



# ***Entrant's Report***

## ***Milling Wheat Quality***

### ***Award***

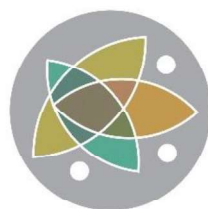
## **Harvest 2021**

NAME: [REDACTED]	Field / Site: [REDACTED]
YEN Field ID: [REDACTED]	Sponsors/Supporter: [REDACTED]
Region: [REDACTED]	Variety: Crusoe
Primary contact email: [REDACTED]	
Sponsor/Supporter email: [REDACTED]	
Additional supporter email: [REDACTED]	

**The 2021 YEN Wheat Quality competition** saw completed entries from 11 fields.

- Average grain yield for all Group 1 varieties entered in the YEN 2021 was 10.40 t/ha and average grain protein yield was 1.17 t/ha.
- Your entry yielded 11.2 t/ha grain and 1.3 t/ha of grain protein, which ranked [REDACTED] for protein yield within all YEN Group 1 entries.

This report provides results for your entry, summarises the procedures used to determine the YEN Wheat Quality Awards, and shows results for all the finalists.



**UK FLOUR  
MILLERS**

**The YEN Wheat Quality Award is sponsored and organised by UK Flour Millers (previously nabim).**

*With thanks to the milling industry for the analysis of entries.*

## SHORT-LISTING & QUALITY TESTING METHODOLOGY

All YEN entries that were UK-grown UKFM Group 1 varieties were eligible to enter the YEN Wheat Quality competition. The growers of these entries were sent a large sample container to fill with the required amount (5kg) for rheology and baking tests. As with all YEN entries, yields were determined and certified, and grain was tested for specific weight and protein concentration. In addition, samples of YEN Wheat Quality entries were sent for Hagberg Falling Number (HFN) determination and assessments were made of grain appearance and presence of impurities. Grain protein yield was calculated. In total there were 11 entries.

The remaining 11 entries were cleaned and reanalysed in a cereals laboratory prior to small-scale milling. Samples of the milled flour were tested for dough quality and test-baked using the Chorleywood Breadmaking Process (CBP) and an 800g open top recipe. This is a standard breadmaking recipe used across the industry and is an important test for examining baking quality.

The entries were assessed by considering the yield, protein yield and the quality of wheat, flour, dough and finally the baked bread. In examining both the yield and quality attributes, the competition recognises those crops that performed excellently from an agronomic perspective without compromising on milling quality. It is these crops that will continue to ensure the UK milling industry is supplied with the four million tonnes of domestic wheat it requires in a typical year.

The results for all finalists can be seen in Table 1. Images of the baked loaves can be seen in Table 2.

## WINNING ENTRIES

**First place** – This entry had the third-highest yield of 11.24 t/ha grain and the third highest protein yield of 1.26 t/ha and demonstrated excellent grain analytical quality. Dough quality was good and the baked loaf was excellent, with white breadcrumb colour and texture. Considering baking quality in conjunction with the high grain and protein yield, this entry was judged to be the best of the finalists.

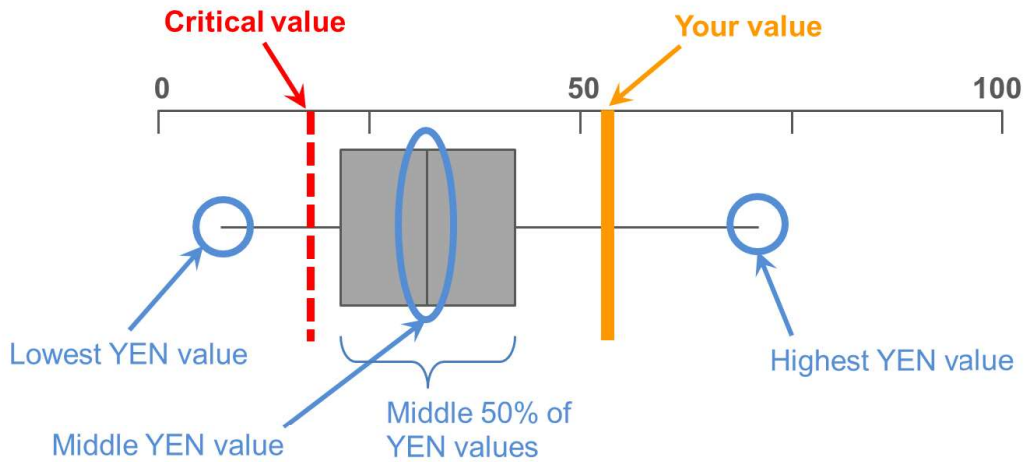
**Second place** – Whilst this entry was not the highest yielding relative to other entries, it demonstrated a good protein yield of 1.19t/ha alongside excellent grain analytical and baking quality.

**Third place** – This entry had a yield of 10.27t/ha alongside a good protein yield of 1.08t/ha. Whilst grain protein was lower than other varieties, grain fill was excellent and the baking quality was the best of the entries.

**Other entries** – The majority of the other entries had moderate baking quality and whilst yields and protein yields were in some cases higher than those of the top three entries, weakness or coarseness in the breadcrumb let the overall baking performance down

## MILLING QUALITY RESULTS

The results for your entry and all other entries in the YEN Wheat Quality Competition 2021 are summarised below in box and whisker charts. The charts include critical or threshold values, if appropriate. The key to the charts is as follows:



The 'whiskers' show the range of values from all YEN Wheat Quality Award entries in 2021 and the box shows the middle half of these values, with a line for the mid-value. The orange line shows the value for this entry and the red dashed line is a limit beyond which milling quality is reduced.



Your YEN Field ID - [REDACTED]

**Table 1. Finalists' wheat, dough and baking results.**

YEN Field Entry ID	Variety	Yield (t/ha)	Protein yield (t/ha)*	Mill laboratory cleaned wheat analysis					Flour and dough analysis				Test baking results					Ranking
				Protein % (dm)	Specific weight kg/hl	Hagberg Falling No.	SKCS hardness index	Extraction rate %	Flour		Extensograph		Loaf volume cm <sup>3</sup>	Overall quality	Crumb colour	Crumb Texture	Crumb structure	
									Flour water absorption % @ 14% moisture	Resistance B.U. (R)	Extensibility cm (E)	R/E (B.U./mm)						
CF210102	Crusoe	11.24	1.26	13.2	75.0	337	62	77.9	56.6	410	18.6	2.2	3670	Good	Resilient	Fine	Creamy	First Place
CF210187	Crusoe	9.89	1.19	14.1	77.2	369	55	79.3	55.9	400	18.5	2.2	3720	Good	Resilient	Fine	Creamy	Second Place
CF210120	Crusoe	10.27	1.08	12.4	78.5	350	67	79.7	55.5	410	15.5	2.6	4090	Very good	Resilient	Fine	White	Third Place

**Other entries**

CF210112	Zyatt	13.02	1.55	14.0	74.9	357	59	81.1	57.4	310	14.8	2.1	3510	Moderate	Slightly Weak	Slightly coarse	Creamy
CF210101	Zyatt	11.66	1.36	13.7	73.8	237	57	81.0	57.4	290	17.1	1.7	3730	Good to moderate	Slightly Weak	Fine	Creamy
CF210253	Crusoe	10.50	1.22	13.7	77.7	375	66	81.3	57.7	320	17.9	1.8	3660	Good to moderate	Slightly Weak	Fine	White
CF210028	Zyatt	10.76	1.21	13.2	77.2	337	63	79.4	54.0	370	17.7	2.1	3670	Moderate	Slightly Weak	Slightly coarse	White
CF210042	Skyfall	10.62	1.17	13.0	76.8	353	56	81.1	55.0	370	17.0	2.2	3680	Moderate	Weak	Fine	Creamy
CF210017	Crusoe	8.33	0.99	14.0	74.7	358	67	79.2	57.1	370	18.7	2.0	3880	Good	Resilient	Fine	Creamy
CF210158	Crusoe	9.28	0.96	12.2	75.1	335	48	77.7	53.6	350	18.0	1.9	3700	Moderate	Weak	Fine	White
CF210044	Skyfall	8.86	0.89	11.8	78.7	336	52	78.1	55.3	410	16.6	2.5	3660	Moderate to poor	Weak	Coarse	White

\* Protein is calculated at 100% dry matter. Yield calculated at 15% moisture. Relevant adjustments are made when calculating protein yield.



Satisfactory



Less than satisfactory, but acceptable

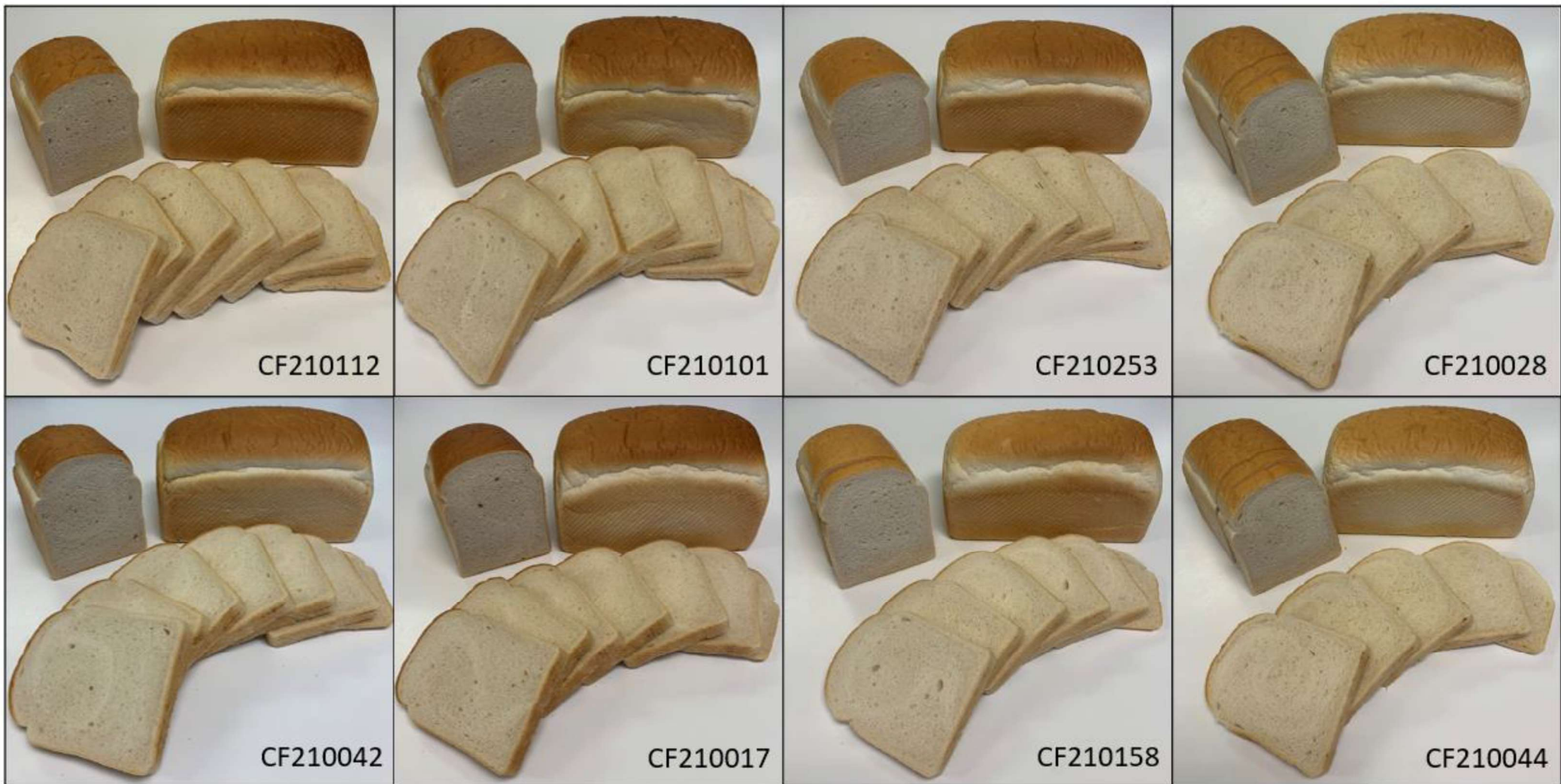


Unsatisfactory

Table 2. Baked loaves.







## FURTHER INFORMATION

For further information about growing milling wheat, Group 1 varieties, latest research, market insight, the milling industry or the YEN Wheat Quality Award, please visit:

<b>AHDB</b>	Milling wheat research, Horizon reports	<a href="http://www.ahdb.org.uk">www.ahdb.org.uk</a>
	Market Information	<a href="http://cereals.ahdb.org.uk/markets">cereals.ahdb.org.uk/markets</a>
	Recommended List information	<a href="http://cereals.ahdb.org.uk/varieties">cereals.ahdb.org.uk/varieties</a>
	Export Information	<a href="http://cereals.ahdb.org.uk/exports">cereals.ahdb.org.uk/exports</a>
	Milling Wheat Conference	<a href="http://cereals.ahdb.org.uk/mwc">cereals.ahdb.org.uk/mwc</a>
<b>UK Flour</b>	YEN Wheat Quality Competition	<a href="http://ukflourmillers.org/wheatsupply">ukflourmillers.org/wheatsupply</a>
<b>Millers</b>	Any enquiries about the milling industry	<a href="http://ukflourmillers.org">ukflourmillers.org</a>
		<a href="mailto:JoeBrennan@ukflourmillers.org">JoeBrennan@ukflourmillers.org</a>
<b>YEN</b>	Yield Enhancement Network	<a href="http://www.yen.adas.co.uk">www.yen.adas.co.uk</a>
		<a href="mailto:yen@adas.co.uk">yen@adas.co.uk</a>

## YEN SPONSORS

The YEN was initiated by industry and is entirely industry funded. We are most grateful to all our sponsors. They not only provide funding but they are fundamentally involved in management of the YEN and in supporting individual farms in making their YEN entries. The YEN would not exist without them!

Visit [www.yen.adas.co.uk](http://www.yen.adas.co.uk) for sponsors' details, news updates and to register for 2022.

More information on UK Flour Millers can be found by visiting their website, [www.ukflourmillers.org](http://www.ukflourmillers.org)



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