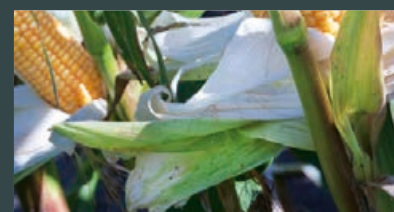


Maize 2024



Lunator Forage Rye established between Maize Crops
Drilled 15th Oct 2022
Harvested 30th April 2023



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Welcome

to your 2024 edition of the Agrii Maize Guide

Within this extensive guide you should be able to find all you need to know for the 2024 maize season.

Whether it's the data required to choose a new variety for your system, material suitable for where you're farming within the UK, or practical advice and post-cropping options, this guide is here to help!

It's becoming more important than ever that maize crops grown in the UK are reliable, consistent, high performing and sustainable, due to the ever changing seasons and legislation that the industry faces on an annual basis.

With its nationwide coverage of agronomists and crop input specialists, Agrii is in an unrivalled position to offer the best possible advice and varieties required to meet the ever increasing demands of maize grown on UK soils.

For further information on how to get the very best from your maize crops, get in touch with your local Agrii contact on the back page.



Ben Lowe
National Forage Product Manager

Favourable & Less Favourable regions of the UK

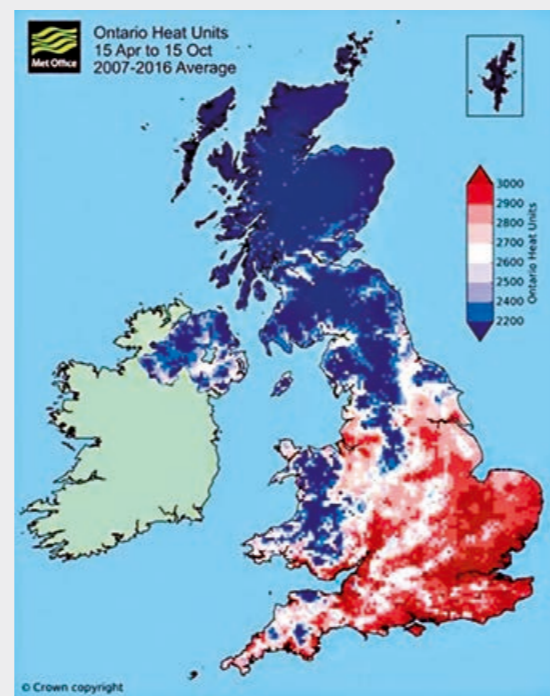
Throughout this Maize Guide, recommendations will be made using regional data designed to ensure the best performance is achieved from a variety grown within those areas of the UK.

In which region do you want to grow maize?

By using this colour coded heat map, you can clearly see the more favourable areas of the UK in red compared to the less favourable areas in the pale colours.

Maize is still a viable crop in the less favourable areas but variety choice is key and the use of degradable film may be needed in some instances.

Those areas in dark blue are generally not suitable for growing maize reliably.



Agrii: Taking a nationwide approach to growing maize

Whether you're growing maize under degradable film in the North West, for AD feedstock in the East, as silage for livestock in the South West or even maize for grain in the South East – Agrii can supply the market leading technical advice and varieties you need!

Working closely with international breeders, Agrii is constantly at the leading edge of developments for the UK maize market.

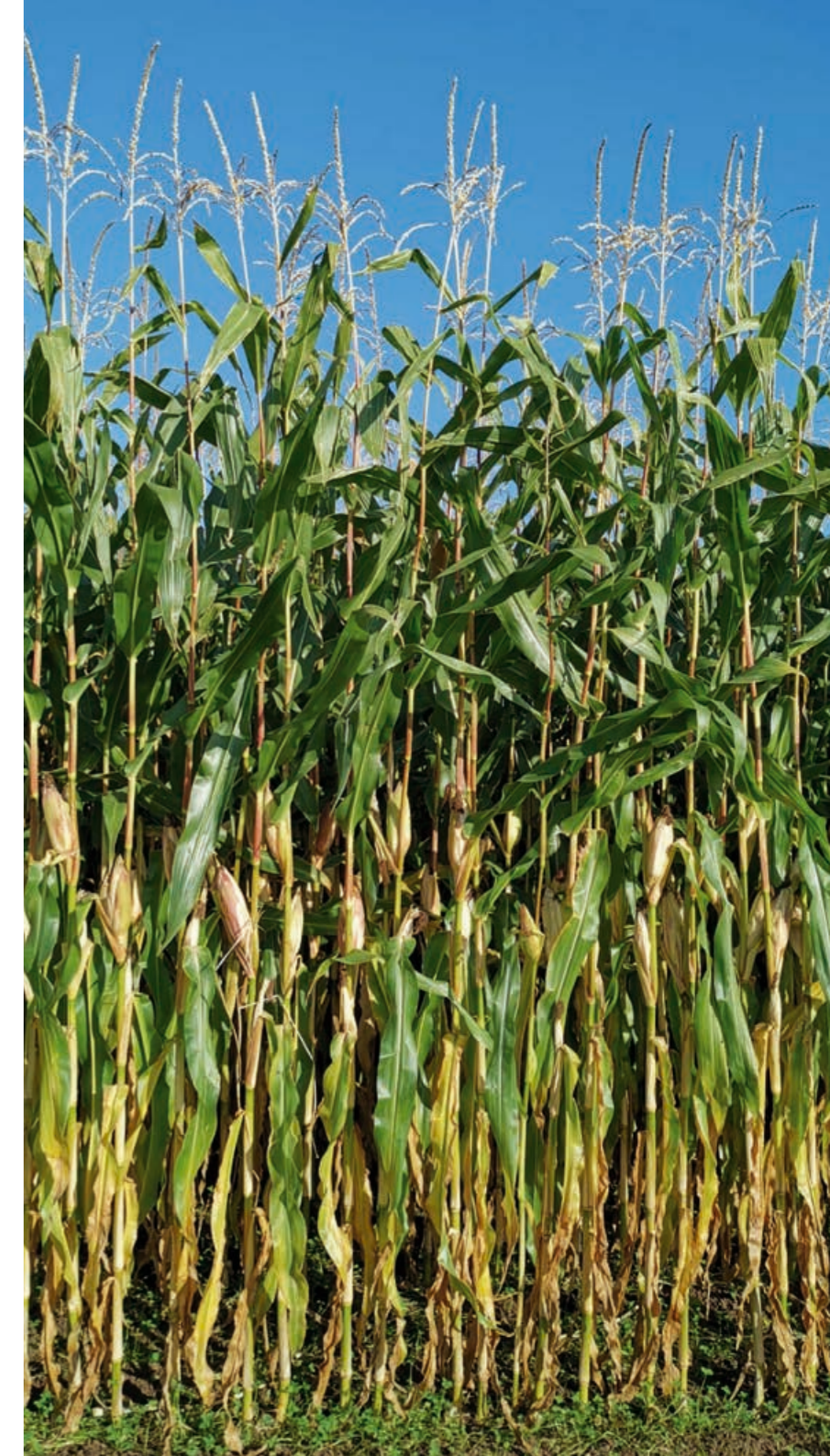
Agrii's nationwide agronomy team, crop input specialists and animal health advisors also have access to the most up to date R&D information, herbicide and crop nutrition as well as other associated inputs such as silage additives and degradable film.

R&D is at the heart of Agrii and regional maize trials play a very large part in how we are able to advise on the best variety for you and your system.

Trial site tours can be organised on a one-to-one basis at any point of the growing season to identify the key benefits of varieties chosen specifically to be part of the Agrii Portfolio.

Not only are we able to demonstrate our market leading maize varieties, but also the technical support we can offer to growers which ranges from weed control and seed treatments to foliar nutrition and harvest dates.

Furthermore, the Agrii team are always on hand to discuss post-maize cropping options to maximise the output of your land all year round or indeed ensure valuable nutrients are retained and soil erosion is avoided over the winter months.



RHIZA

When it comes to soil sampling, the power of measurement is in effective management. Unlock your soil's potential with RHIZA:

- + Remain compliant with up-to-date soil data
- + Build fertiliser requirement plans
- + P, K, Mg, pH analysis
- + Trace element analysis
- + Organic matter analysis for SFI (England only)
- + Analysis can be used to make more efficient product choices



Base features are available to all users:

- + Hyper-local farm weather data
- + Satellite imagery
- + Soil data
- + Yield mapping
- + Contour Mobile scouting app
- + Fertiliser requirement planning
- + Store data, cropping, observations and imagery



RHIZA NMP tool

RHIZA's NMP tool allows you to plan, track and confirm your nutrient applications throughout the growing season.

Planning is available for all crop types including grass, combinable, forage and vegetables. Combining organic and inorganic fertilisers with either whole field or variable rate applications, this intelligent tool ensures that you adhere to all relevant compliance regulations.

Cranfield soil data, rainfall data per farm, cropping and soil analysis are taken from the platform, removing the need for double entry of data and ensuring that nutrient management planning remains simple and efficient.

Following the announcement of NMP being absorbed into the Sustainable Farming Incentive as part of the ELMS scheme, RHIZA soil sampling and planning tools can aid your SFI claim.

- + Plan at whole field or zonal level
- + Stay compliant with NMP planning
- + Ensure crop demand and inputs are matched
- + Balance and top up manure applications
- + No double entry of data
- + All data in one accessible system
- + Grassland planning available

Tramlines Podcast

Tramlines is the only farming podcast that delivers advice to growers on how to improve environmental performance and maximise farm profitability.

By tuning into Tramlines, you will benefit from listening to episodes that feature experts and experienced farmers, who share valuable information on best practices, new techniques, and the latest research in agriculture.

Join the experts bi-weekly as they address common problems and solutions and stay up-to-date with the latest developments.

With CPD points up for grabs on certain episodes, topics range from digital innovations to soil health and the discussions are supported by Agrii's extensive trials programme and environmental work.



Top 3 Maize & Forage Episodes



1. Rethinking Grassland Fertiliser as Animal Feed



2. Getting the Most From Your Maize



3. Live from the Engine Room: Updated Forage Trial and Biogas Plant Results Available Now for Feedstock Choices this Season

Follow on your favourite podcast platform:
Or listen at: www.agrii.co.uk/tramlines-podcast



Reducing the environmental impact of maize

New techniques are being used to grow maize more sustainably, but which will fit best into your system?

Ben Lowe, Agrii's National Forage Product Manager, considers the options...

Avoiding fields with bare soil over winter following maize harvest helps to reduce the environmental impact from growing the crop, and also improves the soil.

Later harvested maize with no following crop until the following spring, is not only likely to be harvested in poorer conditions thereby potentially damaging soils, but also risks erosion and nutrient loss from the field. With maize there are a number of ways to improve soil resilience, but each has its benefits and challenges.

Grow an early maturing maize variety and plant a following crop after harvest

A starting point for decision-making should be assessing how likely maize stubbles will be in a condition to establish a following crop, usually either short-term grass or forage rye, the day after harvest.

The development of early maturing, high yielding maize varieties makes it more possible than previously. There has been a switch into early maturing maize varieties, as growers realise systems need to change. Ideally, you want harvest to be completed by mid-October to maximise the chances of being able to travel.

Varieties such as KWS Pasco and Limagrain's Resolute and Gem are changing the perception that the highest yielding varieties are also later maturing. These varieties are pushing the boundaries. Yields are higher and you can harvest two to three weeks earlier.

Most will likely follow with forage rye. It can be sown with minimum cultivations provided the field is in good condition, rapidly establishes and doesn't really stop growing through the winter, so provides either early grazing in spring or can be ensiled mid to late April. It not only provides winter cover, mopping up nutrients, reducing erosion and helping improve soils, but also provides a forage crop that can be utilised on farm or at home.

Please get in touch for more information on forage options in-between maize crops.



Ensuring ground is not left bare after maize can reduce its environmental impact

Undersown maize

The biggest risk from not undersowing maize is a delayed harvest or wet period following harvest that prevents the following crop being established.

For grain maize growers, undersowing maize is realistically the only option as harvest is not until November, while producers for livestock and anaerobic digestion should think carefully about whether establishing cover after harvest is likely.

If there is a risk of not being able to establish cover after harvest, then all aspects of maize production need to be assessed before starting. That includes whether the ground is suitable for maize at all, as well as variety choice.

Growing an early maturing variety such as Resolute (shown here) allows for a following crop – avoiding bare ground over winter and improving soil condition.



But undersowing maize, usually with grass, does provide a high level of assurance that you will have some winter cover following harvest. There are typically two options to establish the undersown crop – either plant it at the same time as the maize or around 4-6 weeks after maize drilling.

Planting at the same time as maize requires a specialist drill that can drill both maize and grass simultaneously. The advantage is a reliable one-pass method for establishing the grass early, plus precise seed placement between the rows minimising competition with the maize crop.

Competition can still be a problem if grass establishes quickly, but the biggest challenge is weed control post-drilling as herbicides are likely to remove the cover. The more common technique is to establish the grass once the maize reaches 6-8 leaf stage either by broadcasting with a fertiliser spreader or sowing with a pneumatic interrow disc coulter drill. Typically, interrow drilling costs £30-35/ha. Broadcasting is easiest, but establishment can be variable, while there can be the same issue about the availability of specialist drills. Usually, either festulolium, creeping red fescue or a perennial ryegrass is used.

You want something which is vigorous enough, but not over vigorous so it swamps the maize.

While a cut of silage could be taken in the following spring, these types of leys offer the opportunity for grazing by flying flocks of sheep. Grants from some water companies are available for undersowing grass to help cover the costs, which typically can be about £100/ha including drilling.

Other options?

New Agrii trials will be comparing a hybrid approach of undersowing the maize with companion crops, which potentially could also be established with forage rye following harvest. Outside of grass, we are interested in whether a legume companion crop could benefit the maize crop while growing by fixing some nitrogen, either reducing inputs or increasing yields.

One example from 2020 showed a 5 t/ha yield increase from a maize crop when clover was present as a companion crop. There's also the possibility of intercropping maize with something like beans, which in addition to fixing nitrogen might also add an extra protein source.

These trials will compare various companion crops, including beans, vetches and grass undersown with a interrow drill to investigate additional potential benefits.

One example from 2020 showed a 5 t/ha yield increase from a maize crop when clover was present as a companion crop.

Lunator forage rye



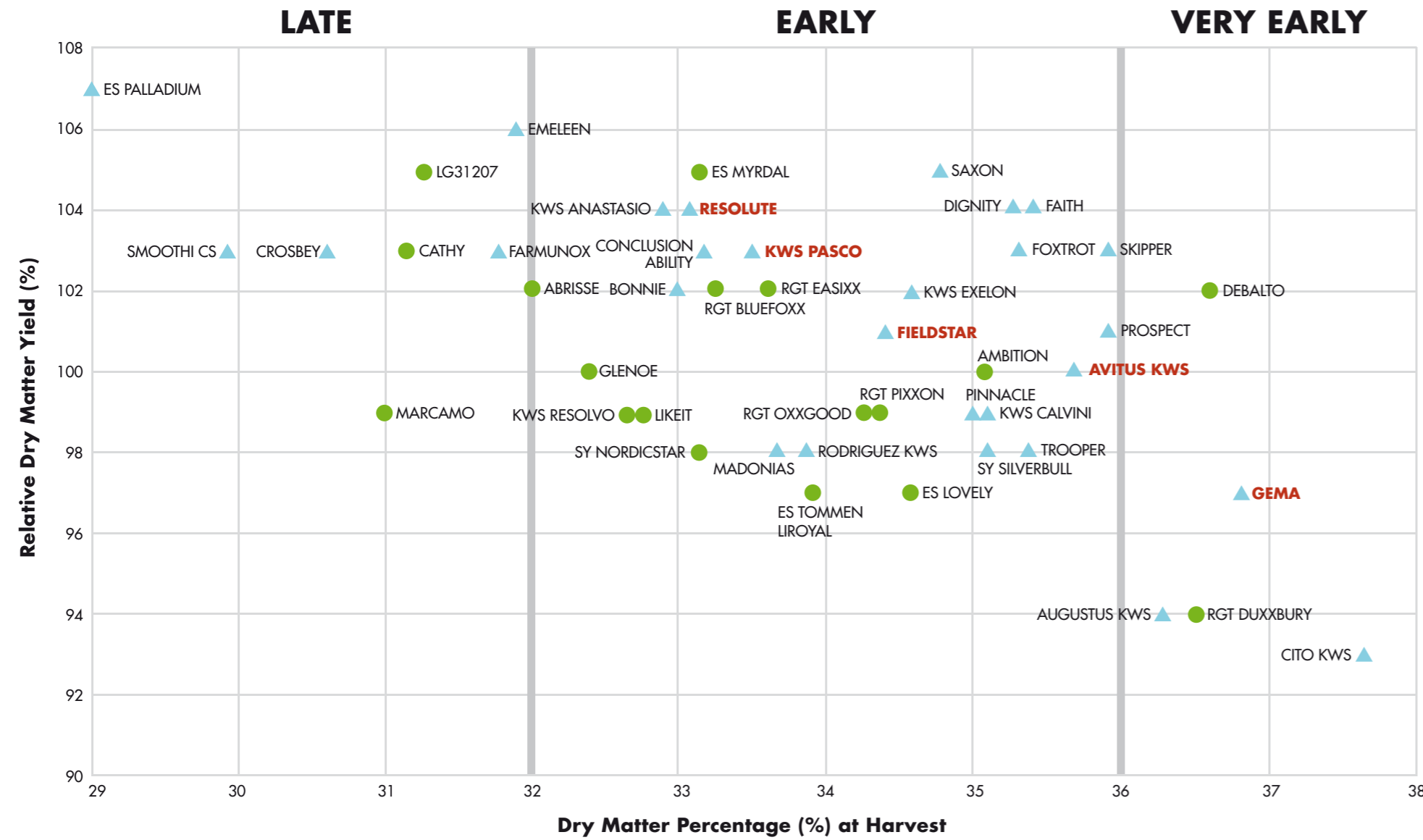
GREEN HORIZONS

Green Horizons is Agrii's commitment to a sustainable future for food production. You can find out more and download our Green Horizons Insight Reports at www.agrii.co.uk/greenhorizons.

Dry Matter Yields – Favourable Sites

BSPB/NIAB Descriptive List Data

▲ FIRST CHOICE
● SECOND CHOICE
▲ AGRII VARIETIES



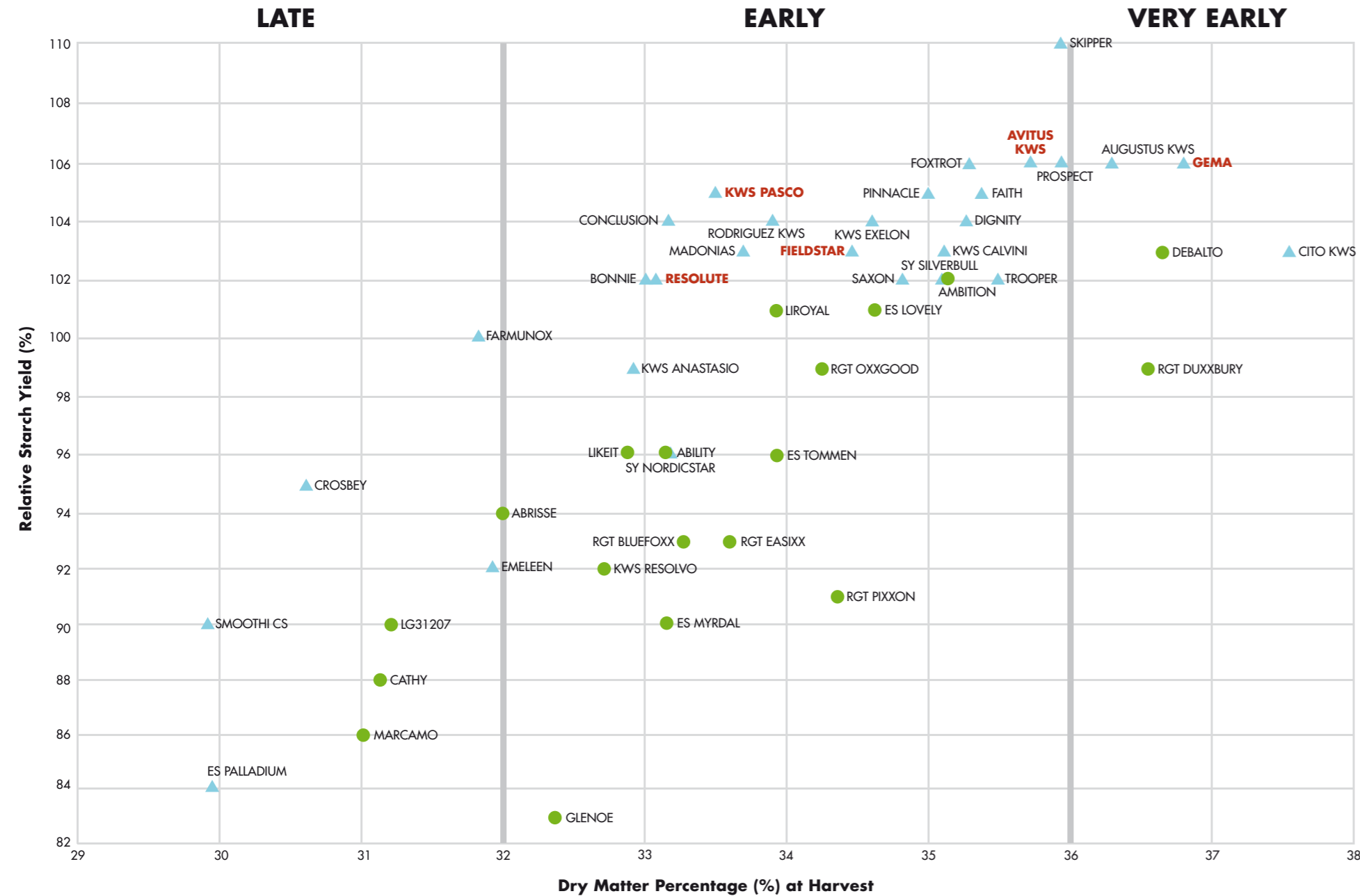
	VARIETY	MC*	FAO	DM % (at harvest)	DM YIELD (T/Ha)	RELATIVE DM YIELD (%)	EARLY VIGOUR°	STANDING POWER^	LODGING (%)	LEAF SENESCENCE^	EYESPOT RATING°	YEAR FIRST LISTED	
VERY EARLY	CITO KWS	12	150	37.6	16.8	93	7.0	7.7	1.4	5.9	5.5	2018	
	GEMA	11	150	36.8	17.7	97	6.7	7.4	2.1	6.3	6.0	2021	
	AUGUSTUS KWS	11	150	36.3	17.1	94	6.9	7.4	1.9	6.1	6.7	2015	
	PROSPECT	10	170	35.9	18.5	101	7.2	7.7	1.2	7.3	7.5	2019	
EARLY	SKIPPER	10	170	35.9	18.8	103	7.2	7.8	1.0	7.3	[3.4]	2023	
	AVITUS KWS	10	160	35.7	18.1	100	7.0	6.4	4.2	6.1	5.8	2018	
	FAITH	10	170	35.4	19.0	104	7.3	7.8	1.2	6.6	[3.5]	2023	
	TROOPER	10	160	35.4	17.8	98	7.1	8.1	0.4	7.0	1.4	2020	
	FOXTROT	10	170	35.3	18.7	103	7.2	6.7	3.6	7.3	[2.0]	2023	
	DIGNITY	10	170	35.3	18.9	104	7.1	7.4	1.9	6.9	2.8	2022	
	SY SILVERBULL	10	170	35.1	17.8	98	6.6	7.3	2.2	6.7	[6.1]	2023	
	KWS CALVINI	10	170	35.1	18.1	99	7.2	7.7	1.3	6.2	6.7	2019	
	PINNACLE	9	180	35.0	18.0	99	7.1	7.0	2.9	7.3	6.6	2018	
	SAXON	9	180	34.8	19.1	105	7.6	7.1	2.7	6.9	3.1	2022	
	KWS EXELON	8	180	34.6	18.5	102	7.1	7.0	2.8	6.9	7.7	2021	
	FIELDSTAR	8	180	34.4	18.3	101	7.1	8.0	0.6	7.2	6.5	2013	
	RODRIGUEZ KWS	8	180	33.9	17.9	98	6.6	8.2	0.3	7.2	4.7	2015	
	MADONIAS	8	180	33.7	17.8	98	6.7	7.6	1.5	6.4	5.7	2018	
	KWS PASCO	9	170	33.5	18.7	103	7.1	7.6	1.6	7.0	7.0	2022	
	CONCLUSION	8	190	33.2	18.8	103	7.4	7.4	1.9	7.3	4.0	2020	
ABILITY	8	190	33.2	18.7	103	7.2	8.0	0.7	7.4	5.6	2020		
RESOLUTE	8	190	33.1	18.9	104	7.2	7.7	1.4	7.5	2.4	2020		
BONNIE	7	190	33.0	18.6	102	7.4	7.7	1.2	7.7	6.3	2017		
KWS ANASTASIO	7	190	32.9	19.0	104	7.3	7.6	1.4	7.5	6.6	2022		
LATE	EMELEEN	6	210	31.9	19.3	106	7.1	7.6	1.6	7.3	7.2	2023	
	FARMUNOX	6	210	31.8	18.7	103	6.7	6.7	3.4	7.8	6.7	2020	
	CROSBY	5	210	30.6	18.7	103	6.7	8.0	0.6	7.6	5.9	2023	
	SMOOTHY CS	4	220	29.9	18.7	103	6.6	7.2	2.4	7.4	7.1	2019	
	ES PALLADIUM	4	220	29.0	19.4	107	7.1	7.6	1.6	7.4	5.1	2023	
SECOND CHOICE	VERY EARLY	DEBALTO	11	150	36.6	18.5	102	7.2	4.9	7.4	5.8	6.6	2022
		RGT DUXXBURY	10	160	36.5	17.0	94	7.0	7.9	0.8	6.0	5.5	2018
		AMBITION	9	180	35.1	18.3	100	7.2	8.0	0.7	7.0	6.4	2012
		ES LOVELY	9	170	34.6	17.6	97	7.0	8.0	0.8	6.5	4.4	2016
		RGT PIXXON	9	170	34.4	17.9	99	6.8	7.8	1.1	7.5	6.3	2022
		RGT OXXGOOD	8	180	34.3	17.9	99	6.7	7.5	1.8	6.6	6.5	2016
		ES TOMMEN	8	180	33.9	17.6	97	7.4	7.9	0.8	6.7	3.6	2021
		LIROYAL	8	180	33.9	17.7	97	6.5	7.8	1.1	6.5	6.1	2019
		RGT EASIXX	8	180	33.6	18.5	102	6.5	7.9	0.9	7.4	5.3	2023
		RGT BLUEFOXX	8	180	33.3	18.5	102	6.7	8.0	0.6	7.6	5.1	2023
		SY NORDICSTAR	7	190	33.2	17.8	98	7.1	7.5	1.8	7.2	7.9	2016
		ES MYRDAL	8	180	33.2	19.0	105	7.2	7.1	2.7	7.4	6.0	2022
		LATE	LIKEIT	7	190	32.8	17.9	99	7.2	8.1	0.4	7.0	4.7
KWS RESOLVO	7		190	32.7	18.0	99	7.0	8.0	0.5	6.6	5.9	2023	
GLENOE	7		190	32.4	18.2	100	6.9	7.9	0.8	7.6	4.7	2023	
ABRISSE	6		210	32.0	18.5	102	6.6	7.9	0.8	7.2	7.9	2019	
LG31207	5		210	31.3	19.1	105	7.1	7.9	0.9	7.5	7.5	2023	
CATHY	5	210	31.2	18.7	103	7.3	7.9	0.9	7.7	5.6	2015		
MARCAMO	5	210	31.0	18.0	99	6.5	5.2	6.7	6.5	7.1	2019		

* Agrii Estimate ▲ 9=Good/1=Poor (At Harvest) ° 9=Good/1=Poor

Starch Yields – Favourable Sites

BSPB/NIAB Descriptive List Data

▲ FIRST CHOICE
● SECOND CHOICE
▲ AGRII VARIETIES



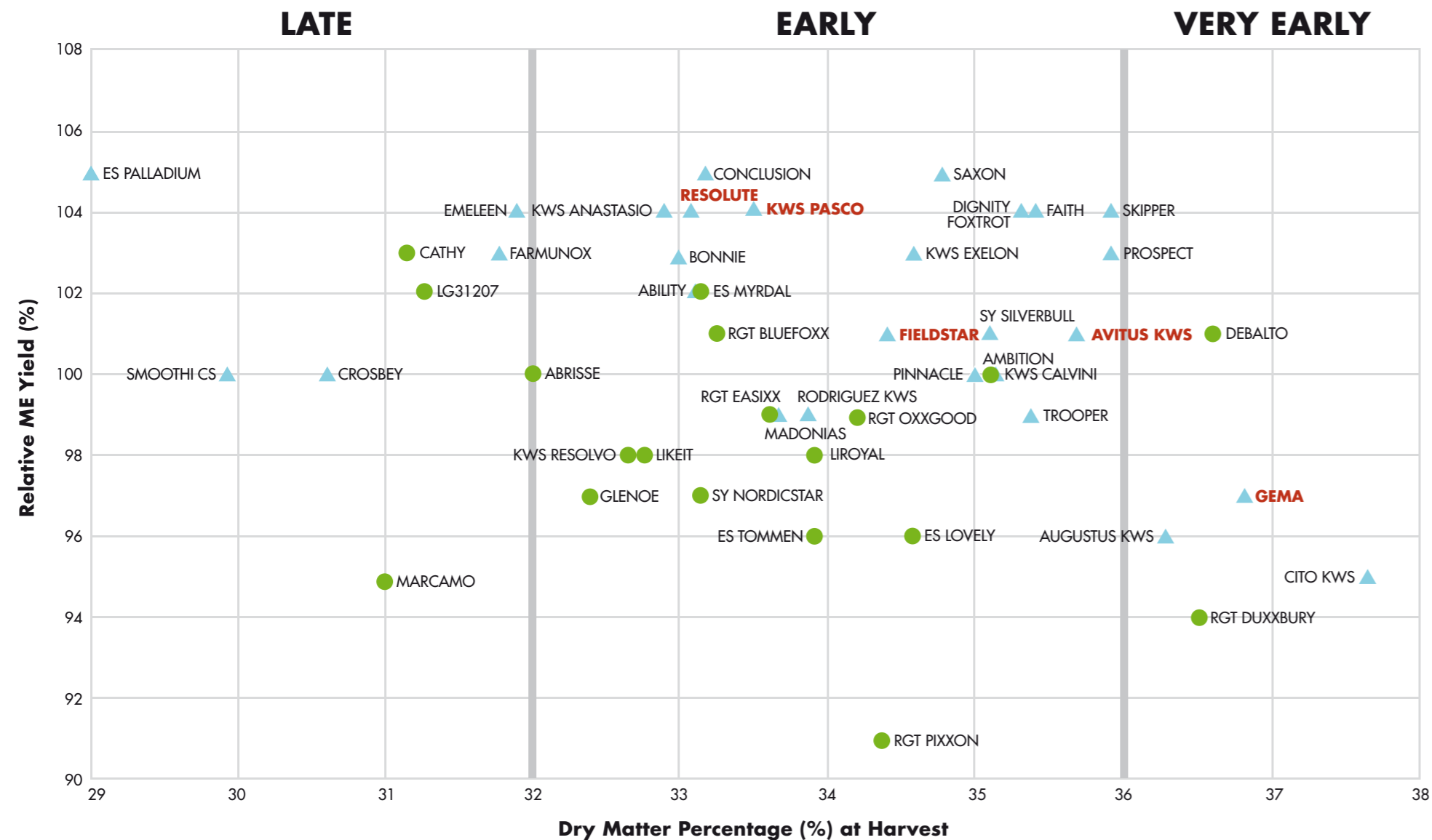
	VARIETY	MC*	FAO	DM % (at harvest)	STARCH % (at harvest)	STARCH YIELD (T/Ha)	RELATIVE STARCH YIELD (%)	YEAR FIRST LISTED	
VERY EARLY	CITO KWS	12	150	37.6	37.6	6.33	103	2018	
	GEMA	11	150	36.8	36.8	6.51	106	2021	
	AUGUSTUS KWS	11	150	36.3	38.1	6.50	106	2015	
EARLY	PROSPECT	10	170	35.9	35.4	6.53	106	2019	
	SKIPPER	10	170	35.9	36.0	6.74	110	2023	
	AVITUS KWS	10	160	35.7	36.0	6.52	106	2018	
	FAITH	10	170	35.4	34.1	6.47	105	2023	
	TROOPER	10	160	35.4	35.4	6.30	102	2020	
	FOXTROT	10	170	35.3	34.9	6.54	106	2023	
	DIGNITY	10	170	35.3	33.6	6.37	104	2022	
	SY SILVERBULL	10	170	35.1	35.3	6.29	102	2023	
	KWS CALVINI	10	170	35.1	35.0	6.34	103	2019	
	PINNACLE	9	180	35.0	35.8	6.46	105	2018	
	SAXON	9	180	34.8	32.9	6.29	102	2022	
	KWS EXELON	8	180	34.6	34.6	6.41	104	2021	
	FIELDSTAR	8	180	34.4	34.5	6.31	103	2013	
	RODRIGUEZ KWS	8	180	33.9	36.0	6.42	104	2015	
MADONIAS	8	180	33.7	35.5	6.33	103	2018		
KWS PASCO	9	170	33.5	34.4	6.43	105	2022		
CONCLUSION	8	190	33.2	33.9	6.38	104	2020		
ABILITY	8	190	33.2	31.6	5.90	96	2020		
RESOLUTE	8	190	33.1	33.3	6.28	102	2020		
BONNIE	7	190	33.0	33.9	6.29	102	2017		
KWS ANASTASIO	7	190	32.9	32.2	6.11	99	2022		
LATE	EMELEEN	6	210	31.9	29.5	5.69	92	2023	
	FARMUNOX	6	210	31.8	32.8	6.12	100	2020	
	CROSBY	5	210	30.6	31.5	5.88	95	2023	
	SMOOTH CS	4	220	29.9	29.7	5.55	90	2019	
	ES PALLADIUM	4	220	29.0	26.7	5.19	84	2023	
SECOND CHOICE	VERY EARLY	DEBALTO	11	150	36.6	34.3	6.33	103	2022
	EARLY	RGT DUXXBURY	10	160	36.5	35.7	6.08	99	2018
		AMBIION	9	180	35.1	34.5	6.31	102	2012
		ES LOVELY	9	170	34.6	35.3	6.20	101	2016
		RGT PIXXON	9	170	34.4	31.2	5.60	91	2022
		RGT OXXGOOD	8	180	34.3	34.2	6.12	99	2016
		ES TOMMEN	8	180	33.9	33.7	5.93	96	2021
		LIROYAL	8	180	33.9	35.2	6.22	101	2019
		RGT EASIXX	8	180	33.6	30.8	5.71	93	2023
	RGT BLUEFOXX	8	180	33.3	30.9	5.72	93	2023	
	SY NORDICSTAR	7	190	33.2	33.2	5.92	96	2016	
	ES MYRDAL	8	180	33.2	28.9	5.51	90	2022	
	LATE	LIKEIT	7	190	32.8	32.9	5.90	96	2018
KWS RESOLVO		7	190	32.7	31.6	5.69	92	2023	
GLENOE		7	190	32.4	28.1	5.12	83	2023	
ABRISSE		6	210	32.0	31.2	5.76	94	2019	
LG31207		5	210	31.3	28.9	5.52	90	2023	
CATHY	5	210	31.2	29.0	5.42	88	2015		
MARCAMO	5	210	31.0	29.4	5.28	86	2019		

* Agrii Estimate

ME Yields – Favourable Sites

BSPB/NIAB Descriptive List Data

▲ FIRST CHOICE
● SECOND CHOICE
▲ AGRII VARIETIES



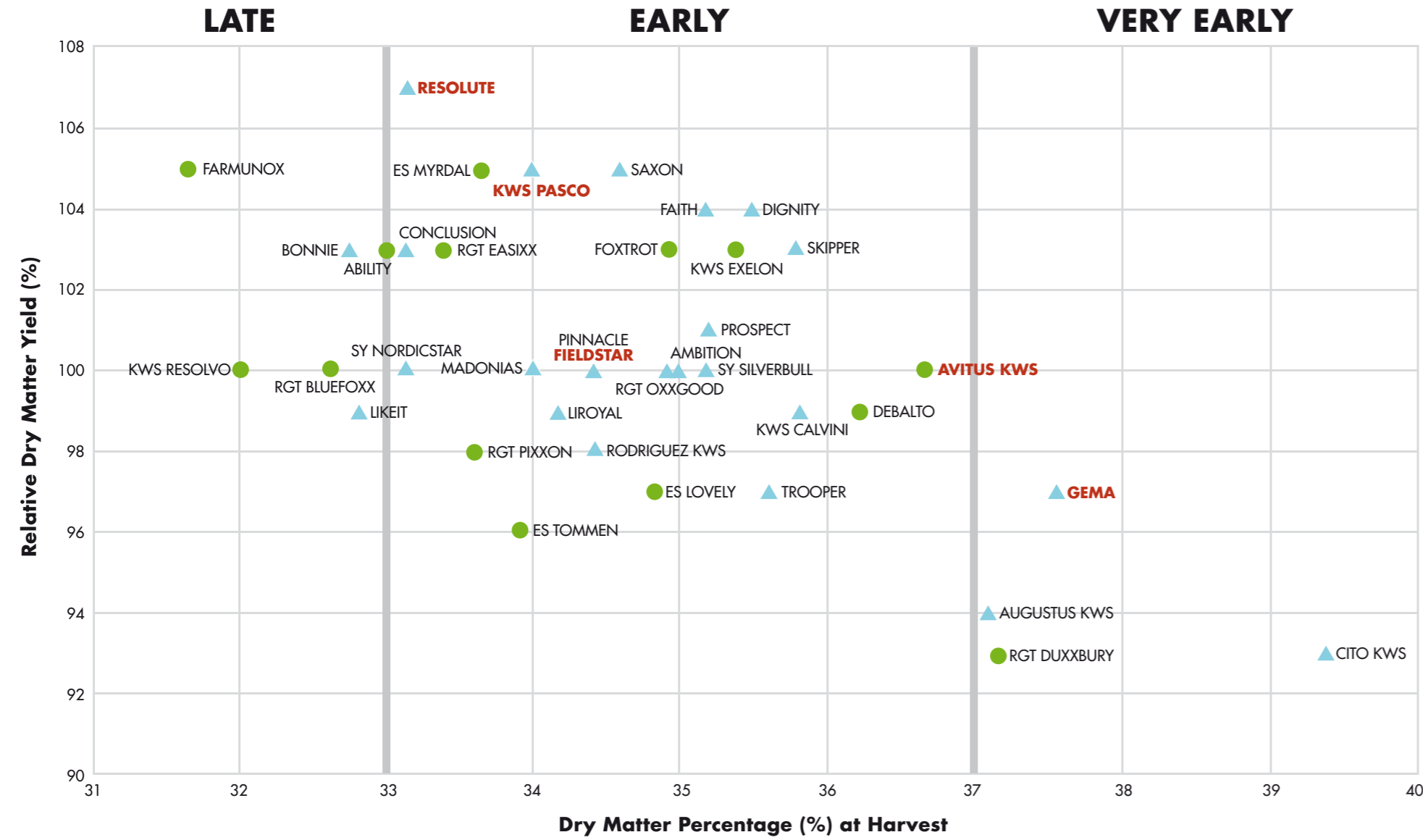
	VARIETY	MC*	FAO	DM % (at harvest)	ME (MJ/kg of DM at harvest)	ME YIELD (1,000's MJ/Ha at harvest)	RELATIVE ME YIELD	CELL WALL DIGESTIBILITY (%)	YEAR FIRST LISTED	
VERY EARLY	CITO KWS	12	150	37.6	12.01	202	95	59.7	2018	
	GEMA	11	150	36.8	11.72	207	97	58.0	2021	
	AUGUSTUS KWS	11	150	36.3	12.02	205	96	59.8	2015	
	PROSPECT	10	170	35.9	11.93	220	103	60.1	2019	
EARLY	SKIPPER	10	170	35.9	11.80	221	104	58.8	2023	
	AVITUS KWS	10	160	35.7	11.86	215	101	59.2	2018	
	FAITH	10	170	35.4	11.73	222	104	58.9	2023	
	TROOPER	10	160	35.4	11.82	210	99	59.3	2020	
	FOXTROT	10	170	35.3	11.87	222	104	59.4	2023	
	DIGNITY	10	170	35.3	11.75	223	104	59.5	2022	
	SY SILVERBULL	10	170	35.1	12.08	215	101	61.7	2023	
	KWS CALVINI	10	170	35.1	11.81	213	100	59.2	2019	
	PINNACLE	9	180	35.0	11.83	213	100	59.0	2018	
	SAXON	9	180	34.8	11.75	225	105	59.2	2022	
	KWS EXELON	8	180	34.6	11.81	219	103	58.8	2021	
	FIELDSTAR	8	180	34.4	11.76	215	101	59.0	2013	
	RODRIGUEZ KWS	8	180	33.9	11.85	212	99	59.4	2015	
	MADONIAS	8	180	33.7	11.82	211	99	58.9	2018	
	KWS PASCO	9	170	33.5	11.82	221	104	59.1	2022	
	CONCLUSION	8	190	33.2	11.87	223	105	60.3	2020	
ABILITY	8	190	33.2	11.67	218	102	59.5	2020		
BONNIE	7	190	33.0	11.81	219	103	59.8	2017		
KWS ANASTASIO	7	190	32.9	11.63	221	104	58.6	2022		
LATE	EMELEEN	6	210	31.9	11.48	222	104	58.5	2023	
	FARMUNOX	6	210	31.8	11.76	220	103	59.0	2020	
	CROSBY	5	210	30.6	11.43	213	100	57.4	2023	
	SMOOTH CS	4	220	29.9	11.41	213	100	58.4	2019	
	ES PALLADIUM	4	220	29.0	11.50	223	105	59.4	2023	
SECOND CHOICE	VERY EARLY	DEBALTO	11	150	36.6	11.63	215	101	57.6	2022
		RGT DUXXBURY	10	160	36.5	11.73	200	94	58.6	2018
		AMBITION	9	180	35.1	11.67	213	100	58.3	2012
		ES LOVELY	9	170	34.6	11.69	205	96	58.5	2016
		RGT PIXXON	9	170	34.4	11.69	209	91	59.9	2022
		RGT OXXGOOD	8	180	34.3	11.76	211	99	59.3	2016
		ES TOMMEN	8	180	33.9	11.63	205	96	58.6	2021
		LIROYAL	8	180	33.9	11.88	210	98	59.6	2019
		RGT EASIXX	8	180	33.6	11.45	212	99	58.4	2023
		RGT BLUEFOXX	8	180	33.3	11.63	215	101	59.7	2023
		SY NORDICSTAR	7	190	33.2	11.65	207	97	59.2	2016
		ES MYRDAL	8	180	33.2	11.38	217	102	58.1	2022
		LATE	LIKEIT	7	190	32.8	11.65	209	98	58.5
KWS RESOLVO	7		190	32.7	11.59	209	98	59.0	2023	
GLENOE	7		190	32.4	11.34	206	97	57.9	2023	
ABRISSE	6		210	32.0	11.55	213	100	59.0	2019	
LG31207	5		210	31.3	11.33	217	102	57.7	2023	
CATHY	5		210	31.2	11.49	215	101	58.9	2015	
MARCAMO	5	210	31.0	11.25	202	95	56.4	2019		

* Agrii Estimate

Dry Matter Yields – Less Favourable Sites

BSPB/NIAB Descriptive List Data

▲ FIRST CHOICE
● SECOND CHOICE
■ AGRII VARIETIES



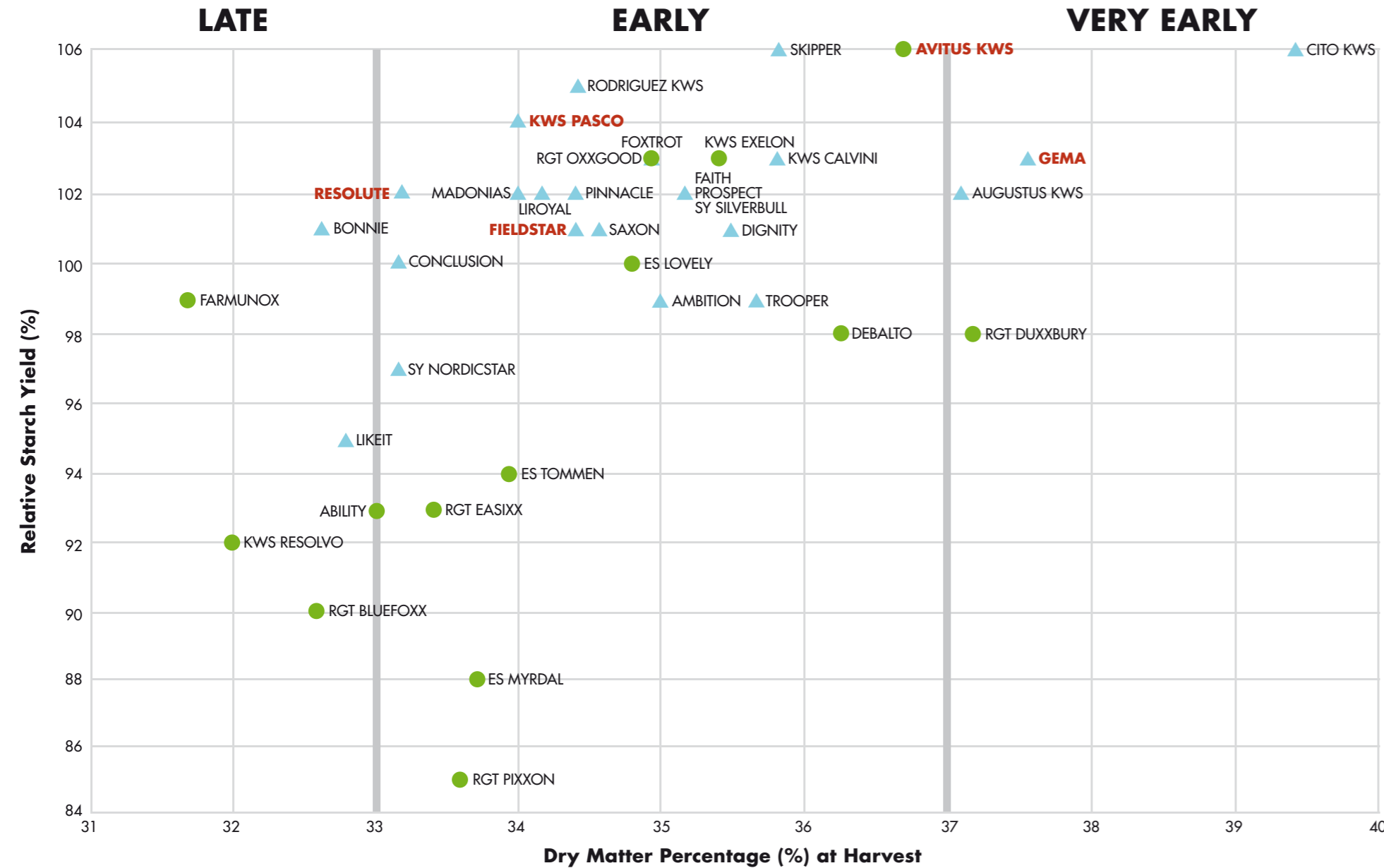
	VARIETY	MC*	FAO	DM % (at harvest)	DM YIELD (T/Ha)	RELATIVE DM YIELD (%)	EARLY VIGOUR°	STANDING POWER^	LODGING (%)	LEAF SENESCENCE^	EYESPOT RATING°	YEAR FIRST LISTED	
VERY EARLY	CITO KWS	12	150	39.4	16.7	93	6.8	7.3	2.3	5.0	5.5	2018	
	GEMA	11	150	37.6	17.3	97	6.7	7.1	2.6	5.8	6.0	2021	
	AUGUSTUS KWS	11	150	37.1	16.8	94	6.9	6.9	3.1	5.3	6.7	2015	
EARLY	KWS CALVINI	10	170	35.8	17.7	99	7.1	7.5	1.6	5.8	6.7	2019	
	SKIPPER	10	170	35.8	18.3	103	6.9	7.6	1.6	7.3	[3.4]	2023	
	TROOPER	10	160	35.7	17.3	97	7.0	8.1	0.5	6.4	1.4	2020	
	DIGNITY	10	170	35.5	18.5	104	7.0	7.6	1.5	6.7	2.8	2022	
	PROSPECT	9	170	35.2	18.0	101	7.1	7.3	2.3	7.4	7.5	2019	
	FAITH	10	170	35.2	18.5	104	7.1	7.4	1.9	6.4	[3.5]	2023	
	SY SILVERBULL	10	170	35.2	17.8	100	6.5	7.2	2.3	6.4	[6.1]	2023	
	AMBITION	9	180	35.0	17.9	100	6.9	7.8	1.1	7.1	6.4	2012	
	RGT OXXGOOD	8	180	34.9	17.9	100	6.7	7.3	2.2	6.3	6.5	2016	
	SAXON	9	180	34.6	18.7	105	7.2	6.5	3.9	6.8	3.1	2022	
	RODRIGUEZ KWS	8	180	34.4	17.6	98	6.6	8.0	0.6	6.7	4.7	2015	
	FIELDSTAR	8	180	34.4	18.0	100	6.8	7.8	1.0	7.1	6.5	2013	
	PINNACLE	8	180	34.4	17.8	100	6.8	6.4	4.1	7.4	6.6	2018	
	LIROYAL	8	180	34.2	17.7	99	6.7	7.7	1.2	6.6	6.1	2019	
MADONIAS	8	180	34.0	17.8	100	6.7	7.2	2.4	6.2	5.7	2018		
KWS PASCO	9	170	34.0	18.7	105	7.0	7.1	2.7	6.7	7.0	2022		
RESOLUTE	8	190	33.2	19.0	107	7.2	7.6	1.5	7.7	2.4	2020		
LATE	SY NORDICSTAR	7	190	33.2	17.8	100	7.0	7.1	2.6	7.4	7.9	2016	
	CONCLUSION	8	180	33.2	18.5	103	7.2	7.3	2.3	7.5	4.0	2020	
	LIKEIT	7	190	32.8	17.7	99	6.9	8.1	0.4	6.9	4.7	2018	
	BONNIE	7	190	32.7	18.3	103	7.2	7.7	1.4	7.9	6.3	2017	
SECOND CHOICE	VERY EARLY	RGT DUXXBURY	10	160	37.2	16.6	93	6.9	7.7	1.4	5.5	5.5	2018
	EARLY	AVITUS KWS	10	160	36.7	17.9	100	7.0	5.5	6.2	5.7	5.8	2018
		DEBALTO	11	150	36.3	17.8	99	6.9	2.7	13.5	5.6	6.6	2022
		KWS EXELON	8	180	35.4	18.4	103	6.9	6.2	4.5	6.6	7.7	2021
		FOXTROT	10	170	34.9	18.3	103	7.1	5.6	5.9	7.2	[2.0]	2023
		ES LOVELY	9	170	34.8	17.3	97	6.9	7.8	1.0	6.2	4.4	2016
		ES TOMMEN	8	180	33.9	17.2	96	7.3	7.8	1.0	6.4	3.6	2021
		ES MYRDAL	8	180	33.7	18.7	105	7.2	6.0	5.0	7.5	6.0	2022
		RGT PIXXON	9	170	33.6	17.5	98	6.7	7.8	1.0	7.6	6.3	2022
		RGT EASIXX	8	180	33.4	18.4	103	6.5	7.6	1.5	7.6	5.3	2023
ABILITY	8	190	33.0	18.4	103	6.9	7.9	0.9	7.6	5.6	2020		
LATE	RGT BLUEFOXX	8	180	32.6	17.9	100	6.8	8.0	0.8	7.7	5.1	2023	
	KWS RESOLVO	7	190	32.0	17.9	100	6.9	7.9	0.8	6.7	5.9	2023	
	FARMUNOX	6	210	31.7	18.7	105	6.5	6.3	4.4	8.0	6.7	2020	

* Agrii Estimate ^ 9=Good/1=Poor (At Harvest) ° 9=Good/1=Poor

Starch Yields – Less Favourable Sites

BSPB/NIAB Descriptive List Data

▲ FIRST CHOICE
● SECOND CHOICE
▲ AGRII VARIETIES



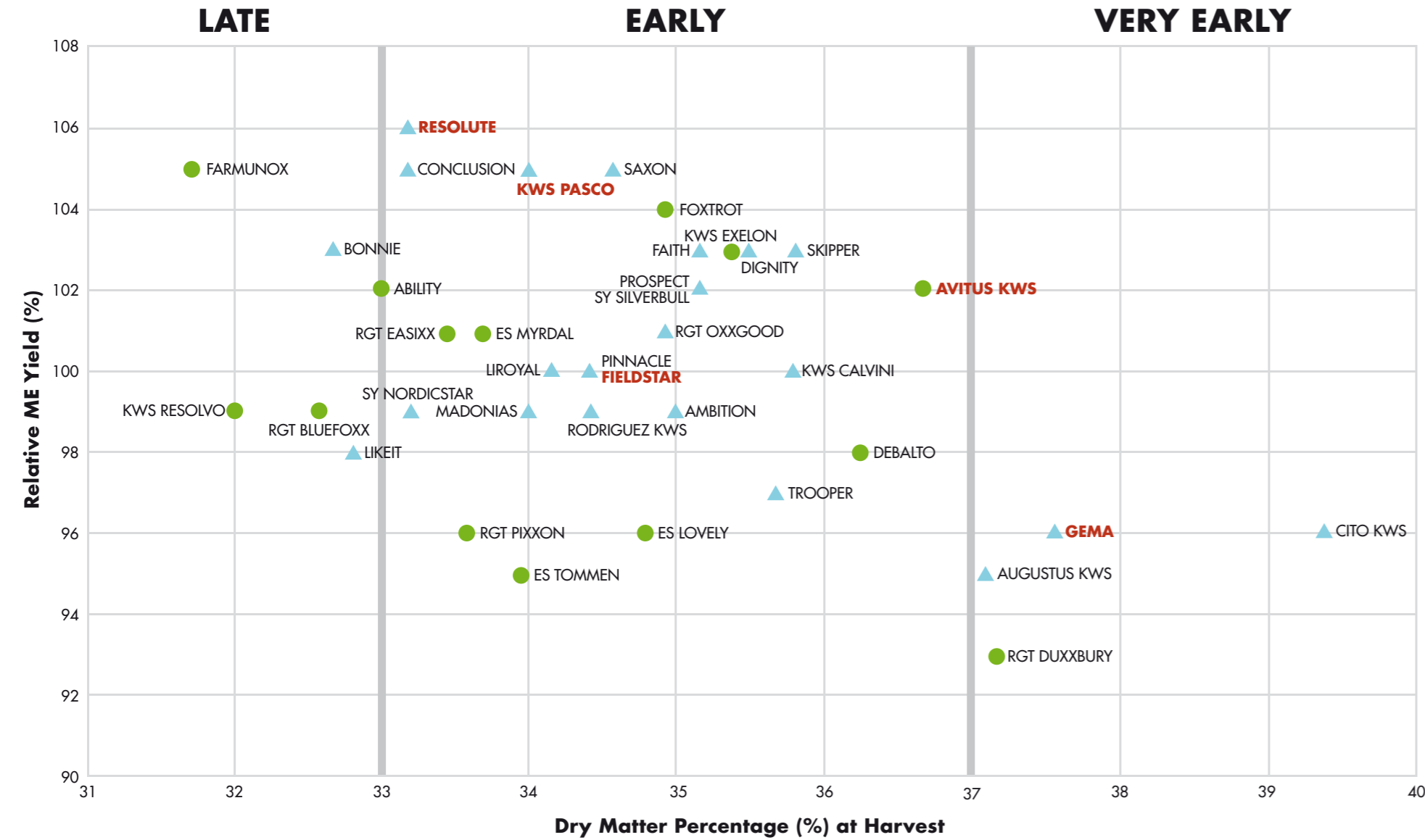
	VARIETY	MC*	FAO	DM % (at harvest)	STARCH % (at harvest)	STARCH YIELD (T/Ha)	RELATIVE STARCH YIELD (%)	YEAR FIRST LISTED	
VERY EARLY	CITO KWS	12	150	39.4	39.9	6.64	106	2018	
	GEMA	11	150	37.6	37.4	6.45	103	2021	
	AUGUSTUS KWS	11	150	37.1	38.0	6.39	102	2015	
EARLY	KWS CALVINI	10	170	35.8	36.3	6.43	103	2019	
	SKIPPER	10	170	35.8	36.1	6.62	106	2023	
	TROOPER	10	160	35.7	35.6	6.16	99	2020	
	DIGNITY	10	170	35.5	34.0	6.30	101	2022	
	PROSPECT	9	170	35.2	35.4	6.39	102	2019	
	FAITH	10	170	35.2	34.5	6.39	102	2023	
	SY SILVERBULL	10	170	35.2	35.7	6.35	102	2023	
	AMBICTION	9	180	35.0	34.8	6.21	99	2012	
	RGT OXXGOOD	8	180	34.9	35.8	6.40	103	2016	
	SAXON	9	180	34.6	33.7	6.30	101	2022	
	RODRIGUEZ KWS	8	180	34.4	37.2	6.53	105	2015	
	FIELDSTAR	8	180	34.4	35.1	6.31	101	2013	
	PINNACLE	8	180	34.4	35.8	6.39	102	2018	
	LIROYAL	8	180	34.2	36.0	6.37	102	2019	
MADONIAS	8	180	34.0	35.7	6.34	102	2018		
KWS PASCO	9	170	34.0	34.8	6.49	104	2022		
RESOLUTE	8	190	33.2	33.6	6.40	102	2020		
LATE	SY NORDICSTAR	7	190	33.2	33.9	6.02	97	2016	
	CONCLUSION	8	180	33.2	33.9	6.25	100	2020	
	LIKEIT	7	190	32.8	33.7	5.94	95	2018	
	BONNIE	7	190	32.7	34.4	6.29	101	2017	
SECOND CHOICE	VERY EARLY	RGT DUXXBURY	10	160	37.2	37.1	6.14	98	2018
	EARLY	AVITUS KWS	10	160	36.7	36.9	6.63	106	2018
		DEBALTO	11	150	36.3	34.5	6.13	98	2022
		KWS EXELON	8	180	35.4	35.1	6.45	103	2021
		FOXTROT	10	170	34.9	35.1	6.43	103	2023
		ES LOVELY	9	170	34.8	36.1	6.24	100	2016
		ES TOMMEN	8	180	33.9	34.0	5.86	94	2021
		ES MYRDAL	8	180	33.7	29.3	5.49	88	2022
		RGT PIXXON	9	170	33.6	30.3	5.30	85	2022
		RGT EASIXX	8	180	33.4	31.4	5.78	93	2023
ABILITY	8	190	33.0	31.4	5.78	93	2020		
LATE	RGT BLUEFOXX	8	180	32.6	31.3	5.61	90	2023	
	KWS RESOLVO	7	190	32.0	31.8	5.71	92	2023	
	FARMUNOX	6	210	31.7	33.0	6.17	99	2020	

* Agrii Estimate

ME Yields – Less Favourable Sites

BSPB/NIAB Descriptive List Data

▲ FIRST CHOICE
● SECOND CHOICE
▲ AGRII VARIETIES



	VARIETY	MC*	FAO	DM % (at harvest)	ME (MJ/kg of DM at harvest)	ME YIELD (1,000's MJ/ha at harvest)	RELATIVE ME YIELD	CELL WALL DIGESTIBILITY (%)	YEAR FIRST LISTED	
VERY EARLY	CITO KWS	12	150	39.4	12.12	202	96	60.0	2018	
	GEMA	11	150	37.6	11.74	202	96	58.1	2021	
	AUGUSTUS KWS	11	150	37.1	11.91	200	95	59.2	2015	
EARLY	KWS CALVINI	10	170	35.8	11.84	210	100	59.1	2019	
	SKIPPER	10	170	35.8	11.83	217	103	59.2	2023	
	TROOPER	10	160	35.7	11.84	205	97	59.3	2020	
	DIGNITY	10	170	35.5	11.73	217	103	59.4	2022	
	PROSPECT	9	170	35.2	11.88	214	102	59.8	2019	
	FAITH	10	170	35.2	11.73	217	103	59.0	2023	
	SY SILVERBULL	10	170	35.2	12.03	214	102	61.4	2023	
	AMBICTION	9	180	35.0	11.67	208	99	58.4	2012	
	RGT OXXGOOD	8	180	34.9	11.85	212	101	59.5	2016	
	SAXON	9	180	34.6	11.80	221	105	59.7	2022	
	RODRIGUEZ KWS	8	180	34.4	11.84	208	99	59.0	2015	
	FIELDSTAR	8	180	34.4	11.76	211	100	58.8	2013	
	PINNACLE	8	180	34.4	11.80	210	100	59.0	2018	
	LIROYAL	8	180	34.2	11.88	210	100	59.6	2019	
MADONIAS	8	180	34.0	11.73	209	99	58.4	2018		
KWS PASCO	9	170	34.0	11.77	220	105	59.0	2022		
RESOLUTE	8	190	33.2	11.72	223	106	58.9	2020		
LATE	SY NORDICSTAR	7	190	33.2	11.68	208	99	59.3	2016	
	CONCLUSION	8	180	33.2	11.90	220	105	60.6	2020	
	LIKEIT	7	190	32.8	11.66	206	98	58.4	2018	
	BONNIE	7	190	32.7	11.81	216	103	59.6	2017	
SECOND CHOICE	VERY EARLY	RGT DUXXBURY	10	160	37.2	11.78	93	58.6	2018	
	EARLY	AVITUS KWS	10	160	36.7	11.90	213	102	59.2	2018
		DEBALTO	11	150	36.3	11.64	207	98	57.9	2022
		KWS EXELON	8	180	35.4	11.78	216	103	58.8	2021
		FOXTROT	10	170	34.9	11.90	218	104	59.9	2023
		ES LOVELY	9	170	34.8	11.68	202	96	58.2	2016
		ES TOMMEN	8	180	33.9	11.61	200	95	58.4	2021
		ES MYRDAL	8	180	33.7	11.36	213	101	58.1	2022
		RGT PIXXON	9	170	33.6	11.59	203	96	59.7	2022
		RGT EASIXX	8	180	33.4	11.49	212	101	58.6	2023
		ABILITY	8	190	33.0	11.61	214	102	59.1	2020
LATE	RGT BLUEFOXX	8	180	32.6	11.62	208	99	59.7	2023	
	KWS RESOLVO	7	190	32.0	11.55	207	99	58.8	2023	
	FARMUNOX	6	210	31.7	11.74	220	105	58.9	2020	

* Agrii Estimate

GEMA

- + Very Early
- + FAO 150
- + 97% Relative DM Yield
- + 17.7 Tonnes DM per Ha
- + 106% Relative Starch Yield
- + 6.51 Tonnes Starch per Ha
- + 97% Relative Starch Yield
- + 207 GJ ME per Ha



Moving to earlier varieties has delivered more versatility and reliability in increasingly challenging growing seasons.

In 2022, we moved away from growing traditional mainstream maize varieties, on the advice we received from Agrii, and invested into newer and earlier genetics. All the time being conscious that we did not want to compromise on overall yield and quality – for both forage for our AD plant and grain production. Although we are in a favourable region of the UK to grow maize, earlier harvest dates should always be considered, especially when we're looking to establish crops after harvest.

Gema was selected as a new and much improved Ultra Early option, initially for grain production, but with the fallback that it would produce a very early crop of forage maize if we needed it, for any given reason. In our first year, we saw an improvement of two to three weeks in harvest date to what we had been growing previously and no compromise in yields at all. The crop also matured naturally, rather than gaining that ultra-earliness from rapid die back and losing flexibility for us at harvest.

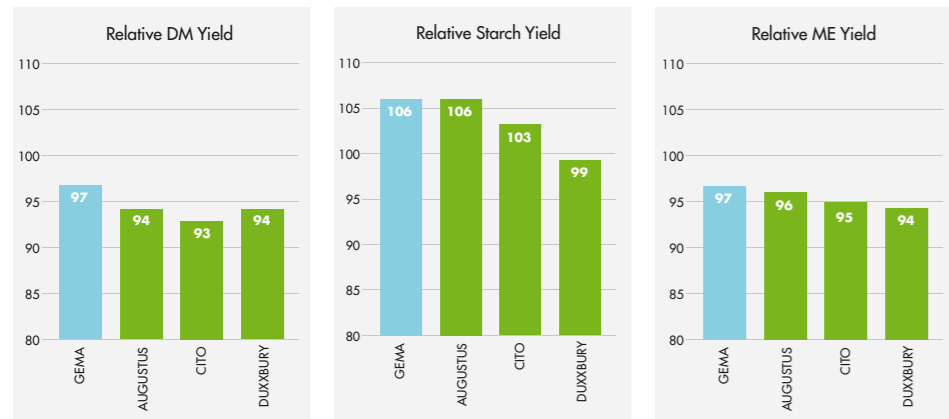
Our 350 acres of maize cropping is split 65% for forage and 35% for grain and our land can range considerably from Grade 1 all the way to Grade 3 type quality. Gema has performed incredibly well for us across all soil types.

In 2022, harvest for AD feedstock was completed by the third week of August with yields averaging 20 tonnes per acre and that sown for grain production was safely in the shed by the end of September. So far, Gema has yielded 5 tonnes per acre for grain production this year on some very poor ground and through testing growing conditions.

Although Gema is clearly a large step forward compared to existing Ultra Early varieties on the Descriptive List, we believe Gema reliably outperforms that data when harvested at a more commercial timing.

We believe that Gema has really pushed us forward in terms of securing an earlier harvest date, maintaining high yields and quality whilst allowing us to remain flexible within our system, should we need it.

Clive & Richards Apps | Botted Lodge Farm, Kent



Agrii's Comments

Gema takes overall yield and quality within the Very Early sector to a whole new level. Gema offers an early harvest but without paying significant overall yield penalties. Ideal for spreading harvest dates or producing more maize from marginal sites. **The start of a new beginning for Very Early varieties!**

Breeder's Comments

"Gema was new to the NIAB/BSPB list in 2022. With an FAO of 150, Gema is the earliest variety from the LG breeding programme, offering significant improvements in terms of agronomy, starch and yield to maize growers. Gema has good tolerance to diseases such as fusarium and eyespot and has excellent standing power."

KWS PASCO



- + Early
- + FAO 170
- + 103% Relative DM Yields
- + 18.7 Tonnes DM per Ha
- + 105% Relative Starch Yield
- + 6.43 Tonnes Starch per Ha
- + 104% Relative ME Yield
- + 221 GJ ME per Ha



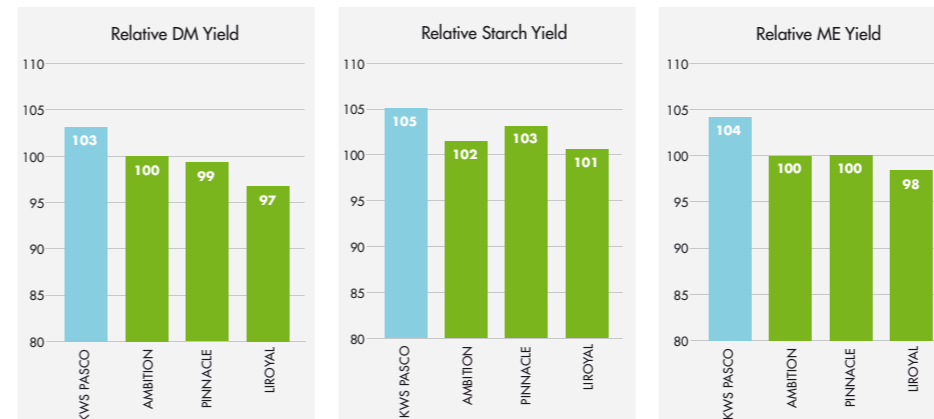
Working closely with Agrii ensures we are growing the best maize varieties on the market to help reduce overall feed input costs and enhance reliability and quality of the crops we produce each season. We had previously been growing KWS Avitus as this variety offered significant yield and quality improvements within its maturity class when it first came onto the UK market. We're always looking ahead to the future, so we trialled some KWS Pasco on behalf of Agrii before it was even named as a variety, and witnessed further improvements still, compared with KWS Avitus.

Back in 2021 we grew 20% KWS Pasco and although the weather broke during harvest, and added nearly a two week delay to harvesting, KWS Pasco held itself together and retained its quality with stay green ability until we got going again. The KWS Pasco crop was still harvested by the 15th of October and yielded 25 tonnes per acre at 38% DM and 34% starch.

Achieving more from an earlier harvest is becoming more important to our system as we look to reduce any impact on soil health and gain extra forage where possible. We are able to establish and harvest Lunator forage rye between our maize crops without compromising on overall maize yields from growing earlier material anymore, and by working with the right advice and variety selection from Agrii. This gives us the potential to almost double the volume of forage produced from our maize ground over a 12-month period compared to previous years.

For the 2023 season we have grown 100% KWS Pasco and the variety has performed incredibly well again, despite the delayed drilling season and challenging harvest period. However, we will continue to trial early line material with Agrii to identify any further advances as varieties continue to improve and additional gains achieved. For us, KWS Pasco has proven its worth and since being added to the Descriptive List in 2023, it's looking as impressive on paper as it does in our fields and clamps!

Andrew Griffiths | Bulls Green Farm, Cheshire



Agrii's Comments

Pasco was identified by Agrii within official and breeders' trials as a stand-out performer from a very early stage. This exciting new variety is a superb addition to the Early sector for growers looking to maximise both very high quality forage and huge overall yields. **The big variety with a bright future!**

Breeder's Comments

"KWS Pasco offers excellent performance for silage production with leading DM yields and quality. A stable single cross hybrid, KWS Pasco is ideal for CCM, moderate to high inclusions within TMR rations and also high starch silage for beef finishing."

RESOLUTE

- + Early
- + FAO 190
- + 104% Relative DM Yield
- + 18.9 Tonnes DM per Ha
- + 102% Relative Starch Yield
- + 6.28 Tonnes Starch per Ha
- + 104% Relative ME Yield
- + 221 GJ ME per Ha



Careful variety selection has enabled maize to become a core ingredient feeding a Yorkshire farm's anaerobic digestion plant.

Using maize as a key feedstock wasn't the original plan, or even plan B, when we commissioned our anaerobic digestion plant in 2014 at our farm in Knottingley near Pontefract in West Yorkshire.

When we started, we thought we could primarily rely on grass silage, but we quickly found grass wasn't as efficient at producing gas as we'd hoped, and it floated within the system when fed.

That's when we turned to maize backed up by hybrid rye. About two-thirds of the farm's 280 ha is dedicated to producing maize and hybrid rye for the digester, with around 48 ha of the maize ground growing forage rye, which is used as a sandwich crop between the maize.

Maize has a number of advantages for energy production for us. It produces lots of biomass and feeds into the AD plant well as it doesn't float much, as long as it is harvested at the correct dry matter.

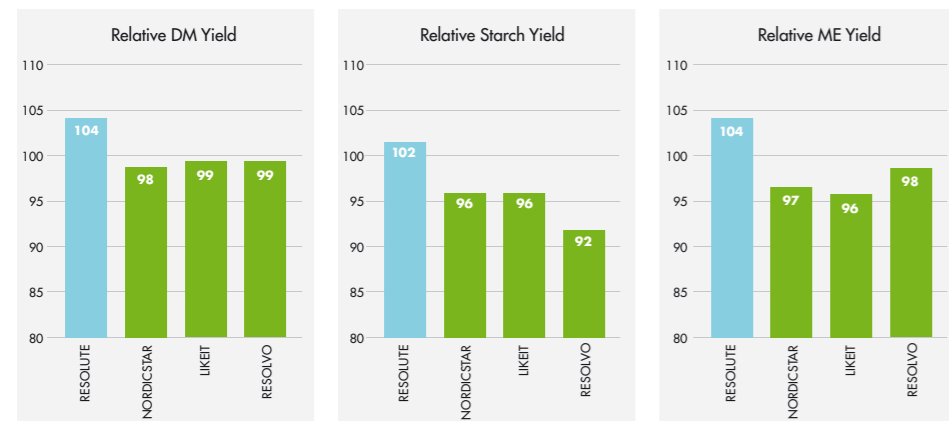
Gas production is also high, and we look to achieve around 400 cubic metres of methane per tonne with the maize compared with 300 for hybrid rye.

Our farm is right at the northern tip of where there are enough cumulative day degrees to allow crops to reach maturity by the target September harvest date.

However, variety trials on the farm, which is also the site of Agrii's Brotherton iFarm, highlighted that varieties such as Resolute were early enough to reach maturity by that date, while also fitting the other key characteristics of being a very high yielding variety with good standing ability and energy production. We regularly achieve average yields of 50-60 T per ha at 30-32% dry matter with Resolute.

Ensuring we are achieving the highest yields, maximum quality and an early harvest is key to us going forward, and Resolute delivers that every year.

Booth Brothers | Smeathalls Farm, West Yorkshire



Agrii's Comments

Resolute offers massive combined DM and ME yields. It achieves an earlier harvest yet maintains massive overall yields when compared to much later material. UK maize production must adapt for ever changing futures and Resolute already holds many of the answers. **The big hitting variety for any UK grower.**

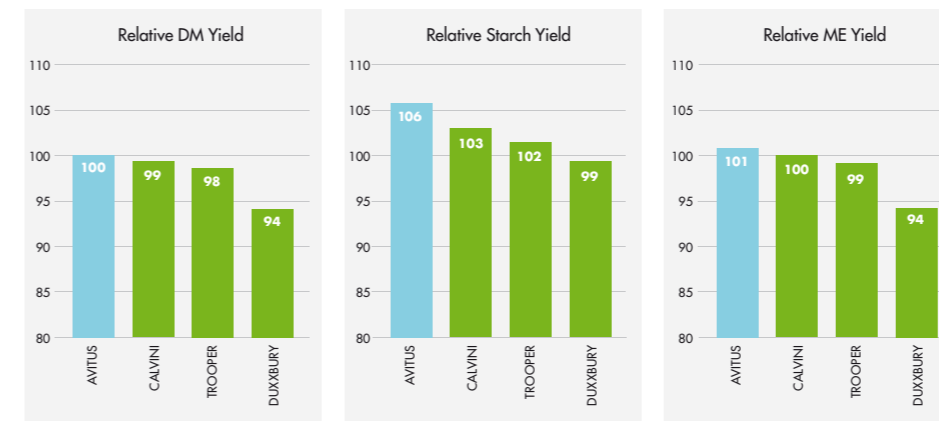
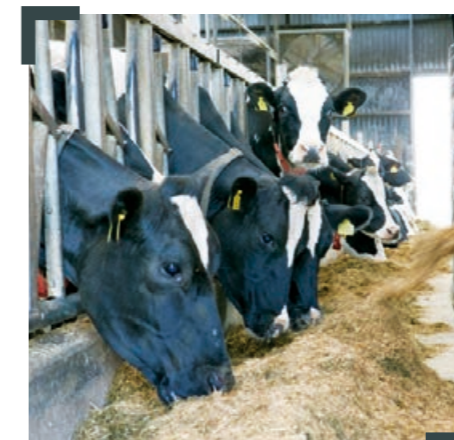
Breeder's Comments

"The yield of Resolute is exceptional, the only variety to break the 19 t/ha barrier. Not only does Resolute offer a significant improvement in terms of yield, it also maximises feed quality from an early maize harvest. A truly impressive performer both on paper and in the field."

AVITUS KWS



- + Early
- + FAO 160
- + 100% Relative DM Yield
- + 18.1 Tonnes DM per Ha
- + 106% Relative Starch Yield
- + 6.52 Tonnes Starch per Ha
- + 101% Relative ME Yield
- + 215 GJ ME per Ha



Agrii's Comments

Avitus continues to break the mould for high yielding and early maturing material. Regularly achieving fresh weight yields in excess of 50 t/ha across varying sites, Avitus produces an unrivalled combination of DM, starch and ME. **A truly exceptional variety for any UK maize grower.**

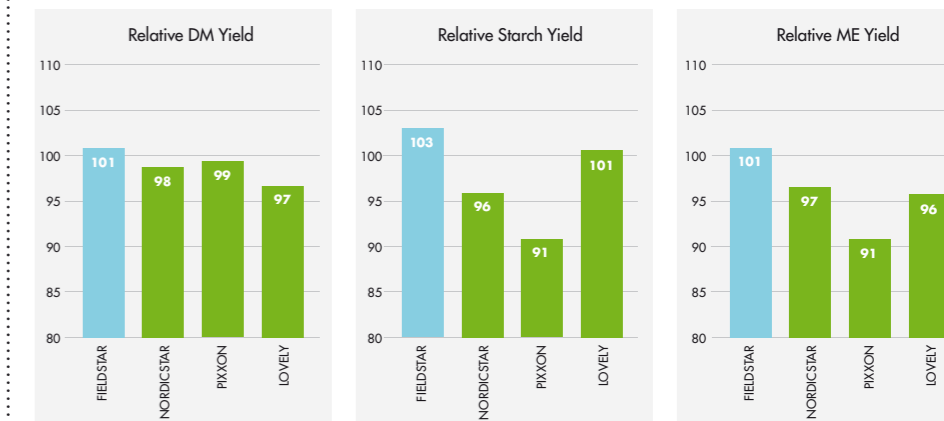
Breeder's Comments

"Avitus KWS pushes the boundaries of current early forage maize breeding for all livestock farmers. Yields of over 18 t/ha of DM and high starch and ME output combined with rapid early vigour and moderate stay green capabilities, results in supreme forage performance."

FIELDSTAR



- + Early
- + FAO 180
- + 101% Relative DM Yield
- + 18.3 Tonnes DM per Ha
- + 103% Relative Starch Yield
- + 6.31 Tonnes Starch per Ha
- + 101% Relative ME Yield
- + 215 GJ ME per Ha



Agrii's Comments

Fieldstar is one of the most consistent and reliable varieties that the UK market has had to offer. Producing high yields of top quality forage throughout the UK and sitting firm on the list, year in, year out, Fieldstar continually forms the backbone of many cropping plans. **Highly proven for livestock, AD or grain maize, Fieldstar is both consistent and flexible.**

Breeder's Comments

"There is no better example of the stable reliable performance of LG breeding than Fieldstar. Fieldstar is a robust and proven variety, still above average in terms of both quality, agronomics and yield."

P7326



Breeder's Comments

"The earliest maturity and biggest selling Pioneer hybrid across the UK, Ireland and Scandinavia. P7326 reaches 30% dry matter faster than any other Pioneer hybrid. It is a proven choice for those sowing on favourable sites who seek an early harvest and less favourable sites where earliness and cold tolerance is critical to success."

P7034

Breeder's Comments

"A dent-like hybrid bred specifically for the cool maritime conditions of North West Europe. PACTS Results show the large degradable starch yield that P7034 can produce. This demonstrates that growers in cooler areas no longer need to rely solely on hybrids with flint textured grain that invariably produce much lower yields of rumen degradable starch."

Agrii are key UK distributors of Corteva's Pioneer Maize portfolio. Speak to your local Agrii Contact for any technical or commercial support and input you may require.



For early harvest choose Gro-Maize Bio film

Gro-Clean Maize

To dramatically reduce risks of early drilling, for early harvest choose Gro-Maize Bio film (Organic certified).

Increased heat units and moisture retention from this specialist film lead to dramatically increased plant maturity leading to impressive dry matter and starch content on early harvest yields.

Exceptional film degradation at targeted date due to exclusive technology built into Gro-Maize Bio film.

Waist high by 4th July?

Choose Gro-Maize Bio film. Earlier harvest can potentially allow fields to be re-sown with grass reseeds or winter wheat for example.

SPECIFICATION	
Roll size:	1.35m x 3100m with crop specific perforations
Core size:	76mm core to suit existing poly layers
Coverage:	2 rolls per hectare

For further information please contact:
Simon Brett – 07788 420 482
Dominic Thomas – 07854 392 046



Gromax Industries Ltd
Tel: +44 (0) 1473 657555
Fax: +22 (0) 1473 657666
Email: sales@gromax.co.uk

Maize Master

Specialist undersowing mixture for maize

Maize Master is a specifically formulated grass mixture to undersow within maize crops to improve travelling conditions at the time of harvest, provide ground cover over the winter, retain residual nutrients and supply additional forage within a rotation.

This dedicated mixture is comprised of three key components:

35% LOFA festulolium which is a genetic cross between a fescue and a perennial ryegrass. The main agronomic attributes which are carried through from this hybridisation are stress tolerance, yield and rooting capability. Enhanced rooting capabilities play a vital part in ensuring soil erosion is minimised and residual nutrients retained during the winter months.

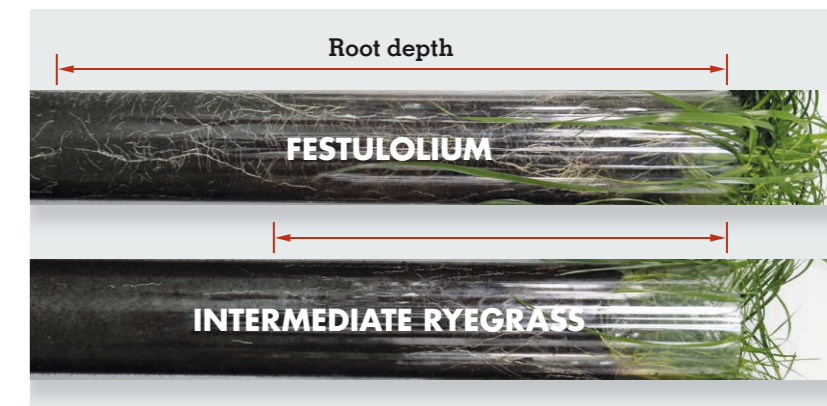
35% ABERECHO hybrid ryegrass enhances overall yield potential within the mixture and carries just enough aggression within the formulation to ensure it establishes well but does not outcompete the maize when undersown. This variety, although a hybrid, also has excellent ground cover ability.

30% ABERGAIN perennial ryegrass is a tetraploid with superb ground cover capabilities. This additional ground cover is key to ensuring soil structures are not damaged at the time of harvest, by improving travelling conditions for machinery.

- + Pack size: 15 kg / 3 acre
- + Seed rate: 5 kg per acre
- + Maize Master can be sown when maize is drilled, or at the 6-8 leaf stage.

*Please note, varieties may change depending on supply.

Please see page 8 for more information about how undersowing your maize crop can help reduce its environmental impact and improve future farm resilience.



Maize for Grain

Utilising maize crops for grain production is becoming a popular choice for many UK growers.

In many cases, crops that may be surplus to forage requirements following an ideal growing season are left for combining to supply an extremely high quality source of starch for feed rations.

Agrii also works closely with those who wish to produce grain only.

Agrii's varieties of choice for grain production:



FIELDSTAR RESOLUTE KWS PASCO

Gamecover

Agrii is also able to recommend and supply maize varieties suitable for the UK gamecover market.



Reliability is key to ensure these crops produce viable cover throughout the entire shooting season, so making the right choice is crucial.

In addition to maize suitable for gamecover, Agrii also has access to a full range of alternative gamecover and environmental options.

Working closely with Limagrain and the HiBird portfolio, Agrii can cater for any requirement you may have for the coming season. Please get in touch for a copy of the HiBird brochure.



Post-cropping options

Forage Rye

A crop of forage rye can offer growers high yields of a quality forage between maize crops. It also offers valuable over-winter ground cover, mopping up nutrients, reducing erosion and helping to improve soils.

Established as soon as the maize crop has been harvested, forage rye has rapid early growth and very strong winter hardiness. The crop will be very quick to get growing in the New Year and ready to be cut and ensiled in late April or early May.

Sheep can also be introduced over the winter months for some additional grazing on forward and well established crops.

In Agrii Trials and Commercial Crop between 2020 and 2023, forage rye yields were 15-20 tonnes per acre at 30-34% DM.

"Forage rye can be sown with minimum cultivations, provided the field is in good condition, rapidly establishes and doesn't really stop growing through the winter, so provides either early grazing in spring or can be ensiled mid-late April."

Ben Lowe | Agrii National Forage Product Manager

LUNATOR from Elsoms Seeds offers an increase in vigour, winter hardiness and is earlier to harvest in the spring when compared to many other varieties on the market.

"Typical seed costs for Lunator forage rye are around £85/ha, plus another £35-55/ha for drilling. Compared with other varieties, Lunator offers extra yield and considerable advantages in earliness to harvest."

Ben Lowe | Agrii National Forage Product Manager

Grass

Short-term grasses such as Westerwolds or Italian Ryegrass can provide an early bite at the start of spring, or alternatively, can offer a quality first-cut silage.

These grasses are vigorous and extremely quick to establish, even at lower soil temperatures of 3°C.

This enables the ley to get established before the winter period, also leading to earlier spring growth.

While only short-term, these species are very productive which means that weather permitting, growers will be able to take a high yielding and excellent quality cut of silage before preparing the field for the next crop.



Anaerobic Digestion

Agrii has been able to provide the UK's AD Industry with a unique insight into commercial feedstock production since 2012.

Based 20 miles east of Leeds, Agrii's Brotherton iFarm is home to an extensive Agrii R&D trials facility which focuses primarily on hybrid rye, forage rye, winter wheat, triticale and also maize.

The trials are specifically designed to supply leading technical management recommendations as well as screening many new genetic lines on an annual basis.

In addition to collating the UK's leading detailed agronomic data, we are also able to gain in depth methane production analysis from the 500 kW AD Plant that is also based at the iFarm.

Throughout the year, iFarm events and tours take place at the site to demonstrate the most up to date developments which can range from information on drilling date, seed rates and variety traits to input programmes.

The Brotherton iFarm has also played a key role in Agrii's development of hybrid rye for grain and its place within today's UK market.

Agrii's varieties of choice for AD maize are:

GEMA RESOLUTE AVITUS KWS KWS PASCO

For more information on how Agrii can help you progress your AD business please contact:

- Matt Richardson | Northern Seed Sales Manager 07887 547287
- Philip Marr | Hybrid Rye and Renewable Energy Consultant 07867 317116
- John Charlton | Crop Inputs Specialist 07469 284165



New Digest-It® for AD farms



DIGEST-IT® is a biological slurry and digestate additive designed to increase nutrient recovery from slurry, while also reducing ammonia emissions.

How does DIGEST-IT® work?

DIGEST-IT® provides a rich food for microbes as well as dormant aerobic bacteria species that are able to feed on and break down the organic matter in the slurry and use the ammonia gas as a source of nitrogen to grow, thus turning it into microbial nitrogen.



Benefits of DIGEST-IT®

FOR SLURRY STORAGE:

- + 80% reduction in ammonia losses, resulting in less smell from slurry when agitating or spreading.
- + In trials over a 13-week period, the mean ammonia concentration level for untreated slurry was 20.9ppm compared to 4.2ppm for the DIGEST-IT® treated slurry – an 80% reduction.
- + Anaerobic bacteria compost solids into plant-available liquid nutrients.
- + 29% reduction in oven dry solids, reducing time required to agitate and pump slurry.
- + Reduces surface crusting, reducing agitation time.

IN THE FIELD:

- + Improves soil health by supplying "good" microbes to the soil.
- + DIGEST-IT® treated slurry has a lower Biochemical Oxygen Demand (BOD) than untreated slurry, reducing the time soil is anaerobic after application.
- + The reduction in dry solids aids absorption into the soil, reducing in-field ammonia losses.
- + Average 30% improvement in N, P & K crop availability.
- + Quicker flow rates and more accurate application of liquid.

SILO-KING®

Silo-King® is a multi-purpose forage and grain treatment programme designed and manufactured as a forage additive to help forage growers retain greater quantity, improve the quality of harvested forages and provide greater feed efficiency to livestock and gas production.

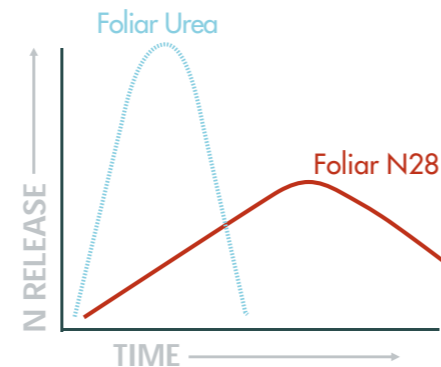
INGREDIENT	PURPOSE
Anti-oxidants	Scavenges oxygen and limits respiration to minimise heating
Enzymes	Pre-digests fibre and improves cell wall digestibility
Lactic Acid Bacteria (LAB)	Helps create rapid pH drop Increases lactic acid production
Potassium Sorbate	Mould and yeast inhibitor



Agrii-Start Efficie-N28-t

28% Foliar Nitrogen

- + 28% Foliar Nitrogen – Liquid Foliar Nitrogen Fertiliser.
- + Unique Amide Nitrogen (NH₂) formulation designed to provide effective crop uptake whilst maximising crop safety.
- + The amide (NH₂) formulation breaks down slowly to enable faster plant uptake compared to nitrate forms of N, resulting in greater Nitrogen Use Efficiency compared to traditional nitrogen fertilisers.
- + N28 is a useful tool where growers need to supply additional nitrogen to crops where N availability may be limited.
- + Due to the increase in NUE, Foliar N in some situations can displace the need for 40 kgs bagged nitrogen.



APPLICATION

Application Rate – 20 l/ha
Water Volume – 100-300 l/ha
Compatibility – Widely compatible with Ag Chem products, avoid hormone herbicides and late PGR products

CROP	RATE L/HA	WATER VOLUME	TIMING
Cereals	20	100-300 l/ha	T0 to T3
Maize	20	100-300 l/ha	8-12 Leaf Stage Onwards
Oil Seed Rape	20	100-300 l/ha	Late Green Bud/Early Flowering
Potatoes	20	100-300 l/ha	Post Flowering
Onions	20	100-300 l/ha	Bulb Initiation Onwards
Vegetable Crops*	20	100-300 l/ha	Full Leaf Cover
Grassland	20	100-300 l/ha	4 Weeks Pre Cutting

*Please seek label approval for vegetable crops

Agrii-Start Maize Kicka

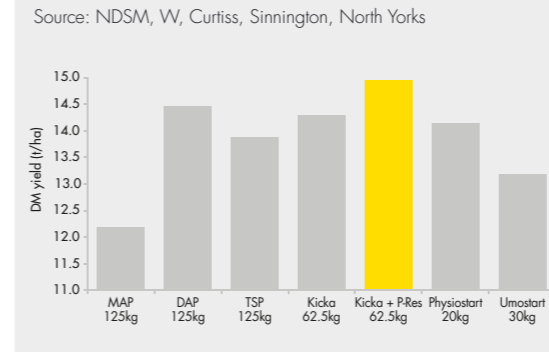
Maize starter fertiliser

Kickstart your maize this Spring

Maize Kicka has been designed as a starter fertiliser with the nutrients required to enable the crop to develop rapidly from an early stage.

- + Maize Kicka is a specifically formulated maize starter fertiliser for placement at planting.
- + It is a granular compound (2 to 4mm) with the analysis – 18N – 20P₂O₅ – 27.5SO₃ – 0.8% Zn.
- + It is treated with “Kicka” – Methanoic Zinc Amonionate – to promote root growth and help the plant access nutrients.
- + Maize Kicka is also treated with “P-Reserve” to prevent phosphate lock-up and therefore make more phosphate available to the crop.
- + Environmental benefits with targeted phosphate application with Maize Kicka compared to standard DAP.
- + Maize Kicka is cost effective against DAP and is available in both 600 kg and 25 kg packs to ensure you only purchase the amount you need for your crop area.

Seedbed Fertiliser – Trials results



Maize Crop: Kent Maize Kicka Treated versus Untreated.

Agrii-Start Release

Powered by P-Reserve®

Soil Phosphorus Activator

- + Agrii has developed a unique soil Phosphorus (P) Activator for soils.
- + Release is a nutrient releasing agent built on P-Reserve technology.
- + Release can be used on high P soils to help unlock P for crop uptake on sites where P availability may be limiting.
- + Release also increases the availability of other soil nutrients including P, Zn, Mn, B, and Cu.

Agrii-Start Release – application for maize

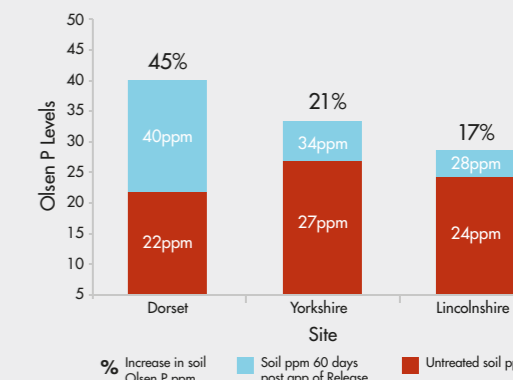
- + Can be applied pre-emergence and suitable for tank mixing.
- + Best applied into moist soils, to increase soil coverage Release can be used with silicone wetter.
- + Recommended rate of application for maize: 4.0 l/ha +/- silicone wetter.
- + When to apply: apply pre-drilling/early post drilling.
- + Can be applied before or during light rainfall.

Benefits for maize

- + A useful tool where maize growers are looking to reduce traditional applications of DAP.
- + Works to increase solubility of soil available phosphorus during the early establishment phases of maize growth.
- + Increases the availability of locked up forms of phosphate in the soil.

Olsen P Increases

- + Agrii-Start Release has been shown to increase P levels in the soil post application.



*Release applied at 4.0 l/ha. Data based upon the principle that to raise soil Olsen P by 10 ppm requires 400 kgs/ha P₂O₅

Master Leys

The Master Leys range of grass mixtures offers full and comprehensive options for all types of farming systems and regions of the UK.

Working closely with leading grass seed breeders throughout the UK and Europe, Agrii is able to access the best varieties for the Master Leys portfolio.

In addition to this, Agrii grows and produces more than 80% of the seed used to produce Master Leys.

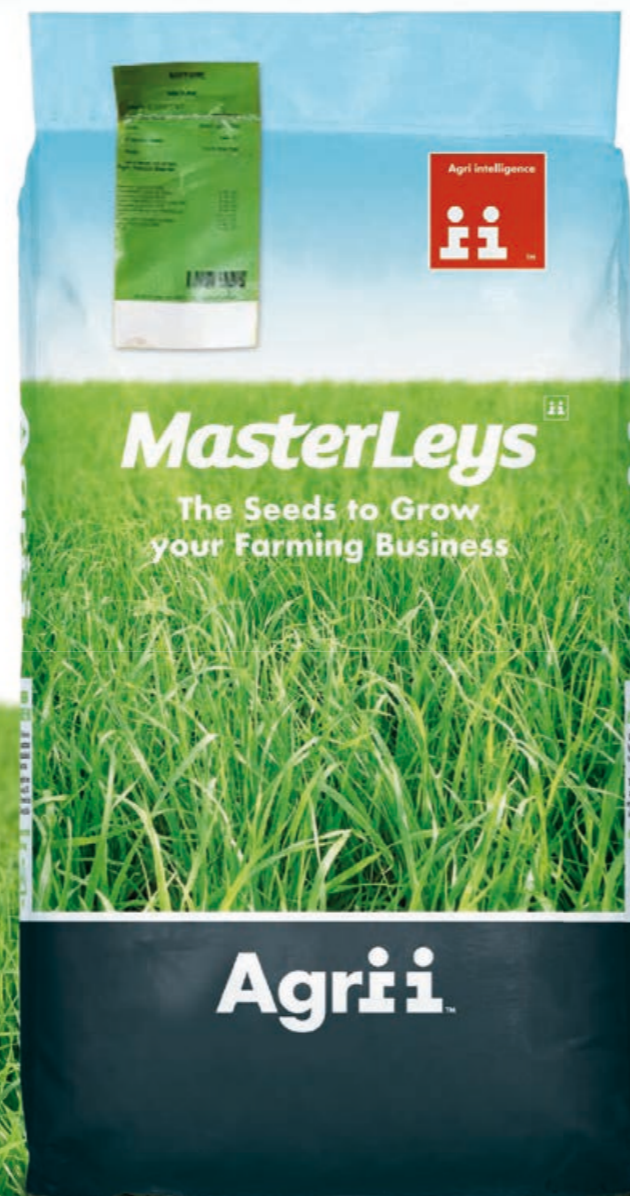
This gives us greater control over the quality of the seed we use and ensures that what goes into a Master Leys bag is of the highest possible standard. The best varieties from the Grass and Clover Recommended List are specifically chosen for each Master Leys mix.

We're continually developing and innovating our variety choices and mixtures – ensuring that we provide the most resilient and best performing grass mixtures for your specific requirements and current climates.

The story doesn't stop with the seed in the bag.

Agrii agronomists and crop input specialists provide advice throughout the lifetime of the ley to ensure the best possible returns from your grass. This covers nutrition, weed control and forage nutrient analysis, together with support on animal health and advice on storage.

This integrated approach to making your grass work harder will help drive on farm profitability from your home grown forage.



Please get in touch for more information about our grass mixtures, or for a copy of the Agrii Guide to Grass & Roots, or the Agrii Livestock Directory.

You can also scan the QR codes or click on the cover images for the digital versions.



Master Leys Mixture Selector England & Wales

SHORT TERM	MEDIUM TERM	LONG TERM	OVERSEEDING	HORSE & PONY
BULK MASTER One to two year cutting Grazing: ★ Cutting: ★★★★★ Hay: ★★★★★	CUT MASTER Three to four year cutting Grazing: ★★★ Cutting: ★★★★★ Hay: ★	SWARD MASTER Six year plus intensive grazing Grazing: ★★★★★ Cutting: ★★★ Hay: ★★★	ST OVER MASTER Rejuvenate one to two year Grazing: ★ Cutting: ★★★★★ Hay: ★	HORSE AND PONY PLUS PERENNIAL RYEGRASS Six plus years
SILAGE MASTER Two year cutting Grazing: ★★ Cutting: ★★★★★ Hay: ★★★	PROTEIN MASTER Three year cutting Grazing: ★★★ Cutting: ★★★★★ Hay: ★	SWARD MASTER PLUS Multi-species grazing mix Grazing: ★★★★★ Cutting: ★★ Hay: ★	MT OVER MASTER Rejuvenate three to four year Grazing: ★★★ Cutting: ★★★★★ Hay: ★	LAMI-LESS HORSE AND PONY Six plus years
	DROUGHT MASTER Five to six year cutting & grazing Grazing: ★★★★★ Cutting: ★★★★★ Hay: ★	STOCK MASTER Six year plus cutting/grazing Grazing: ★★★★★ Cutting: ★★★★★ Hay: ★★	LT OVER MASTER Rejuvenate five plus years Grazing: ★★★ Cutting: ★★★★★ Hay: ★	ST HAY MASTER Two years
	FORAGE MASTER Five to six year cutting & grazing Grazing: ★★★★★ Cutting: ★★★★★ Hay: ★★	MULTI MASTER PLUS Six year plus cutting Grazing: ★★★ Cutting: ★★★★★ Hay: ★		LT HAY MASTER Six plus years
	FIELD MASTER Five to six year cutting & grazing Grazing: ★★★★★ Cutting: ★★★★★ Hay: ★★★			ST HAYLAGE MASTER One to two years
				LT HAYLAGE MASTER Six plus years

Suitability scores: ★ = less suitable ★★★★★ = more suitable

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Master Leys Mixture Selector Scotland

SHORT TERM	MEDIUM TERM	MEDIUM/LONG TERM	OVERSEEDING	HORSE & PONY
BULK MASTER One to two year cutting Grazing: ★ Cutting: ★★★★★ Hay: ★★★★★	CUT MASTER Three to four year cutting Grazing: ★★★ Cutting: ★★★★★ Hay: ★	SCOT MASTER Four to seven year cutting/grazing Grazing: ★★★★★ Cutting: ★★★★★ Hay: ★★	ST OVER MASTER Rejuvenate one to two year Grazing: ★ Cutting: ★★★★★ Hay: ★	HORSE AND PONY PLUS PERENNIAL RYEGRASS Six plus years
SHORT/MEDIUM TERM	SILAGE MASTER Four to six year cutting Grazing: ★★★ Cutting: ★★★★★ Hay: ★★	LONG TERM	MT OVER MASTER Rejuvenate three to four year Grazing: ★★★ Cutting: ★★★★★ Hay: ★	LAMI-LESS HORSE AND PONY Six plus years
PROTEIN MASTER Two to three year cutting Grazing: ★★★ Cutting: ★★★★★ Hay: ★	TURBO MASTER Four to six year cutting/grazing Grazing: ★★★★★ Cutting: ★★★★★ Hay: ★★	SWARD MASTER Seven year plus intensive grazing Grazing: ★★★★★ Cutting: ★★★ Hay: ★★	LT OVER MASTER Rejuvenate five plus years Grazing: ★★★ Cutting: ★★★★★ Hay: ★	ST HAY MASTER Two years
	FIELD MASTER Four to six year cutting/grazing Grazing: ★★★★★ Cutting: ★★★★★ Hay: ★★★★★	SWARD MASTER PLUS Multi-species grazing mix Grazing: ★★★★★ Cutting: ★★ Hay: ★	LT HAY MASTER Six plus years	LT HAY MASTER Six plus years
		HILL MASTER Seven year plus hardy grazing Grazing: ★★★★★ Cutting: ★★ Hay: ★★		ST HAYLAGE MASTER One to two years
				LT HAYLAGE MASTER Six plus years

Suitability scores: ★ = less suitable ★★★★★ = more suitable

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Bringing forage and livestock together

Adopting an integrated approach to managing your forage system can help to improve its performance, and consequently the productivity of your livestock.

Agrii specialists in nutrition, seed, forage, animal health, agronomy and precision work together, using the latest technologies in a joined up way – helping you to increase your profits sustainably.

All of this expertise is backed up by the latest research and most up-to-date agri-intelligence on grassland productivity, translated into practice on our local demonstration sites. We can provide the products, support and advice that you need across all areas of your mixed or livestock enterprises.

If you would like a copy of the Agrii Livestock Directory, please scan the QR code, email info@agrii.co.uk, speak to your usual Agrii contact or call Emma Gatehouse on 07966 664096.

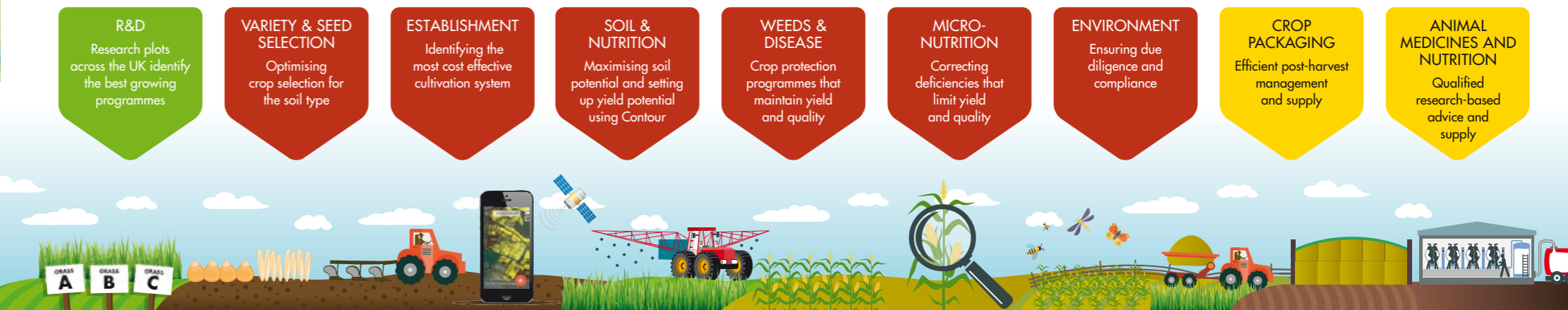


The Agrii Livestock Team is made up of highly qualified and dedicated advisory staff, who provide a professional, advice-based service, in addition to supplying the following products.

- + Vaccines for beef, sheep, suckler cow and dairy enterprises
- + External and internal parasite control products for all farm animals
- + Trace element drenches and boluses for sheep and cattle
- + Superstock proteins for home mixing
- + Calf and lamb milk powders and follow on products
- + Protein and mineralised buckets and feed blocks
- + Compound feeds
- + Dairy and hygiene chemicals
- + Mobile livestock handling equipment
- + Cereal, grassland and forage crop seed
- + Silage preservation products
- + Cereal harvest preservation products
- + Farm plans
- + Worming programmes, including faecal egg counts

Agrii: for all your livestock needs.

Helping you manage each stage of the production cycle





For more information, please get in touch with your usual agronomist, or your local crop input specialist, shown on the map below:

1	Barny Henderson	07976 953081	15	Sammy Johnson	07792 981848
2	Tim Hatton	07827 831275	16	Saul Creed	07836 548654
3	Lauren Rettie	07964 510067	17	Rob Stuart	07563 390273
4	Jack Wilson	07557 156934	18	Ian Davy	07890 550559
5	Harriet Blakey	07593 385979	19	Oliver Fallbrown	07966 533676
6	John Charlton	07469 284165	20	Angie Baker	07796 193895
7	Alex Rogers	07469 284694	21	Ellie Browning	07814 094803
8	Matt Richardson	07887 547287	22	Lily Butters	07917 460937
9	David O'Donohoe	07551 327710	23	Tom Perrott	07976 437568
10	Samantha Gallagher	07841 777026	24	Will Sanderson	07980 943538
11	Gavin Taylor	07973 854046	25	Cas Sandy	07970 641741
12	Sophie Dillon	07826 956226	26	Dan Wood	07774 710799
13	Ben Foster	07896 446311	27	Louise Rawlinson	07721 788943
14	Poppy Bunting	07967 593776			

Ben Lowe

National Forage Product Manager

07966 533374

Adam Simper

National Grass, Roots and Environmental Seeds Manager

07767 007021

Simon Hobbs

Cover Crop, Environmental and Wildflower Seeds Technical Manager

07770 643365



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