679,0:24:47.039
most farmers will wrap in the field now

0:24:45.520,0:24:49.440
it's not ideal

0:24:47.039,0:24:51.360
because we always risk damaging it but

0:24:49.440,0:24:53.039
with combination bale wrappers it's very

0:24:51.360,0:24:54.799
difficult to get around that

0:24:53.039,0:24:56.400
but when we do wrap in the field we do

0:24:54.799,0:24:58.159
need to move those bales as quickly as

0:24:56.400,0:24:59.039

possible and squeeze them as little as

0:24:58.159,0:25:02.080
possible

0:24:59.039,0:25:03.760
when we pick them up so that we're not

0:25:02.080,0:25:05.919
introducing more oxygen because as soon

0:25:03.760,0:25:07.679
as we squeeze that bale

0:25:05.919,0:25:09.039
we push that carbon dioxide that's being

0:25:07.679,0:25:10.960
produced

0:25:09.039,0:25:12.159
we suck in more air when we release the

0:25:10.960,0:25:14.799
squeeze on it

0:25:12.159,0:25:16.400
and that then starts the aerobic

0:25:14.799,0:25:18.080
processes in that bale again allows

0:25:16.400,0:25:18.559
yeast and molds possibly to survive

0:25:18.080,0:25:22.480
longer

0:25:18.559,0:25:22.480
and you know you end up with more losses.

0:25:22.559,0:25:25.919
What's your advice on the use of silage

0:25:25.039,0:25:28.640
Additives,

0:25:25.919,0:25:30.720
I know you mentioned it just earlier but

0:25:28.640,0:25:32.000
perhaps you could expand on you know

0:25:30.720,0:25:34.240
there's a lot of information we read in

0:25:32.000,0:25:36.400
the farming press about additives um

0:25:34.240,0:25:39.120
what's your view and when and how can

0:25:36.400,0:25:40.799
they be used to best affect?

0:25:39.120,0:25:42.799
I think the problem with silage

0:25:40.799,0:25:45.840
additives and I say this is

0:25:42.799,0:25:47.520
a bit of a joke but with some

0:25:45.840,0:25:50.080
seriousness in there,

0:25:47.520,0:25:51.039
if you're a farmer the best additive

0:25:50.080,0:25:52.720
that you can use

0:25:51.039,0:25:53.919
is the one that the last sales reps been

0:25:52.720,0:25:55.440
your drive because they've always got

0:25:53.919,0:25:56.559
the best and it's always better than all

0:25:55.440,0:26:00.320
the rest,

0:25:56.559,0:26:02.559
and the problem is silage additives

0:26:00.320,0:26:03.760
get a lot of coverage in the farming

0:26:02.559,0:26:06.240
press

0:26:03.760,0:26:07.120
because they're you know supporting that

0:26:06.240,0:26:08.880
farming press

0:26:07.120,0:26:10.320
publications in general and it's a

0:26:08.880,0:26:12.799
Generalization.

0:26:10.320,0:26:13.679
Now there are three types of additives

0:26:12.799,0:26:15.279
I'm going to say

0:26:13.679,0:26:17.279
and you know scientifically that's not

0:26:15.279,0:26:18.159
quite true but there are chemical

0:26:17.279,0:26:19.840
additives

0:26:18.159,0:26:21.440
and there are biological additives but

0:26:19.840,0:26:23.520
the biological additives nowadays are

0:26:21.440,0:26:26.640
split into two there's ones that contain

0:26:23.520,0:26:28.080
just bacteria that just produce lactic

0:26:26.640,0:26:30.400
acid and no other acids

0:26:28.080,0:26:32.640
like ones that contain lactobacillus

0:26:30.400,0:26:33.360
plantarum and they can improve silage

0:26:32.640,0:26:34.960
quality

0:26:33.360,0:26:37.520
and they've been proven time and time

0:26:34.960,0:26:39.679
again to improve animal performance

0:26:37.520,0:26:42.159
but now because of aerobic spoilage

0:26:39.679,0:26:44.159
issues and heating at feed out

0:26:42.159,0:26:45.840
we've introduced other bacteria into

0:26:44.159,0:26:47.840
that that not only produce

0:26:45.840,0:26:49.840

lactic acid but they also produce acetic

0:26:47.840,0:26:51.200
acid and when we have higher levels of

0:26:49.840,0:26:53.760
acetic acid

0:26:51.200,0:26:55.760
we reduce the speed of fermentation we

0:26:53.760,0:26:59.600
get more ammonia production

0:26:55.760,0:27:02.240
and we do not improve animal performance

0:26:59.600,0:27:03.440
all we do is improve aerobic stability

0:27:02.240,0:27:06.480
and they are a problem

0:27:03.440,0:27:08.159
because many farms will use it as a

0:27:06.480,0:27:10.000
fail-safe because they've been told by

0:27:08.159,0:27:11.520
the additive salesperson oh

0:27:10.000,0:27:13.840
if you get spoilage it's losing you this

0:27:11.520,0:27:14.559
amount but they forget about the losses

0:27:13.840,0:27:16.880
they're having

0:27:14.559,0:27:18.159
and there's no data showing support of

0:27:16.880,0:27:20.799
those types of additives

0:27:18.159,0:27:22.240
in terms of animal production so

0:27:20.799,0:27:24.240
there are actually some that show

0:27:22.240,0:27:25.440
significant negatives in terms of animal

0:27:24.240,0:27:28.159
production over no

0:27:25.440,0:27:30.000
treatment where we come to the chemical

0:27:28.159,0:27:32.399
just to give them a voice

0:27:30.000,0:27:34.799
they are generally more expensive but

0:27:32.399,0:27:36.480
they preserve the crop

0:27:34.799,0:27:38.240
and again that's an oversimplification

0:27:36.480,0:27:38.960
but they tend to preserve the crop

0:27:38.240,0:27:41.679
rather than

0:27:38.960,0:27:42.720
promoting a different fermentation so

0:27:41.679,0:27:44.159
they will work

0:27:42.720,0:27:45.600
they will work if they're applied by

0:27:44.159,0:27:47.200
manufacturer's recommendations and

0:27:45.600,0:27:48.960
you've got enough of the active

0:27:47.200,0:27:51.440
ingredients in there

0:27:48.960,0:27:52.960
so it's a minefield for the farmer and I

0:27:51.440,0:27:54.960
feel sorry for them but

0:27:52.960,0:27:56.799
what I would advise is that a silage

0:27:54.960,0:27:58.880
additive if you've got a good one

0:27:56.799,0:28:01.279
and we need a million bacteria if it's

0:27:58.880,0:28:03.679
an inoculant of the homo fermentative

0:28:01.279,0:28:04.720
the lactobacillus plantarum type

0:28:03.679,0:28:08.320
bacterium

0:28:04.720,0:28:10.720
that will improve animal performance if

0:28:08.320,0:28:12.880
everything else you've done is correct

0:28:10.720,0:28:13.840
so you know if you're expecting a silage

0:28:12.880,0:28:16.320
additive to

0:28:13.840,0:28:17.919
make your poor quality grass into rocket

0:28:16.320,0:28:21.760
fuel it won't

0:28:17.919,0:28:24.399
if you've got absolutely wonderful grass

0:28:21.760,0:28:26.000
good levels of management in terms of

0:28:24.399,0:28:27.600
density and making sure that you've

0:28:26.000,0:28:28.480
sealed your clamp or you've done your

0:28:27.600,0:28:30.480
bailing right

0:28:28.480,0:28:32.480
then that additive will add money to

0:28:30.480,0:28:33.520
your silage because it will improve that

0:28:32.480,0:28:35.520
Fermentation,

0:28:33.520,0:28:36.720
so it's the icing on the cake and it you

0:28:35.520,0:28:40.880
know a good additive

0:28:36.720,0:28:44.000
will improve your silage but it will

0:28:40.880,0:28:45.039

not make a bad silage better. Yeah some

0:28:44.000,0:28:47.840
very useful points

0:28:45.039,0:28:49.760
to remember there and finally Dave

0:28:47.840,0:28:50.399
what are your take home messages as we

0:28:49.760,0:28:52.240
look ahead

0:28:50.399,0:28:54.240
towards this year's silage season and

0:28:52.240,0:28:56.240
our listeners will be all gearing up no

0:28:54.240,0:28:57.760
doubt in the next coming months to try

0:28:56.240,0:29:00.320
and get some good quality silage

0:28:57.760,0:29:02.880
ready for next winter what's your

0:29:00.320,0:29:05.919
your key advice to them now?

0:29:02.880,0:29:07.919
So the first thing is look back at what

0:29:05.919,0:29:10.080
you liked about your silage last year

0:29:07.919,0:29:11.840
and what you didn't like

0:29:10.080,0:29:14.000
and think about how you can make that

0:29:11.840,0:29:16.000
better and that's the important thing

0:29:14.000,0:29:18.000
because we want to improve

0:29:16.000,0:29:19.440
and you've got to be critical with

0:29:18.000,0:29:21.360
Yourself. It's

0:29:19.440,0:29:23.039
all too easy and I hear it all too often

0:29:21.360,0:29:24.799
or silage is what I get

0:29:23.039,0:29:26.880
well no the good farmers will always

0:29:24.799,0:29:28.799
make good quality silage and it's such

0:29:26.880,0:29:30.080
an important part of that animal's

0:29:28.799,0:29:32.480
ration so don't

0:29:30.080,0:29:34.159
think just because that grass is free

0:29:32.480,0:29:36.720
it's growing in the field

0:29:34.159,0:29:37.600
then the silage is free it's not a good

0:29:36.720,0:29:40.480
silage can

0:29:37.600,0:29:41.200
can significantly improve your ability

0:29:40.480,0:29:43.679
to

0:29:41.200,0:29:45.679
make money from silage fed animals

0:29:43.679,0:29:47.840
so it's really about following the rules

0:29:45.679,0:29:49.919
but really be self-critical with

0:29:47.840,0:29:51.360
everything and don't accept anything

0:29:49.919,0:29:52.640
I know farmers that will accept

0:29:51.360,0:29:54.399
the fact that the contractor hasn't

0:29:52.640,0:29:55.840
quite done this like he wanted it to

0:29:54.399,0:29:58.480
you're paying for it's going to cost

0:29:55.840,0:30:00.480
you get the job done properly.

0:29:58.480,0:30:02.559
Yeah and as you mentioned back in

0:30:00.480,0:30:04.960
episode 35 attention to detail

0:30:02.559,0:30:06.399
getting the silage quality as best and

0:30:04.960,0:30:08.320
as good as you possibly can

0:30:06.399,0:30:09.840
makes such a difference to the

0:30:08.320,0:30:10.640
productivity of your business and

0:30:09.840,0:30:12.880
ultimately

0:30:10.640,0:30:14.960
the profitability. Well Dave Davis of

0:30:12.880,0:30:16.799
Silage Solutions we've really enjoyed

0:30:14.960,0:30:18.640
having you on the podcast once again and

0:30:16.799,0:30:20.559
and I've no doubt we'll be having you on

0:30:18.640,0:30:22.399
another future episode

0:30:20.559,0:30:23.760
sometime soon but for today thank you

0:30:22.399,0:30:25.120
ever so much for joining us on the

0:30:23.760,0:30:28.640
Podcast.

0:30:25.120,0:30:28.640
Thank you Aled much appreciated

0:30:28.960,0:30:32.159
if you would like more information about

0:30:30.720,0:30:33.200
the support available through

0:30:32.159,0:30:34.960

Farming Connect

0:30:33.200,0:30:36.799
then please contact your local

0:30:34.960,0:30:37.360
development officer or the service

0:30:36.799,0:30:40.399
center

0:30:37.360,0:30:43.440
on oh eight four five six treble zero

0:30:40.399,0:30:45.919
eight one three and there we are we've

0:30:43.440,0:30:47.600
reached the end of yet another episode

0:30:45.919,0:30:49.360
we'll be back in two weeks time with

0:30:47.600,0:30:51.440
plenty more to talk about

0:30:49.360,0:30:53.919
but in the meantime don't forget to hit

0:30:51.440,0:30:56.320
subscribe on whichever platform you use

0:30:53.919,0:30:58.080
to keep notified of all new episodes of

0:30:56.320,0:30:59.840
Ear to the ground

0:30:58.080,0:31:01.679
so on behalf of the team at Farming

0:30:59.840,0:31:03.360
Connect to myself Aled Jones.

0:31:01.679,0:31:19.840
Thank you for listening and goodbye for

0:31:03.360,0:31:19.840
now

0:31:23.600,0:31:25.679