Mole Valley FARMERS

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Valuing Quality Maize Silage

Lisa Hambly – Head of Grassland and Forage Agronomy

MGA 12th February 2025

Why yield from forage is key.

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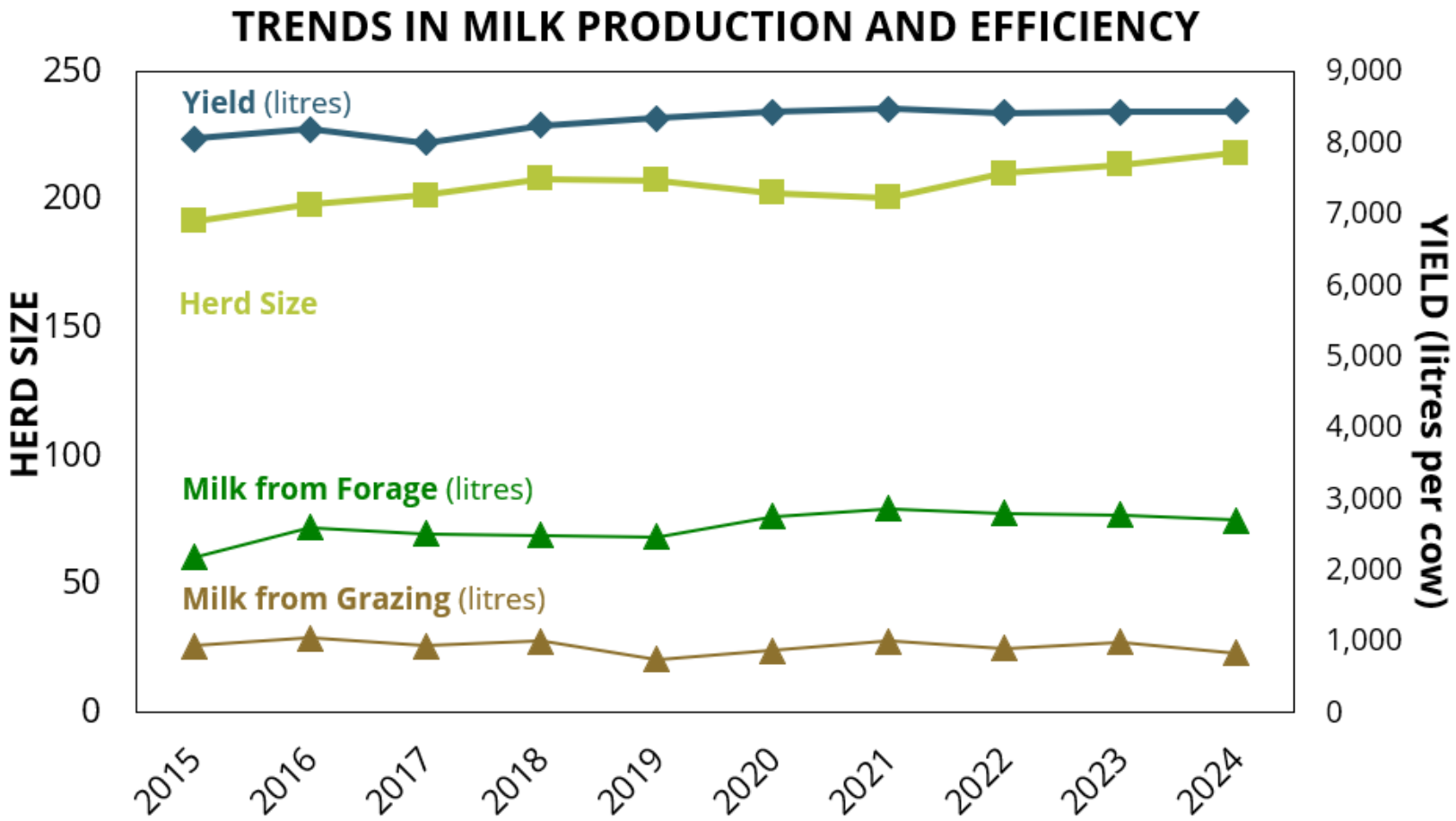
Kingshay Costings 2024

The top 25% achieved a margin of £3,109/cow and 36.28p/litre. By comparison, herds achieving the lowest milk from forage averaged a margin of £2,673/cow and 30.94p/litre. The average bracket saw MOPF figures of £2,865/cow and 33.87p/litre. All far exceeded the previous year's MOPF figures, which were £1,920/cow and just 22.71p/litre.



Variety making the right choice…

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Review last years choices and this year's fields – soil test and Nutrient Management Plan.

Improve by

- ✓ Choosing the right variety for your system – location, animal nutrition, environmental risk, following crop.
- ✓ Accurate cro
- ✓ Tissue testin
- ✓ Ensure cutti e and improve intakes

DALGETY is celebrating the sowing of the 250,000th acre of Hudson maize in the UK with a grower competition for a trip to New York.

Hudson maize, originally introduced in 1995, has been the most widely-grown variety in the country for six of the past eight years, according to the company's forage manager, Brendan Paul.

bspb PROMOTING SEED INNOVATION

NIAB

2025 FORAGE MAIZE DESCRIPTIVE LIST

First choice varieties for favourable sites (varieties ranked in dry matter yield order)

VARIETY	Dry matter content at harvest (%)	Dry matter yield (t/ha)	Dry matter yield (% of 4 and 5 year varieties)	ME of fresh plant at harvest (MJ/kg dry matter)	ME yield of fresh plant at harvest ('000s MJ/ha)	Starch content of whole plant at harvest (%)	Starch yield of whole plant at harvest (t/ha)	Cell wall digestibility (%)	Early vigour (1-9)	Standing power at harvest (root lodging) (1-9)	Lodging (%) #	% of trials where lodging occurred	Brackling (%) #	No of incidences of brackling	Leaf senescence (1-9)	Eyespot rating (1-9)	Year first listed	Agent

Nutritional risks associated with maize silage.

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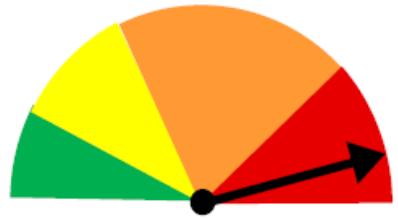
MYCOTOXIN ANALYSIS REPORT

Contact	Lisa Hambly

Mycotoxin Type	Aflatoxins	ZON + metabolites	Type B Tricothecenes	Type A Tricothecenes	Fumonisins	Ochratoxin A	Ergot Alkaloids
DM Level Detected (µg/kg)*	<LOD	193	4715	15	1318	<LOD	<LOD



Overall result of sample: HIGH RISK

Total number of mycotoxins identified in this sample = 14

**LOD = limit of detection*

Mycotoxin Type	Explanation/General Effects	Risk levels (total µg/cow/day)
Aflatoxins	Carcinogenic mycotoxins, primary target is liver and Afla M1 can carry over into milk	<50 = low risk, 50-65 = medium risk, >65 = high risk (over 80 risks carryover into milk)
ZON + metabolites	Zearalenone and its metabolites can affect reproductive performance e.g. irregular heats, poor conception rates, cysts etc	<1600 = low risk, 1600-3200 = medium risk, 3200 and above = high risk
Type B Tricothecenes	Includes DON (Deoxynivalenol) and similar mycotoxins, which can affect milk production, feed intake, rumen performance	<8000 = low risk, 8000-16000 = medium risk, 16000 and above = high risk
Type A Tricothecenes	Includes T-2, HT-2 among others, can have gastrointestinal tract and immune system effects	<1600 = low risk, 1600-6400 = medium risk, 6400 and above = high risk
Fumonisins	Fumonisins can be toxic to liver and kidneys as well as affecting gut and immune health	<16000 = low risk, 16000-32000 = medium risk, 32000 and above = high risk
Ochratoxins	Can be toxic to liver, kidneys and immune system	<1600 = low risk, 1600-4800 = medium risk, 4800 and above = high risk
Ergot Alkaloids	Can affect growth as well as the nervous system	<1600 = low risk, 1600-6400 = high risk, 6400 and above = high risk

COMMENTS

*Take feeding rate into account: **4,715 µg of Type B Tricothecenes (e.g. DON, Nivalenol) per kg DM**, so will pose a risk if feeding significant amounts of this silage per cow per day- would advise protecting with Rumi-TOX. BUT - also consider risk coming from the rest of the diet.*

Nutrition Bottom Line

- Additional starch yield e.g. 0.5T per hectare (6.7T per ha versus 6.2T per ha).
- This equates to approximately 1T of wheat (60% starch) per hectare.
- 0.5T extra starch yield @ £87.50 Based on £175 per Tonne
- Typical herd of 250 cows
- Saving on starch purchased per herd is 250 cows x 0.5T x £175 per T = £22k per year (£90 per cow)
- CWD crucially improves intakes, 1% improvement can increase intakes by 0.17kg per day with resulting increase in yields (Oba and Allen, 1999)

Selection of the right variety has a major impact on crop value for next Winters milk/meat yields

Choose Wisely

- Marginal Gains – every little thing by 1% will add up to remarkable improvements (Sir Dave Brailsford)

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