

# MAIZE GROWERS GUIDE

## 2022 - 2023



A BRAND OF **MAÏSADOUR**



**BRIGHT**  
maize SEEDS AT YOUR SIDE



# INTRODUCTION

## **MATCHING VARIETIES TO THE REQUIREMENTS OF THE GROWER AND CIRCUMSTANCES OF THE FARM**

Forage is the livestock farmer's most precious resource; and never has this been the case more so than today.

It is not only the quality of forage that matters, but the forage mix itself; and maize has long been a vital component to drive production and improve profitability.

Bright Maize understands the importance of matching varieties to the requirements of the grower and the circumstances of the farm. There is no one size fits all. With an eye on yield (of course), more and more today's maize grower must look at issues which include feed value, palatability and, crucially, maturity. For example, the time of harvest is increasingly pertinent as farmers consider factors such as planting a follow-crop, perhaps with Environmental Land Management Schemes (ELMS) in mind.

As one of the longest established and largest direct-to-farm suppliers of maize in the UK, Bright Maize has to advise its customers with competence and confidence. This is why – in addition to its main Wiltshire trial site – the company has in excess of a dozen such sites extending throughout the country. Similarly, it insists on having a support-team on the ground that is highly specialised and equipped with the latest information. Only by giving this degree of commitment, can forage maize truly reach its potential in the different regions of the UK.

Its prominence in the marketplace and trading history means Bright Maize has strong and reliable supply chains and access to the widest range of varieties – varieties that are tried and tested to deliver the best results for your farm.

Bright Maize is an associate company of MAS Seeds.



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# MAIZE VARIETIES AND ADVICE 2022-23

			MATURITY & TYPE		END USE					
VARIETY		Earliness	FAO	Grain type	Ensilage	Grain	CCM	AD Market	Organic	Energy type
NEW	MAS 06.T	Ultra Early	160	Flint-Dent	•					Starchy
	MAS 053.C	Ultra Early	160	Flint-Dent	•			•		Balanced
	SKIPPER	Ultra Early	160							
	MARYJANE	Ultra Early	160	Flint-Dent	•					Balanced
NEW	MAS 09.P	Very Early	170	Flint-Dent	•			•		Starchy
	MADONIAS	Very Early	180	Flint	•		•			Starchy
	DM0500	Very Early	190	Flint	•					Starchy
	CONCLUSION	Very Early	190	Flint	•			•		Starchy
NEW	SHEDDAR	Early	200	Flint-Dent	•					Starchy
	BELAMI	Early	200	Flint	•				•	Starchy
	BARMAN	Early	200	Flint	•	•	•			Starchy
	MAS 10.A	Early	200	Flint	•	•	•	•	•	Starchy
	MAS 11.F	Early	200	Flint-Dent	•	•	•	•		Starchy
	MASKARET	Early	210	Flint	•			•		Starchy
	MAS 13.M	Early	210	Flint-Dent	•			•		Starchy
	MAS 12.H	Early	210	Flint	•	•	•			Starchy
	MAS 16.B	Mid Early	220	Flint-Dent	•			•	•	Balanced
	MAS 24.C	Mid late	240	Dent	•		•	•		Starchy

\* Silage maturity at 32 % DM

\*\* Grain maturity for 35% for flint, 32% for dent

Register january 2022



SOWING RECOMMENDATIONS

AGRONOMY

Optimal harvest density (silage)		Suitability		GREEN+	Early vigour	Eye spot	Fusarium	COMMUN SMUT	Lodging
Early sowing	Late sowing	Favourable	Less favourable						

42 500	38 500	••••	•••		8	6	7	9	8
42 500	38 500	•••	••••	+	7	9	7	8	7
42 500	38 500								
42 500	38 500	•••	••••		8	7	7	8	8
42 500	38 500	•••	•••		8	6	7	7	7
42 500	38 500	••••	••••	+	8	8	8	8	9
42 500	38 500	••••	••••	+	8	8	9	8	8
42 500	38 500	••••	•••		9	8	9	8	7
42 500	38 500	••••	•••		9	9	7	8	8
42 500	38 500	•••	•••		8	7	7	7	7
42 500	38 500	••••	•••	+	8	6	8	9	8
42 500	38 500	••••	•••	+	7	8	8	7	7
42 500	38 500	••••	•••		7	7	8	8	9
42 500	38 500	••••	••••		8	8	8	8	8
42 500	38 500	••••	••••		9	7	8	9	9
42 500	38 500	••••	•••	+	7	8	8	9	7
42 500	38 500	••••	••••	+	8	9	8	8	8
42 500	38 500	••••	••••		8	8	7	8	8

••

In the average

••••

Very good results

1-3 sensible

•

To avoid

•••

Good results

4-6 medium – good

7-9 tolerant – excellent

1-3 bad | 4-6 average – good | 7-9 excellent



# CORN AS A CARBON SINK

Agroecosystems contribute to global greenhouse gas emissions primarily from fermentation, synthetic fertilizers and tillage. However, it also has a great potential to store vast amount of soil carbon. Agriculture has the ability to transform from CO<sub>2</sub> emitter to CO<sub>2</sub> capturer. Its potential can be increased by using **high yielding crops like corn, alternating crop rotations, adapting cultivation practices, integrating cover crops, fertilizer management or green manures.**

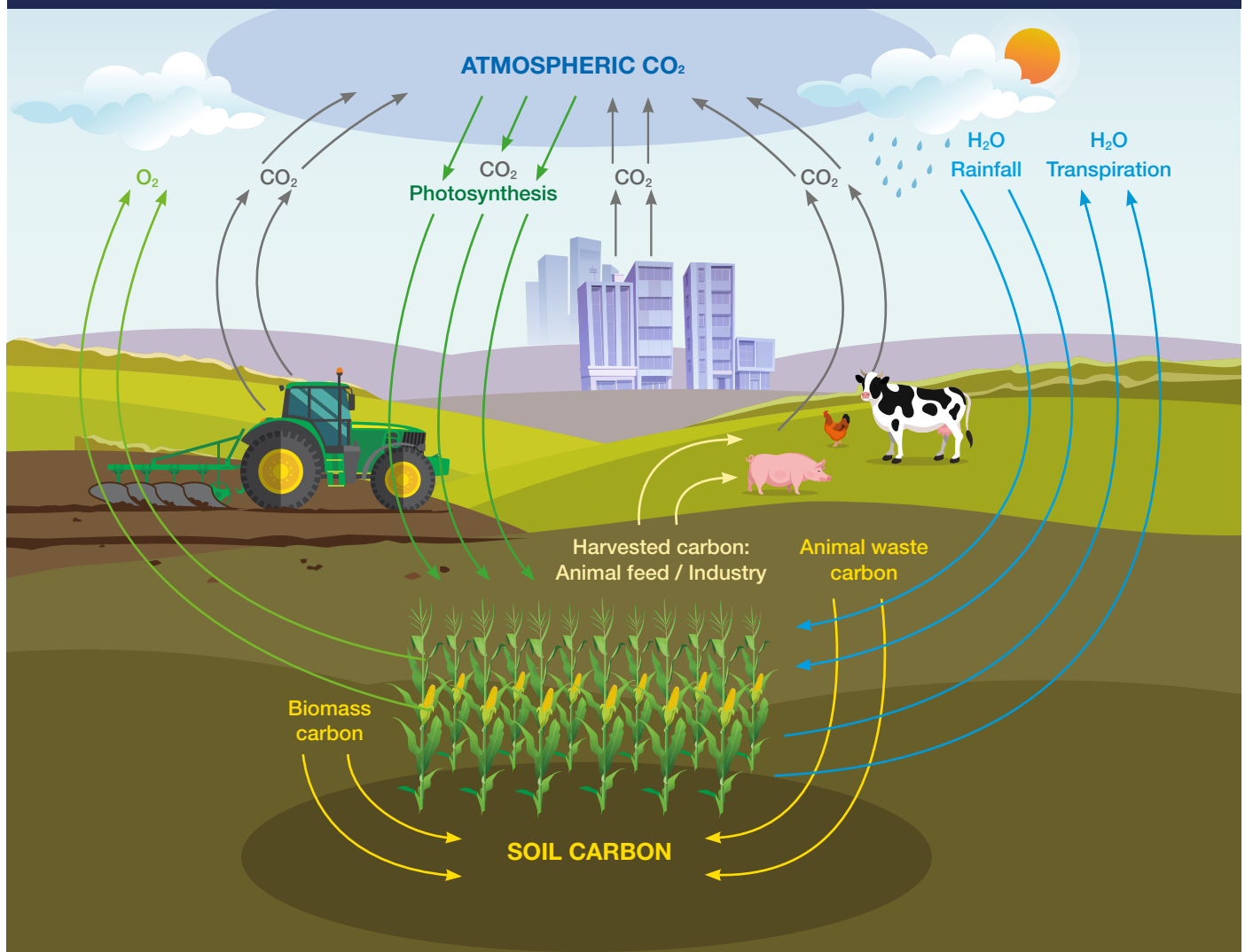
Corn as a crop has multiple benefits :

- Corn recycles nitrogen and organic matter, mainly carbon from the soil to synthesize into biomass.
- It removes carbon dioxide from the atmosphere and returns as oxygen.
- Corn valorizes rainfall and winter water reserves, which it largely releases into the atmosphere. 75% of corn in Europe is not irrigated.

## CORN AS AN OXYGEN PRODUCER

**1 ha of corn = 4 ha of forest**

### Carbon and Water Cycles for Corn





# How corn reduces greenhouse gases

One hectare of corn captures 4 to 8 times more CO<sub>2</sub> than it emits to produce it.

This process produces 15 to 20 tons of biomass per hectare, half of which is in the form of straw and roots.

After harvest, the straw that is incorporated into the soil decomposes into humus, a guarantee of soil fertility and a carbon store. For example, 7.5 to 10 tons of stem, straw and roots produce 1.1 to 1.5 tons of stable humus in the soil. This represents a stock of 450 to 600 kg of carbon, or 1 650 to 2 200 kg CO<sub>2</sub> eq per hectare. (Source: Arvalis 2020). This is referred to as “**carbon sink**”.

## “Higher yields increase carbon storage in soils”

In 10 years, the maize yield has increased by one ton of grain per hectare and one ton of residues returned in addition. **This corresponds to 220 kg eq CO<sub>2</sub> captured per hectare!**

## Agronomic experiments at maisadour group to anticipate agricultural practices of tomorrow

Together with MAISADOUR GROUP experts and farmers, 6 agronomic experimental sites were established 9 years ago to anticipate farming systems for a sustainable use of resources. Today 5 farming subjects are being tested:

- Tillage
- Cultivation systems
- Nitrogen management and reduction
- Organic fertilization management
- Weeding strategies

One of the goals is to know where our farmers are in terms of carbon storage and greenhouse gas emissions today and to propose solutions to generate more carbon credits in the future. It is also inline with MAS Seeds' strategic pillar to **integrate cover crops and agroecological solutions.**





# HYBRIDS TO SECURE FEED EFFICIENCY IN CHANGING CLIMATE



 **HARVEST  
FLEXIBILITY**

 **BETTER  
CONSERVATION**

 **MORE ENERGY  
AND DIGESTIBILITY**



# BREEDING CRITERIAS

**Harvesting high-quality silage at the correct maturity** is a major objective for the farmers in order to ensure the feeding of their dairy cows. Milk production is closely linked to the **quality of harvested and stored silage**.

In addition to dry matter (DM) yield, feed value and early vigour, **MAS Seeds maize silage R&D has worked for 15 years on drought tolerance** of plants. **GREEN+ portfolio** is the result of this research.

## KEY RESEARCH AXES OF MAS SEEDS SILAGE R&D PROGRAM:

- DM yield/ha
- Feed value (starch & digestibility)
- **GREEN+\***
- Early vigour

\*GREEN+ is defined as genetic ability of a variety to delay maturity of leaves and stems, and so maintain their photosynthetic area active for longer period.

## Characteristics and advantages of GREEN+ hybrids for farmers:



### HARVEST

- Good **stay-green** of the plant
- More **flexibility to harvest**  
**+5 to 10 days**
- Better organisation of **harvest planning**



### STORAGE IN SILO

- More **soluble sugars** in the plant
- Better **conservation in silo**  
**+3% of green forage grain**
- Quicker start of fermentation and **pH decrease**



### FEEDING

- Slower evolution of **grain dry matter**
- Higher **valorisation of starch**  
**+5% digestible starch**
- Grains easier to crash

\*Source: MAS Seeds trial results in mini clamps – 2017 & 2018.



EARLY

# MADONIAS



**VERY EARLY FORAGE MAIZE  
WITH VERY HIGH STARCH  
CONTENT**

**FAO: 180**

- EXCELLENT FEED VALUE**  
Very high level of starch and energy
- MIX OF YIELD AND EARLINESS**  
Early flowering a stable result
- GOOD EARLY VIGOUR**  
In early and late drilling



## CHARACTERISTICS




Plant height:	Medium
Ear insertion:	Medium - Low
Type of grain:	Flint-Flint-Dent
Nbr of rows:	16-18
Nbr of grains per row:	26-28
TKW:	300-320
Flowering(°C):	770°C
Silage maturity 32% DM:	1250°C

## AGRONOMY

Early vigor:	8
Stay green:	8
Helminthosporium:	8
Eye spot:	8
Fusarium (ear):	7
Lodging:	9
Drought tolerance:	7

1-3 sensitive | 4-6 medium - good | 7-9 tolerant - excellent

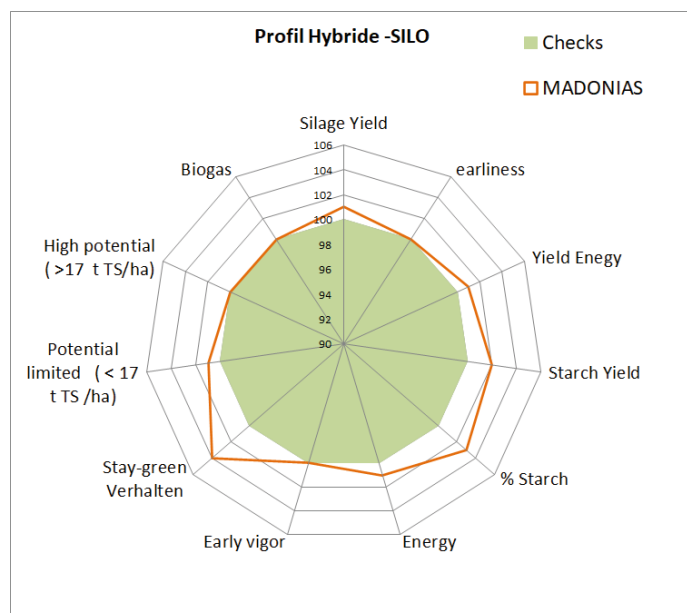
## FEED VALUE

Starch:	
dNDF:	
UFL:	
	<div>1 5 9</div>

1-3 low | 4-6 medium | 7-9 good - excellent



**FAST  
ENERGY**



## GROWING RECOMMENDATIONS

	Optimal conditions	Limited conditions
<b>Adaptation</b>	++++	++++
<b>Density (Silage)</b>	45 000	42 000

MADONIAS is a silage variety with very early maturity. It brings high level of energy thanks to a very good level of starch and a good digestibility of plant. Madonias is a very secure hybrid thanks to its very good stay green.





VERY EARLY

NEW

DM0500



ADAPTED FOR PERFORMANT  
DAIRY COWS

FAO: 190

- VERY GOOD LEVEL OF DIGESTIBILITY  
thanks good level of starch
- YIELD PERFORMANCE IN ALL
- SITUATIONS VERY GOOD STAY GREEN



FAST  
ENERGY

## Characteristics

Plant height:	Medium
Ear insertion:	Medium
Type of grain:	Flint
Nbr of rows:	16-18
Nbr of grains per row:	26-28
TKW:	290-310 g
Flowering(°C):	770°C
Silage maturity 32% DM:	1280°C

## Agronomy

Early vigor:	8
Stay green:	9
Dry down:	6
Helminthosporium:	8
Eye spot:	8
Fusarium (ear):	9
Lodging:	8
Drought tolerance:	8

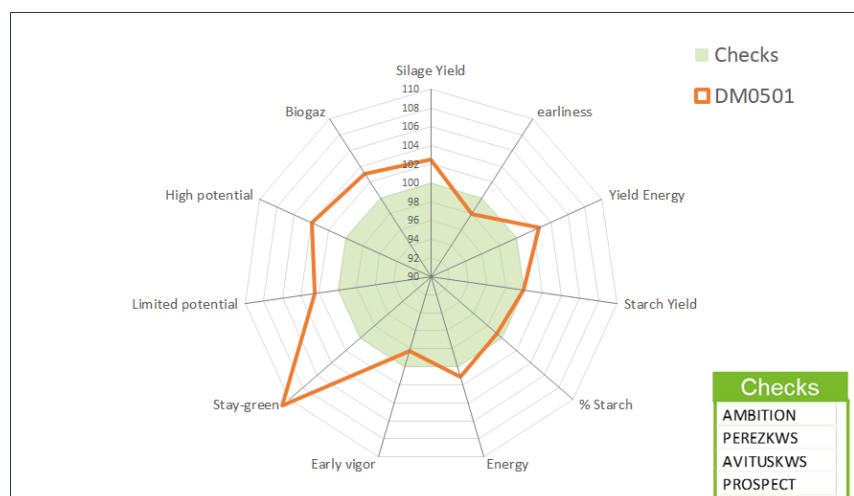
## Feed value

Starch:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
dNDF:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
UFL:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

1

5

9



## Growing Recommendations

	Optimal conditions	Limited conditions
Adaptation	++++	++++
Density (silage)	45 000	42 000

DM0500 has a high level of global digestibility thanks to a good level of dNDF and starch. Its good behaviour against diseases and its good stay green is essential to secure the quality of the silo. DM0500 can be used in all locations and soil types.

MID LATE



# MAS 10.A

WITH DUAL PURPOSE

FAO: 200

## DOUBLE PERFORMANCE

In silage and grain

## ADAPTATION

With superb ability to build regular cobs in any condition

## HIGH DISEASE RESISTANCE

To fusarium, helmintosporium and eyespot



FAST  
ENERGY



## CHARACTERISTICS

Plant height :	Medium - Short
Type of grain :	Flint
Nr of rows:	16-18
Nr of grains per row:	24-28
TKW:	260-280g
Flowering(°C) :	800°C
Silage maturity 32% DM:	1340°C

Sum of temperature in °C based on AGPM

## AGRONOMY

Early vigour:	7
Stay green :	8
Dry down:	7
Helminthosporium :	7
Fusarium (cob):	8
Lodging:	8
Drought tolerance:	7

1-3 sensitive | 4-6 medium – good | 7-9 tolerant | excellent

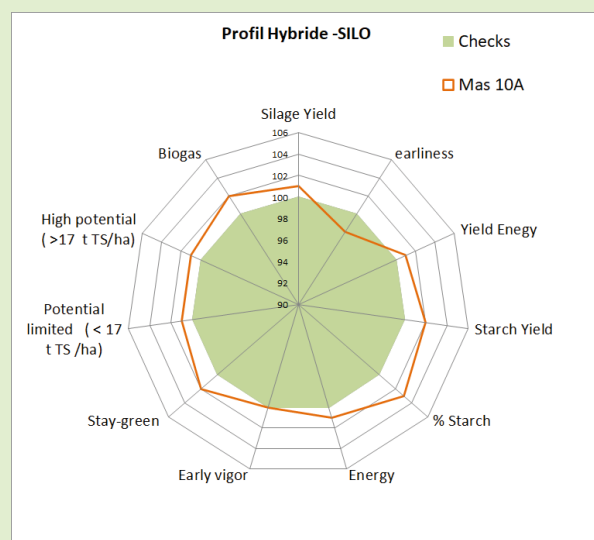
## FEED VALUE

Starch:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
dNDF:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Energy:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
	<div><div>1</div><div>5</div><div>9</div></div>

1-3 low | 4-6 average | 7-9 good to excellent

## Silage performance

R&D Very-2018



## GROWING RECOMMENDATIONS

	Optimal conditions	Limited conditions
<b>Adaptation</b>	++++	+++
<b>Density</b> (Silage Pl/ha)	45 000	42 000

MAS 10.A can be grown in all cold area as silage and as grain. It provides very high level of energy thanks to its high starch content and the digestibility of the plant. Thanks to a very good level of hemicellulose, MAS 10.A is very adapted for the biogas production and can also be used in CCM.





LATE

# MAS 12.H



**EXCELLENT STARCH  
CONTENT - HIGH YIELDS  
GOOD FOR AD**



**FAO: 210**

## HIGHEST ENERGY YIELD

With very high starch content

## HIGH QUALITY GRAIN

Also suitable for pig feeding

## VERY STABLE VARIETY

Stable healthy plant until harvest

## CHARACTERISTICS

Plant height :	Medium - High
Type of grain :	Flint
Nr of rows:	16-18
Nr of grains per row:	24-28
TKW:	210-240g
Flowering(°C) :	810°C
Silage maturity 32% DM:	1370°C
Grain maturity 35% H2O:	1620°C

Sum of temperature in °C based on AGPM

## AGRONOMY

Early vigour:	7
Stay green :	7
Dry down:	6
Helminthosporium :	7
Fusarium (cob):	8
Lodging:	7
Drought tolerance:	7

1-3 sensitive | 4-6 medium – good | 7-9 tolerant | excellent

## FEED VALUE

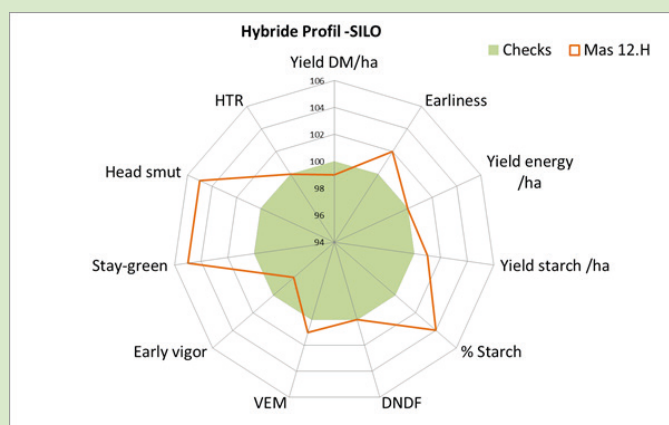
Starch:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
dNDF:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Energy:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
	<div><div>1</div><div>5</div><div>9</div></div>

1-3 low | 4-6 average | 7-9 good to excellent



**FAST  
ENERGY**

## Silage performance



## GROWING RECOMMANDATIONS

	Optimal conditions	Limited conditions
Adaptation	++++	++++
Density (Silage)	45 000	42 000

Mas 12H can be used for silage and AD. Mas 12H secures the level of energy in the diet thanks to its high starch content. It also has a good tolerance against fusarium.



LATE

# MAS 16.B

**VERY TOP YIELD IN SILAGE**  
with a good stable  
performance  
**GOOD FOR AD**

**FAO: 215**



- VERY TOP YIELD IN SILAGE** with good stability of performances
- VOLUMINOUS PLANT** with a good dNDF
- VERY GOOD STAY GREEN** with a good early vigor

## CHARACTERISTICS



**BALANCED  
ENERGY**

Plant height:	High
Ear insertion:	Medium
Type of grain:	Flint - Dent
Nbr of rows:	16
Nbr of grains per row:	28-32
TKW:	320-330 g
Flowering(°C):	835°C
Silage maturity 32% DM:	1390°C

## AGRONOMY

Early vigor:	8
Stay green:	8
Dry down:	7
Helminthosporium:	7
Eye spot:	9
Fusarium (ear):	8
Lodging: Drought tolerance:	8
	7

1-3 sensitive | 4-6 medium - good | 7-9 tolerant - excellent

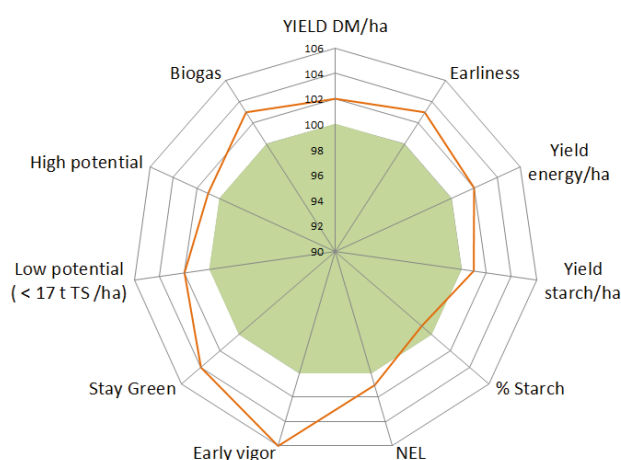
## FEED VALUE

Starch:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
dNDF:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
UFL:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
	<div><div>1</div><div>5</div><div>9</div></div>

1-3 low | 4-6 medium | 7-9 good - excellent

Profil Hybride -SILO

■ Checks □ MAS 16.B



## Growing Recommendations

	Optimal conditions	Limited conditions
<b>Adaptation</b>	++++	++++
<b>Density (silage)</b>	45 000	42 000

DM1537 can be grown in any type of soil. Its quality of early vigor and stay green secures a good level of silage production. Its high value in dNDF ensures a high level of energy in the silo.



### SELECT A SILAGE VARIETY SUITABLE FOR YOUR CATTLE DIET

The nutritional quality of silage varieties is in the heart of our silage corn breeding program. The energy in the corn silage comes from the starch and the fiber digestibility of stem and leaves. MAS Seeds has determined 2 different energy types to categorize corn silage varieties, depending on the dominant source of the energy:

- **Balanced energy varieties**
- **Starchy energy varieties**



### Principle of the approach

All MAS Seeds silage varieties are analyzed for their nutritional quality and the ratio of their fiber and starch energy at harvest between 32 and 35% DM. We then categorize varieties by their energy profile and recommended depending on the diet practiced by the cattle farmers.



Practiced diet	Corn Silage Dominant	Grass and Alfalfa dominant
<b>Corn ratio</b>	<b>More than 70% corn</b>	<b>Less than 70% corn</b>
<b>Recommended corn silage profile</b>	<ul style="list-style-type: none"> <li>• Need fiber digestibility in corn</li> <li>• No excess starch</li> <li>• Acidosis risk management</li> </ul>	<ul style="list-style-type: none"> <li>• Need energy concentration</li> <li>• Quick available energy</li> <li>• High level of starch</li> </ul>
<b>Feeding Period</b>	Late Autumn - Winter	Spring - Summer - early Autumn

#### Silage Energy profile



**BALANCED  
ENERGY**



**STARCH  
ENERGY**

#### Use Advices

Can be supplemented with energy concentrates:  
Grain or cereal  
Corn cob mix

- It combines excellently with our ALFALFA varieties and FORAGE mixtures
- Limit the additional the starch source (acidosis risk)

# INCREASE THE NUTRITIONAL EFFICIENCY OF YOUR FODDER CROPS



## Maximising Your Dairy Feed with Elite Genetics

The NUTRIPLUS® program helps dairy farmers increase **forage nutritional efficiency**.

- **Silage corn varieties:** Offering a complete range of high-quality varieties segmented by their silage quality type with specific tolerance traits.
- **Alfalfa varieties:** We offer a range of different varieties that deliver strong agronomic performance and quality in different dormancy classes.
- **Supplements and other forage crops:** A new generation of seeds to supplement your forage crops, such as silage sorghum, fodder beet and specific ray grass complete the NUTRIPLUS® product portfolio.



## Expert Services and Personalised Tools

Our crop production experts run field trials to provide **personalised recommendations to assist you in optimising the nutritional performance of your dairy feed and fodder mixtures**.

Four components of research and development and crop production, go into the programme, which consists of:

1. A complete forage silo diagnostic on your farm with **NUTRIPLUS® SILO**.
2. Providing the most suitable suggestions of seed species and varieties for an effective dairy diet.
3. Our specialists ensure crop establishment and yield optimisation using **AGROTEMPO®**.
4. We advise you on how to best optimise forage harvest with **NUTRIPLUS® HARVEST** Service and storage with **NUTRIPLUS® SILO** Service.





Harvest at the right date the silage corn or lucerne is a key objective for dairy farmers. It's the guarantee **to harvest the best feed value and to have a good conservation on the silo.**

To support farmers, MAS Seeds develop different tools:

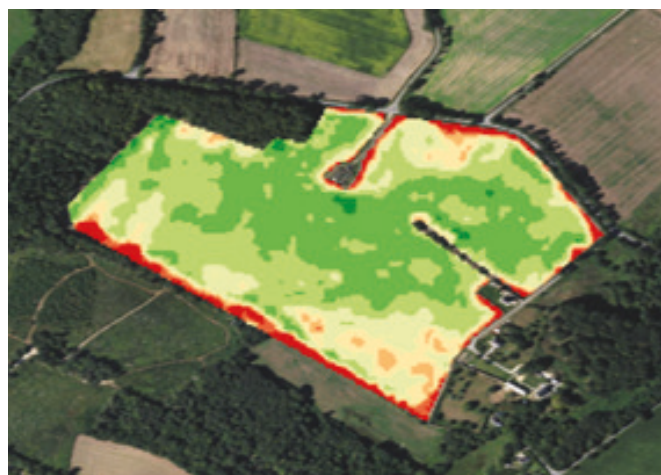
## Nutriplus® Harvest Service

1. AGROTEMPO® app: Customized and precise advice at the field level to predicts all stages of the crop till silage harvest date.
2. Event with NIR System: analyse by NIR of the the fresh matter of the crop coming from the field: Calculation of optimal harvest date in the same time.



## Nutriplus® SAT Service

1. Observe evolution of % DM at the field level thanks sateite images.
2. Report with the forecast of % DM field maps for the followig 15 days.
3. Forecast your silage havest thanks the recommandation of the best harvest period.



## Nutriplus® Silo Service

NUTRIPLUS® SILO is a **complete diagnosis of your maize silage after opening the silo.** Advices given in the individualized report will contribute to improving the quality of your forage and adapting your diet.





# AGROSTART® MAIZE SEED APPLIED SOLUTION



**INNOVATIVE CORN SEED CARE  
FOR BETTER FIELD ESTABLISHMENT  
AND YIELD SAFETY**



**Biostimulant**

**+ Fungicide**





# AGROSTART®: MORE THAN A SEED TREATMENT, IT IS AN INNOVATIVE TECHNOLOGY!

## Innovative formulation to boost and protect plants in all environments

The innovative AGROSTART standard formulation for stronger and well protected seedling.

Two advanced formulations for environments with higher pest pressure, composed with the standard formulation and complementary solutions.



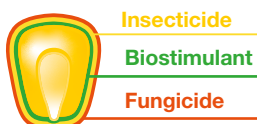
### STANDARD FORMULATION

- Biostimulants:** a new humic acid formulation to improve the absorption of nutrients available around seedling.
- Fungicide:** prevents damage during the early growth phase from fungus and secure the emergence.



### ADVANCED FORMULATION FOR SOIL INSECT PRESSURE

- Biostimulant and fungicide** standard formulation.
- Insecticide (FORCE):** protects against the principal soil insects as wireworms.



### ADVANCED FORMULATION FOR BIRD PRESSURE

- Biostimulant and fungicide** standard formulation.
- Bird repellent (KORIT).**



## Benefits at field establishment and harvest



### Boost and protect the seedling for a better emergence:

- Quicker and more regular emergence
- Higher emergence rate in cold conditions (+ 5% of raised plants)
- Better roots exploration and nutrient absorption



### Boost and protect the seedling for a better emergence:



- + 3% Yield on average\*
- + 11% Yield in cold conditions at emergence\*

\* Compared to standard treatment. Source: MAS Seeds Research in Seeds Production Data

# Higher methane production with MAS Seeds biogas hybrids

Corn is the main substrate ( ~ 50 - 60%) for the most biogas plants as it is a unique crop with the highest carbon efficiency per hectare.

## The main criteria for highest methane production/ha:

-  **Massive yield in dry matter (DM)**
-  **Methane production in liter per kg of DM.**

We observe in our network of biogas trials that the production of methane/ ha is directly linked to **DM yield**.  
**This is the key criteria of selection of our biogas varieties in MAS Seeds, respecting a minimum of 32% of DM to ensure the best quality of plant.**



**MAS Seeds research** is also focused on secondary parameters :

### High stay green

- to secure the harvest window
- to have a quicker fermentation on the silo and a better conservation of the quality

**Good fat content** : Increase biogas production

**Good level of hemicellulose** for a better retention time in the digester



## OUR ORGANIC SEED PORTFOLIO

VARIETIES	Earliness	Type de grain	Rendement Biogaz/ha	"Index Biogaz (RATH Formule)"	Stay green	Matière grasse	Hemicellulose
<b>MAS 10.A</b>	Very Early	Flint	***	****	****	***	****
<b>MAS 16.B</b>	Early	Flint	****	***	****	****	****
<b>MAS 053.C</b>	Ultra early	Flint - dent	***	****	**	***	****
<b>Mas 09.P</b>	Ultra early	Flint - dent	***	****	***	****	****
<b>Mas 11.F</b>	Very early	flint	****	***	***	****	***
<b>MASkaret</b>	Very early	flint	****	***	***	***	****
<b>MAS 13.M</b>	Very early	flint	***	***	***	****	***
<b>MAS 24.C</b>	Mid late	Dent - Flint	****	***	****	***	***

\*\* correct

\*\*\* good

\*\*\*\* excellent





# SKIPPER FORAGE MAIZE

TYPE: VERY EARLY MATURING FEED QUALITY: HIGH STARCH CONTENT AND EXCEPTIONAL ME YIELD YIELD: VERY HIGH

Let Skipper navigate you to higher yields from an early harvest.

## FORAGE VARIETIES

### KEY STRENGTHS

New - Expected to be 1<sup>st</sup> choice on the 2024 List

Very early with exceptional DM yield

Exceptional ME yield

Excellent starch yield

High starch content



An LGAN accredited variety



Forage



Anaerobic Digestion

### AGRONOMIC DATA

FAO*	170
Yield* (t/Ha)	18.7
Early Vigour* (1 - 9)	7
Standing Power* (1 - 9)	7
Leaf Senescence* (1 - 9)	6.5

### QUALITY DATA

ME Content* (MJ/kg DM)	11.7
ME Yield* (MJ/Ha at harvest)	218,212
Starch Content* (% at harvest)	35.8
Starch Yield* (t/ha)	6.7
Cell Wall Digestibility* (%)	55.8

Estimated position on the BSPB/NIAB Descriptive List 2023. On the 1-9 scales, high figures (e.g. above 7.0) indicate strength in this character. Features marked with \* are based on Limagrains estimates.

Limagrains UK, Rothwell, Market Rasen, Lincolnshire, LN7 6DT

Tel: 01472 371471

Email: [enquiries@limagrains.co.uk](mailto:enquiries@limagrains.co.uk)

[www.lgseeds.co.uk](http://www.lgseeds.co.uk)

[@LGSeedsUK](https://twitter.com/LGSeedsUK)

[@LGSeedsUK](https://facebook.com/LGSeedsUK)

Limagrains



## VERY EARLY

## MARYJANE



**VERY GOOD EARLY VIGOUR TO SECURE THE EARLINESS**

**FAO: 160**



**REAL ULTRA EARLY HYBRID**

One of the earliest on the market

**GOOD EARLY VIGOUR**

For a better establishment

**REGULAR PERFORMANCE**

Even in cold areas or late sowing



**FAST ENERGY**

## CHARACTERISTICS

Plant height:	Medium - Short
Ear insertion:	Medium - Low
Type of grain:	Flint - Dent
Nbr of rows:	14
Nbr of grains per row: TKW:	28-34
Flowering(°C):	270-290
Silage maturity 32% DM:	750°C
	1240°C

## AGRONOMY

Early vigor:	8
Stay green:	7
Helminthosporium:	7
Eye spot:	7
Fusarium (ear):	7
Lodging:	8
Drought tolerance:	7

1-3 sensitive | 4-6 medium - good | 7-9 tolerant - excellent

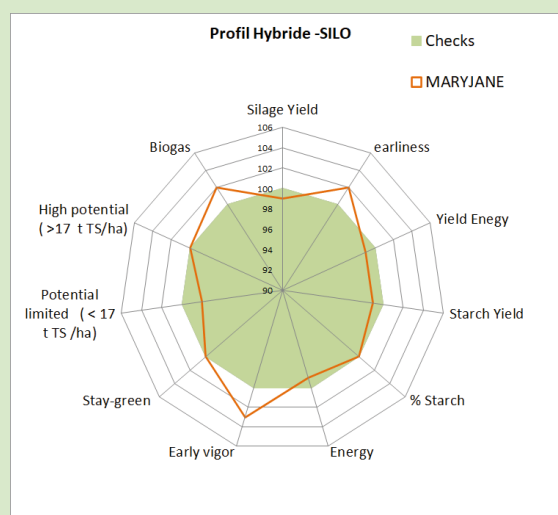
## FEED VALUE

Starch:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
dNDF:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
UFL:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
	<div><div>1</div><div>5</div><div>9</div></div>

1-3 low | 4-6 medium | 7-9 good - excellent

## Silage performance

R&D Network 2018



## GROWING RECOMMANDATIONS

	Optimal conditions	Limited conditions
Adaptation	++++	++++
Density (Silage)	45 000	42 000

Maryjane is an excellent choice for breeders looking for a very early and regular silage variety in all situations. Maryjane is especially suitable for cold areas thanks to an excellent early vigor and early flowering. In good condition add 5,000 seeds / ha.



## Conclusion Grain

**Massive yields, high quality, early harvest – the only logical choice!**



**Maturity:** Early

**Site Type:** Favourable

**Sowing Type:** Open

High grain yields with a low moisture content – it's an easy Conclusion.

### Strengths

- Early grain maturity delivering bulky yield from an early harvest
- Large grain size with good colour
- Flexibility to use for grain, crimping or forage

### Technical Information

See table below for technical information on Conclusion. Full data available in the [Maize Variety Selection Guide 2022](#)



Rothwell, Market Rasen,  
Lincolnshire, LN7 6DT

[www.lgseeds.co.uk/conclusion-forage-maize](http://www.lgseeds.co.uk/conclusion-forage-maize)

Tel: 01472 371471 [www.lgseeds.co.uk](http://www.lgseeds.co.uk)  
[enquiries@limagrains.co.uk](mailto:enquiries@limagrains.co.uk)

**Limagrains** 



EARLY

NEW

# SHEDDAR



**REGULAR PERFORMANCE  
WITH GOOD EARLY VIGOR**

**FAO: 190**

## HIGH POTENTIEL

With regular cob

## GOOD EARLY VIGOR

## VERY GOOD STARCH CONTENT



**FAST  
ENERGY**

## CHARACTERISTICS

Plant height:	Medium - High
Ear insertion:	Medium
Type of grain:	Flint - Dent
Nbr of rows:	14-16
Nbr of grains per row:	30-34
TKW:	290-310
Flowering(°C):	795°C
Silage maturity 32% DM:	1330°C

## AGRONOMY

Early vigor:	9
Stay green:	7
Helminthosporium:	7
Eye spot: Fusarium	7
(ear): Lodging:	8
Drought tolerance:	7

1-3 sensitive | 4-6 medium - good | 7-9 tolerant - excellent

## FEED VALUE

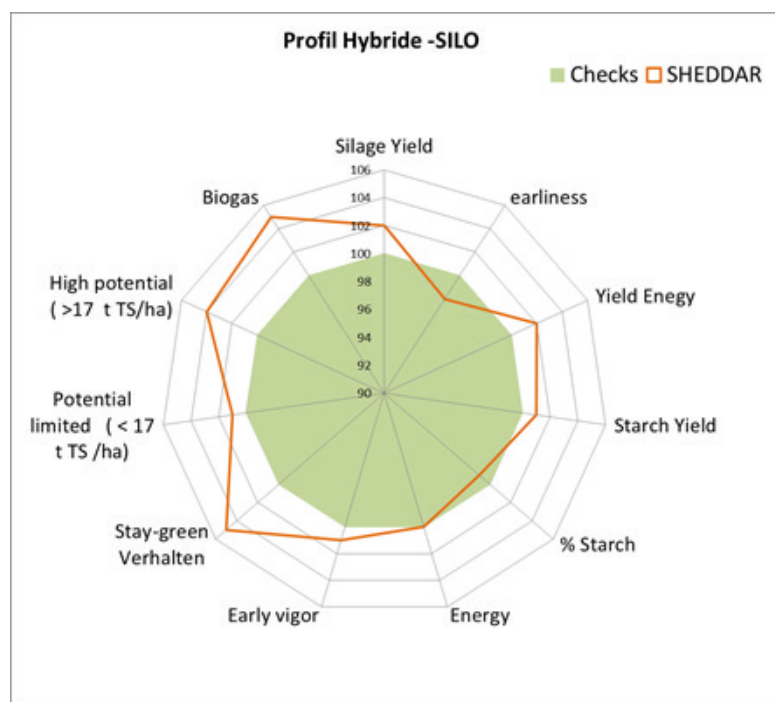
Starch:	■	■	■	■	■	■	■	■	■
dNDF:	■	■	■	■	■	■	■	■	■
UFL:	■	■	■	■	■	■	■	■	■

1

5

9

1-3 low | 4-6 medium | 7-9 good - excellent



## Growing Recommendations

	Optimal	conditions	Limited conditions
<b>Adaptation</b>	++++		+++
<b>Density (silage)</b>	45 000		42 000





MID LATE



# MAS 11.F

REGULAR PERFORMANCE  
WITH GOOD EARLY VIGOUR  
DUAL PURPOSE ADAPTED  
FOR SILAGE AND GRAIN

FAO: 200

## HIGH POTENTIAL

With big cob

## GOOD EARLY VIGOUR VERY

## GOOD STARCH CONTENT



FAST  
ENERGY

## CHARACTERISTICS

Plant height :	Medium - High
Type of grain :	Flint - Dent
Nr of rows:	12-14
Nr of grains per row:	24-28
TKW:	290-300
Flowering(°C) :	795°C
Silage maturity 32% DM:	1340°C

Sum of temperature in °C based on AGPM

## AGRONOMY

Early vigour:	7
Stay green :	6
Dry down:	6
Helminthosporium :	7
Fusarium (cob):	8
Lodging:	9
Drought tolerance:	6

1-3 sensitive | 4-6 medium - good | 7-9 tolerant - excellent

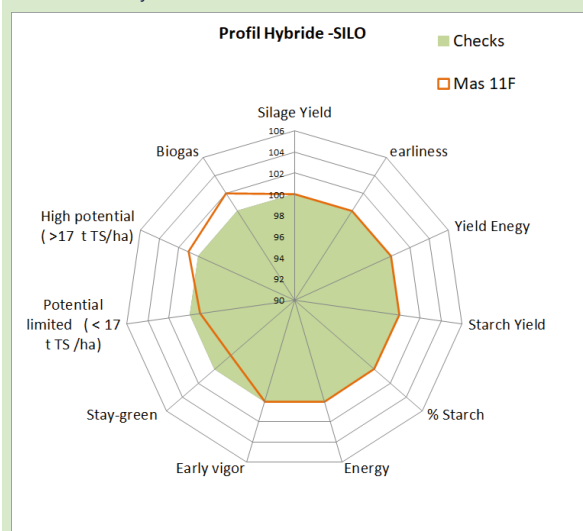
## FEED VALUE

Starch:	
dNDF:	
UFL:	
	<div>1</div> <div>5</div> <div>9</div>

1-3 low | 4-6 medium | 7-9 good - excellent

## Silage performance

R&D Very-2018



## GROWING RECOMMENDATIONS

	Optimal conditions	Limited conditions
Adaptation	++++	++++
Density (Silage)	45 000	42 000



LATE



# MAS 24C

FAO: 240

## A NEW GENETIC FOR OUTSTANDING YIELD

- Excellent grain performance, high and stable yield, up to 15t/ha
- Excellent silage performance, massive yield up to 21t/ha dry matter
- Very high stress tolerance, adapted to all growing environments



## Characteristics

Plant height:	Medium - High
Ear insertion:	Medium
Type of grain:	Flint - Dent - Dent
Nbr of rows:	16-18
Nbr of grains per row:	26-34
TKW:	330-350
Flowering(°C):	880°C
Silage maturity 32% DM:	1520°C
Grain maturity 32% H2O:	1700°C

FAST  
ENERGY

## Agronomy

Early vigor:	8
Stay green:	8
Dry down:	8
Helminthosporium:	8
Fusarium (ear):	8
Lodging: Drought tolerance:	9

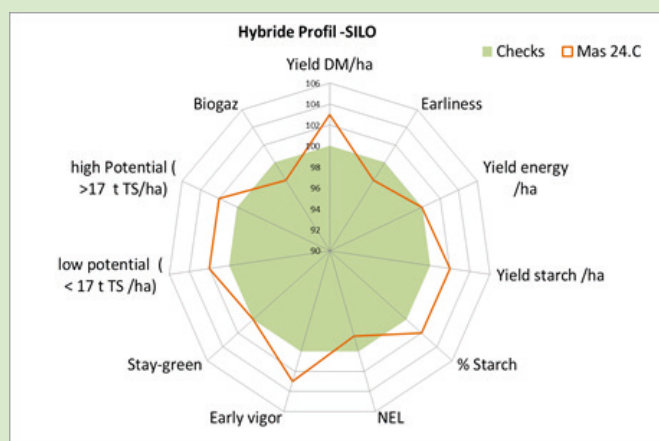
1-3 sensitive | 4-6 medium - good | 7-9 tolerant - excellent

## FEED VALUE

Starch:	1	2	3	4	5	6	7	8	9
dNDF:	1	2	3	4	5	6	7	8	9
UFL:	1	2	3	4	5	6	7	8	9

1-3 low | 4-6 medium | 7-9 good - excellent

## SILAGE PERFORMANCE



## GROWING RECOMMANDATIONS

	Optimal conditions	Limited conditions
Density (silage)	45 000	42 000

Mas 24.C is the perfect choice in flint-dent variety destined to grain as silage. Mas 24.C fits in all types of soil and is very tolerant to water stress (WST). Mas 24.C has good tolerance to cob Fusarium (GDT), which secures harvest and quality storage. Mas 24.C is suitable for pig feeding.





EARLY

NEW

# MASKARET



**STARCHY HYBRID TO PERFORM  
ENERGY OF YOUR DIET**

**FAO: 210**

- THE BEST RATIO YIELD PRECOCITY IN VERY EARLY SEGMENT
- TOP STARCH CONTENT
- SUPER REGULER IN SILAGE YIELD



**FAST  
ENERGY**



## Characteristics

Plant height:	Medium - High
Ear insertion:	Medium
Type of grain:	Flint - Dent
Nbr of rows:	14-16
Nbr of grains per row:	28-32
TKW:	290-310
Flowering(°C):	825°C
Silage maturity 32% DM:	1380°C

## Agronomy

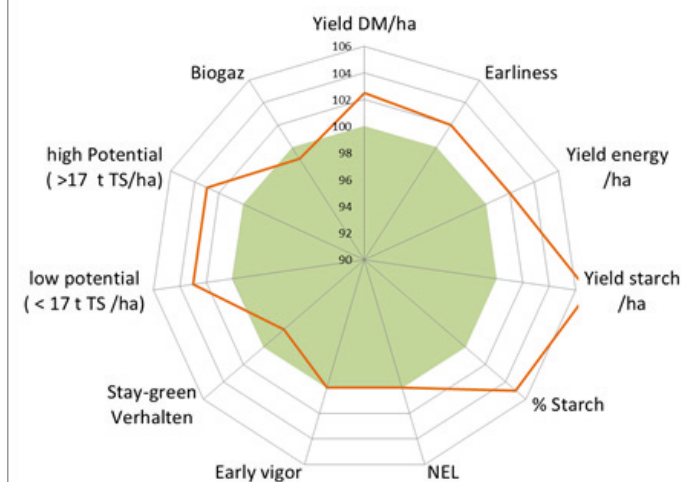
Early vigor:	8
Stay green:	7
Helminthosporium:	8
Eye spot:	8
Fusarium (ear):	8
Lodging:	8
Drought tolerance:	8

## Feed value

Starch:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
dNDF:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
UFL:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
	<div><div>1</div><div>5</div><div>9</div></div>

Profil Hybride -SILO

■ Checks ■ DM1539



## Growing Recommendations

	Optimal conditions	Limited conditions
<b>Adaptation</b>	++++	++++
<b>Density (silage)</b>	45 000	42 000
DM1539 has one of the best ratio precocity/ yield. Its high earliness ensures a good filling and reinforces its genetics predisposition resulting in one of the best starch level at harvest. DM1539 will perform in all conditions.		

# Contacts Bright Maize:

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