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.

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 Davies, 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. 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 Davies 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 Davies 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

were 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 litres 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. 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. If we start from a low point

0:02:28.400,0:02:32.000

we're never going to get

0:02:30.879,0:02:34.239

any better.

0:02:32.000,0:02:35.120

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 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

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

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

There are

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. 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

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

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 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.

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. 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% of the value out of that.

0:04:28.320,0:04:32.160

If it's high quality

0:04:29.919,0:04:34.720

they can get 75% value out of

0:04:32.160,0:04:36.560

that. 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. 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

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

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

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. 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

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 maximise 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

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. 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

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. 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

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

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

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

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

0:09:23.360,0:09:27.680

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 heap

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 moulds 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

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 tedder 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

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. 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.

0:10:30.880,0:10:34.800

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

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

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 to 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

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 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.

011:47.440,0:11:51.279

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

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

0:12:03.279,0:12:06.720

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? 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

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. 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

I think 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. 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 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. 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?

0:13:53.600,0:13:57.760

Farmers 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, a farm is doing silage

0:14:02.560,0:14:06.480

almost all year round,

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

Yes, 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

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

0:14:34.560,0:14:36.880

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 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. 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

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 about the pre-cut grass

0:15:33.920,0:15:37.759

analysis

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 maximise their protein.

0:15:49.759,0:15:52.480

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

Many farmers are missing that target.

0:15:59.519,0:16:02.639

Part of that is

0:16:00.639,0:16:04.320

their fertiliser applications

0:16:02.639,0:16:07.440

aren't quite right.

0:16:04.320,0:16:10.560

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

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 of

0:16:25.279,0:16:33.519

16 to 18% 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. If it's above

0:16:45.199,0:16:48.839

that level,

0:16:46.160,0:16:50.079

the nitrate N, we have a risk of a poor

0:16:48.839,0:16:51.759

fermentation.

0:16:50.079,0:16:53.199

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

fertiliser 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

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

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%

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

That's for me,

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 fertiliser 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

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 an additive

0:18:10.080,0:18:14.960

to control that fermentation. 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.

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

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.

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. 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. 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

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 by

0:20:05.440,0:20:10.559

0:20:06.320,0:20:11.600

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

Yes, 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

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.

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

There are other

0:20:55.760,0:21:00.720

ways we can do it.

0:20:57.360,0:21:03.679

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 colostrum 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 are 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

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. 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

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 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 lump and roll it.

0:22:28.799,0:22:32.640

We need these even layers.

0:22:30.799,0:22:34.159

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. 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. 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 same 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 and bale are the same. 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.

0:23:26.400,0:23:29.919

Coming back to the clamp,

0:23:28.320,0:23:31.600

there are two that 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. 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

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

0:23:50.000,0:23:53.760

flow overnight.

0:23:51.600,0:23:55.120

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

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

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. 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. 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 moulds 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.

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.

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

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 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

generalisation.

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. 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

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.

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

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.

0:27:41.679,0:27:44.159

They will work

0:27:42.720,0:27:45.600

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

It's a minefield for the farmer and I

0:27:51.440,0:27:54.960

feel sorry for them.

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

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

It's the icing on the cake and

0:28:35.520,0:28:40.880

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. Yes, 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

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

Think about how you can make that

0:29:11.840,0:29:16.000

better. 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

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, 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

Yes, 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 Davies 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

Centre

0:30:37.360,0:30:43.440

on 08456 000 813.

0:30:40.399,0:30:45.919

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 and 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