

**PACTS**<sup>®</sup>  
Pioneer Accurate Crop Testing System

TRIAL RESULTS FOR  
**2020 to 2021**  
SELECTION

**MAIZE HYBRIDS**



Science with Service Delivering Success<sup>®</sup>



22nd January 2020



Dear Pioneer Maize Grower,

The 2019 growing year was generally favourable for maize cultivation throughout the areas where our early maturity PACTS Trials were sown. The average dry matter content of the Control hybrid, P7892, was indeed the highest we have recorded in recent years at 39.3%. Both the average whole plant dry matter yield and starch dry matter yield was also amongst the highest we have measured.

We are very pleased as always to present the latest Pioneer Accurate Crop Testing System (PACTS) trials results. We conduct these trials every year so that we can accurately describe the performance of Pioneer Brand maize hybrids across a range of local growing conditions.

The results show the performance of current hybrids you may be familiar with, such as P7326 and P7034, but also new hybrids such as P7948. This recently registered large stature hybrid will clearly suit growers on favourable sites growing in the open, and those growing under film, who are seeking to produce large yields of good quality silage for feeding and gas production.

### **PACTS® Hybrid Performance Highlights**

**P7326** – 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** is 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 and demonstrate 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.

**P7378** – Over the last four years of PACTS Trials, and across many locations, this very early maturity large stature hybrid has produced impressive yields of high energy silage for feeding or biogas production. Suited to lighter soils and sheltered sites.

**P7892** – This popular, very early maturity hybrid combines high dry matter yields with high starch yields and has a strong package of agronomic features including very good early vigour and fast stover dry down.

**P7948** – New for 2020. This early, large stature hybrid is aimed at growers on favourable sites planting in the open and those sowing under film. Impressive whole plant yields and quality in the first year of PACTS Trials will attract growers attention.

**P7524** – A very popular early maturity hybrid that gives very high dry matter yields of good starch content, suitable for large quantities of early to mature silage, and for maximising biogas production.

**P8200** – In PACTS® trials over many locations, P8200 has shown good adaptation to favourable sites when grown in the open and a wide range of sites when sown using the SAMCO system. P8200 is a very large stature hybrid that dries down rapidly at maturity and produces very high dry matter yields.

**P8201** – This hybrid has once again given very high yields when grown on favourable sites in the open and in and sites sown using the Samco System. P8201 combines a very high dry matter yield with a good starch yield. P8201 responds to the heat generated under film to provide growers using the Samco System with the yield increase they are looking for.

**P8171** – Tested for the second year in PACTS Trials using the Samco System, P8171 has given slightly higher yields than P8201 but with slightly lower dry matter content and slightly later harvest date.

## Pioneer® Brand Inoculants

Our range of silage inoculants continue to reduce dry matter losses and improve silage quality. Whether you are making grass silage in cool challenging environments or maize silage in ideal conditions, the most appropriate silage inoculant can make dramatic differences to your profitability.

The popular traditional technology options - PIONEER® 1188 and PIONEER® 11A44 - are now fully complemented by the three Rapid React® formulation products- PIONEER 11G22®, PIONEER 11C33® and PIONEER® 11B91. Rapid React technology speeds up the onset of aerobic stability as soon as one week after ensiling when compared to equivalent non-Rapid React formulated inoculants.

For the highest production and quality impact we also offer the unique Fibre Technology product range, which includes PIONEER® 11GFT, PIONEER® 11CFT, PIONEER® 11AFT and PIONEER® 11CH4. Fibre Technology products all contain a unique bacterial strain that produces an enzyme that increases fibre digestion rates by freeing up cell wall contents from lignin.

Without the farmers and contractors who have participated in the 2019 PACTS® Trials, we would not be able to publish these results. Their practical help, patience, and frequent sound advice during the growing season make a significant contribution to each trial we conduct.

If you would like further information about Pioneery maize seed or silage inoculants, please do not hesitate to contact us or your nearest Pioneer sales representative.

Yours sincerely,  
On behalf of Pioneer



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## PACTS® TRIALS BACKGROUND INFORMATION

### Layout

Each PACTS® Trial is established within a commercial crop of maize and is planted and harvested by the host farmer with the assistance of Corteva staff. All trials are managed as part of the field and the results therefore are reflective of the effect of local weather conditions and commercial crop management practices.

A PACTS® trial is generally comprised of between 15 and 20 plots. The plots are planted in identically sized marked areas adjacent to each other across a uniform part of the selected field. Each plot is 6 or 8 rows wide and normally 50 metres in length. One hybrid is chosen as a Control hybrid and is regularly repeated in larger trials to mitigate the effects of soil type changes across the trial. The Control hybrid is included in every trial to allow for trials to be collated in multiple trial summaries. In 2019 the Control hybrid was P7892.

### Sites

Each trial site is classified as being Favourable or Less Favourable depending upon the heat accumulation that would typically be measured at that location. The results from individual trials in the latest year of testing are detailed in this book however, due to space restrictions, occasionally some trials are not shown. The results from trials in the current year that are not included can be identified in the Agronomic Details section and, along with trials from previous years, are available on request.

### Competitor Hybrids

Typically at least four hybrids from competitor plant breeding companies that have been widely grown commercially in recent years are included

in each PACTS® Trial. The main competitor hybrids included in 2019 were Ambition, Avitus kws, Glory and Autens kws.

### Analysis

Representative fresh forage samples from every PACTS® plot are taken at harvest and promptly oven dried to determine percentage dry matter content. The resulting dried samples are subsequently tested in a Near Infra Red Spectrophotometer (NIRS) machine at a Corteva laboratory. Results from these tests accurately indicate multiple quality parameters including starch content, whole plant digestibility and Neutral Detergent Fibre (NDF). The large number of PACTS® locations, and the number of samples tested, ensure that the NIRS data generated can be regarded as a reliable indicator of the quality of each maize silage hybrid grown. In addition ear samples of selected hybrids are taken at harvest, dried, and the grain tested by Corteva specifically for its rumen degradable starch content.



## Maize Hybrid Selection

The selection of a particular hybrid for cultivation inevitably varies according to the different criteria a grower has. In many situations yield is of paramount importance but earliness of maturity is usually another critical factor. Other factors such as standing power, silage nutritional quality and end-use intentions (e.g. whole plant silage fed to livestock or biogas production) should be considered. No single hybrid will suit all situations.

The following factors are just some of those that can have a major influence on the quantity, quality and value of the maize crop produced.

The Environment	Crop Husbandry	Hybrid Genetics
Latitude	Seedbed Quality	Yield Potential
Soil Type	Drilling Date	Early Vigour
Altitude	Planting Population	Disease Resistance
Aspect	Fertiliser Policy	Maturity and grain texture
Shelter	Use of The Samco System	Standing Power
Harvesting & Storage	Use On-Farm	Sell Off-Farm
Harvesting Method	As Feed	Silage Quality
Harvest Timing	For Biogas Production	Consistent Supply
Storage Method	Ration Supplementation	Value versus Other Feeds
Feed-Out Methods	Ration Consistency	Local Demand
Use of Inoculant	Yeast and Mould Content	Transport Costs

Growing a maize crop that meets all requirements depends upon selecting a hybrid with the most appropriate genetic potential and then managing that hybrid in a manner that will meet the chosen objectives.

## HISTORICAL FORAGE PACTS® TRIALS RESULTS SUMMARY

Year	Control Hybrid	Fresh Weight Yield (Tonnes / Hectare)	Dry Matter (%)	Dry Matter Yield (Tonnes / Hectare)	Starch (%)	Starch Yield Converted to Grain (Tonnes / Hectare at 15% Moisture)	Sugar (%)	Whole Plant Digestibility (%)	Neutral Detergent Fibre (%)	Number of Sites
2019	P7892	43.243	39.3	17.0	34.7	9.019	4.5	68.8	41.4	19
2018	P7892	41.295	37.0	14.8	31.5	7.130	3.8	69.6	41.4	14
2017	P7892	48.662	35.8	18.0	32.6	8.975	5.1	70.4	37.9	19
2016	P7892	47.607	35.8	17.0	33.2	8.660	5.6	70.4	40.9	14
2015	PR39V43	47.603	31.9	15.2	25.0	5.807	9.8	69.5	43.2	15
2014	PR39V43	47.822	36.2	17.3	34.1	9.022	5.4	68.8	40.5	18
2013	PR39V43	44.695	35.6	15.9	35.3	8.587	4.0	71.6	38.9	13
2012	PR39V43	37.966	32.4	12.3	29.4	5.531	4.9	70.1	43.0	12
2011	JUSTINA	48.100	33.1	15.9	31.1	7.586	2.1	70.1	43.6	14
2010	JUSTINA	45.994	33.7	15.5	36.2	8.582	1.4	70.6	41.7	10
2009	JUSTINA	55.161	31.0	17.1	27.2	7.114	4.8	66.0	NR	13
2008	JUSTINA	46.108	30.4	14.0	30.0	6.425	3.4	69.1	NR	16
2007	JUSTINA	55.853	29.9	16.7	30.0	7.662	3.3	68.2	NR	14
2006	JUSTINA	45.042	35.3	15.9	37.0	8.998	3.0	nr	NR	13
2005	JUSTINA	54.633	31.3	17.1	33.4	8.735	2.6	nr	NR	16
2004	JUSTINA	50.774	32.3	16.4	33.9	8.503	2.7	nr	NR	15
<b>Average</b>		<b>47.821</b>	<b>33.5</b>	<b>16.0</b>	<b>32.0</b>	<b>4.1</b>	<b>69.5</b>	<b>41.2</b>	<b>14</b>	

NOTE: All trials included in this summary were grown in the open; nr = not recorded

# WHOLE PLANT FORAGE, FAVOURABLE SITES, 2015-2019

Number of Years Tested	Number of Sites	Fresh Yield (t/ha)	Dry Matter (%)	Yield (Tonnes Dry Matter/Hectare)			Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)	Dry Matter Yield Advantage / Disadvantage Vs Control (%)	
				Hybrid	Starch Yield & %	Stover Yield				
2	10	53.687	36.8%	P7948	31.2%	5%	111%	68%	9.437	11%
2	9	61.434	31.2%	P8171	29.6%	5%	108%	67%	8.683	8%
4	25	55.973	34.1%	P8201	32.1%	5%	108%	68%	9.352	8%
3	23	55.664	33.0%	P8200	30.9%	4%	103%	67%	8.689	3%
1	3	56.215	32.5%	P7932	33.6%	5%	103%	70%	9.374	3%
4	30	49.333	36.9%	P7524	32.6%	6%	103%	68%	9.064	3%
1	7	48.303	37.3%	Gatsby*	34.2%	5%	102%	70%	9.417	2%
1	8	49.398	36.5%	P7460	30.7%	4%	102%	66%	8.468	2%
4	32	45.918	38.6%	P7892 (C)	34.3%	5%	100%	70%	9.318	0%
3	26	43.338	40.9%	P7034	37.0%	4%	100%	72%	10.034	0%
4	30	43.157	40.7%	Ambition*	35.5%	4%	99%	70%	9.537	-1%
4	24	42.695	40.6%	P7378	36.3%	5%	98%	70%	9.616	-2%
1	10	42.378	40.7%	Autens kws*	35.9%	3%	97%	70%	9.468	-3%
2	16	41.464	41.1%	Glory*	35.7%	4%	96%	70%	9.288	-4%
2	14	41.424	41.1%	Avitus kws*	35.7%	4%	96%	70%	9.291	-4%
2	14	44.260	38.1%	Agiraxx*	35.5%	4%	95%	70%	9.140	-5%
4	32	41.900	40.1%	P7326	35.0%	5%	95%	69%	8.999	-5%
1	6	42.475	39.6%	Severus*	34.4%	3%	95%	69%	8.842	-5%
2	13	32.357	45.6%	Augustus kws*	37.8%	3%	83%	71%	8.531	-17%

# WHOLE PLANT FORAGE, FAVOURABLE SITES, 2019

Number of Years Tested	Number of Sites	Fresh Yield (t/ha)	Dry Matter (%)	Yield (Tonnes Dry Matter/Hectare)			Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)	Dry Matter Yield Advantage / Disadvantage Vs Control (%)	
				Hybrid	Starch Yield & %	Stover Yield				
1	9	52.247	37.8%	P7948	32.9%	5%	112%	68%	9.939	12%
1	8	57.588	34.2%	P8201	32.7%	5%	112%	67%	9.851	12%
1	8	55.588	34.0%	P8200	31.3%	5%	107%	66%	9.048	7%
1	9	48.268	38.7%	P7524	33.5%	6%	106%	68%	9.580	6%
1	10	42.435	42.7%	P7034	36.8%	4%	103%	69%	10.201	3%
1	7	46.167	38.8%	Gatsby*	35.7%	5%	102%	70%	9.773	2%
1	8	47.215	37.9%	P7460	32.1%	4%	102%	65%	8.788	2%
1	10	42.719	41.8%	Ambition*	36.3%	4%	101%	70%	9.928	1%
1	10	43.888	40.2%	P7892 (C)	35.9%	5%	100%	69%	9.670	0%
1	10	40.504	42.3%	Autens kws*	37.5%	3%	97%	69%	9.826	-3%
1	10	40.074	42.7%	Glory*	36.8%	4%	97%	68%	9.644	-3%
1	8	38.519	43.9%	Avitus kws*	37.7%	3%	96%	70%	9.762	-4%
1	10	39.715	41.5%	P7326	36.4%	4%	93%	69%	9.183	-7%

■ Starch Yield & % 
 ■ Sugar Yield & % 
 ■ Stover Yield 
 ■ Relative Dry Matter Yield Index (C=100%)  
 C = Control Hybrid; \* = Competitor hybrid; \*\* = Hybrid trade name following registration in an EU country

## WHOLE PLANT FORAGE, LESS FAVOURABLE SITES, 2016-2019

Number of Years Tested	Number of Sites	Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)	Dry Matter Yield Advantage / Disadvantage Vs Control (%)
2	8	55.853	30.9%	<b>P7948</b>	28.8% Starch, 5% Sugar, 108% Stover	68%	7.606	8%
2	10	42.253	39.3%	Autens kws*	35.1% Starch, 3% Sugar, 104% Stover	70%	8.907	4%
3	25	42.735	38.6%	<b>P7034</b>	35.3% Starch, 4% Sugar, 103% Stover	71%	8.915	3%
4	25	41.501	39.6%	<b>P7378</b>	34.3% Starch, 4% Sugar, 103% Stover	69%	8.621	3%
4	31	46.630	35.1%	<b>P7524</b>	31.7% Starch, 6% Sugar, 102% Stover	69%	7.954	2%
2	12	40.697	40.1%	Avitus kws*	36.9% Starch, 3% Sugar, 102% Stover	71%	9.198	2%
1	7	50.142	32.4%	<b>P7460</b>	26.9% Starch, 5% Sugar, 102% Stover	66%	6.686	2%
4	33	40.694	39.7%	<b>P7326</b>	34.7% Starch, 4% Sugar, 101% Stover	70%	8.566	1%
4	34	44.650	35.8%	<b>P7892 (C)</b>	32.0% Starch, 5% Sugar, 100% Stover	70%	7.816	0%
4	33	39.636	40.1%	Ambition*	35.6% Starch, 4% Sugar, 99% Stover	71%	8.653	-1%
2	17	41.065	37.4%	Agiraxx*	33.0% Starch, 3% Sugar, 96% Stover	69%	7.756	-4%
2	15	39.140	38.9%	Glory*	35.3% Starch, 3% Sugar, 95% Stover	70%	8.223	-5%
1	8	38.307	39.5%	Severus*	34.5% Starch, 2% Sugar, 95% Stover	68%	7.984	-5%
2	17	32.128	45.1%	Augustus kws*	38.5% Starch, 3% Sugar, 91% Stover	72%	8.527	-9%

## WHOLE PLANT FORAGE, LESS FAVOURABLE SITES, 2019

Number of Years Tested	Number of Sites	Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)	Dry Matter Yield Advantage / Disadvantage Vs Control (%)
1	5	41.641	42.3%	Avitus kws*	37.5% Starch, 3% Sugar, 108% Stover	69%	10.084	8%
1	7	54.098	32.1%	<b>P7948</b>	29.4% Starch, 5% Sugar, 107% Stover	67%	7.824	7%
1	9	39.857	41.7%	Autens kws*	35.5% Starch, 3% Sugar, 102% Stover	68%	9.041	2%
1	7	47.716	34.6%	<b>P7460</b>	28.2% Starch, 5% Sugar, 102% Stover	64%	7.119	2%
1	8	41.373	39.8%	<b>P7034</b>	34.6% Starch, 4% Sugar, 101% Stover	68%	8.704	1%
1	9	42.490	38.2%	<b>P7892 (C)</b>	33.5% Starch, 5% Sugar, 100% Stover	68%	8.322	0%
1	8	40.502	40.0%	<b>P7326</b>	34.2% Starch, 4% Sugar, 100% Stover	68%	8.480	0%
1	8	45.544	35.4%	<b>P7524</b>	31.9% Starch, 6% Sugar, 99% Stover	67%	7.869	-1%
1	9	39.933	39.8%	Ambition*	36.3% Starch, 4% Sugar, 98% Stover	70%	8.827	-2%
1	9	37.388	40.5%	Glory*	36.2% Starch, 3% Sugar, 93% Stover	69%	8.373	-7%

■ Starch Yield & %  
 ■ Sugar Yield & %  
 ■ Stover Yield  
 ■ Relative Dry Matter Yield Index (C=100%)  
 C = Control Hybrid; \* = Competitor hybrid, \*\* = Hybrid trade name following registration in an EU country

## PIONEER HYBRIDS FOR ENERGY PRODUCTION

The most appropriate maize hybrid for biogas production in any one situation depends on multiple factors. Maize hybrid selection for biogas production should always begin with a field assessment to determine appropriate hybrid maturity. PACTS Trials enable Pioneer to predict gas yields that can be achieved from different Pioneer hybrids cultivated on different sites in the open and under film.



## SELECTED GAS YIELD PREDICTIONS FROM PACTS® TRIALS

### Favourable Sites Grown In The Open, 2016-2019

Hybrid	Methane Yield		Dry Matter %	Years Tested	Sites Tested
	Litres / ha	Litres / kg Dry Matter			
P7948	6,069,415	307	36.8%	2	10
P8201	5,885,786	308	34.1%	4	25
P8171	5,852,787	305	31.2%	2	9
Asgaard*	5,766,613	319	40.0%	2	14
P7932	5,731,169	314	32.5%	1	3
Gatsby*	5,699,845	316	37.3%	1	7
P7524	5,662,088	310	36.9%	4	30
P7034	5,648,674	319	40.9%	3	26
P7892 (C)	5,584,696	315	38.6%	4	32
P8200	5,561,390	302	33.0%	3	23
Ambition*	5,549,457	316	40.7%	4	30
P7378	5,491,449	316	40.6%	4	24
P7460	5,451,709	301	36.5%	1	8
Autens kws*	5,428,008	314	40.7%	1	10
Avitus kws*	5,384,456	316	41.1%	2	14
Glory*	5,341,784	314	41.1%	2	16
Fabregas*	5,324,636	306	35.6%	2	6
Agiraxx*	5,312,728	314	38.1%	2	14
P7326	5,266,233	313	40.1%	4	32

### Less Favourable Sites Grown In The Open, 2016-2019

Hybrid	Methane Yield		Dry Matter %	Years Tested	Sites Tested
	Litres / ha	Litres / kg Dry Matter			
P8201	5,575,217	311	32.5%	2	3
P7948	5,315,612	308	30.9%	2	8
Avitus kws*	5,245,614	319	40.1%	2	12
P7034	5,215,450	316	38.6%	3	25
Autens kws*	5,214,624	315	39.3%	2	10
P7378	5,138,771	314	39.6%	4	25
Asgaard*	5,128,927	319	38.8%	2	3
P7524	5,120,442	312	35.1%	4	31
P7326	5,108,156	316	39.7%	4	33
Ambition*	5,060,253	318	40.1%	4	33
P7892 (C)	5,028,770	314	35.8%	4	34
P7460	4,916,290	301	32.4%	1	7
Glory*	4,814,319	316	38.9%	2	15

### Less Favourable Sites Grown Under The Samco System, 2014-2019

Hybrid	Methane Yield		Dry Matter %	Years Tested	Sites Tested
	Litres / ha	Litres / kg Dry Matter			
P8171	5,768,605	311	30.0%	3	8
P7932	5,582,638	314	32.0%	4	11
P8201	5,543,247	311	31.4%	5	19
P8200 (C)	5,317,381	307	31.2%	6	33
P8329	5,289,647	305	30.5%	3	7
P8372	5,141,893	292	27.7%	2	5
P8000	5,125,275	310	30.9%	6	16
P7034	5,108,437	316	37.0%	3	10
P7378	5,052,058	317	38.0%	5	10
P8333	5,004,098	313	32.7%	4	11
P7905	5,003,884	314	31.6%	5	27
P7892	4,990,868	319	35.5%	6	22
P7948	4,947,559	307	34.1%	2	6
P7524	4,857,887	319	34.4%	6	18
P8307	4,832,284	310	33.7%	3	10
P7326	4,701,408	317	38.6%	6	21
P7460	4,594,698	302	34.8%	1	5

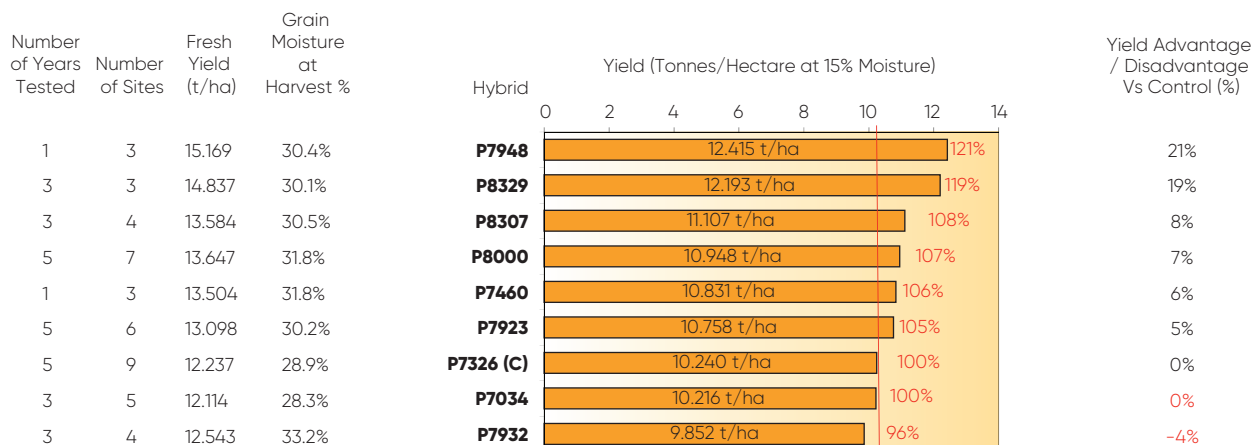
Methane yield figures are determined using a calculation based on the Weissbach formula. This formula predicts gas output based on the value of the key substrates in the forage prior to fermentation. The calculation of Fermentable Organic Dry Matter, or 'FoTs', is a key part of the formula and the FoTs is determined using actual yield and quality results from PACTS® trials.

C = Control Hybrid

\* = Competitor Hybrid;



# GROWN IN THE OPEN, 2015-2019



Grain Yield, Tonnes/Hectare at 15 Moisture Relative Yield Index (C=100%)

C = Control Hybrid; \* = Competitor hybrid; \*\* = Trade name following registration in an EU country

## PACTS® HYBRID AGRONOMIC DESCRIPTIONS FOR 2020

Hybrid	PACTS® Maturity Description	Soil Type Reference			FAO Rating (Silage)	Early Vigour	Resistance to Lodging Score*	Typical Stover Dry-Down Rate	PACTS Eyespot Resistance Scores**
		Light	Medium	Heavy					
P7326	Extra Early	←	—	→	180	Very Good	8.2	Fast	5.9
P7378	Very Early	←	—		180	Very Good	7.4	Fast	3.9
P7034	Very Early	←	—		190	Good	8.2	Moderate	5.7
P7892	Early	←	—		200	Very Good	8.3	Very Fast	5.5
P7524	Early	←	—	→	200	Very Good	8.3	Moderate	7.3
P7948 - NEW	Early	←	→		230	Good	8.3	Moderate	-
P7460 - NEW	Intermediate	←			230	Average	8.3	Slow	-
P8201	Intermediate	←	→		230	Very Good	8.1	Moderate	6.9
P8200	Intermediate	←	—	→	230	Good	7.8	Moderate	7.9
P7932	Late	←	—		220	Good	8.2	Moderate	7.0
P8000	Late	←	—		230	Average	8.2	Moderate	8.6
P8307	Very Late	←	—		240	Average	8.2	Slow	-
P8329	Very Late	←	—		250	Very Good	8.2	Moderate	-
P8333	Very Late	←	—		250	Good	8.2	Moderate	-
P8171	Very Late	←	—		250	Good	7.8	Slow	-

\*Lodging resistance scores based on 1-9 where 9 = good and 1 = poor

\*\* Scores based on a 1 - 9 scale where 9 = high resistance; data sourced from registration trials and PACTS® trials depending upon hybrid



The Samco System provides extra heat during the first few weeks of growth when the plant is often challenged by cold temperatures. Over the course of the growing season the System significantly increases heat accumulation which can either bring forward the harvest date or increase yield. Different hybrids provide the grower with quite different results when planted using the Samco System. Samco and Maizetech have worked closely with Pioneer for many years to understand exactly how different varieties behave when sown under film.

Extensive trials and commercial experience have shown that certain maize hybrids are more suited to sowing under film than others. Some are clearly unsuitable. Site assessments and intended planting date should determine the maturity of the hybrid to be sown and then other desired features such as high relative yield and standing ability can help identify the specific hybrid to be sown.

**P7326 – Extra Early Maturity.** P7326 has now been tested for six seasons under the Samco System. P7326 has proven itself to be a prime choice for growers on very marginal locations where it has produced very high starch content silage with good dry matter yields for this maturity. P7326 should also be considered as an appropriate choice on other locations where the sowing date is significantly delayed.

**P7034 – Very Early Maturity.** P7034 has now been tested in PACTS trials on ten sites over three years. Whilst it is slightly slower than P7326 to break through the film it has given good dry matter yields of very high starch content. P7034 is a dent hybrid that produces grain with very high levels of ruminal degradable starch.

**P7892 – Very Early Maturity.** This very early maturing, high starch content hybrid has proven itself to be a reliable option for Samco System growers on marginal sites and situations where planting is delayed. P7892 is slightly later to mature than P7326 but with higher dry matter yield potential.

**P7948 – Early Maturity.** P7948 is a NEW hybrid for 2020. When grown under film this hybrid has produced high yields of silage with a maturity mid way between P8200 and P7326. P7948 is stiff strawed and is suitable for most sites when grown under film, providing it is not late sown.

**P8200 – Intermediate Maturity.** P8200 has been tested in PACTS® Trials under the Samco System on 33 locations over the past six years. This hybrid has given very consistent and reliable results across very different types of seasons and sites. This tall hybrid has given very high dry matter yields of silage with good starch content. P8200 penetrates film well, dries down rapidly at maturity and is suited to most locations when planted at the normal time.



**P8201 – Intermediate Maturity.** P8201 has been tested in the last five years of PACTS® Trials on 19 locations. This is a very large stature hybrid that penetrates film extremely well and has good vigour after emergence through the film. Very high dry matter yields of good starch content have been recorded and P8201 is a hybrid to consider for growers on favourable sites wishing to maximise the dry matter yield under film.

**P8000 – Late Maturity.** P8000 has now proven itself to be a stiff strawed hybrid capable of producing high starch content silages across a wide range of sites using the Samco System. P8000 is suited to favourable sites when planted in the normal planting period.

**P8333 – Late Maturity.** P8333 is a dent grain type with high starch content suitable for sowing under film on favourable sites. It will produce good dry matter yields of high starch content silage. The dent grain in P8333 will produce grain with a high level of rumen degradable starch. P8333 is not suitable for late planting.

**P8171 – Very Late Maturity.** P8171 has been tested in PACTS trials for three years over 8 locations. It is a very late maturing hybrid with a high dry matter yield potential. It should only be sown in the UK and Ireland on favourable sites under film where an early harvest is not required. P8171 is not suitable for late planting.

The agronomic practices required for cultivating maize under film vary significantly to those normally adopted when cultivating maize in the open. In addition to selecting a suitable hybrid it is important that appropriate advice is sought on all the other appropriate crop management techniques relevant to this method of cultivation.



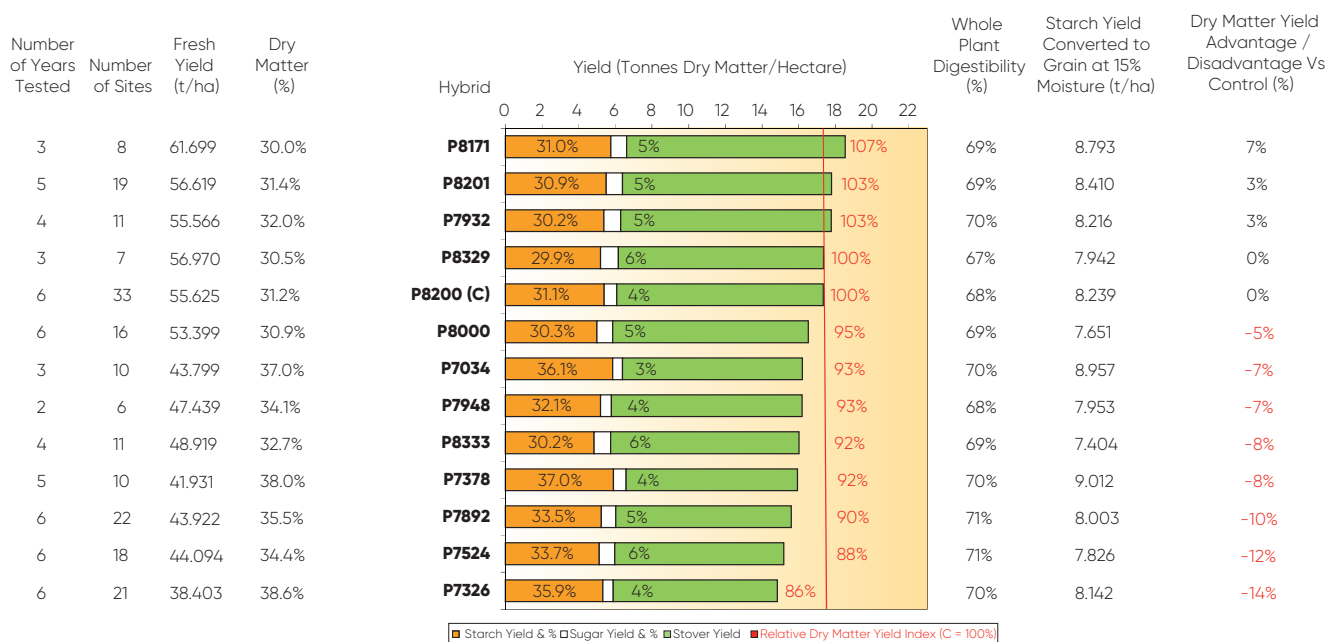
'A fundamental part of the Samco System is the use of maize hybrids that we know are suited for cultivation under film' says Sam Shine of Samco. 'Samco work closely with Pioneer and the PACTS Trials to identify hybrids that respond significantly to the conditions that exist under the film and then learn how to manage them in the field.'

Samuel J. Shine.

For further details about the Samco System please contact Samco, Tuogh, Adare, County Limerick Tel; 00 353 (0)61 396176 Website: www.samco.ie



## STRIP TRIALS, WHOLE PLANT FORAGE, 2014 - 2019



C = Control hybrid = 100%; \* = Competitor hybrid; \*\* = Hybrid trade name following registration in an EU country

## SELECTED MULTIPLE YEAR PAIRED COMPARISON RESULTS



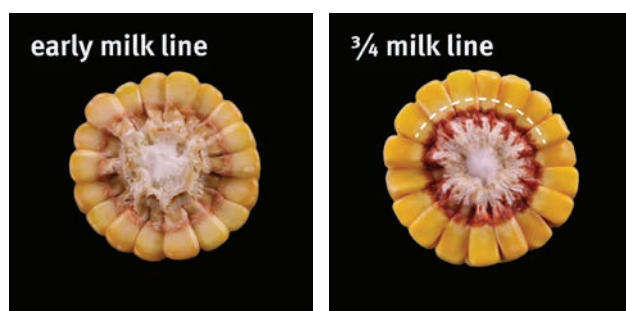
No. Years Tested	No. Sites	Dry Matter (%)	Yield (Tonnes Dry Matter/ha)	Yield Index (%)	Wholeplant Organic Matter Digestibility (%)	Starch (%)	Sugar (%)	Neutral Detergent Fibre (%)	Megajoules Metabolisable Energy /Kg Dry Matter	Calculated Methane Production (litres/kg Dry Matter)	Calculated Methane Production (l/ha)	
P8201	5	19	31.2%	17.312	102.6%	69.4%	30.8%	5.0%	42.4%	11.5	313	5,441,965
P8200			31.0%	16.877	100.0%	68.5%	30.9%	3.9%	42.2%	11.3	309	5,220,227
P7948	2	6	35.0%	15.409	93.4%	67.7%	34.2%	3.3%	42.1%	11.2	310	4,758,671
P8200			32.0%	16.505	100.0%	68.1%	33.1%	3.6%	41.3%	11.3	310	5,114,375
P8171	3	8	31.1%	17.522	106.9%	69.1%	32.5%	4.5%	41.2%	11.4	314	5,503,142
P8200			32.3%	16.397	100.0%	68.5%	32.5%	3.8%	40.9%	11.3	310	5,072,683
P8000	6	16	32.5%	17.147	95.3%	70.0%	32.1%	4.7%	41.2%	11.6	314	5,383,772
P8200			32.7%	17.995	100.0%	69.0%	32.9%	3.6%	41.5%	11.4	311	5,585,567
P7932	4	11	33.3%	17.447	102.5%	70.1%	31.0%	4.6%	42.2%	11.6	316	5,511,746
P8200			32.4%	17.018	100.0%	68.3%	31.8%	3.5%	41.3%	11.3	309	5,249,857
P7524	6	18	34.3%	14.972	87.6%	70.1%	32.3%	5.8%	40.8%	11.6	316	4,730,805
P8200			31.0%	17.093	100.0%	67.0%	29.8%	4.1%	43.6%	11.1	304	5,178,279
P7892	6	22	34.8%	15.192	90.0%	70.5%	32.6%	4.5%	41.2%	11.7	317	4,816,649
P8200			30.5%	16.888	100.0%	67.1%	30.2%	3.5%	43.7%	11.1	305	5,131,764
P7034	3	10	36.4%	14.600	93.4%	71.9%	37.5%	3.7%	37.9%	11.9	323	4,707,517
P8200			30.7%	15.626	100.0%	69.4%	32.2%	4.4%	40.9%	11.5	314	4,900,063
P7948	2	5	34.5%	15.743	89.0%	67.3%	33.3%	3.1%	42.4%	11.1	308	4,832,282
P8201			32.5%	17.685	100.0%	68.4%	32.4%	4.0%	42.5%	11.3	312	5,518,133
P8171	3	7	31.2%	18.046	100.7%	69.1%	32.4%	4.8%	41.2%	11.4	314	5,671,300
P8201			33.0%	17.928	100.0%	69.1%	32.8%	4.5%	41.4%	11.4	314	5,623,409

NOTE: All Pioneer PACTS® variety plots planted under film in the UK & Ireland have been sown using the Samco System. The Samco System incorporates the use of a specific type of planter and also films tested and approved by Samco. It should not be assumed that the types of responses shown in this book will be obtained when using either a different make of planter or different makes of films.

## DENT HYBRIDS

### Achieving Higher Rumen Degradable Starch Yields with Pioneer Hybrids

There is no doubt that the world's highest starch yielding maize hybrids are dent hybrids. The goal of Pioneer maize breeders has been to develop dent hybrids that can perform in challenging maritime environments. Pioneer breeders have now achieved that goal by releasing P7034 which has the early vigour and early flowering necessary to handle maritime growing conditions.



The first nutritional advantage of a dent hybrid like P7034 is deeper, more expansive kernels resulting in more starch deposition into the ear. The exponential deposition of starch in dent hybrids is such that every day the maize plant stays in the field there could be upwards of 0.5 to 1.0 percentage units more starch in every tonne of maize silage. P7034 has been selected for early flowering so the plant has adequate time to lay down as much starch as possible.

The second nutritional advantage of dent kernels is that the starch granules are not encased in as much zein protein as starch granules in flint hybrids. Published research has shown that rumen bacteria can access dent starch granules more extensively than flint starch granules. This results in more rumen bacterial microbe growth which translates to the need for less supplemental dietary protein because the animal digests the rumen microbes as an excellent protein source when they flow out of the rumen into the intestines.

It is also known that the ensiling process also impacts ruminal starch digestibility. Bacterial action and low pH will solubilise the zein protein encasing starch granules causing the ruminal starch digestibility to drift upwards in both dent and flint hybrids before stabilising at about 6 months ensiled. However, research at the University of Lorraine in Nancy France showed that dent hybrids had significantly higher total tract starch digestion (and less fecal starch loss) than flint kernels. While the flint and dent hybrids converged in starch digestion after 6 months ensiled, the dent kernels still maintained a numerical advantage. This has led producers growing both flint and dent hybrids in France, Germany and the UK to harvest the dent hybrid last so that it is fed out first to fully capture the ruminal starch digestibility advantage.

PACTS® Trials now include more analysis of rumen degradable starch than ever before and Pioneer growers can select a hybrid in full knowledge of its comparative rumen degradable starch yield.

## Multiple Year Summary 2016 - 2019

### » Favourable PACTS® Sites – Whole Plant Forage Grown In The Open

Hybrid	Sites Tested	Years Tested	Dry Matter Yield		Starch Content %	Rumen Degradable Starch Analyses			
			Dry Matter Content	Relative Dry Matter Yield Index (C = 100%)		Sites Tested	Years Tested	Pioneer Relative Rumen Degradable Starch Content	Pioneer Relative Rumen Degradable Starch Yield Tonnes Dry Matter / Hectare
<b>P7034</b>	26	3	40.9%	99.8%	37.0%	11	2	83.3%	5,466
<b>P7460</b>	8	1	36.5%	101.5%	30.7%	7	1	89.4%	4,949
<b>P8201</b>	25	4	34.1%	107.5%	32.1%	5	1	79.8%	4,877
Asgaard*	14	2	40.0%	101.6%	37.4%	4	1	70.2%	4,738
<b>P7524</b>	30	4	36.9%	102.6%	32.6%	4	2	79.0%	4,680
<b>P7948</b>	10	2	36.8%	111.4%	31.2%	7	1	75.6%	4,668
<b>P7892 (C)</b>	32	4	38.6%	100.0%	34.3%	11	2	73.5%	4,475
<b>P7326</b>	32	4	40.1%	94.8%	35.0%	11	2	75.1%	4,419
Gatsby*	7	1	37.3%	101.6%	34.2%	5	1	67.3%	4,142
Ambition*	30	4	40.7%	99.1%	35.5%	11	2	65.9%	4,109
Glory*	16	2	41.1%	95.9%	35.7%	11	2	64.8%	3,938
Autens kws*	10	1	40.7%	97.2%	35.9%	7	1	63.2%	3,913
Avitus kws*	14	2	41.1%	95.9%	35.7%	11	1	62.4%	3,788
Agiraxx*	14	2	38.1%	95.0%	35.5%	4	1	62.8%	3,755

## » Less Favourable PACTS® Sites – Whole Plant Forage Grown In The Open

Hybrid	Sites Tested	Years Tested	Dry Matter Yield		Starch Content %	Rumen Degradable Starch Analyses			
			Dry Matter Content	Relative Dry Matter Yield Index (C = 100%)		Sites Tested	Years Tested	Pioneer Relative Rumen Degradable Starch Content	Pioneer Relative Rumen Degradable Starch Yield Tonnes Dry Matter / Hectare
<b>P7034</b>	25	3	38.6%	103.3%	35.3%	14	2	87.3%	5.088
<b>P7326</b>	33	4	39.7%	101.0%	34.7%	15	2	80.6%	4.517
<b>P7524</b>	31	4	35.1%	102.5%	31.7%	3	2	80.6%	4.191
<b>P7948</b>	8	2	30.9%	108.1%	28.8%	7	1	83.0%	4.129
Avitus kws*	12	2	40.1%	102.0%	36.9%	11	2	67.5%	4.062
Ambition*	33	4	40.1%	99.3%	35.6%	15	2	70.6%	3.992
<b>P7460</b>	7	1	32.4%	101.6%	26.9%	7	1	89.6%	3.919
Autens kws*	10	2	39.3%	103.8%	35.1%	8	1	67.1%	3.909
<b>P7892 (C)</b>	34	4	35.8%	100.0%	32.0%	15	2	75.8%	3.873
Glory*	15	2	38.9%	95.2%	35.3%	13	2	69.1%	3.717
Agiraxx*	17	2	37.4%	96.1%	33.0%	7	1	60.7%	3.076

C = Control Hybrid \* Competitor Hybrid

**Pioneer® Brand Inoculants**

Pioneer proprietary silage inoculants continue to provide those striving to make high quality silage with unique products that reduce silage dry matter losses and improve silage quality.

Mode of Action	Product	Forage	Purpose
Unique Fibre Technology	<b>11GFT</b>	Grass and wholecrop cereal silages	Fermentation, animal performance and fibre digestibility, aerobic stability
	<b>11CFT</b>	Maize silage	Fermentation, animal performance and fibre digestibility, aerobic stability
	<b>11AFT</b>	Lucerne silage	Fermentation, animal performance and fibre digestibility, aerobic stability
	<b>11CH4</b>	A wide range of high dry matter silages	Aerobic stability and gas production
Traditional Technology with Rapid React	<b>PIONEER® 11G22 RAPID REACT. AEROBIC STABILITY</b>	High dry matter grass, wholecrop cereal and pea/cereal silages	Fermentation, animal performance and aerobic stability
	<b>PIONEER® 11C33 RAPID REACT. AEROBIC STABILITY</b>	Maize silage	Fermentation, animal performance and aerobic stability
	<b>PIONEER® 11B91 RAPID REACT. AEROBIC STABILITY</b>	Crimped maize grain	Fermentation, animal performance and aerobic stability
	<b>PIONEER® 1188</b>	Grass silage below 30% dry matter	Fermentation and animal performance
	<b>PIONEER® 11A44</b>	A wide range of high dry matter silages	Aerobic stability

## P7326

- » Extra Early Maturity, FAO 180
- » Primary End Use: Forage, Biogas and Grain

**P7326** was the biggest selling Pioneer hybrid in the maritime maturity region of the UK, Ireland and Scandinavia in 2018 and 2019.

PACTS results show P7326 is clearly an obvious choice for growers who are seeking a hybrid that will reach 30% dry matter quickly and produce good yields of high starch content silage. It has shown a high degree of adaptation to cultivation on less favourable locations where heat is often limiting, and also on favourable locations wherever an early harvest is required. P7326 has demonstrated very good early vigour and is clearly the earliest maturing Pioneer hybrid when grown on less favourable sites.



#### Hybrid Characteristics

- Fastest Pioneer hybrid to reach 30% dry matter
- High rumen degradable starch content and yield
- High starch content silage with good whole plant digestibility
- Tall hybrid for such an early maturity
- Very good early vigour

#### Grown In The Open

- On both favourable and less favourable sites
- Where early laydown of high quality starch is sought
- Where early vigour and rapid early growth is important
- For production of dry grain or grain for crimping on all but marginal sites

#### Grown Using The Samco System

- On the coldest sites e.g. sites in Northern Ireland, South West Scotland and southerly areas of Finland
- Suitable for more favourable locations when sowing is delayed

## Hybrids ranked by highest dry matter content, PACTS Trials 2016-2019

Less Favourable PACTS Sites				Favourable PACTS Sites			
Hybrid	Dry Matter Content at Harvest (%)	No. of Years	No. of Sites	Hybrid	Dry Matter Content at Harvest (%)	No. of Years	No. of Sites
Avitus kws*	40.1	2	12	Avitus kws*	41.1	2	14
Ambition*	40.1	4	33	Glory*	41.1	2	16
<b>P7326</b>	39.7	4	33	<b>P7034</b>	40.9	3	26
<b>P7378</b>	39.6	4	25	Ambition*	40.7	4	30
Autens kws*	39.3	2	10	Autens kws*	40.7	1	10
Glory*	38.9	2	15	<b>P7378</b>	40.6	4	24
<b>P7034</b>	38.6	3	25	<b>P7326</b>	40.1	4	32
Agiraxx*	37.4	2	17	Asgaard*	40.0	2	14
<b>P7892 (C)</b>	35.8	4	34	<b>P7892 (C)</b>	38.6	4	32
<b>P7524</b>	35.1	4	31	Agiraxx*	38.1	2	14
<b>P8201</b>	32.5	2	3	Gatsby*	37.3	1	7
<b>P7460</b>	32.4	1	7	<b>P7524</b>	36.9	4	30
<b>P7948</b>	30.9	2	8	<b>P7948</b>	36.8	2	10
				<b>P7460</b>	36.5	1	8
				<b>P8201</b>	34.1	4	25
				<b>P8200</b>	33.0	3	23
				<b>P8171</b>	31.2	2	9

\* = Competitor Hybrid; C = Control Hybrid

## Hybrid Specific Agronomic Advice

	Grown In The Open	Samco System
Early Vigour	Very Good	Very Good
Lodging Resistance <sup>1</sup>	8.2	
Eyespot Resistance Score <sup>1</sup>	5.9	
Stover Dry-Down Rate	Fast	Very Fast
Forage Seeding Rate <sup>2</sup> (seeds/ha)	103 000 to 110 000	110 000
Film Penetration Ability <sup>3</sup>	Not Applicable	Good <sup>3</sup>

<sup>1</sup> Based on 1- 9 scale where 9 = good and 1 = poor

<sup>2</sup> Assumes plant establishment losses of less than 5%

<sup>3</sup> Film penetration varies with conditions and film type; use films approved by Samco and Maizetech



## Selected Multiple Year Paired Comparison Results

» Less Favourable Sites – Selected P7326 Paired Comparisons

	No. of Years Tested	No. of Sites	Dry Matter DM (%)	Yield (Tonnes DM/ha)	Yield Index (%)	Wholeplant Organic Matter Digestibility (%)	Starch (%)	Sugar (%)	Neutral Detergent Fibre (%)	Megajoules Metabolisable Energy /kg Dry Matter	Calculated Methane Production (litres/kg DM)	Calculated Methane Production (l/ha)	Pioneer Rumen Degradable Starch (%)	Pioneer Rumen Degradable Starch Yield (Tonnes Dry Matter/ha)
P7326	2	14	41.3%	15.775	107.1%	69.7%	35.0%	3.8%	40.2%	11.5	315	4,992,594	80.2%	4.428
Glory*			40.8%	14.726	100.0%	69.3%	35.2%	2.7%	41.3%	11.5	314	4,642,626	68.8%	3.566
P7326	4	32	39.9%	16.301	102.1%	70.2%	34.5%	4.5%	39.5%	11.6	316	5,150,592	80.6%	4.540
Ambition*			40.2%	15.963	100.0%	70.7%	35.6%	3.8%	39.7%	11.7	318	5,086,184	70.6%	4.008
P7326	2	12	42.1%	16.259	100.5%	71.0%	36.0%	4.0%	39.3%	11.7	319	5,206,993	80.0%	4.683
Avitus kws*			42.6%	16.182	100.0%	71.4%	38.7%	2.5%	39.4%	11.8	321	5,230,433	66.9%	4.185
P7326	2	17	40.0%	15.748	104.7%	71.0%	34.7%	3.8%	37.8%	11.8	317	4,990,203	77.0%	4.211
Agiraxx*			37.1%	15.042	100.0%	69.6%	32.2%	3.0%	40.6%	11.5	311	4,690,731	56.2%	2.724
P7326	4	33	39.7%	16.133	101.0%	70.3%	34.6%	4.3%	39.4%	11.6	316	5,101,722	80.6%	4.507
P7892 (C)			35.9%	15.968	100.0%	69.6%	31.9%	4.8%	41.0%	11.5	314	5,022,310	75.8%	3.864
P7034	3	25	39.4%	16.337	102.9%	70.5%	35.3%	3.6%	38.9%	11.7	316	5,158,298	87.5%	5.044
P7326			40.1%	15.870	100.0%	70.1%	34.6%	4.1%	39.2%	11.6	315	5,011,493	81.1%	4.454
P7326	2	9	39.2%	15.541	98.3%	67.4%	32.7%	4.2%	42.8%	11.2	309	4,834,537	83.8%	4.263
Autens kws*			40.3%	15.811	100.0%	66.7%	33.6%	2.9%	44.8%	11.0	308	4,903,584	71.4%	3.798

\* = Competitor Hybrid; C = Control Hybrid

## P7034

- » Very Early Maturity, FAO 180
- » Primary End Use: Forage, Grain and Biogas

**P7034** is a very early maturity hybrid with dent grain texture. P7034 is the first Pioneer hybrid of this maturity that has dent type grain and has been bred specifically for the cool maritime locations found in the UK, Ireland and Scandinavia. This hybrid flowers early and produces silage with a very high starch content and starch yield. P7034 is typical of dent hybrids which invariably yield more starch than traditional flint type hybrids. Dent type starch degrades at a significantly faster rate in the rumen than flint type starch, especially just after ensiling. Due to its faster ruminal starch degradation rate silage crops of P7034 should be clamped last and fed first thereby aiding the feeding transition from any old to new crop maize silage.



#### Hybrid Characteristics

- Dent grain texture with fast ruminal starch degradability
- Highest ruminal degradable starch yield of any early maturity Pioneer hybrid
- Very high whole plant digestibility
- Very high starch content
- Early flowering

#### Grown In The Open

- Widely adapted to all but the coldest maize growing areas of the UK, Ireland, Denmark and Sweden.
- Ensile last and feed first

#### Grown Using The Samco System

- Produces silage of a very high starch content and yield
- Starch yield rises significantly with the early heat generation under film

### Hybrid Specific Agronomic Advice

	Grown In The Open	Samco System
Early Vigour	Good	Good
Lodging Resistance <sup>1</sup>	8.2	
Eyespot Resistance Score <sup>1</sup>	5.9	
Stover Dry-Down Rate	Fast	Very Fast
Forage Seeding Rate <sup>2</sup> (seeds/ha)	103 000 to 110 000	110 000
Film Penetration Ability <sup>3</sup>	Not Applicable	Average <sup>3</sup>

<sup>1</sup> Based on 1- 9 scale where 9 = good and 1 = poor

<sup>2</sup> Assumes plant establishment losses of less than 5%

<sup>3</sup> Film penetration varies with conditions and film type; use films approved by Samco and Maizetech



# P7034 Versus Other Hybrids Tested for Rumen Degradable Starch

Hybrid	FAVOURABLE SITES							Hybrid	LESS FAVOURABLE SITES						
	All Sites		Starch Content %	Rumen Degradable Starch Test Sites		Pioneer Relative Rumen Degradable Starch Content %	Pioneer Relative Rumen Degradable Starch Yield Tonnes Dry Matter / Hectare		All Sites		Starch Content %	Rumen Degradable Starch Test Sites		Pioneer Relative Rumen Degradable Starch Content %	Pioneer Relative Rumen Degradable Starch Yield Tonnes Dry Matter / Hectare
	Years Tested	Sites Tested		Years Tested	Sites Tested				Years Tested	Sites Tested					
<b>P7034</b>	3	26	37.0%	2	11	83.3%	5.466	<b>P7034</b>	3	25	35.3%	2	14	87.3%	5.088
<b>P7460</b>	1	8	30.7%	1	7	89.4%	4.949	<b>P7326</b>	4	33	34.7%	2	15	80.6%	4.517
<b>P8201</b>	4	25	32.1%	1	5	79.8%	4.877	<b>P7524</b>	4	31	31.7%	2	3	80.6%	4.191
Asgaard*	2	14	37.4%	1	4	70.2%	4.738	<b>P7948</b>	2	8	28.8%	1	7	83.0%	4.129
<b>P7524</b>	4	30	32.6%	2	4	79.0%	4.680	Avitus kws*	2	12	36.9%	2	11	67.5%	4.062
<b>P7948</b>	2	10	31.2%	1	7	75.6%	4.668	Ambition*	4	33	35.6%	2	15	70.6%	3.992
<b>P7892 (C)</b>	4	32	34.3%	2	11	73.5%	4.475	<b>P7460</b>	1	7	26.9%	1	7	89.6%	3.919
<b>P7326</b>	4	32	35.0%	2	11	75.1%	4.419	Autens kws*	2	10	35.1%	1	8	67.1%	3.909
Gatsby*	1	7	34.2%	1	5	67.3%	4.142	<b>P7892 (C)</b>	4	34	32.0%	2	15	75.8%	3.873
Ambition*	4	30	35.5%	2	11	65.9%	4.109	Glory*	2	15	35.3%	2	13	69.1%	3.717
Glory*	2	16	35.7%	2	11	64.8%	3.938	Agiraxx*	2	17	33.0%	1	7	60.7%	3.076
Autens kws*	1	10	35.9%	1	7	63.2%	3.913								
Avitus kws*	2	14	35.7%	2	11	62.4%	3.788								
Agiraxx*	2	14	35.5%	1	4	62.8%	3.755								

Tables ranked in order of decreasing rumen degradable starch yield; Hybrids included tested at minimum of three locations in each region

C = Control Hybrid; \* = Competitor Hybrid

These results confirm the dent type hybrid P7034 is fully adapted to typical cool maritime maize growing areas. On favourable locations P7034 has produced forage with a very high starch content and on less favourable locations it has also given a high starch content. The ruminal starch degradability of P7034 was outstanding on both favourable and less favourable locations resulting in exceptional yields of rumen degradable starch.

## Selected Multiple Year Paired Comparison Results

### » Favourable Sites – Selected P7034 Paired Comparisons

	No. of Years Tested	No. of Sites	Dry Matter DM (%)	Yield (Tonnes DM/ha)	Yield Index (%)	Wholeplant Organic Matter Digestibility (%)	Starch (%)	Sugar (%)	Neutral Detergent Fibre (%)	Megajoules Metabolisable Energy / kg Dry Matter	Calculated Methane Production (litres/kg DM)	Calculated Methane Production (l/ha)	Pioneer Rumen Degradable Starch (%)	Pioneer Rumen Degradable Starch Yield (Tonnes Dry Matter/ha)
P7034	2	16	41.6%	17254	104.8%	71.4%	37.1%	4.1%	38.9%	11.8	321	5,524,583	83.3%	5.328
Glory*			42.0%	16.470	100.0%	69.7%	36.5%	3.7%	39.2%	11.5	316	5,198,781	64.8%	3.893
P7034	3	24	41.1%	17634	100.3%	71.4%	36.8%	4.3%	37.7%	11.8	319	5,618,239	83.3%	5.410
Ambition*			40.7%	17.584	100.0%	70.0%	35.7%	4.2%	38.8%	11.6	315	5,548,740	65.9%	4.135
P7034	2	14	41.8%	17394	104.6%	71.7%	37.1%	4.4%	38.6%	11.9	321	5,570,171	83.3%	5.384
Avitus kws*			42.5%	16.633	100.0%	70.4%	37.0%	3.5%	40.2%	11.7	318	5,297,303	62.4%	3.839
P7034	2	14	40.0%	17281	103.5%	72.9%	36.8%	4.3%	36.0%	12.1	322	5,554,348	81.1%	5.165
Agiraxx*			36.8%	16.702	100.0%	70.2%	34.2%	4.3%	38.7%	11.6	313	5,248,542	62.9%	3.590
P7034	1	10	42.7%	18.129	105.8%	69.2%	36.8%	4.2%	40.0%	11.4	315	5,707,685	84.6%	5.641
Autens kws*			42.3%	17.134	100.0%	69.0%	37.5%	3.2%	40.9%	11.4	315	5,410,540	63.2%	4.057

### » Less Favourable Sites – Selected P7034 Paired Comparisons

	No. of Years Tested	No. of Sites	Dry Matter DM (%)	Yield (Tonnes DM/ha)	Yield Index (%)	Wholeplant Organic Matter Digestibility (%)	Starch (%)	Sugar (%)	Neutral Detergent Fibre (%)	Megajoules Metabolisable Energy / kg Dry Matter	Calculated Methane Production (litres/kg DM)	Calculated Methane Production (l/ha)	Pioneer Rumen Degradable Starch (%)	Pioneer Rumen Degradable Starch Yield (Tonnes Dry Matter/ha)
P7034	2	14	40.5%	16.109	109.4%	70.1%	36.1%	3.4%	40.1%	11.6	317	5,107,446	87.4%	5.074
Glory*			40.8%	14.726	100.0%	69.3%	35.2%	2.9%	41.3%	11.5	314	4,642,626	68.8%	3.563
P7034	3	24	39.5%	16.564	104.5%	70.1%	34.8%	3.6%	39.3%	11.6	315	5,217,989	87.5%	5.045
Ambition*			40.6%	15.849	100.0%	70.7%	35.8%	3.4%	39.3%	11.7	318	5,052,517	70.3%	3.992
P7034	2	12	41.3%	16.607	102.6%	71.9%	37.7%	3.6%	38.4%	11.9	322	5,354,665	85.6%	5.363
Avitus kws*			42.6%	16.182	100.0%	71.4%	38.7%	2.5%	39.4%	11.8	321	5,230,433	66.9%	4.185
P7034	2	14	40.0%	17281	103.5%	72.9%	36.8%	4.3%	36.0%	12.1	322	5,554,348	81.1%	5.165
Agiraxx*			36.8%	16.702	100.0%	70.2%	34.2%	4.3%	38.7%	11.6	313	5,248,542	62.9%	3.590
P7034	2	9	38.9%	15.652	99.0%	67.8%	33.5%	4.3%	42.8%	11.2	310	4,868,362	93.4%	4.897
Autens kws*			40.3%	15.811	100.0%	66.7%	33.6%	2.9%	44.8%	11.0	308	4,903,584	71.8%	3.821

\* = Competitor Hybrid; C = Control Hybrid

## P7378

- » Very Early Maturity, FAO 180
- » Primary End Use: Forage and Biogas

**P7378** is a very early maturity Pioneer hybrid that has given high yields of very high starch content silage tested over the last four years of PACTS Trials on 49 Locations. P7378 is a tall, large stature hybrid. It is most adapted to lighter soils where growers seek a high energy silage for feeding or where an early maturity hybrid is required for biogas production.



#### Hybrid Characteristics

- Very high dry matter yields for this maturity
- Tall, very good early vigour
- High starch content silage with good whole plant digestibility

#### Grown In The Open

- On favourable sites avoiding heavy soils
- Less favourable sites with shelter and a light soil

#### Grown Using The Samco System

- P7378 has given extremely high starch yields and starch contents when grown under film. Being a very early maturing hybrid however it is essential that harvest takes place once maturity is reached to avoid over maturity.

### Hybrid Specific Agronomic Advice

	Grown In The Open	Samco System
Early Vigour	Very Good	Very Good
Lodging Resistance <sup>1</sup>	7.4	
Eyespot Resistance Score <sup>1</sup>	3.9	
Stover Dry-Down Rate	Very Fast	Extremely Fast
Forage Seeding Rate <sup>2</sup> (seeds/ha)	100 000 to 105 000	100 000 to 105 000
Film Penetration Ability <sup>3</sup>	Not Applicable	Good <sup>3</sup>

<sup>1</sup> Based on 1- 9 scale where 9 = good and 1 = poor

<sup>2</sup> Assumes plant establishment losses of less than 5%

<sup>3</sup> Film penetration varies with conditions and film type; use films approved by Samco and Maizetech

## Selected Multiple Year Paired Comparison Results

### » Less Favourable Sites – Selected P7378 Paired Comparisons

	No. of Years Tested	No. of Sites	Dry Matter DM (%)	Yield (Tonnes DM/ha)	Yield Index (%)	Wholeplant Organic Matter Digestibility (%)	Starch (%)	Sugar (%)	Neutral Detergent Fibre (%)	Megajoules Metabolisable Energy /kg Dry Matter	Calculated Methane Production (litres/kg DM)	Calculated Methane Production (l/ha)	Pioneer Rumen Degradable Starch (%)	Pioneer Rumen Degradable Starch Yield (Tonnes Dry Matter/ha)
P7378	2	8	39.2%	14,420	106.6%	69%	35.1%	2.8%	40.5%	11.6	315	4,566,276	73.4%	3,713
Glory*			38.7%	13,528	100.0%	69.4%	34.4%	1.8%	41.6%	11.5	312	4,252,358	59.0%	2,745
P7378	4	24	38.3%	16,260	103.6%	69.1%	33.4%	4.6%	40.4%	11.4	312	5,076,813	73.4%	3,987
Ambition*			39.8%	15,701	100.0%	70.5%	35.2%	3.7%	39.8%	11.7	317	4,982,138	61.9%	3,421
P7378	2	6	43.1%	14,929	106.1%	72.7%	37.4%	3.2%	37.9%	12.0	323	4,807,766	67.5%	3,764
Avitus kws*			41.9%	14,074	100.0%	74.4%	41.0%	2.4%	35.5%	12.3	329	4,617,157	62.9%	3,628
P7378	2	15	40.1%	15,957	106.5%	70.1%	34.2%	4.0%	38.7%	11.6	315	5,016,342	67.5%	3,684
Agiraxx*			37.4%	14,981	100.0%	69.4%	32.0%	3.1%	40.5%	11.5	311	4,658,253	55.1%	2,644
P7378	4	25	38.3%	16,050	102.7%	69.5%	33.7%	4.5%	40.1%	11.5	314	5,023,689	73.4%	3,976
P7892 (C)			34.6%	15,633	100.0%	69.8%	31.4%	4.8%	40.7%	11.6	314	4,916,152	66.5%	3,265
P7378	4	25	38.3%	16,050	100.8%	69.5%	33.7%	4.5%	40.1%	11.5	314	5,023,689	73.4%	3,976
P7326			39.2%	15,920	100.0%	70.6%	34.9%	4.2%	38.8%	11.7	316	5,038,092	75.1%	4,176

\* = Competitor Hybrid; C = Control Hybrid

**P7892** is a very early maturity hybrid launched in 2012. P7892 has very good early vigour and no major agronomic weaknesses. Growers planting in the open and looking for high yields with good reliability often choose P7892 and those growing under film in cold locations, or planting late, have also found it to be a successful choice.



### Hybrid Characteristics

- Large stature hybrid
- Very good early vigour
- Very fast stover dry down at maturity

### Grown In The Open

- Suitable for favourable sites or less favourable sites with light soil

### Grown Using The Samco System

- P7892 is suitable for growing under film in the least favourable locations e.g. Northern Ireland, South West Scotland and West Wales or other sites when planting is delayed

## Hybrid Specific Agronomic Advice

	Grown In The Open	Samco System
Early Vigour	Very Good	Very Good
Lodging Resistance <sup>1</sup>	8.3	
Eyespot Resistance Score <sup>1</sup>	5.5	
Stover Dry-Down Rate	Very Fast	Very Fast
Forage Seeding Rate <sup>2</sup> (seeds/ha)	103 000 to 110 000	110 000
Film Penetration Ability <sup>3</sup>	Not Applicable	Good <sup>3</sup>

<sup>1</sup> Based on 1- 9 scale where 9 = good and 1 = poor

<sup>2</sup> Assumes plant establishment losses of less than 5%

<sup>3</sup> Film penetration varies with conditions and film type; use films approved by Samco and Maizetech

## Selected Multiple Year Paired Comparison Results

### » Favourable Sites – Selected P7892 Paired Comparisons

	No. of Years Tested	No. of Sites	Dry Matter DM (%)	Yield (Tonnes DM/ha)	Yield Index (%)	Wholeplant Organic Matter Digestibility (%)	Starch (%)	Sugar (%)	Neutral Detergent Fibre (%)	Megajoules Metabolisable Energy /kg Dry Matter	Calculated Methane Production (litres/kg DM)	Calculated Methane Production (l/ha)	Pioneer Rumen Degradable Starch (%)	Pioneer Rumen Degradable Starch Yield (Tonnes Dry Matter/ha)
P7892 (C)	4	30	38.5%	17.658	100.9%	69.9%	34.4%	4.7%	39.6%	11.6	315	5,560,390	73.5%	4.460
Ambition*			40.6%	17.492	100.0%	70.1%	35.5%	4.4%	39.1%	11.6	316	5,525,304	65.9%	4.096
P7326	4	32	40.1%	16.822	94.8%	69.4%	35.0%	4.6%	39.2%	11.5	313	5,266,233	75.1%	4.419
P7892 (C)			38.6%	17.742	100.0%	70.0%	34.3%	4.7%	39.5%	11.6	315	5,584,696	73.5%	4.475
P7034	3	26	40.9%	17.686	99.8%	71.4%	36.9%	4.3%	37.3%	11.8	319	5,633,303	83.3%	5.432
P7892 (C)			38.7%	17.716	100.0%	69.8%	34.2%	4.7%	39.3%	11.6	314	5,569,499	73.5%	4.447
P7524	4	30	37.0%	18.225	102.6%	68.6%	32.8%	5.7%	40.4%	11.3	311	5,678,327	75.6%	4.518
P7892 (C)			38.8%	17.764	100.0%	70.1%	34.6%	4.6%	39.2%	11.6	315	5,600,713	70.3%	4.321
Gatsby*	1	7	40.2%	18.601	101.6%	70.0%	36.8%	4.5%	39.6%	11.6	318	5,917,256	67.3%	4.606
P7892 (C)			41.6%	18.308	100.0%	69.7%	37.0%	4.4%	39.5%	11.5	317	5,797,715	73.5%	4.977
P7948	2	10	39.1%	19.927	111.4%	67.5%	33.1%	4.5%	42.4%	11.2	308	6,139,104	75.6%	4.989
P7892 (C)			41.1%	17.892	100.0%	69.4%	36.4%	4.4%	40.1%	11.5	316	5,648,820	73.4%	4.784
Autens kws*	1	10	42.3%	17.134	97.2%	69.0%	37.5%	3.2%	40.9%	11.4	315	5,410,540	63.2%	4.057
P7892 (C)			40.2%	17.633	100.0%	69.3%	35.9%	4.6%	40.5%	11.5	316	5,566,724	73.4%	4.640

\* = Competitor Hybrid; C = Control Hybrid

# P7948

» Early Maturity, FAO 230  
 » Primary End Use: Forage, Biogas and Grain

**P7948** is a new hybrid for 2020 and is suitable for sowing on favourable sites in the open. It is suited to favourable sites and some less favourable sites situations under film. P7948 has been tested on 10 favourable sites in the open over two years and given exceptional yields for its maturity with a dry matter yield of over 111% of the Control hybrid. P7948 has very good standing ability and can produce a particularly large stature plant when grown in the open. P7948 has been tested on 6 sites under film over two years and it has given a good silage yield with an earlier harvest date than P8200. P7948 holds top place in PACTS Trials for gas production prediction on favourable sites in the open.

### Hybrid Characteristics

- Large stature hybrid
- Very good standing ability

### Grown In The Open

- P7948 is suitable for cultivation on favourable sites

### Grown Using The Samco System

- With the extra heat generated by the Samco System P7948 can be sown on favourable sites and also less favourable sites providing sowing is not delayed



<sup>1</sup> Based on 1- 9 scale where 9 = good and 1 = poor  
<sup>2</sup> Assumes plant establishment losses of less than 5%  
<sup>3</sup> Film penetration varies with conditions and film type; use films approved by Samco and Maizetech

Hybrid Specific Agronomic Advice		
	Grown In The Open	Samco System
Early Vigour	Good	Good
Lodging Resistance <sup>1</sup>	8.3	
Eyespot Resistance Score <sup>1</sup>	-	
Stover Dry-Down Rate	Moderate	Good
Forage Seeding Rate <sup>2</sup> (seeds/ha)	103 000	103 000
Film Penetration Ability <sup>3</sup>	Not Applicable	Good <sup>3</sup>

## Selected Multiple Year Paired Comparison Results

### » Favourable Sites – Selected P7948 Paired Comparisons

	No. of Years Tested	No. of Sites	Dry Matter DM (%)	Yield (Tonnes DM/ha)	Yield Index (%)	Wholeplant Organic Matter Digestibility (%)	Starch (%)	Sugar (%)	Neutral Detergent Fibre (%)	Megajoules Metabolisable Energy/kg Dry Matter	Calculated Methane Production (litres/kg DM)	Calculated Methane Production (l/ha)	Pioneer Rumen Degradable Starch (%)	Pioneer Rumen Degradable Starch Yield (Tonnes Dry Matter/ha)
P7948	2	10	39.1%	19927	111.3%	67.5%	33.1%	4.5%	42.4%	11.2	308	6,139,104	75.6%	4,989
Ambition*			42.5%	17908	100.0%	69.4%	36.2%	4.4%	39.8%	11.5	315	5,655,441	67.7%	4,392
P7948	2	9	40.1%	20,169	116.1%	68.0%	34.2%	4.3%	41.8%	11.2	309	6,240,974	75.6%	5,207
Avitus kws*			45.4%	17,377	100.0%	70.6%	38.6%	3.3%	39.8%	11.7	321	5,573,579	61.9%	4,153
P7948	2	10	39.1%	19927	111.4%	67.5%	33.1%	4.5%	42.4%	11.2	308	6,139,104	75.6%	4,989
P7892 (C)			41.1%	17,892	100.0%	69.4%	36.4%	4.4%	40.1%	11.5	316	5,648,820	73.4%	4,784
P7948	2	9	39.6%	20,798	104.3%	68.0%	34.3%	4.4%	41.4%	11.3	309	6,443,001	75.8%	5,402
P8201			36.1%	19,934	100.0%	67.7%	34.0%	5.1%	41.9%	11.2	310	6,188,486	80.3%	5,442

### » Samco System Sites – Selected P7948 Paired Comparisons

	No. of Years Tested	No. of Sites	Dry Matter DM (%)	Yield (Tonnes DM/ha)	Yield Index (%)	Wholeplant Organic Matter Digestibility (%)	Starch (%)	Sugar (%)	Neutral Detergent Fibre (%)	Megajoules Metabolisable Energy/kg Dry Matter	Calculated Methane Production (litres/kg DM)	Calculated Methane Production (l/ha)	Pioneer Rumen Degradable Starch (%)	Pioneer Rumen Degradable Starch Yield (Tonnes Dry Matter/ha)
P7948	2	6	35.0%	15,409	93.4%	67.7%	34.2%	3.3%	42.1%	11.2	310	4,758,671	88.2%	4,645
P8200 (C)			32.0%	16,505	100.0%	68.1%	33.1%	3.6%	41.3%	11.3	310	5,114,375	76.0%	4,145
P7948	2	5	34.5%	15,743	89.0%	67.3%	33.3%	3.1%	42.4%	11.1	308	4,832,282	88.2%	4,621
P8201			32.5%	17,685	100.0%	68.4%	32.4%	4.0%	42.5%	11.3	312	5,518,133	85.0%	4,871
P7948	2	4	35.6%	15,917	89.7%	67.0%	33.9%	2.6%	42.6%	11.1	307	4,870,002		
P7932			33.3%	17,743	100.0%	69.8%	31.8%	4.7%	42.3%	11.5	317	5,606,027		

\* = Competitor Hybrid; C = Control Hybrid

**P7524** is a striking early maturity hybrid which combines very good early vigour with a tall growth habit. P7524 has given very high dry matter yields of good starch content. P7524 suits growers seeking to produce a large quantity of early to mature silage, and also those aiming to maximise biogas production. P7524 has a notable level of resistance to Eyespot (*Aureobasidium zeae*).



### Hybrid Characteristics

- Tall, large stature
- Very good early vigour
- Good comparative resistance to Eyespot (*Aureobasidium zeae*)

### Grown In The Open

- On good to favourable sites where higher dry matter yields are sought

### Grown Using The Samco System

- On less favourable sites in the UK
- On good sites in southern and midland counties of Ireland, also favourable, sheltered sites in more northerly counties.

## Hybrid Specific Agronomic Advice

	Grown In The Open	Samco System
Early Vigour	Very Good	Very Good
Lodging Resistance <sup>1</sup>	8.3	
Eyespot Resistance Score <sup>1</sup>	7.3	
Stover Dry-Down Rate	Moderate	Fast
Forage Seeding Rate <sup>2</sup> (seeds/ha)	93 000 to 103 000	98 000 to 103 000
Film Penetration Ability <sup>3</sup>	Not Applicable	Good <sup>3</sup>

<sup>1</sup> Based on 1- 9 scale where 9 = good and 1 = poor

<sup>2</sup> Assumes plant establishment losses of less than 5%

<sup>3</sup> Film penetration varies with conditions and film type; use films approved by Samco and Maizetech

## Selected Multiple Year Paired Comparison Results

### » Favourable Sites – Selected P7524 Paired Comparisons

	No. of Years Tested	No. of Sites	Dry Matter DM (%)	Yield (Tonnes DM/ha)	Yield Index (%)	Wholeplant Organic Matter Digestibility (%)	Starch (%)	Sugar (%)	Neutral Detergent Fibre (%)	Megajoules Metabolisable Energy /kg Dry Matter	Calculated Methane Production (litres/kg DM)	Calculated Methane Production (l/ha)	Pioneer Rumen Degradable Starch (%)	Pioneer Rumen Degradable Starch Yield (Tonnes Dry Matter/ha)
P7524	4	28	37.0%	18.060	103.3%	68.5%	32.8%	5.7%	40.7%	11.3	311	5,623,188	75.6%	4.477
Ambition*			40.7%	17.475	100.0%	70.3%	35.8%	4.3%	38.9%	11.6	316	5,525,805	65.4%	4.094
P7524	2	14	38.0%	17.583	105.7%	68.3%	32.9%	5.7%	41.5%	11.3	311	5,474,678	75.6%	4.376
Avitus kws*			42.5%	16.633	100.0%	70.4%	37.0%	3.5%	40.2%	11.7	318	5,297,303	62.4%	3.841
P7524	4	30	37.0%	18.225	102.6%	68.6%	32.8%	5.7%	40.4%	11.3	311	5,678,327	75.6%	4.518
P7892 (C)			38.8%	17.764	100.0%	70.1%	34.6%	4.6%	39.2%	11.6	315	5,600,713	70.3%	4.321
P7524	3	25	37.3%	18.401	103.9%	68.6%	32.8%	5.8%	40.1%	11.4	311	5,740,070	75.6%	4.558
P7034			41.0%	17.713	100.0%	71.5%	36.9%	4.3%	37.2%	11.8	319	5,645,091	80.9%	5.293

\* = Competitor Hybrid; C = Control Hybrid

## P8200

» Intermediate Maturity, FAO 230  
» Primary End Use: Forage

**P8200** is a tall, large stature, intermediate maturity hybrid ideally suited to cultivation on a wide range of sites under film. P8200 is also suitable for sowing on favourable sites in the open. P8200 has given very high dry matter yields of silage with good starch content. A helpful feature of P8200 is that the stover dries down quickly once it reaches physiological maturity allowing for a quick finish. P8200 has demonstrated yield consistency in the UK and Ireland over the last 5 years.



#### Hybrid Characteristics

- Tall, large stature hybrid
- Usually double cobs when grown under film

#### Grown In The Open

- On favourable locations

#### Grown Using The Samco System

- On all but the least favourable sites in UK & Ireland
- Switch to an earlier hybrid if planting is delayed past second week in May

### Hybrid Specific Agronomic Advice

	Grown In The Open	Samco System
Early Vigour	Good	Good
Lodging Resistance <sup>1</sup>	7.8	
Eyespot Resistance Score <sup>1</sup>	7.9	
Stover Dry-Down Rate	Moderate	Fast
Forage Seeding Rate <sup>2</sup> (seeds/ha)	98 000	98 000 to 103 000
Film Penetration Ability <sup>3</sup>	Not Applicable	Good <sup>3</sup>

<sup>1</sup> Based on 1- 9 scale where 9 = good and 1 = poor

<sup>2</sup> Assumes plant establishment losses of less than 5%

<sup>3</sup> Film penetration varies with conditions and film type; use films approved by Samco and Maizetech

## Selected Multiple Year Paired Comparison Results

» Samco System Sites – Selected P8201 Paired Comparisons

	No. of Years Tested	No. of Sites	Dry Matter DM (%)	Yield (Tonnes DM/ha)	Yield Index (%)	Wholeplant Organic Matter Digestibility (%)	Starch (%)	Sugar (%)	Neutral Detergent Fibre (%)	Megajoules Metabolisable Energy /kg Dry Matter	Calculated Methane Production (litres/kg DM)	Calculated Methane Production (l/ha)	Pioneer Rumen Degradable Starch (%)	Pioneer Rumen Degradable Starch Yield (Tonnes Dry Matter/ha)
P7034	3	10	36.4%	14.600	93.4%	71.9%	37.5%	3.7%	37.9%	11.9	323	4,707,517	85.8%	4.701
P8200			30.7%	15.626	100.0%	69.4%	32.2%	4.4%	40.9%	11.5	314	4,900,063	68.3%	3.442
P8000	6	16	32.5%	17.147	95.3%	70.0%	32.1%	4.7%	41.2%	11.6	314	5,383,772	77.1%	4.241
P8200			32.7%	17.995	100.0%	69.0%	32.9%	3.6%	41.5%	11.4	311	5,585,567	68.3%	4.048
P8201	5	19	31.2%	17.312	102.6%	69.4%	30.8%	5.0%	42.4%	11.5	313	5,441,965	85.0%	4.527
P8200			31.0%	16.877	100.0%	68.5%	30.9%	3.9%	42.2%	11.3	309	5,220,227	76.0%	3.966
P7524	6	18	34.3%	14.972	87.6%	70.1%	32.3%	5.8%	40.8%	11.6	316	4,730,805		
P8200			31.0%	17.093	100.0%	67.0%	29.8%	4.1%	43.6%	11.1	304	5,178,279		
P7892	6	22	34.8%	15.192	90.0%	70.5%	32.6%	4.5%	41.2%	11.7	317	4,816,649		
P8200			30.5%	16.888	100.0%	67.1%	30.2%	3.5%	43.7%	11.1	305	5,131,764		
P7948	2	6	35.0%	15.409	93.4%	67.7%	34.2%	3.3%	42.1%	11.2	310	4,758,671	88.2%	4.645
P8200			32.0%	16.505	100.0%	68.1%	33.1%	3.6%	41.3%	11.3	310	5,114,375	76.0%	4.145
P7326	6	21	38.1%	14.529	85.6%	70.9%	35.9%	3.9%	39.6%	11.7	319	4,633,181	79.1%	4.129
P8200			30.7%	16.979	100.0%	68.3%	31.1%	4.1%	42.2%	11.3	309	5,240,215	68.3%	3.608
P8171	3	8	31.1%	17.522	106.9%	69.1%	32.5%	4.5%	41.2%	11.4	314	5,503,142	89.1%	5.067
P8200			32.3%	16.397	100.0%	68.5%	32.5%	3.8%	40.9%	11.3	310	5,072,683	76.0%	4.047

**P8201** has given extremely high dry matter yields when grown under film on good to favourable sites in the UK & Ireland, and on the most favourable sites grown in the open in England. This very tall large stature hybrid produces silage of a good starch content. P8201 penetrates film easily.



### Hybrid Characteristics

- Very tall, large stature, forage hybrid
- Very good early vigour and good standing power
- Very high dry matter yields, good starch contents for such a yield

### Grown In The Open

- Only on the most favourable sites in the UK & Ireland

### Grown Using The Samco System

- Suitable for good to favourable locations under film
- Plant in the normal sowing period

## Hybrid Specific Agronomic Advice

	Grown In The Open	Samco System
Early Vigour	Very Good	Very Good
Lodging Resistance <sup>1</sup>	8.1	
Eyespot Resistance Score <sup>1</sup>	6.9	
Stover Dry-Down Rate	Moderate	Fast
Forage Seeding Rate <sup>2</sup> (seeds/ha)	98 000	98 000 to 103 000
Film Penetration Ability <sup>3</sup>	Not Applicable	Very Good <sup>3</sup>

<sup>1</sup> Based on 1- 9 scale where 9 = good and 1 = poor

<sup>2</sup> Assumes plant establishment losses of less than 5%

<sup>3</sup> Film penetration varies with conditions and film type; use films approved by Samco and Maizetech

## Selected Multiple Year Paired Comparison Results

» Samco System Sites – Selected P8201 Paired Comparisons

	No. of Years Tested	No. of Sites	Dry Matter DM (%)	Yield (Tonnes DM/ha)	Yield Index (%)	Wholeplant Organic Matter Digestibility (%)	Starch (%)	Sugar (%)	Neutral Detergent Fibre (%)	Megajoules Metabolisable Energy /kg Dry Matter	Calculated Methane Production (litres/kg DM)	Calculated Methane Production (l/ha)	Pioneer Rumen Degradable Starch (%)	Pioneer Rumen Degradable Starch Yield (Tonnes Dry Matter/ha)
P7034	3	8	35.1%	14.481	85.7%	71.7%	36.6%	3.7%	38.2%	11.9	322	4,654,740	85.8%	4.549
P8201			30.9%	16.898	100.0%	69.8%	31.3%	4.8%	42.2%	11.6	316	5,360,354	77.3%	4.091
P8000	5	10	31.8%	15.887	87.1%	69.2%	29.2%	5.2%	42.8%	11.5	311	4,943,281	77.1%	3.573
P8201			32.3%	18.250	100.0%	71.2%	32.6%	5.1%	40.7%	11.8	319	5,830,377	77.3%	4.592
P7524	5	9	34.3%	14.570	86.0%	71.2%	32.3%	5.7%	40.5%	11.8	321	4,668,053		
P8201			31.8%	16.945	100.0%	70.5%	31.5%	4.9%	41.7%	11.7	317	5,373,950		
P7892	5	14	34.7%	15.385	91.1%	71.0%	33.0%	4.5%	40.8%	11.8	319	4,919,507		
P8201			30.7%	16.886	100.0%	68.9%	30.2%	4.5%	43.6%	11.4	312	5,283,995		
P7948	2	5	34.5%	15.743	89.0%	67.3%	33.3%	3.1%	42.4%	11.1	308	4,832,282	88.2%	4.621
P8201			32.5%	17.685	100.0%	68.4%	32.4%	4.0%	42.5%	11.3	312	5,518,133	85.0%	4.871
P7326	5	14	37.6%	14.261	81.9%	71.3%	36.2%	3.9%	39.1%	11.8	320	4,568,054	79.1%	4.082
P8201			31.1%	17.404	100.0%	69.8%	31.3%	4.8%	42.0%	11.6	315	5,503,847	77.3%	4.208
P8171	3	7	31.2%	18.046	100.7%	69.1%	32.4%	4.8%	41.2%	11.4	314	5,671,300	89.1%	5.212
P8201			33.0%	17.928	100.0%	69.1%	32.8%	4.5%	41.4%	11.4	314	5,623,409	85.0%	5.001

## P8171

» Very Late Maturity, FAO 250  
» Primary End Use: Forage and Biogas

**P8171** is a very late maturing hybrid. It should be grown only under the most favourable sites in the open where an early harvest is not needed and a high dry matter yield is sought. Under film it can be grown on favourable sites.

**Hybrid Characteristics**

- Very tall, large stature forage hybrid
- Very high dry matter yields

**Grown In The Open**

- Only on the most favourable sites in the UK

**Grown Using The Samco System**

- Suitable for favourable locations under film
- Do not sow if planting has been delayed

**Hybrid Specific Agronomic Advice**

	Grown In The Open	Samco System
Early Vigour	Good	Good
Lodging Resistance <sup>1</sup>	7.8	
Eyespot Resistance Score <sup>1</sup>	Not Available	
Stover Dry-Down Rate	Slow	Moderate
Forage Seeding Rate <sup>2</sup> (seeds/ha)	98 000	98 000
Film Penetration Ability <sup>3</sup>	Not Applicable	Good <sup>3</sup>

## P8000

» Late Maturity, FAO 230  
» Primary End Use: Forage and Grain

**P8000** is a stiff strawed late maturing hybrid that has given good yields of high starch silage and grain in favourable growing situations and when grown under film.

**Hybrid Characteristics**

- Tall
- Stiff Strawed
- Suitable as a late maturity grain hybrid

**Grown In The Open**

- Favourable sites in the UK

**Grown Using The Samco System**

- Suitable for good to favourable locations under film in the UK & Ireland
- Plant in the normal sowing period

**Hybrid Specific Agronomic Advice**

	Grown In The Open	Samco System
Early Vigour	Average	Good
Lodging Resistance <sup>1</sup>	8.2	
Eyespot Resistance Score <sup>1</sup>	8.6	
Stover Dry-Down Rate	Moderate	Good
Forage Seeding Rate <sup>2</sup> (seeds/ha)	98 000	98 000
Film Penetration Ability <sup>3</sup>	Not Applicable	Very Good

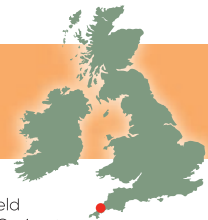
<sup>1</sup> Based on 1- 9 scale where 9 = good and 1 = poor

<sup>2</sup> Assumes plant establishment losses of less than 5%

<sup>3</sup> Film penetration varies with conditions and film type; use films approved by Samco and Maizetech



# Irwin Morrow Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
57.909	32.6%	<b>P8200</b>	32% Starch, 4% Sugar, 118% Stover	67%	9.373
54.007	31.9%	<b>P7948</b>	30% Starch, 5% Sugar, 108% Stover	64%	7.796
45.343	37.9%	<b>P7034</b>	35% Starch, 6% Sugar, 108% Stover	68%	9.214
57.909	29.5%	<b>P8201</b>	26% Starch, 8% Sugar, 107% Stover	62%	6.672
48.306	34.7%	<b>P7524</b>	30% Starch, 7% Sugar, 105% Stover	67%	7.790
34.802	47.0%	Glory*	35% Starch, 0% Sugar, 103% Stover	61%	8.863
41.176	39.6%	Gatsby*	33% Starch, 5% Sugar, 102% Stover	68%	8.228
40.611	39.7%	Ambition*	36% Starch, 4% Sugar, 101% Stover	66%	8.840
40.028	39.8%	<b>P7892 (C)</b>	35% Starch, 5% Sugar, 100% Stover	68%	8.582
32.055	48.8%	Avitus kws*	44% Starch, 3% Sugar, 98% Stover	73%	10.583
41.600	35.9%	<b>P7460</b>	27% Starch, 4% Sugar, 94% Stover	59%	6.139
36.683	40.2%	Autens kws*	37% Starch, 3% Sugar, 93% Stover	67%	8.409
36.285	40.4%	<b>P7326</b>	39% Starch, 5% Sugar, 92% Stover	70%	8.678

# Arnold Dare Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
57.722	40.9%	<b>P7948</b>	35% Starch, 5% Sugar, 118% Stover	67%	12.654
61.776	37.0%	<b>P8201</b>	35% Starch, 6% Sugar, 115% Stover	69%	12.299
46.979	44.4%	Ambition*	42% Starch, 5% Sugar, 105% Stover	73%	13.362
50.405	40.8%	<b>P7524</b>	34% Starch, 7% Sugar, 103% Stover	70%	10.716
44.942	45.2%	<b>P7034</b>	35% Starch, 5% Sugar, 102% Stover	67%	10.865
47.503	42.4%	Gatsby*	38% Starch, 5% Sugar, 101% Stover	71%	11.800
43.228	46.1%	Glory*	41% Starch, 4% Sugar, 100% Stover	70%	12.526
46.572	42.8%	<b>P7892 (C)</b>	39% Starch, 4% Sugar, 100% Stover	70%	11.835
43.286	45.9%	Autens kws*	44% Starch, 3% Sugar, 100% Stover	72%	13.350
58.121	33.6%	<b>P8200</b>	33% Starch, 5% Sugar, 98% Stover	65%	9.900
46.086	40.6%	<b>P7460</b>	29% Starch, 5% Sugar, 94% Stover	62%	8.302
41.196	43.0%	<b>P7326</b>	39% Starch, 5% Sugar, 89% Stover	69%	10.481
34.433	46.7%	Avitus kws*	43% Starch, 3% Sugar, 81% Stover	72%	10.518

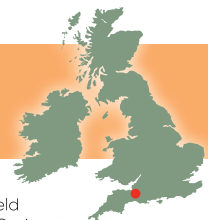
# Spencer Mogridge Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
53.947	37.0%	<b>P7524</b>	33% Starch, 6% Sugar, 115% Stover	68%	10.091
41.306	44.0%	Glory*	41% Starch, 3% Sugar, 104% Stover	71%	11.262
51.408	35.2%	<b>P7948</b>	35% Starch, 5% Sugar, 104% Stover	69%	9.666
57.845	30.9%	<b>P8200</b>	32% Starch, 6% Sugar, 103% Stover	68%	8.827
54.610	32.3%	<b>P8201</b>	35% Starch, 5% Sugar, 101% Stover	70%	9.382
43.897	39.9%	<b>P7460</b>	36% Starch, 3% Sugar, 101% Stover	68%	9.589
45.852	38.0%	<b>P7892 (C)</b>	37% Starch, 4% Sugar, 100% Stover	70%	9.744
44.550	38.2%	<b>P7034</b>	35% Starch, 4% Sugar, 98% Stover	68%	9.103
39.495	43.0%	Ambition*	37% Starch, 4% Sugar, 97% Stover	71%	9.712
38.717	42.7%	Autens kws*	35% Starch, 3% Sugar, 95% Stover	68%	8.842
40.534	38.7%	<b>P7326</b>	32% Starch, 4% Sugar, 90% Stover	65%	7.682
36.277	42.8%	Avitus kws*	37% Starch, 3% Sugar, 89% Stover	69%	8.772

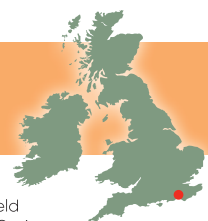
■ Starch Yield & % 
 ■ Sugar Yield & % 
 ■ Stover Yield 
 ■ Relative Dry Matter Yield Index (C=100%)  
 C = Control Hybrid; \* = Competitor hybrid, \*\* = Hybrid trade name following registration in an EU country in 2019

# Jamie Montgomery Results



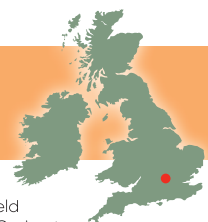
Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
61.184	37.8%	<b>P8201</b>	38% Starch, 4% Sugar, 118% Stover	68%	13.285
58.141	37.3%	<b>P7948</b>	36% Starch, 3% Sugar, 111% Stover	67%	12.045
51.298	41.8%	<b>P7524</b>	36% Starch, 6% Sugar, 110% Stover	69%	11.749
50.196	41.8%	Ambition*	42% Starch, 4% Sugar, 107% Stover	71%	13.490
58.023	36.0%	<b>P8200</b>	33% Starch, 4% Sugar, 107% Stover	67%	10.684
46.738	44.5%	<b>P7034</b>	41% Starch, 5% Sugar, 106% Stover	71%	12.941
46.400	44.1%	Autens kws*	46% Starch, 3% Sugar, 105% Stover	73%	14.412
51.491	38.9%	Gatsby*	41% Starch, 5% Sugar, 102% Stover	74%	12.697
46.400	42.1%	<b>P7892 (C)</b>	39% Starch, 4% Sugar, 100% Stover	70%	11.520
49.778	39.0%	<b>P7460</b>	37% Starch, 3% Sugar, 99% Stover	70%	11.064
40.123	44.2%	Avitus kws*	37% Starch, 3% Sugar, 91% Stover	69%	10.134
43.286	40.6%	Glory*	37% Starch, 3% Sugar, 90% Stover	67%	10.025
41.036	38.7%	<b>P7326</b>	31% Starch, 5% Sugar, 81% Stover	65%	7.597

# Joanna Binnington Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
77.899	33.9%	<b>P8201</b>	37% Starch, 4% Sugar, 125% Stover	70%	15.138
68.466	35.1%	<b>P8200</b>	33% Starch, 3% Sugar, 113% Stover	67%	12.054
60.204	37.7%	Avitus kws*	36% Starch, 3% Sugar, 107% Stover	72%	12.438
71.532	31.6%	<b>P7948</b>	33% Starch, 4% Sugar, 107% Stover	69%	11.391
59.673	36.2%	Gatsby*	39% Starch, 3% Sugar, 102% Stover	71%	12.728
54.115	39.9%	<b>P7034</b>	33% Starch, 3% Sugar, 102% Stover	68%	10.748
64.477	32.9%	<b>P7892 (C)</b>	34% Starch, 4% Sugar, 100% Stover	68%	11.178
67.167	31.4%	<b>P7460</b>	39% Starch, 2% Sugar, 99% Stover	68%	12.560
57.501	35.3%	Ambition*	29% Starch, 2% Sugar, 96% Stover	64%	8.891
63.467	31.3%	<b>P7524</b>	34% Starch, 3% Sugar, 94% Stover	65%	10.341
50.832	38.3%	<b>P7326</b>	41% Starch, 4% Sugar, 92% Stover	73%	12.159
57.473	33.6%	Autens kws*	38% Starch, 2% Sugar, 91% Stover	69%	11.173
54.317	35.2%	Glory*	37% Starch, 3% Sugar, 90% Stover	70%	10.808

# Angus Dart Results

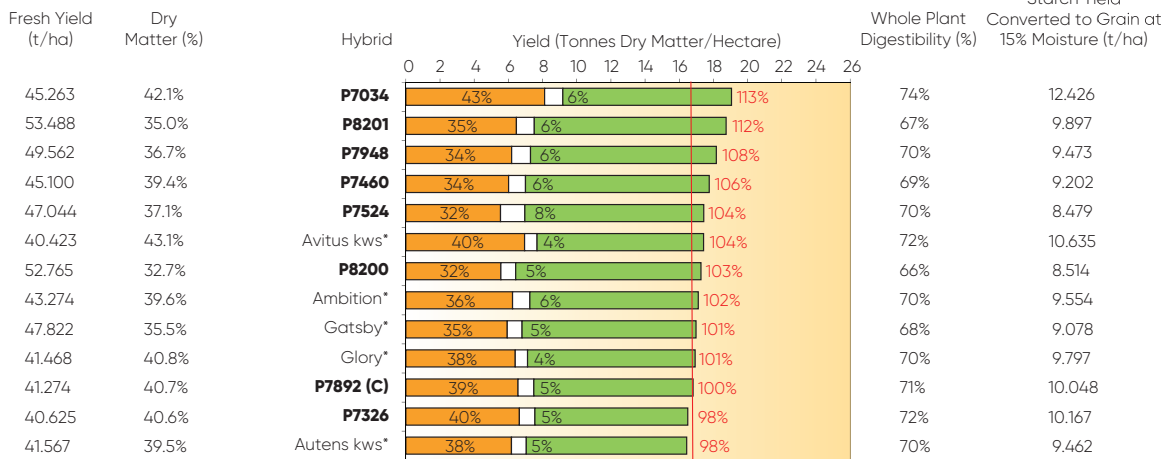


Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
31.665	58.1%	<b>P7948</b>	35% Starch, 2% Sugar, 118% Stover	66%	9.739
31.496	56.3%	Gatsby*	39% Starch, 4% Sugar, 114% Stover	71%	10.659
37.474	44.9%	<b>P8200</b>	33% Starch, 3% Sugar, 108% Stover	66%	8.477
29.208	56.6%	Avitus kws*	40% Starch, 2% Sugar, 106% Stover	70%	10.196
31.709	50.6%	<b>P7524</b>	33% Starch, 5% Sugar, 103% Stover	65%	8.010
28.398	55.5%	Glory*	37% Starch, 4% Sugar, 101% Stover	69%	8.811
28.736	54.1%	<b>P7892 (C)</b>	36% Starch, 3% Sugar, 100% Stover	69%	8.612
35.439	43.1%	<b>P8201</b>	32% Starch, 4% Sugar, 98% Stover	67%	7.493
27.546	54.7%	Autens kws*	31% Starch, 4% Sugar, 97% Stover	64%	7.206
33.016	44.9%	<b>P7460</b>	28% Starch, 3% Sugar, 95% Stover	61%	6.241
24.798	59.3%	<b>P7034</b>	39% Starch, 3% Sugar, 95% Stover	70%	8.715
25.520	57.0%	<b>P7326</b>	39% Starch, 3% Sugar, 94% Stover	69%	8.681
26.835	53.4%	Ambition*	33% Starch, 4% Sugar, 92% Stover	68%	7.266

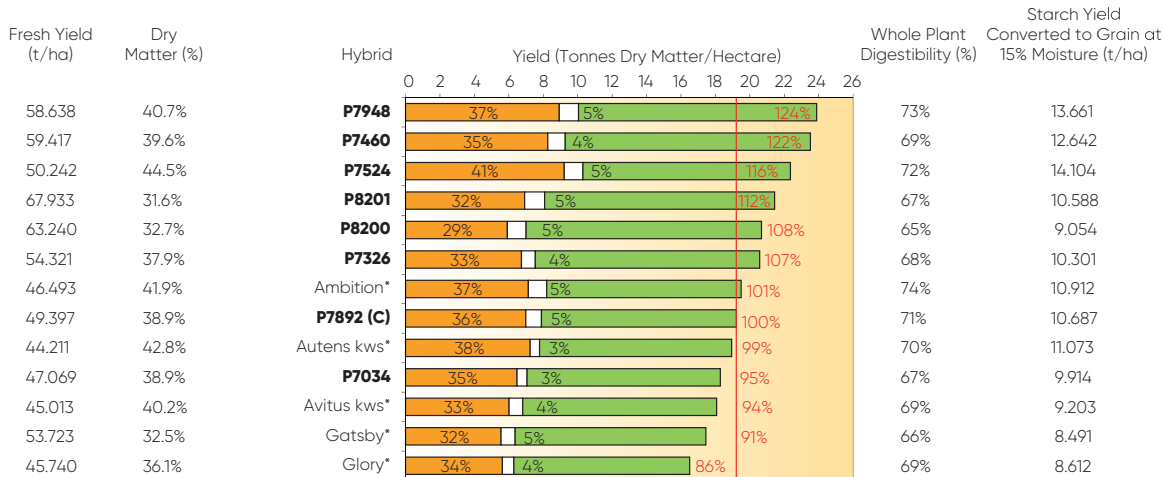
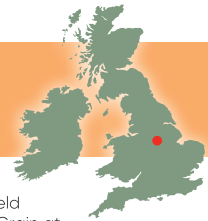
■ Starch Yield & % 
 ■ Sugar Yield & % 
 ■ Stover Yield 
 ■ Relative Dry Matter Yield Index (C=100%)

C = Control Hybrid; \* = Competitor hybrid, \*\* = Hybrid trade name following registration in an EU country in 2019

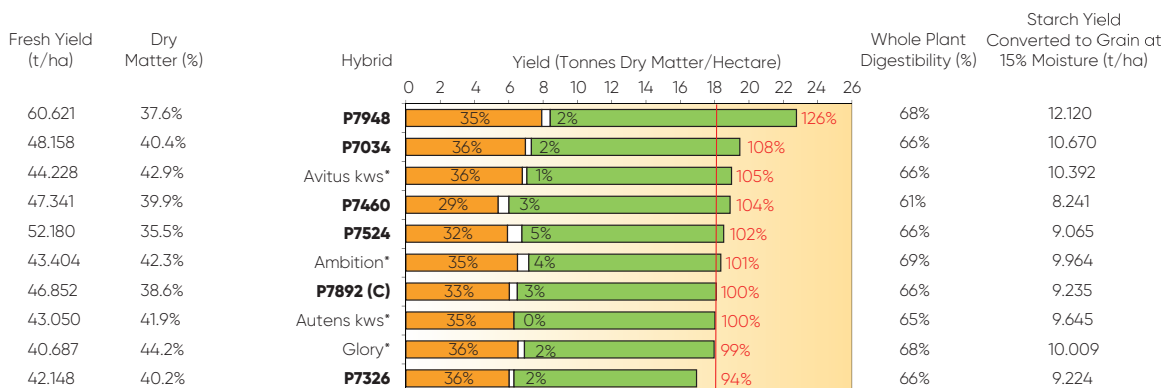
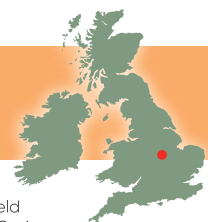
# Michael King Results



# Severn Trent Water Results

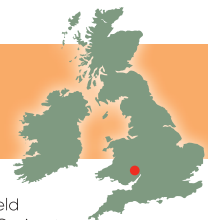


# Neville Kirkham Results



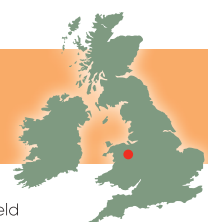
■ Starch Yield & % 
 ■ Sugar Yield & % 
 ■ Stover Yield 
 ■ Relative Dry Matter Yield Index (C=100%)  
 C = Control Hybrid; \* = Competitor hybrid, \*\* = Hybrid trade name following registration in an EU country in 2019

# David Garlick Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
43.781	41.3%	<b>P7326</b>	46% Starch, 5% Sugar, 106% DM	77%	12.704
53.879	33.2%	<b>P7948</b>	34% Starch, 4% Sugar, 105% DM	69%	9.384
40.487	44.2%	Glory*	43% Starch, 3% Sugar, 105% DM	74%	11.751
42.967	39.7%	<b>P7892 (C)</b>	38% Starch, 5% Sugar, 100% DM	71%	9.782
40.161	42.0%	Avitus kws*	39% Starch, 3% Sugar, 99% DM	71%	9.942
42.673	39.3%	<b>P7034</b>	38% Starch, 5% Sugar, 98% DM	72%	9.837
43.191	38.5%	Ambition*	39% Starch, 4% Sugar, 98% DM	73%	9.991
38.864	41.8%	Autens kws*	35% Starch, 3% Sugar, 95% DM	67%	8.699
45.428	35.6%	<b>P7460</b>	33% Starch, 4% Sugar, 95% DM	66%	8.121
43.209	35.3%	<b>P7524</b>	33% Starch, 6% Sugar, 89% DM	68%	7.693

# Gareth Powell Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
36.757	50.0%	Avitus kws*	39% Starch, 3% Sugar, 134% DM	71%	10.845
32.010	43.0%	Ambition*	35% Starch, 7% Sugar, 100% DM	74%	7.371
35.067	39.2%	<b>P7892 (C)</b>	29% Starch, 8% Sugar, 100% DM	69%	6.147
35.881	37.7%	<b>P7034</b>	29% Starch, 7% Sugar, 99% DM	69%	6.090
29.997	44.6%	Autens kws*	36% Starch, 4% Sugar, 97% DM	71%	7.287
34.860	38.2%	<b>P7524</b>	31% Starch, 9% Sugar, 97% DM	71%	6.408
32.032	41.6%	Glory*	32% Starch, 5% Sugar, 97% DM	69%	6.480
35.773	37.2%	<b>P7326</b>	24% Starch, 5% Sugar, 97% DM	65%	4.872
32.671	35.7%	<b>P7460</b>	27% Starch, 7% Sugar, 85% DM	68%	4.867
30.118	33.9%	<b>P7948</b>	29% Starch, 6% Sugar, 74% DM	71%	4.531

# Keith Blenkiron Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
56.395	30.4%	<b>P7948</b>	20% Starch, 11% Sugar, 109% DM	65%	5.139
38.604	44.0%	<b>P7034</b>	24% Starch, 7% Sugar, 108% DM	64%	6.270
47.670	34.7%	<b>P7524</b>	23% Starch, 10% Sugar, 105% DM	64%	5.864
50.107	32.5%	<b>P7460</b>	15% Starch, 9% Sugar, 103% DM	56%	3.771
36.233	44.1%	Autens kws*	28% Starch, 4% Sugar, 101% DM	62%	6.863
38.044	41.5%	<b>P7892 (C)</b>	28% Starch, 7% Sugar, 100% DM	66%	6.704
37.450	40.6%	Ambition*	23% Starch, 7% Sugar, 96% DM	61%	5.455
32.833	44.9%	<b>P7326</b>	28% Starch, 6% Sugar, 93% DM	64%	6.327
35.948	40.6%	Glory*	28% Starch, 7% Sugar, 93% DM	65%	6.313

■ Starch Yield & % 
 ■ Sugar Yield & % 
 ■ Stover Yield 
 ■ Relative Dry Matter Yield Index (C=100%)  
 C = Control Hybrid; \* = Competitor hybrid; \*\* = Hybrid trade name following registration in an EU country in 2019

# Clayton Partnership Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
53.001	45.1%	<b>P7460</b>	37% Starch, 5% Sugar, 116% Stover	71%	13.475
63.381	35.8%	<b>P7948</b>	27% Starch, 4% Sugar, 110% Stover	62%	9.240
44.061	51.2%	<b>P7326</b>	34% Starch, 4% Sugar, 109% Stover	68%	11.871
46.799	47.3%	Avitus kws*	47% Starch, 2% Sugar, 107% Stover	75%	15.827
43.086	50.5%	Autens kws*	42% Starch, 2% Sugar, 106% Stover	73%	14.141
44.263	46.6%	<b>P7892 (C)</b>	39% Starch, 4% Sugar, 100% Stover	70%	12.155
43.407	46.8%	Ambition*	42% Starch, 4% Sugar, 99% Stover	73%	13.118
39.667	49.9%	<b>P7034</b>	37% Starch, 2% Sugar, 96% Stover	69%	11.233
45.485	42.8%	<b>P7524</b>	34% Starch, 4% Sugar, 94% Stover	68%	10.195
38.691	48.1%	Glory*	41% Starch, 2% Sugar, 90% Stover	70%	11.702

# Tim Russon Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
51.279	38.1%	<b>P7948</b>	37% Starch, 4% Sugar, 108% Stover	69%	10.953
41.962	45.5%	<b>P7034</b>	40% Starch, 5% Sugar, 106% Stover	72%	11.766
40.149	46.0%	Avitus kws*	39% Starch, 3% Sugar, 102% Stover	72%	11.003
47.383	38.6%	<b>P7460</b>	34% Starch, 3% Sugar, 101% Stover	66%	9.480
45.547	39.9%	<b>P7524</b>	34% Starch, 5% Sugar, 101% Stover	67%	9.575
42.540	42.5%	<b>P7892 (C)</b>	35% Starch, 3% Sugar, 100% Stover	68%	9.796
40.678	43.2%	Autens kws*	41% Starch, 3% Sugar, 97% Stover	71%	10.924
39.235	43.0%	<b>P7326</b>	35% Starch, 8% Sugar, 93% Stover	70%	9.035
38.566	40.8%	Ambition*	37% Starch, 4% Sugar, 87% Stover	72%	8.906
36.451	42.7%	Glory*	37% Starch, 4% Sugar, 86% Stover	71%	8.732

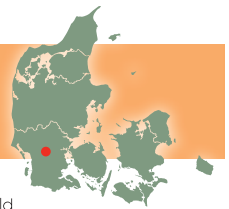
# Glynn Jones Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
47.305	38.8%	Ambition*	37% Starch, 3% Sugar, 109% Stover	67%	10.305
64.301	28.3%	<b>P7948</b>	25% Starch, 6% Sugar, 108% Stover	64%	7.050
43.663	39.8%	Autens kws*	33% Starch, 3% Sugar, 103% Stover	65%	8.805
52.731	32.8%	<b>P7524</b>	30% Starch, 7% Sugar, 103% Stover	67%	8.003
48.533	34.7%	<b>P7892 (C)</b>	33% Starch, 5% Sugar, 100% Stover	68%	8.389
59.691	28.1%	<b>P7460</b>	23% Starch, 6% Sugar, 100% Stover	64%	5.926
39.389	35.3%	Glory*	34% Starch, 3% Sugar, 83% Stover	65%	7.263

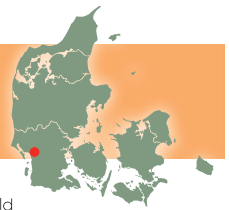
■ Starch Yield & % 
 ■ Sugar Yield & % 
 ■ Stover Yield 
 ■ Relative Dry Matter Yield Index (C=100%)  
 C = Control Hybrid; \* = Competitor hybrid, \*\* = Hybrid trade name following registration in an EU country in 2019

# Rostgård Maskinstation Results



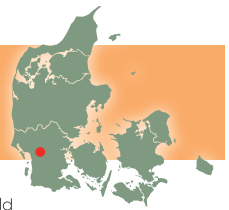
Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
51.830	33.8%	Firefox*	35% Starch, 5% Sugar, 120% DM	70%	9.482
39.974	38.9%	<b>P7378</b>	36% Starch, 6% Sugar, 107% DM	70%	8.611
42.625	36.0%	<b>P7524</b>	33% Starch, 6% Sugar, 105% DM	67%	7.826
36.475	42.0%	<b>P7034</b>	38% Starch, 4% Sugar, 105% DM	70%	8.780
35.415	42.9%	Glory*	38% Starch, 3% Sugar, 104% DM	69%	8.937
37.695	40.1%	Ambition*	38% Starch, 4% Sugar, 104% DM	70%	8.709
38.596	37.7%	<b>P7892 (C)</b>	33% Starch, 5% Sugar, 100% DM	69%	7.250
34.832	40.7%	<b>P7326</b>	39% Starch, 4% Sugar, 97% DM	71%	8.536
33.400	40.5%	Autens kws*	36% Starch, 3% Sugar, 93% DM	69%	7.437

# Lars Hansen Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
58.093	30.6%	<b>P7948</b>	24% Starch, 6% Sugar, 109% DM	63%	6.479
44.445	39.3%	Ambition*	33% Starch, 6% Sugar, 108% DM	69%	8.925
43.347	39.3%	<b>P7034</b>	35% Starch, 5% Sugar, 105% DM	69%	9.206
42.249	38.8%	Autens kws*	32% Starch, 4% Sugar, 101% DM	67%	8.005
46.537	34.8%	<b>P7892 (C)</b>	31% Starch, 6% Sugar, 100% DM	66%	7.592
40.785	38.4%	<b>P7378</b>	33% Starch, 6% Sugar, 97% DM	69%	7.891
39.321	39.6%	<b>P7326</b>	31% Starch, 5% Sugar, 96% DM	67%	7.483

# Jesper Egegaard Nielsen Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
42.707	30.3%	Belami*	38% Starch, 1% Sugar, 113% DM	70%	7.475
42.236	28.7%	<b>P7524</b>	35% Starch, 4% Sugar, 106% DM	68%	6.466
36.942	32.0%	Prospect*	35% Starch, 2% Sugar, 103% DM	68%	6.286
36.354	32.5%	Autens kws*	36% Starch, 2% Sugar, 103% DM	69%	6.419
35.295	33.3%	Aga gold*	39% Starch, 2% Sugar, 103% DM	72%	6.921
40.707	28.1%	<b>P7892 (C)</b>	32% Starch, 3% Sugar, 100% DM	67%	5.536
36.589	30.7%	<b>P7378</b>	36% Starch, 3% Sugar, 98% DM	69%	6.257
36.001	31.1%	<b>P7326</b>	36% Starch, 2% Sugar, 98% DM	67%	6.093
38.942	28.4%	Kompetens*	34% Starch, 3% Sugar, 97% DM	70%	5.779
32.354	31.4%	<b>P7034</b>	38% Starch, 2% Sugar, 89% DM	69%	5.818
29.177	31.1%	Ambition*	40% Starch, 2% Sugar, 79% DM	72%	5.484
28.471	30.0%	Glory*	36% Starch, 2% Sugar, 75% DM	70%	4.707

■ Starch Yield & % 
 ■ Sugar Yield & % 
 ■ Stover Yield 
 ■ Relative Dry Matter Yield Index (C=100%)

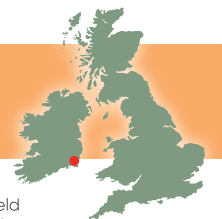
C = Control Hybrid; \* = Competitor hybrid; \*\* = Hybrid trade name following registration in an EU country in 2019

# Henning Ravn Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
55.041	33.0%	Belami CS*	124% 37% Starch, 2% Sugar, 61% Stover	72%	10.248
47.141	37.2%	Autens kws*	120% 34% Starch, 1% Sugar, 65% Stover	67%	9.227
47.821	33.9%	<b>P7378</b>	110% 39% Starch, 2% Sugar, 59% Stover	69%	9.636
41.981	37.7%	Glory*	108% 38% Starch, 2% Sugar, 60% Stover	69%	9.223
42.961	36.5%	Ambition*	107% 38% Starch, 2% Sugar, 60% Stover	69%	9.098
45.261	34.0%	<b>P7034</b>	105% 35% Starch, 2% Sugar, 63% Stover	67%	8.168
43.981	34.9%	<b>P7326</b>	105% 36% Starch, 2% Sugar, 62% Stover	68%	8.480
43.781	33.5%	<b>P7892 (C)</b>	100% 35% Starch, 3% Sugar, 62% Stover	69%	7.879

# Bailey Bros Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
62.964	28.9%	<b>P8201</b>	102% 26% Starch, 7% Sugar, 67% Stover	65%	7.352
64.816	27.5%	<b>P8200 (C)</b>	100% 25% Starch, 7% Sugar, 68% Stover	65%	6.860
68.829	25.6%	<b>P8171</b>	99% 23% Starch, 9% Sugar, 68% Stover	64%	6.212
64.199	26.6%	<b>P8333</b>	96% 22% Starch, 8% Sugar, 70% Stover	66%	5.737
47.223	35.9%	<b>P7034</b>	95% 31% Starch, 4% Sugar, 65% Stover	65%	8.017
63.582	26.6%	<b>P7932</b>	95% 25% Starch, 7% Sugar, 68% Stover	67%	6.546
43.519	38.0%	<b>P7378</b>	93% 33% Starch, 5% Sugar, 62% Stover	68%	8.442
42.594	37.0%	<b>P7892</b>	89% 32% Starch, 6% Sugar, 62% Stover	67%	7.774
45.989	33.4%	<b>P7460</b>	86% 28% Starch, 5% Sugar, 67% Stover	65%	6.522
38.581	39.6%	<b>P7326</b>	86% 38% Starch, 6% Sugar, 56% Stover	71%	8.786
52.779	28.4%	<b>JUSTINA</b>	84% 30% Starch, 7% Sugar, 63% Stover	67%	6.793
52.162	28.1%	<b>P8307</b>	82% 24% Starch, 6% Sugar, 70% Stover	63%	5.461

# Tony Bell Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
51.209	36.1%	<b>P7932</b>	104% 23% Starch, 2% Sugar, 75% Stover	61%	6.493
58.554	30.5%	<b>P8200 (C)</b>	100% 26% Starch, 2% Sugar, 72% Stover	60%	7.025
65.300	27.2%	<b>P8171</b>	99% 25% Starch, 2% Sugar, 73% Stover	60%	6.783
57.007	30.9%	<b>P8201</b>	99% 24% Starch, 2% Sugar, 74% Stover	57%	6.338
55.768	30.0%	<b>P7948</b>	94% 19% Starch, 0% Sugar, 81% Stover	51%	4.936
50.048	32.1%	<b>P8307</b>	90% 27% Starch, 2% Sugar, 71% Stover	61%	6.566
43.479	34.8%	<b>P7460</b>	85% 24% Starch, 1% Sugar, 75% Stover	58%	5.511
55.879	26.8%	<b>P8333</b>	84% 17% Starch, 2% Sugar, 81% Stover	56%	4.000

■ Starch Yield & % 
 ■ Sugar Yield & % 
 ■ Stover Yield 
 ■ Relative Dry Matter Yield Index (C=100%)  
 C = Control Hybrid; \* = Competitor hybrid; \*\* = Hybrid trade name following registration in an EU country in 2019

# Samuel J. Shine Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
63.064	32.9%	<b>P8329</b>	36% Starch, 5% Sugar, 124% Stover	67%	11.399
60.812	33.2%	<b>P8333</b>	39% Starch, 3% Sugar, 121% Stover	71%	12.016
65.317	30.6%	<b>P8171</b>	39% Starch, 3% Sugar, 120% Stover	70%	11.975
56.758	33.8%	<b>P7932</b>	36% Starch, 4% Sugar, 115% Stover	71%	10.464
63.064	30.0%	<b>P8358</b>	28% Starch, 3% Sugar, 113% Stover	62%	8.139
56.308	33.2%	<b>P8201</b>	35% Starch, 3% Sugar, 112% Stover	68%	10.023
46.172	37.1%	<b>P7034</b>	39% Starch, 4% Sugar, 103% Stover	71%	10.301
51.803	32.2%	<b>P8200 (C)</b>	35% Starch, 2% Sugar, 100% Stover	68%	8.845
45.496	35.5%	<b>P7948</b>	36% Starch, 3% Sugar, 97% Stover	69%	9.007
45.947	34.4%	<b>P8723</b>	37% Starch, 4% Sugar, 95% Stover	70%	8.853
44.596	35.1%	<b>P7460</b>	37% Starch, 3% Sugar, 94% Stover	68%	8.936
43.244	36.0%	<b>P8307</b>	41% Starch, 2% Sugar, 93% Stover	69%	9.715
52.704	28.5%	<b>P8000</b>	27% Starch, 4% Sugar, 90% Stover	63%	6.283
36.037	39.9%	<b>P7892</b>	42% Starch, 3% Sugar, 86% Stover	72%	9.241
33.334	37.7%	<b>P7326</b>	38% Starch, 3% Sugar, 75% Stover	69%	7.346

# Stuart Cole Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
61.835	28.6%	<b>P8201</b>	29% Starch, 6% Sugar, 111% Stover	69%	7.945
59.335	26.9%	<b>P8200 (C)</b>	31% Starch, 4% Sugar, 100% Stover	67%	7.523
51.501	30.8%	<b>P7892</b>	33% Starch, 5% Sugar, 99% Stover	70%	8.031
49.834	30.2%	<b>P7948</b>	31% Starch, 5% Sugar, 94% Stover	68%	7.135
49.251	30.2%	<b>P7524</b>	31% Starch, 6% Sugar, 93% Stover	69%	7.101
47.334	30.8%	<b>P7326</b>	37% Starch, 2% Sugar, 91% Stover	68%	8.226
46.334	30.8%	<b>P7034</b>	32% Starch, 2% Sugar, 90% Stover	67%	6.989
50.251	28.2%	<b>P7460</b>	29% Starch, 3% Sugar, 89% Stover	65%	6.345
46.334	24.6%	<b>P7326 (O)</b>	24% Starch, 10% Sugar, 71% Stover	69%	4.203

# Ranald Fowler Results



Fresh Yield (t/ha)	Dry Matter (%)	Hybrid	Yield (Tonnes Dry Matter/Hectare)	Whole Plant Digestibility (%)	Starch Yield Converted to Grain at 15% Moisture (t/ha)
55.164	34.2%	<b>P8171</b>	36% Starch, 4% Sugar, 112% Stover	71%	10.444
55.852	33.1%	<b>P7932</b>	38% Starch, 4% Sugar, 110% Stover	71%	10.633
48.388	36.8%	<b>P8201</b>	37% Starch, 4% Sugar, 106% Stover	72%	10.167
44.735	38.8%	<b>P8307</b>	43% Starch, 3% Sugar, 103% Stover	73%	11.304
43.685	39.5%	<b>P7948</b>	40% Starch, 4% Sugar, 102% Stover	72%	10.546
46.918	35.9%	<b>P8200 (C)</b>	37% Starch, 5% Sugar, 100% Stover	72%	9.529
40.501	39.7%	<b>P7034</b>	36% Starch, 5% Sugar, 95% Stover	71%	8.952
42.449	37.2%	<b>P7524</b>	35% Starch, 5% Sugar, 94% Stover	71%	8.380
41.582	36.3%	<b>P7892</b>	36% Starch, 4% Sugar, 89% Stover	70%	8.338
37.838	39.0%	<b>P7326</b>	38% Starch, 5% Sugar, 87% Stover	71%	8.496

■ Starch Yield & % 
 ■ Sugar Yield & % 
 ■ Stover Yield 
 ■ Relative Dry Matter Yield Index (C=100%)

O = Grown in The Open; C = Control Hybrid; \* = Competitor hybrid; \*\* = Hybrid trade name following registration in an EU country in 2019

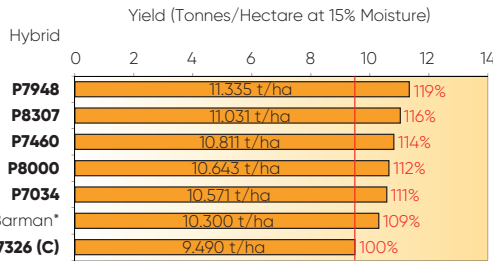


# Alan Cook Results



Fresh Yield (t/ha) Grain Moisture at Harvest %

14.407 33.1%  
14.685 36.2%  
14.286 35.7%  
14.050 35.6%  
13.162 31.7%  
13.350 34.4%  
11.770 31.5%



Yield Advantage / Disadvantage Vs Control (%)

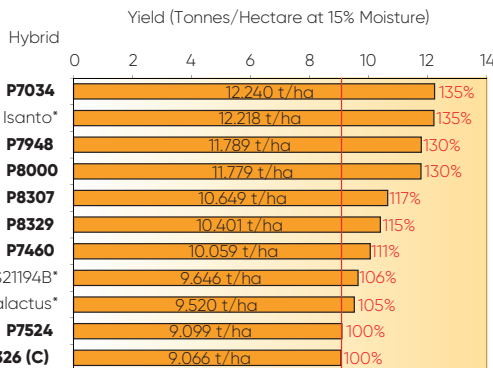
19%  
16%  
14%  
12%  
11%  
9%  
0%

# Mark Pethick Results



Fresh Yield (t/ha) Grain Moisture at Harvest %

15.292 32.0%  
14.875 30.2%  
14.542 31.1%  
15.250 34.3%  
13.625 33.6%  
13.500 34.5%  
13.042 34.4%  
13.083 37.3%  
12.208 33.7%  
11.208 31.0%  
11.208 31.2%



Yield Advantage / Disadvantage Vs Control (%)

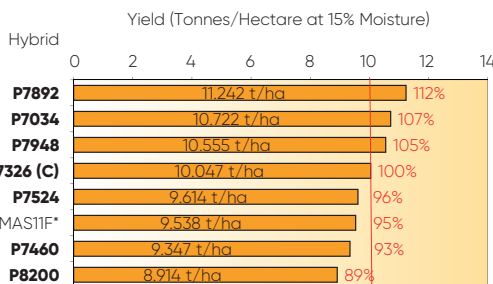
35%  
35%  
30%  
30%  
17%  
15%  
11%  
6%  
5%  
0%  
0%

# Velcourt Results



Fresh Yield (t/ha) Grain Moisture at Harvest %

14.902 35.9%  
14.567 37.4%  
15.303 41.4%  
13.791 38.1%  
13.399 39.0%  
13.105 38.1%  
13.693 42.0%  
12.941 41.5%



Yield Advantage / Disadvantage Vs Control (%)

12%  
7%  
5%  
0%  
-4%  
-5%  
-7%  
-11%

Grain Yield, Tonnes/Hectare at 15 Moisture Relative Yield Index (C=100%)

C = Control Hybrid; \* = Competitor hybrid, \*\* = Hybrid trade name following registration in an EU country in 2019

NAME >	IRWIN MORROW	ARNOLD DARE	JAMIE MONTGOMERY	JOANNA BINNINGTON
TOWN	TRURO	AXMINSTER	WINCANTON	PULBOROUGH
COUNTY & COUNTRY	CORNWALL, GB	DEVON, GB	SOMERSET, GB	EAST SUSSEX, GB
SITE CLASSIFICATION	FAVOURABLE	FAVOURABLE	FAVOURABLE	FAVOURABLE
TRIAL TYPE	FORAGE, OPEN	FORAGE, OPEN	FORAGE, OPEN	FORAGE, NO FILM
YIELD OF CONTROL HYBRID **	15.918	19923	19549	21.194
SOIL TYPE	MEDIUM LOAM	MEDIUM LOAM	MEDIUM LOAM	GREENSAND
ASPECT/SLOPE (DEGREES)	NORTH / 5	EAST / 5	FLAT	FLAT
ALTITUDE (METRES)	70	50	60	50
ANNUAL RAINFALL (MM)	1000	800	700	825
PREVIOUS CROPPING 2018	GRASS	TURNIPS	WHEAT	MAIZE
SOIL pH	6.7	5.9	6.9	6.8
SOIL PHOSPHATE (P) INDEX	4	5	0	6
SOIL POTASSIUM (K) INDEX	3	4	2-	3
SOIL MAGNESIUM (MG) INDEX	3	3	3	3
SLURRY TYPE & VOLUME (L/HA)	-	CATTLE / 27,000	CATTLE / 40,000	-
MANURE TYPE & QUANTITY (T/HA)	CATTLE / 30	CATTLE / 25	-	-
FERT 1 - TYPE/RATE (KG/HA)/DATE	DAP / 200 / 02-05	UREA / 125 / 28-04	MAP / 125 / 19-04	-
FERT 2 - TYPE/RATE (KG/HA)/DATE	-	-	-	-
FERT 3 - TYPE/RATE (KG/HA)/DATE	-	-	-	-
SPRAY 1 - NAME/RATE/DATE	CALARIS / 1.25 L / 10-06	MOST MICRO / 3 L / 30-04	STOMP AQUA / 3 L / 19-04	-
SPRAY 2 - NAME/RATE/DATE	-	VELOMAX / 0.4 L / 30-04	ACCENT / 57 GM / 20-06	-
SPRAY 3 - NAME/RATE/DATE	-	CAMIX / 1.25 L / 30-04	TEMSA / 1 L / 20-06	-
SUB SOILED/PLOUGHED DATE	- / 20-04	- / 26-04	- / 12-04	-
SOWING DATE/HARVEST DATE	02-05 / 20-10	28-04 / 28-10	19-04 / 15-10	23-04 / 20-09
SEEDING RATE - SEEDS/HA	94,000	105,000	104,000	-
CROP CONDITION AT HARVEST	GREEN / STRAWLIKE	STRAWLIKE	STRAWLIKE	GREEN
COMMENTS ABOUT TRIAL	CLEAN / CONSISTENT	CLEAN / GOOD ESTAB'MNT	CLEAN / LODGING	GREEN
NAME >	CLAYTON PARTNERSHIP	KINGSPOL HOLSTEINS	SPENCER MOGRIDGE	ANGUS DART
TOWN	MALPAS	BRISTOL	STURMINSTER NEWTON	DIDCOT
COUNTY & COUNTRY	CHESHIRE, GB	AVON, GB	DORSET, GB	OXON, GB
SITE CLASSIFICATION	LESS FAVOURABLE	FAVOURABLE	FAVOURABLE	FAVOURABLE
TRIAL TYPE	FORAGE, FILM	FORAGE, OPEN	FORAGE, OPEN	FORAGE, NO FILM
YIELD OF CONTROL HYBRID **	20.610	16.809	17.415	15.534
SOIL TYPE	MEDIUM LOAM	MEDIUM LOAM	CLAY LOAM	GRAVEL
ASPECT & SLOPE (DEGREES)	-	NORTH / 10	NORTH EAST / 5	FLAT
ALTITUDE (METRES)	65	60	55	55
ANNUAL RAINFALL (MM)	800	800	650	660
PREVIOUS CROPPING 2018	-	WINTER WHEAT	GRASS	OATS & VETCH
SOIL pH	7.2	6.9	7.8	7.4
SOIL PHOSPHATE (P) INDEX	4	4	4	5
SOIL POTASSIUM (K) INDEX	3	4	2+	6
SOIL MAGNESIUM (MG) INDEX	1	4	3	3
SLURRY TYPE & VOLUME (L/HA)	CATTLE / 15000	CATTLE / 55,000	CATTLE / 25,000	CATTLE 4500
MANURE TYPE & QUANTITY (T/HA)	-	-	CATTLE / 20	FULVIC / 40 / 2.5L
FERT 1 - TYPE/RATE (KG/HA)/DATE	DAP / 30 / 05-05	-	EQUILIBRIUM / 1 L / 10-06	AF PHOS / 2L / 19-06
FERT 2 - TYPE/RATE (KG/HA)/DATE	LIQUID N / 140 / 03-05	-	34 N / 03-06	NATURAMIN / 0.2KG / 19-06
FERT 3 - TYPE/RATE (KG/HA)/DATE	LIQUID K / 140 / 03-05	-	-	N'TRE N,11 / MGRO,51 / 19-06
SPRAY 1 - NAME/RATE/DATE	MOSTMICRO / 4l / 07-05	PAMPA / 0.8 L / 28-05	ELUMIS / 1.44 L / 10-06	TOUCHDOWN / 2L/27-03
SPRAY 2 - NAME/RATE/DATE	CALARIS / 1.25l / 06-06	EVOLYA / 0.2 KG / 28-05	-	STOMP,2I/D' GOLD,1.2I/30-04
SPRAY 3 - NAME/RATE/DATE	-	TAURON / 0.8 L / 28-05	-	CALISTO / 0.75l / 01-06
SUB SOILED/PLOUGHED DATE	29 April	03-05 / 03-05	- / 12-05	SIMBA DTX 30.4
SOWING DATE/HARVEST DATE	05-05 / 30-10	07-05 / 22-10	14-05 / 23-10	23-04 / 199
SEEDING RATE - SEEDS/HA	105	105,000	99,000	109,000
CROP CONDITION AT HARVEST	STRAWLIKE	GREEN / STRAWLIKE	GREEN / STRAWLIKE	STRAWLIKE
COMMENTS ABOUT TRIAL	-	-	CLEAN / CONSISTENT	-
NAME >	TIM RUSSON	GARETH POWELL	NEVILLE KIRKHAM	GLYN JONES
TOWN	LINCOLN	OSWESTRY	LOUGHBOROUGH	ST ASAPH, RHYLL
COUNTY & COUNTRY	LINCOLNSHIRE, GB	POWYS, GB	LEICESTERSHIRE, GB	DENBIGHSHIRE
SITE CLASSIFICATION	LESS FAVOURABLE	LESS FAVOURABLE	LESS FAVOURABLE	LESS FAVOURABLE
TRIAL TYPE	FORAGE, NO FILM	FORAGE, NO FILM	FORAGE, NO FILM	FORAGE, OPEN
YIELD OF CONTROL HYBRID **	18.070	13.729	18.097	16.829
SOIL TYPE	SANDY LOAM	LOAM OVER GRAVEL	MEDIUM LOAM	SANDY LOAM
ASPECT & SLOPE (DEGREES)	FLAT	-	-	-
ALTITUDE (METRES)	10	85	60	15
ANNUAL RAINFALL (MM)	635	840	630	900
PREVIOUS CROPPING 2018	MAIZE	MAIZE	-	MAIZE
SOIL pH	6.7	6.7	6.1	6.9
SOIL PHOSPHATE (P) INDEX	3	6	3	4
SOIL POTASSIUM (K) INDEX	4	5	4	3
SOIL MAGNESIUM (MG) INDEX	4	3	4	2
SLURRY TYPE & VOLUME (L/HA)	-	CATTLE 13T/HA	CATTLE 40 T/HA	DIGESTATE 23,000 L/HA
MANURE TYPE & QUANTITY (T/HA)	CATTLE / 35	DIGESTATE / 10T/HA	-	-
FERT 1 - TYPE/RATE (KG/HA)/DATE	MOP 297 / 16/04	DAP / 250KG/HA	34.5%AN / 125KG / 20-05	-
FERT 2 - TYPE/RATE (KG/HA)/DATE	DAP 153 / 19/04	-	-	-
FERT 3 - TYPE/RATE (KG/HA)/DATE	35N/7S/ 350 L/HA 30-04	-	-	-
SPRAY 1 - NAME/RATE/DATE	PENDIFIN / 3.0L/HA / 24-04	AC'NT.06KG /C'LSTO 1/18-06	ELUMIS / 1.25L/HA	M'TRIONE 0.75L/HA / 23-05
SPRAY 2 - NAME/RATE/DATE	M'STER WG 0.1KG/HA 04-06	EV'GREEN+ 10L/HA/01-07	GYO / 0.5 L/HA	NICO'RON 0.5 L/HA / 23-05
SPRAY 3 - NAME/RATE/DATE	STARANE / 35L/HA / 04-06	FLYER 200 1L/HA/01-07	MAIZE BOOST / 4.0 L/HA	FLOXPYR 0.55L/HA / 09-07
SUB SOILED/PLOUGHED DATE	16-04-19 / 07-04-19	25-04	14-05	END OF APRIL
SOWING DATE/HARVEST DATE	19-04 / 11-10	05-05 / 28-10	17-05 / 31-10	30-04 / 08-10
SEEDING RATE - SEEDS/HA	105,000	104,000	105,000	-
CROP CONDITION AT HARVEST	GOOD	GOOD	STRAWLIKE	GREEN
COMMENTS ABOUT TRIAL	-	-	-	-

n/a = not applicable; n/k = not known

\*\* Tonnes/Hectare of Forage Dry Matter OR Tonnes/Hectare of Grain at 15% Moisture - according to the trial type

SEVERN TRENT FARMS	KEITH BLENKIRON	DAVID GARLICK	RICHARD PHILLIPS	RANALD FOWLER	SAMUEL J. SHINE
NOTTINGHAM	NORTHALLERTON	BROMYARD	CLARBESTON ROAD	BARNSTAPLE	LIMERICK
NOTTS, GB	YORKSHIRE, GB	HEREFORDSHIRE, GB	DYFED, GB	DEVON, GB	CO. LIMERICK, ROI
FAVOURABLE	LESS FAVOURABLE	LESS FAVOURABLE	LESS FAVOURABLE	LESS FAVOURABLE	LESS FAVOURABLE
FORAGE, NO FILM	FORAGE, NO FILM	FORAGE, NO FILM	FORAGE, FILM	FORAGE, FILM	FORAGE, FILM
19225	15.774	17039	16.849	16.862	16.681
SANDY LOAM	SANDY LOAM	MEDIUM LOAM	MEDIUM LOAM	CLAY LOAM	CLAY
FLAT	FLAT	-	-	-	FLAT
21	46	160	80	90	9
600	660	710	1,300	825	1,200
MAIZE	-	WINTER WEHAT	-	-	MAIZE
6.7	6.4	6.8	5.4	5.4	5.9
7	5	3	3	3	3
3	3	4	3	2+	3
5	4	4	3	3	3
LIQ DIGESTATE 39 M3/HA	CATTLE SLURRY/27500L/HA	-	CATTLE / 56,000	CATTLE / 13,500	CATTLE / 30,000
-	-	CATTLE / 12 / POULTRY / 2	CATTLE / 25	CATTLE / 25	-
ZERO	LIQ 26N/5S / 90KG/HA 04-07	DAP / 100	25N14P14K / 430 / 03-04	70 N / 90 K / 5 S / 15-04	0-7-30 / 500KG
ZERO	-	-	MOP / 125 / 03-04	MGK+ 3 L / HA / 11-06	UREA / 375KG
ZERO	-	-	-	-	-
STOMP 3L/HA 28-04	CALLISTO 1.0L/HA / 30-06	ANTHEM / 2.5 / 06-05	STOMP AQUA / 1.5 L / 06-05	DIME/4L/06-04	STOMP / 1.0L/HA / 07-05
CALARIS 1.5L/HA 04-06	NICO PRO 0.8L/HA 30-06	PAMPA / 1 / 22-06	WING P / 4 L / 06-05	PEAK / 11G / 11-06	WING P / 4.0L/HA / 07-05
-	-	-	SLITHER / 0.2 L / 06-05	NICO PRO 1 L / 11-06	CALARIS / 1.5L/HA / 25-06
PLOUGHED MID FEB	16-04	20-04	- / 01-05	06-04 / 04-04	10-04
23-04 / 02-10	02-05 / 23-10	22-04 / 23-10-19	06-05 / 16-10	17-04 / 21-09	07-05 / 09-10
-	-	-	100,000	104,000	100,000
GREEN	-	-	MOSTLY STRAWLIKE	GREEN	GREEN
-	-	-	WELL ESTABLISHED	-	-
BAILEY BROS	STUART COLE	RICHARD PHILLIPS	TONY BELL	ALAN COOK	LARS HANSEN
GOREY	NOMANSLAND	CLARBESTON ROAD	SWORDS	SOUTHAMPTON	BRAMMING
CO. WEXFORD, ROI	DEVON	DYFED, GB	CO. DUBLIN, ROI	HAMPSHIRE, GB	JUTLAND, DENMARK
LESS FAVOURABLE	LESS FAVOURABLE	LESS FAVOURABLE	LESS FAVOURABLE	FAVOURABLE	FAVOURABLE
FORAGE, FILM	FORAGE, FILM	FORAGE, FILM	FORAGE, FILM	GRAIN, OPEN	FORAGE, NO FILM
17.797	15.958	16.849	17.860	9.490	16.210
MEDIUM LOAM	MEDIUM LOAM	MEDIUM LOAM	CLAY	CLAY LOAM	-
-	NORTH / 5	LEVEL	NONE / FLAT	SOUTH EAST / 5	-
55	195	80	50	60	-
900	1,200	1,300	750	900	700
-	GRASS	GRASS	TRITICALE	WHEAT	-
5.8	5.6	5.4	-	5.1	Rt = 6.2
4	4	3	-	5	Pt = 4.7
3	5	3	-	2-	Kt = 11.0
2	3	3	-	2	Mgt = 7.5
-	LIQUID DIGESTATE / 36,000 L	CATTLE / 56,000	-	-	-
-	-	CATTLE / 25	MUSHROOM COMPOST / 25	DIGESTATE / 20	-
-	EFFICIENT N 28 20 L / 28-07	25N14P14K / 430 / 03-04	18-6-12 / 10000KG / 25-05	UREA / 228 / 08-04	-
-	-	MOP / 125 / 03-04	-	-	-
-	-	-	-	-	-
-	WING-P 4 L + ADJ / 25-04	STOMP AQUA / 1.5 L / 06-05	-	DUAL GOLD / 1 L / 10-05	-
-	VELOMAX 0.4 L / 25-04	WING P / 4 L / 06-05	-	FORNET 6 / 0.5 L / 10-06	-
-	ROZAN 0.3 L + ADJ / 10-06	SLITHER / 0.2 L / 06-05	-	CALLISTO / 0.75 L / 10-06	-
-	19-04/19-04	- / 01-05	-	DEEP CULTIVATION / DISC	-
/ 21-10	23-04 / 18-09	06-05 / 16-10	25-05 / 31-10	04-05 / 08-11	/ 07-10
-	105,000	100,000	-	104,000	-
-	GREEN	MOSTLY STRAWLIKE	-	STRAWLIKE	-
-	-	WELL ESTABLISHED	-	CLEAN / STOOD WELL	-
VELCOURT	MARK PETHICK	ROSTGARD MASKINSTATION	HENNING RAVN	JESPER EGEGAARD NIELSEN	
BERWICK ST LEONARD	CALLINGTON	RODDING	NORRE NEBEL	GORDING	
WILTSHIRE, GB	CORNWALL, GB	JUTLAND, DENMARK	JUTLAND, DENMARK	JUTLAND, DENMARK	
FAVOURABLE	LESS FAVOURABLE	FAVOURABLE	LESS FAVOURABLE	LESS FAVOURABLE	
GRAIN, OPEN	GRAIN, FILM	FORAGE, NO FILM	FORAGE, NO FILM	FORAGE, NO FILM	
10.047	9.066	14.552	14.677	11.423	
MEDIUM LOAM	MEDIUM LOAM	-	-	-	
WEST / 10	-	-	-	-	
140	160	-	-	-	
770	1,250	700	800	900	
WHEAT	-	-	-	-	
7.9	4.9	Rt = 6.1	Rt = 5.7	Rt = 6.1	
3	3	Pt = 4.4	Pt = 7.0	Pt = 3.8	
4	2+	Kt = 11.1	Kt = 8.7	Kt = 17.4	
2	2	Mgt = 5.8	Mgt = 7.3	Mgt = 6.2	
-	-	-	-	-	
POULTRY / 5	-	-	-	-	
DAP / 154 / 28-04	CROPKARE / 750 / 12-12	-	-	-	
N35S / 250 L / 28-04	N 170 / S 6 / 25-04	-	-	-	
-	-	-	-	-	
FORNET 6OD / 0.74 L / 15-05	WING P / 4 L / 28-04	-	-	-	
CALLISTO / 1.3 L / 15-05	MILAGRO / 0.127 L / 02-07	-	-	-	
-	CALLISTO / 0.75 L / 02-07	-	-	-	
CULTIVATED / 18-03	- / 20-04	-	-	-	
30-04 / 05-11	28-04 / 18-11	/ 02-10	/ 21-10	/ 21-10	
105,000	104,000	-	-	-	
STRAWLIKE	STRAWLIKE	-	-	-	
CLEAN / WELL ESTABLISHED	-	-	-	-	

n/a = not applicable; n/k = not known

\*\* Tonnes/Hectare of Forage Dry Matter OR Tonnes/Hectare of Grain at 15% Moisture - according to the trial type

Delivered by



**PIONEER**<sup>®</sup>

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