NICKERSON

2024 Maize Variety Selection Guide

Technical information to help you select the right maize variety

Limagrain

Contents

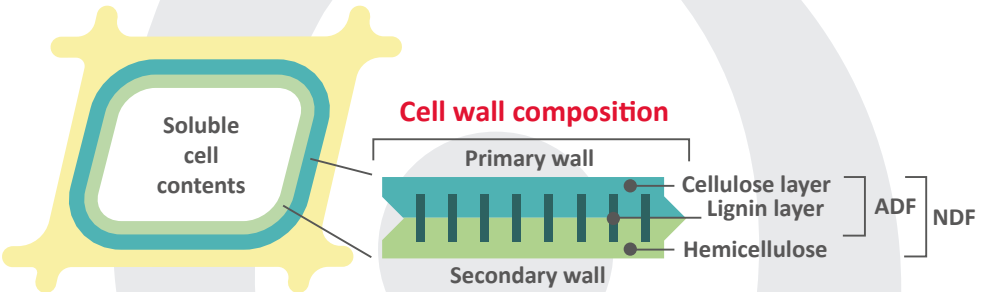
Welcome to our Maize Variety Selection Guide 2024

Introduction

Getting maize variety choice wrong can be costly in terms of missed opportunity to produce the maximum feed energy from the crop.

This Selection Guide uses valuable independent data to help you make the correct variety choice.

Feeding Quality Explained



Is cell wall digestibility the same as fibre digestibility?

The digestibility of fibre (dNDF) in maize is measured by cell wall digestibility (CWD). CWD measures the extent to which animals can digest maize plant fibre. As lignin content increases, cell wall digestibility declines.

The higher the cell wall digestibility, the better the potential feed value of the plant.

Digestible fibre (dNDF) - the key to improved performance

Dairy cows need to maximise dry matter intake (DMI) if they are to absorb sufficient energy to maintain high levels of milk production.

AD plants can improve efficiency of gas production by increasing the highly degradable fibre content of maize silage to help speed passage through the digester.

To maximise feed quality, select maize varieties with both high starch content and cell wall digestibility.

Cell wall digestibility and diet formulation

The greater the proportion of maize silage in the diet, the more important the cell wall digestibility becomes.

The lower the digestibility of cell wall, the slower the rate of forage digestion. Varieties with poor cell wall digestibility impact feed intakes with slower digestion and reduced production.

A maize variety with improved cell wall digestibility can be formulated into the diet at a higher level than one with a lower cell wall digestibility, saving money on purchased concentrates.

Establishment and Bird Control

Seed Treatment

The unique formulation of Korit® PRO provides protection from birds and soil-borne, damping off diseases. It also contains micronutrients to aid early plant development, assisting the plant to grow in this

KORIT® PRO

Korit® PRO provides protection

- Bird repellent against crows, rooks and pheasants
- Fungicide protection against damping off diseases including Pythium and Fusarium

Korit® PRO improves growth:

- Increased rooting power, with plants developing a healthy and productive root system
- Better plant health and anchoring up to harvest
- Inclusion of manganese to aid chlorophyll formation and photosynthetic action
- Inclusion of zinc to aid protein formation, particularly beneficial if soils become cold or wet

Damage caused by birds

Maize is most vulnerable to bird damage during early emergence, up to 3-4 leaf phase. Rooks and other corvids can pick out newly sown seeds or small seedlings, working down the row and causing substantial losses.

Photo: Watier Visuel

Bird Control

Key to avoiding this issue is to ensure that no grains are left lying on the surface and that the seed is drilled to the correct depth and well covered, so as not to attract attention.

Avoid drilling an isolated crop of maize in a high risk area, such as near woodland or a rookery. It may be possible to drill seed to a deeper depth of 7-10cm to deter rooks from digging up the seed, however sowing at this depth can be problematic for the seed to germinate successfully, especially in heavier soils.

Always check that soil temperature has consistently reached 10°C at drilling depth for at least 4 consecutive days before drilling and check the medium term weather forecast will remain warm.

DUKE FORAGE MAIZE

TYPE: VERY EARLY **FEED:** HIGH STARCH CONTENT **YIELD:** HIGH

Ultra early harvest with a touch of class.

FORAGE VARIETIES

KEY STRENGTHS

New - Expected to be 1st choice on the BSPB/NIAB 2025 List

.....

Ultra early - suited to marginal sites or for short season

.....

Very high yields for ultra early maturity

.....

High starch content and good digestibility

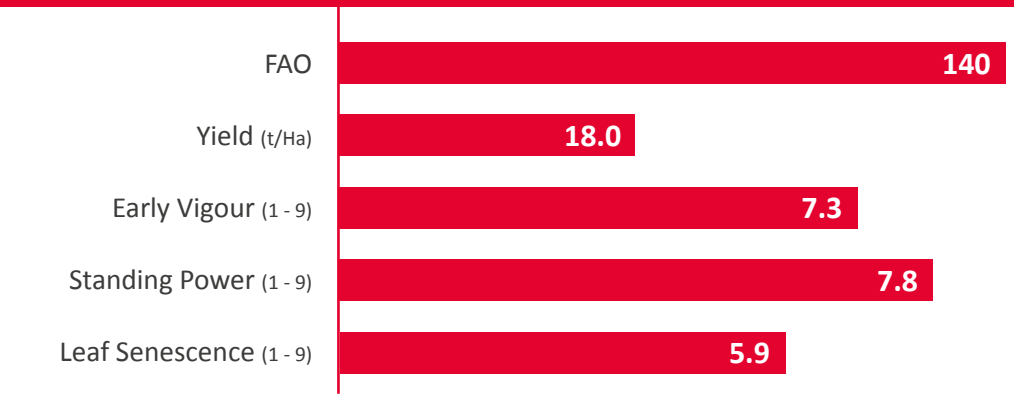
.....

Excellent standing power

Forage

Anaerobic Digestion

AGRONOMIC DATA



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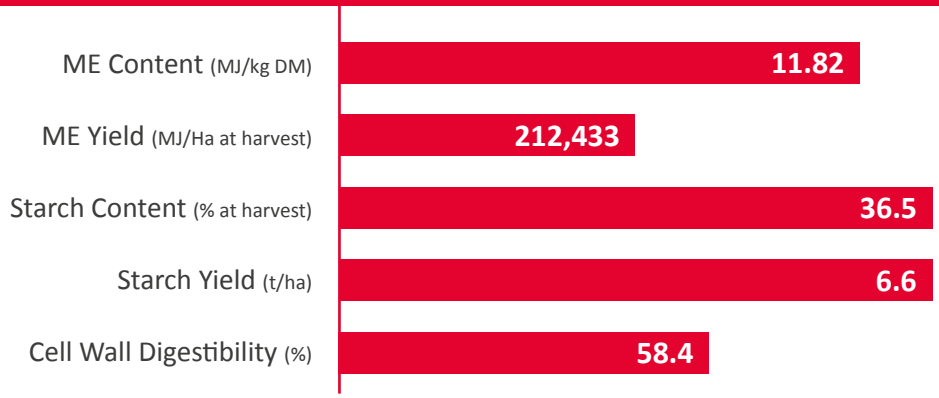


Data Source: Limagrain estimated position on BSPB/NIAB Descriptive List 2024. On the 1-9 scales, high figures (e.g. above 7.0) indicate strength in this character.

TROOPER FORAGE MAIZE

TYPE: VERY EARLY **FEED:** HIGHLY DIGESTIBLE WITH HIGH STARCH CONTENT **YIELD:** AVERAGE

Reliable production of high quality maize. For an early harvest you can rely on Trooper!

FORAGE VARIETIES

KEY STRENGTHS

Very early maturing delivering an excellent result in a short growing season

.....

Robust and reliable, performing well in marginal conditions

.....

High yielding for an ultra-early variety

.....

High starch content and cell wall digestibility for energy dense maize

.....

The best variety available for good standing power

Forage

Anaerobic Digestion

LGAN Accredited

AGRONOMIC DATA

FAO*	160
Yield (t/Ha)	17.8
Early Vigour (1 - 9)	7.1
Standing Power (1 - 9)	8.1
Leaf Senescence (1 - 9)	7.0

QUALITY DATA

ME Content (MJ/kg DM)	11.82
ME Yield (MJ/Ha at harvest)	210,124
Starch Content (% at harvest)	35.4
Starch Yield (t/ha)	6.3
Cell Wall Digestibility (%)	59.3

Data taken from the BSPB/NIAB 2024 Forage Maize Descriptive List. On the 1-9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). Features marked with * are based on Limagrain estimates.

PROSPECT FORAGE MAIZE

TYPE: EARLY **FEED:** HIGHLY DIGESTIBLE WITH HIGH STARCH CONTENT **YIELD:** HIGH

Early, high yields with improved cell wall digestibility. Prospect - it's pure gold!

FORAGE VARIETIES

KEY STRENGTHS

Energy dense with exceptional cell wall digestibilty, coupled with excellent agronomic performance

.....

Exceptional starch yields

.....

Stable high performance levels between years

.....

Good early vigour and standing power

.....

Excellent eyespot tolerance

Forage | Anaerobic Digestion | Grain/Crimping | LGAN Accredited

AGRONOMIC DATA

FAO*	170
Yield (t/Ha)	18.5
Early Vigour (1 - 9)	7.2
Standing Power (1 - 9)	7.7
Leaf Senescence (1 - 9)	7.3

QUALITY DATA

ME Content (MJ/kg DM)	11.93
ME Yield (MJ/Ha at harvest)	220,016
Starch Content (% at harvest)	35.4
Starch Yield (t/ha)	6.5
Cell Wall Digestibility (%)	60.1

Data taken from the BSPB/NIAB First Choice Favourable List 2024. On the 1-9 figures (e.g. Early Vigour), high figures indicate strength in this character. Features marked with * are based on Limagrain estimates.

PROMISE FORAGE MAIZE

TYPE: EARLY **FEED:** VERY HIGH ENERGY YIELD **YIELD:** VERY HIGH

Be full of Promise and fulfil your crops potential. Maximise energy yields from an early harvest.

FORAGE VARIETIES

KEY STRENGTHS

New - Expected to be 1st choice on the BSPB/NIAB 2025 List

.....

Exceptional ME yield

.....

High dry matter yields

.....

Good early vigour

.....

Excellent standing power

Forage

Anaerobic Digestion

AGRONOMIC DATA

FAO	170
Yield (t/Ha)	19.1
Early Vigour (1 - 9)	7.4
Standing Power (1 - 9)	7.4
Leaf Senescence (1 - 9)	6.4

QUALITY DATA

ME Content (MJ/kg DM)	11.65
ME Yield (MJ/Ha at harvest)	222,538
Starch Content (% at harvest)	32.5
Starch Yield (t/ha)	6.2
Cell Wall Digestibility (%)	58.8

Data Source: Limagrain estimated position on BSPB/NIAB Descriptive List 2024. On the 1-9 scales, high figures (e.g. above 7.0) indicate strength in this character.

AMBITION FORAGE MAIZE

TYPE: EARLY **FEED:** GOOD STARCH AND CWD **YIELD:** HIGH

Rock solid agronomic performance producing high yields of quality maize.

FORAGE VARIETIES

KEY STRENGTHS

Reliable performance across all sites and seasons

High starch yields

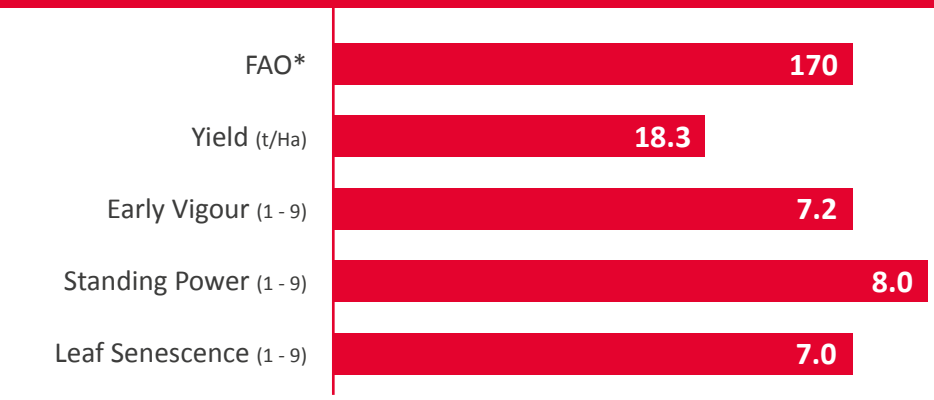
High dry matter yields

Excellent standing power and good early vigour

Excellent eyespot tolerance

Forage | Anaerobic Digestion | Under Plastic | LGAN Accredited

AGRONOMIC DATA



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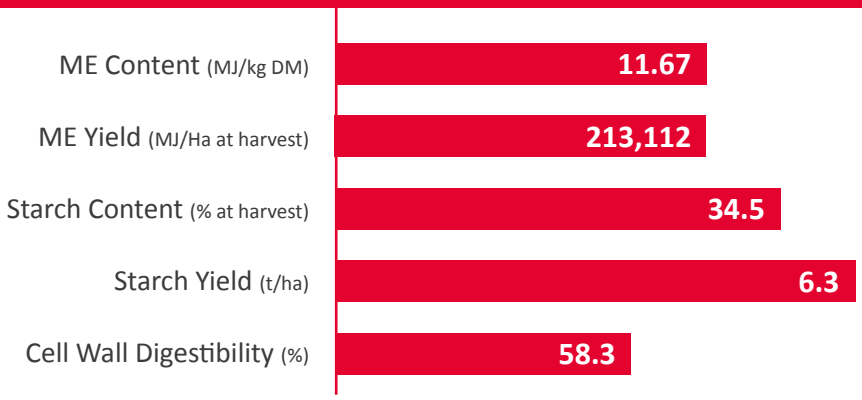

Data taken from the BSPB/NIAB First Choice Favourable List 2024. On the 1-9 figures (e.g. Early Vigour), high figures indicate strength in this character. Features marked with * are based on Limagrain estimates.

LG30.179 FORAGE MAIZE

TYPE: EARLY **FEED:** HIGH STARCH CONTENT **YIELD:** AVERAGE

An early variety with massive starch yields suitable for forage or grain use.

FORAGE VARIETIES

KEY STRENGTHS

Excellent standing power for a safe harvest

High starch content

Rapid accumulation of starch in the cob

Superb early vigour for a rapid start

Good eyespot tolerance

Forage | Anaerobic Digestion | Grain/Crimping

AGRONOMIC DATA

FAO	190
Yield (t/Ha)	17.8
Early Vigour (1 - 9)	6.7
Standing Power (1 - 9)	7.0
Leaf Senescence (1-9)	6.1

QUALITY DATA

ME Content (MJ/kg DM)	11.8
ME Yield (MJ/Ha at harvest)	209,388
Starch Content (% at harvest)	34.1
Starch Yield (t/ha)	6.1
Cell Wall Digestibility (%)	58.2

Data Source: Limagrain estimated position on BSPB/NIAB Descriptive List 2024. On the 1-9 scales, high figures (e.g. above 7.0) indicate strength in this character.

Variety Comparison Table

		VERY EARLY				EARLY
		Duke	**Trooper**	**Prospect**	**Promise**	**Ambition**
	Data Source	Limagrain estimated position on the BSPB/NIAB List 2024	BSPB/NIAB Descriptive List 2024	BSPB/NIAB Descriptive List 2024	Limagrain estimated position on the BSPB/NIAB List 2024	BSPB/NIAB Descriptive List 2024
	Recommended Use	Forage & AD	Forage & AD	Forage, AD & grain	Forage & AD	Forage, AD & plastic
	Variety type	Very Early	Very Early	Early	Early	Early
	FAO	140	160	170	170	170
AGRONOMIC DATA	Yield (t/Ha)	18.0	17.8	18.5	19.1	18.3
AGRONOMIC DATA	Early Vigour (1-9)	7.3	7.1	7.2	7.4	7.2
AGRONOMIC DATA	Standing Power (1-9)	7.8	8.1	7.7	7.4	8.0
AGRONOMIC DATA	Leaf Senescence (1-9)	5.9	7.0	7.3	6.4	7.0
QUALITY DATA	ME Content (MJ/Kg DM)	11.82	11.82	11.93	11.65	11.67
QUALITY DATA	ME Yield (MJ/Ha at harvest)	212,433	210,124	220,016	222,538	213,112
QUALITY DATA	Starch Content (% at harvest)	36.5	35.4	35.4	32.5	34.5
QUALITY DATA	Starch Yield (t/Ha)	6.6	6.3	6.5	6.2	6.3
QUALITY DATA	Cell Wall Digestibility (%)	58.4	59.3	60.1	58.8	58.3
	Variety Comment	Ultra early harvest with a touch of class! Duke is expected to be 1st choice on the BSPB/NIAB 2025 List	Trooper is a robust and reliable variety, performing well in marginal conditions.	Early, high yields with improved cell wall digestibilty. Prospect - it's pure gold!	Maximise energy yields from an early harvest with Promise.	Rock solid agronomic performance producing high yields of quality maize.

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		INTERMEDIATE		LATE	
LG30.179	**Asgaard**	**LG30.209**	**LG31.206**	**Mantilla**	**LG31.207**
Limagrain estimated position on the BSPB/NIAB List 2024	Limagrain estimated position on the BSPB/NIAB List 2024	Limagrain estimated position on the BSPB/NIAB List 2024	Limagrain estimated position on the BSPB/NIAB List 2024	BSPB/NIAB Very Favourable List 2024	BSPB/NIAB Very Favourable List 2024
Forage, AD & grain	Forage & AD	Forage, AD & plastic	Forage, AD & plastic	Forage, AD & Plastic	Forage, AD & Plastic
Early	Early	Intermediate	Intermediate	Late	Late
190	190	200	200	210	210
17.8	18.5	18.3	19.0	18.6	18.7
6.7	7.2	7.0	7.8	7.5	8.2
7.0	8.0	7.6	8.4	7.8	8.0
6.1	6.8	7.0	6.4	6.3	6.1
11.77	11.73	11.66	11.70	11.53	11.60
209,388	216,600	213,100	222,515	214,034	217,114
34.1	34.4	30.9	31.4	32.0	31.6
6.1	6.4	5.7	6.0	5.9	5.9
58.2	58.1	58.7	59.8	57.8	58.5
An early variety with massive starch yields suitable for forage or grain use.	Asgaard is fast out of the ground with a highly digestible yield.	Improved digestibility and high yields providing quality forage.	A brand new variety which is highly digestible and showing great promise in trials!	An impressive leafy crop with large cobs that maximises production per hectare.	Newly added to the BSPB/NIAB Very Favourable List 2024!

ASGAARD FORAGE MAIZE

TYPE: EARLY **FEED:** HIGHLY DIGESTIBLE **YIELD:** HIGH

Asgaard is fast out of the ground with a highly digestible yield.

FORAGE VARIETIES

KEY STRENGTHS

A top variety for cell wall digestibility

Maximises energy content

Excellent early vigour for a strong start

Good standing power

Stays green to harvest

Forage

Anaerobic Digestion

AGRONOMIC DATA

FAO	190
Yield (t/Ha)	18.5
Early Vigour (1 - 9)	7.2
Standing Power (1 - 9)	8.0
Leaf Senescence (1-9)	6.8

QUALITY DATA

ME Content (MJ/kg DM)	11.73
ME Yield (MJ/Ha at harvest)	216,600
Starch Content (% at harvest)	34.4
Starch Yield (t/ha)	6.4
Cell Wall Digestibility (%)	58.1

Data Source: Limagrain estimated position on BSPB/NIAB Descriptive List 2024. On the 1-9 scales, high figures (e.g. above 7.0) indicate strength in this character.

LG30.209 FORAGE MAIZE

TYPE: INTERMEDIATE **FEED:** HIGHLY DIGESTIBLE **YIELD:** HIGH

Improved digestibility and high yields providing quality forage.

FORAGE VARIETIES

KEY STRENGTHS

Excellent digestibility to improve feeding performance

A great looking crop with well formed cobs

Reliable performance every year

Good early vigour and standing power

Stays green to harvest

Forage | Anaerobic Digestion | Under Plastic

AGRONOMIC DATA

FAO	200
Yield (t/Ha)	18.3
Early Vigour (1 - 9)	7.0
Standing Power (1 - 9)	7.6
Leaf Senescence (1-9)	7.0

QUALITY DATA

ME Content (MJ/kg DM)	11.66
ME Yield (MJ/Ha at harvest)	213,100
Starch Content (% at harvest)	30.9
Starch Yield (t/ha)	5.7
Cell Wall Digestibility (%)	58.7

Data Source: Limagrain estimated position on BSPB/NIAB Descriptive List 2024. On the 1-9 scales, high figures (e.g. above 7.0) indicate strength in this character.

LG31.206 FORAGE MAIZE

TYPE: INTERMEDIATE **FEED:** HIGHLY DIGESTIBLE **YIELD:** VERY HIGH

LG31.206 is a new and highly digestible variety showing great promise in trials

FORAGE VARIETIES

KEY STRENGTHS

Very high dry matter yields that reduce costs of production

.....

Excellent digestibility that maximises ME yield

.....

Excellent early vigour

.....

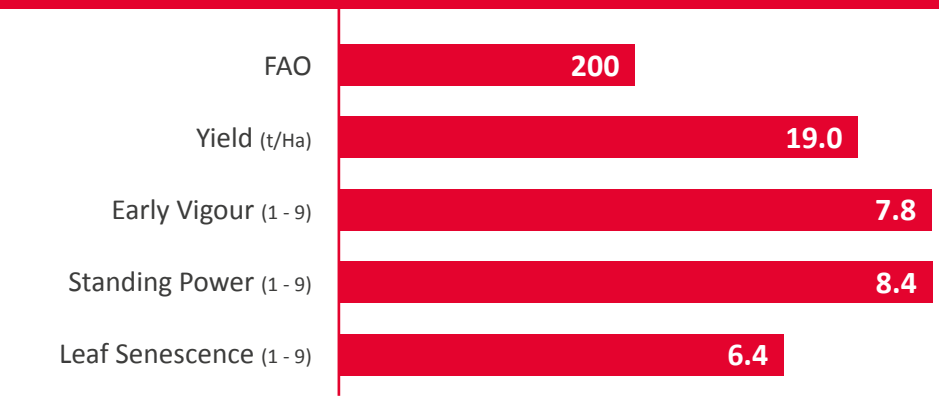
Good eyespot tolerance

.....

Superb standing power

Forage | Anaerobic Digestion | Under Plastic

AGRONOMIC DATA



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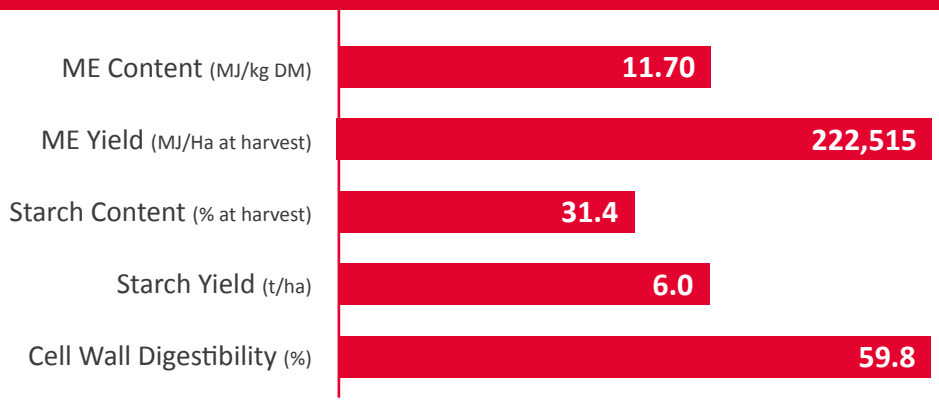

Data Source: Limagrain estimated position on BSPB/NIAB Descriptive List 2024. On the 1-9 scales, high figures (e.g. above 7.0) indicate strength in this character.

MANTILLA FORAGE MAIZE

TYPE: LATE **FEED:** HIGHLY DIGESTIBLE **YIELD:** VERY HIGH

An impressive leafy crop with large cobs that maximises production per hectare.

FORAGE VARIETIES

KEY STRENGTHS

Massive dry matter yields providing a high return on investment

.....

Excellent digestibility for improved feed value

.....

High ME yields

.....

Good starch levels for its maturity

.....

A distinctive red tint to plant and kernels

Forage | Anaerobic Digestion | Under Plastic

AGRONOMIC DATA

FAO*	210
Yield (t/Ha)	18.6
Early Vigour (1 - 9)	7.5
Standing Power (1 - 9)	7.6
Leaf Senescence (1 - 9)	6.3

QUALITY DATA

ME Content (MJ/kg DM)	11.53
ME Yield (MJ/Ha at harvest)	214,034
Starch Content (% at harvest)	32.0
Starch Yield (t/ha)	5.9
Cell Wall Digestibility (%)	57.8

Data taken from the 2024 Descriptive List for Forage Maize Varieties for very favourable sites. On the 1-9 scales, high figures (e.g. above 7.0) indicate strength in this character. Features marked with * are based on Limagrain estimates.

LG31.207 FORAGE MAIZE

TYPE: LATE **FEED:** VERY HIGH ENERGY YIELD **YIELD:** VERY HIGH

Performance that impresses! Rapid establishment and vigorous growth right from the start, quality and performance assured.

FORAGE VARIETIES

KEY STRENGTHS

Newly added to the BSPB/NIAB 2024 Very Favourable List

.....

Rapid establishment and superb early vigour

.....

Excellent ME yields

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Performs well for AD feedstock or for livestock

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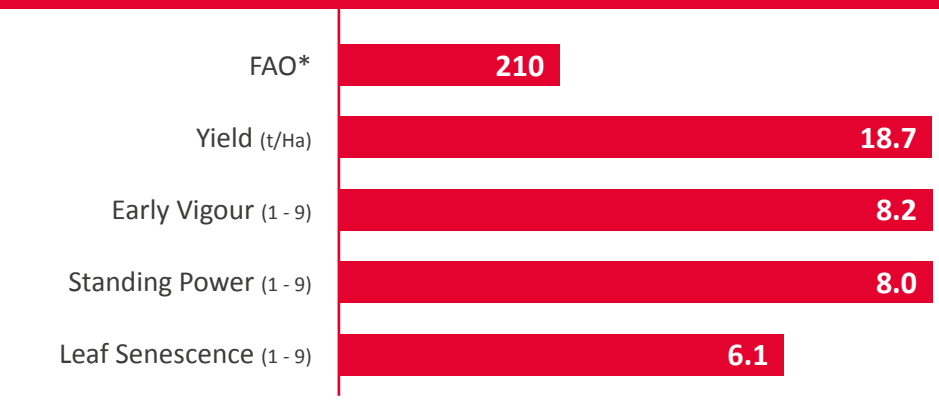
Good eyespot tolerance

Forage

Anaerobic Digestion

Under Plastic

AGRONOMIC DATA



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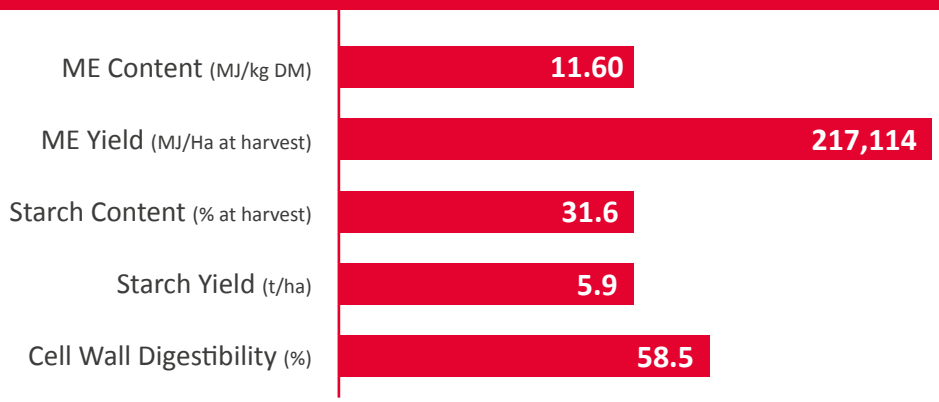

Data taken from the 2024 Descriptive List for Forage Maize Varieties for very favourable sites. On the 1-9 scales, high figures (e.g. above 7.0) indicate strength in this character. Features marked with * are based on Limagrain estimates.

Maize Varieties for AD

Maize can be successfully grown in most areas of the UK, but it is important to choose varieties suited to the growing conditions of your farm and can achieve a dry matter content of 30-32%.

As large areas of maize are needed to feed an AD plant, a range of varieties with different maturities should be sown. This enables harvesting before wet weather sets in and helps to avoid soil structure damage.

Recommended LG maize varieties

The extensive UK-based LG research programme has tested potential new varieties against current commercial ones at trial sites across the country and on working AD plants, for over five years.

LG have used a vigorous selection process to ensure that only the very best varieties are available to growers.

LG Maize is also selected for AD to include the following:

- High yield potential
- High quality and CWD for maximum gas per hectare potential
- Excellent disease resistance, ensuring a wider, stable harvest window

Recommended for AD

MATURITY	VARIETY	DESCRIPTION	FAO
LATE	LG31.206	Super quality from mainstream harvest	200
	LG31.207	Very high yielding with excellent vigour	210
	Mantilla	High yielding with good agronomics	210
VERY LATE	Ashley NEW	High yielding and adapted to lighter land	230

Undersowing & Managing Stubbles

Growing a crop of maize typically means sowing in April/May and harvesting in September/October. This can leave a period of up to six months where there's an opportunity to use a second crop to gain extra production.

This second crop can be established alongside the maize by undersowing or if early maturing varieties are used, there should be sufficient time to sow a crop into the maize stubbles (see page 37).

Benefits of Undersowing

Good Environmental Practice

Undersowing maize crops with grass helps prevent soil erosion and the loss of valuable nutrients over the winter months. Damage to soil structure by harvest machinery can also be reduced. The presence of an established understorey of grass will stabilise ground conditions in the event of a wet harvest.

Opportunity for Extra Production

An undersown crop of grass can be grazed by livestock over the winter or cut for silage the following spring giving year round production.

Recommended mixtures and sowing time and rates

The table below gives typical sowing rates and mixture types to use when undersowing. For best establishment,
seed should be drilled rather than broadcast and kept 15cm away from the maize plants to avoid any detrimental yield effects.

Maize Crop Growth Stage	Sowing rate	Mixture type	Variety/mixture names
At Drilling	8kg/Ha	Tall Fescue and Festulolium	LG Under Maize mixture
At 6 leaf stage	15kg/Ha	Festulolium (grazing and cutting types)	LG Over Maize mixture

Contacts

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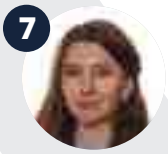

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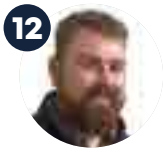

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