

THE
MALT
HANDBOOK

Second Edition





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Welcome to the second edition of The Malt Handbook. When we launched the first version in 2019, the world was a very different place. Looking back over the past two years, we have all been tested in new and unprecedented ways. The drinking landscape has changed immeasurably. Some breweries have thrived and some have fallen and there are equal parts celebration and heartache in their stories.

The future will always be uncertain but what endures, as it has for millennia, is the desire for folks to gather together over a beer and share in the warmth of human company. That might be in the comfort of someone's home, at the local or in a newly minted taproom. Where ever it may be, the desire for good beer will never wane and so we raise our glasses to you the brewers, whose passion, talent and perseverance we celebrate with every sip.

Likewise, we tip our caps to our farmers for their hard work and dedication. Our British barley connects us to our local farmers and the same Norfolk fields they've been harvesting for the past 150 years. Without this source of high quality, consistent barley, we wouldn't be able to bring you this range of carefully crafted malts.

Despite the pandemic, there is a lot to celebrate. From green shoots come new opportunities, so take these malts and combine them with your ingenuity and do what you've always done; make great beer!

CHEERS!

HISTORY



1859

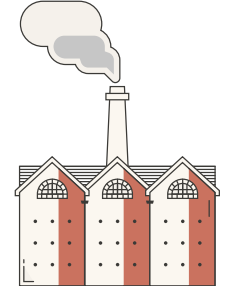
Local merchants, Frederick and George Smith, buy a small mill and farm at Little Ryburgh for the production of flour

1870

With access to excellent local barley, the brothers establish a malthouse at Dereham, taking advantage of the new railway with connections to the rest of the UK and seas links along the Norfolk coast for export

1881

Fred and George Smith both die leaving Fred's widow Anne, with eight children and a company to run. A pioneering and formidable woman, she handles and expands the complex business for the next 10 years

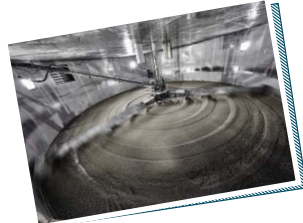


1997

Sales to the burgeoning USA craft brewers begins with the establishment by William Crisp of Brewers Wholesale Supply in Rhode Island. Later purchased by Rahr Malt and becomes BSG, Crisp's exclusive USA distributor to this day

2002 - 2009

Alloa Maltings is purchased and upgraded. Increases the total production capacity to 210,000 tonnes per annum



2009

Mistley Essex Maltings is acquired. Total production capacity to 245,000 tonnes, introduction of production of other grains such as wheat and rye

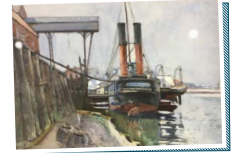
2014 - 2016

Micronized Food Products is acquired and adds torrefied and flaked cereals to the product range

Tivoli Maltings in Hamburg and Bydgoszcz Maltings in Poland are acquired, increasing the total production capacity to 425,000 tonnes per annum

1917

The maltings at Great Ryburgh is now the largest floor maltings in the world. International trade is underway with malting being exported as far as Australia aboard trading clippers loaded at the company dock at Well-Next-The-Sea



1989 - 1991

The Board invests £6 million in a new, modern, stainless steel plant at Great Ryburgh, increasing production capacity by a further 30,000 tonnes of malt

Further investment in 1991 leads to an additional 30,000 tonnes production capacity

2018

Three significant investments: at Great Ryburgh a new efficient automated bagging line is installed as well as a Speciality Malt Plant - the only one of its kind in the UK!

Plus a new kiln for peated malt in Portgordon Speyside



1945

The No 19 floor maltings kiln is destroyed by wartime bombing. It is rebuilt after the war and continues to operate to this day as the last of three floor maltings in England

1965

Crisp start selling their malt to Scottish distilleries through the Edinburgh merchants I.M. Cowe and Company. Portgordon Speyside Maltings begins production in 1979 and Ditchingham Suffolk Maltings begins production in 1981



1962

Eighth generation maltster John Crisp purchases a stake in the business and begins the modernisation of Great Ryburgh installing saladine germination boxes and later a vat maltings. The Crisp family started their malting story in 1734 at Beccles in Suffolk

Capacity

The group capacity now stands at 425,000mt of malt. The 10th largest maltster in the world. We have the largest technical sales team of any maltster in the UK with a focus on barley sourcing, customer service, quality and technical support.

Warehousing is managed using a stock/location barcode system. All stock is scanned to dispatch allowing full traceability.

TECHNICAL SUPPORT

At Crisp we believe that making great malt is only part of the story. Ultimately, it's the brewers and distillers who use it on a day to day basis to elevate their beers and whiskies, and we need their feedback of what we are getting right (and wrong) to maintain such high standards.

This is why we have such a large technical team at Crisp, arguably the biggest in the UK. We spend a lot of our team time working with customers to optimise their processes, to tweak recipes, to troubleshoot brewing science issues and to innovate new products. These are services open to all our customers, in the UK and around the world. With the Zoom revolution, we have been able to work with brewers on recipes and collaborations in many countries that we would have struggled to visit during the pandemic.

We are constantly learning with our customers and we love to pass that knowledge along. This is why we've been developing a rich library of blog posts and webinars in brewing science



— Over —
150 YEARS
of Malt Excellence



**BIGGEST TECHNICAL
TEAM IN THE UK**
Troubleshooting
experts available



LAB SERVICES

- Grist Analysis
- Spent Grains Analysis
- Micromalting
- Benchtop Mashing
- Enzyme Analysis



and techniques, and publishing them on our website. We're always on the lookout for new topics to cover, always mindful of the practical benefits to the brewer.

We analyse every load of incoming raw material, be it barley, wheat, oats or rye. Our central lab in Norfolk is where all our malt quality control takes place - we test every batch we make to ensure consistency and quality. These same services can be utilised by you to improve your processes or troubleshoot problems in the brewhouse. Grist analysis, spent grains analysis, micromalting, benchtop mashing and enzyme analysis are just some of the lab services we offer.



Roughly half of our malt goes to the distilling world and over the years we've built up considerable experience helping our distilling customers troubleshoot issues in the mash tun and washback. Our technical director, Dr David Griggs and our Portgordon Maltings Production Manager, Richard Lake, are available to distilling customers for site visits and technical enquiries.

All in all, our malt is only part of the story. Without our people and a spirit of continuous learning, we couldn't produce the consistently high quality malt that we have been making for over 150 years.

COLLABORATION
with customers on
RECIPES &
NEW PRODUCTS



Library of
BLOG POSTS
& WEBINARS



50 / 50 SPLIT
of malt to
BREWING &
DISTILLING





CRISP TEAM

Our team may be a collection of maltsters, brewers, distillers, engineers, food scientists, lab techs and logistics specialists, but the one thing that unites us is a love of great beer and a desire to produce the great malt for your brewing needs. Here they are...



FIND
OUT
MORE

NEW PRODUCT DEVELOPMENT

EXCLUSIVE MALTS DRIVEN BY INNOVATION TO INSPIRE CREATIVITY

Our New Product Development Team (NPD) is made up of colleagues from production, technical and sales teams. Every year, the Crisp NPD team will be developing new and exciting malts to launch as part of the Small Batch Series. By their very nature, the malts will be available in limited supply. Once they're gone, they're gone!

Our Small Batch Series range will enable you to experiment with a unique crystal malt, roasted malt, base malt, specialty malt or cereal, and design your next award-winning beer or whisky.

GET INVOLVED IN DEVELOPING THE MALTS

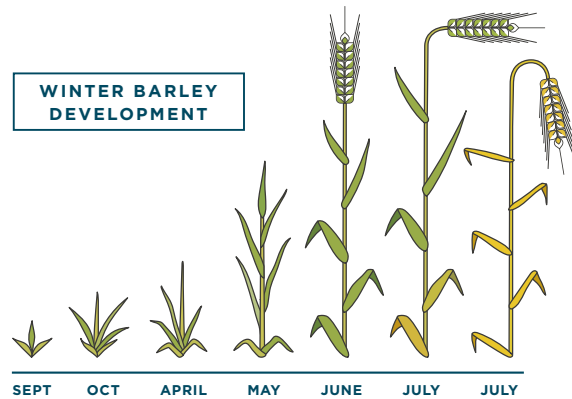
This range will also give you the opportunity to have a say and get involved in developing this range of malts.



OUR GROWERS

FOR GREAT MALT YOU NEED GREAT BARLEY

Our malting sites in Scotland, England, Germany and Poland are a hive of activity all year round, but even more so at harvest. From July to September farmers are harvesting their malting barley and sending it in to the maltings for drying and storage. Without high quality barley we cannot make high quality malt, so our farmers are very important to us.



The East of the UK is prime malting barley growing land with light sandy soil favouring the production of low nitrogen spring barley like Laureate and low nitrogen winter barley like Maris Otter and Flagon. Norfolk is especially suited to these types of barley not only due to the soil but also the weather; the North of the county near our Great Ryburgh maltings, sticks out into the North Sea and enjoys even temperatures & moisture levels. The same goes for the East of Scotland where we work with farmers to grow barley destined for our Portgordon and Alloa Maltings.

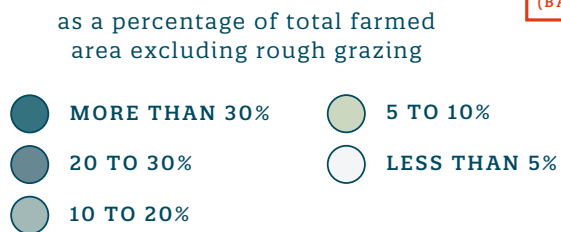
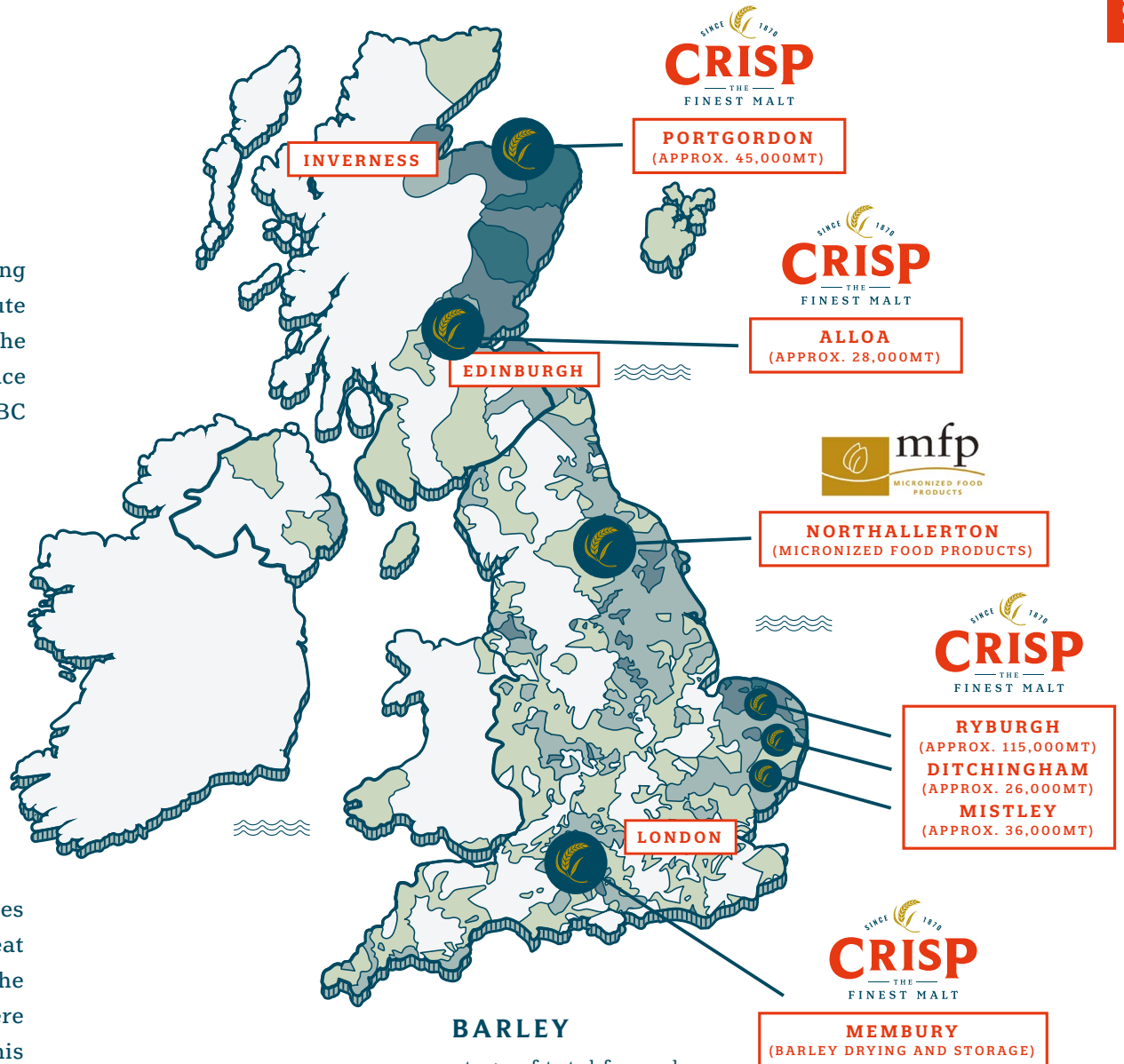


THE UK BARLEY MAP

Soil and weather only go so far when it comes to producing quality and consistency. The human touch is an absolute must, so we work directly with hundreds of farmers across the UK. At Crisp we know that secure and happy farmers produce consistent grain, so nearly 15 years ago we established the ABC Grower Group.

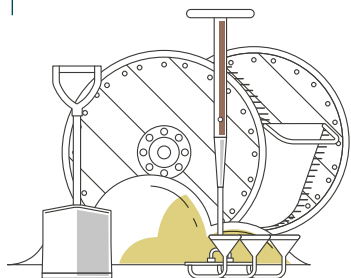


This is an agreement between us and two of our local farm merchants Adams & Howling and H Banhams. Through this agreement, we guarantee three-year rolling contracts to approximately 180 local farmers to grow our winter and spring barleys. In a normal growing year the ABC group provides about 90,000 tons of our barley requirement for our Great Ryburgh, Ditchingham and Mistley maltings. A key part of the group is the steering committee who meet to talk about where we are going and what varieties we want for the year ahead; this allows us to introduce varieties quicker than just relying on the normal market and in turn, we can offer our customers a better selection of malting barley options.



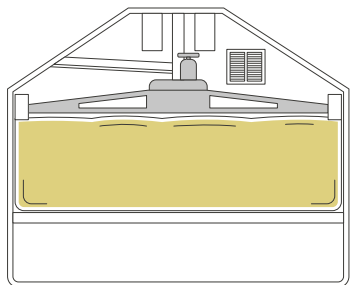
MAKING THE FINEST MALT

TRADITIONAL FLOOR MALTING

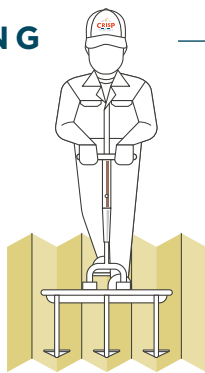


**STAGE ONE
STEEPING**

A batch of barley is selected and hydrated using up to three immersions in fresh water. We adjust the temperatures and the timing of wet and dry stages depending on the type and maturity of the barley and the final specification of malt we want.

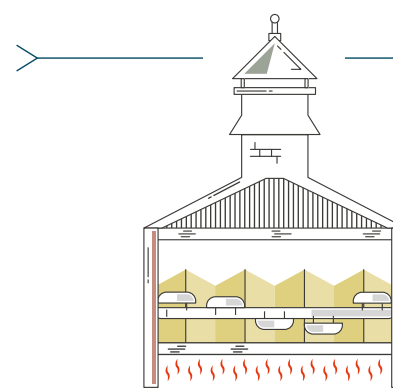
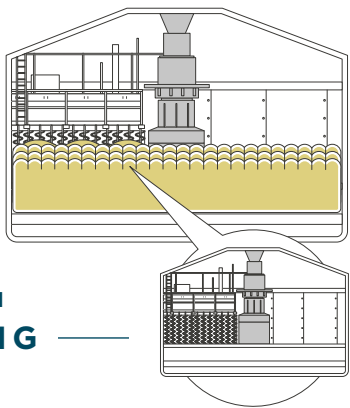


**MODERN
MALTING**



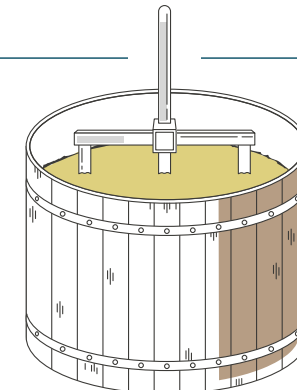
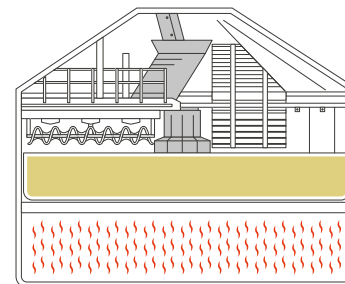
**STAGE TWO
GERMINATION**

The sprouting barley is moved to a malting floor or vessel and allowed to grow for four to five days. The moisture and temperatures are controlled to a recipe we have tailored for the type of malt. This process naturally modifies the barley structure breaking down cell walls and protein, releasing starch and producing enzymes. During germination the 'green malt' must be turned to stop the rootlets matting.



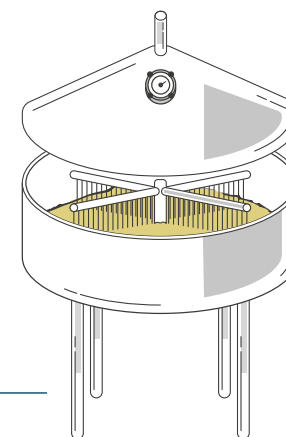
**STAGE THREE
KILNING**

Germination is stopped by gently drying on a kiln for up to three days. We use a stepped programme of temperatures and varying airflows to protect the enzymes within the grain and create the colour and flavour we are looking for. The rootlets are removed and the final malt is back to looking a little like barley but inside it now has all the extract, enzymes and nutrients essential to making great beer and whisky.



**AT THE BREWERY
MASHING**

The malt is crushed at the maltings or at the brewery and then mashed to convert the malt starch into sugars to create the wort. With the infinite number of malt and cereal combinations this is the starting point for a myriad of different flavours, colours and styles.





YOUR GUIDE TO A QUALITY MALT

Every Crisp customer has access to the Certificate of Analysis (COA) for the malt they have ordered.

This handy guide should help you get what you need from your COA.

You can also view your COA online by scanning the QR code on your sack of malt.

SOLUBLE NITROGEN

The nitrogen (protein) that has been broken down in the malting process. Soluble nitrogen will aid head retention, provide yeast nutrition and add body and mouthfeel to the beer.

FRIABILITY

A measure of how easily the malt will mill. It is also a good measure of the extent of cell wall modification of the barley. A minimum of 85% is expected. If friability changes then you may need to adjust your milling regime.

SOLUBLE NITROGEN RATIO (SNR)

The ratio of total to soluble nitrogen and gives a very good indication of the modification of the malt. We are looking for 38-48 for ale malt.

DIASTATIC POWER

A measure of some of the starch degrading enzyme activity in the grain; the higher the DP the greater the conversion rate from starch to fermentable sugar. A minimum figure of 40 IoB is expected for base malts. If you're using lots of speciality malt or un-malted cereals then a higher DP may be beneficial to conversion.

MOISTURE

This measures how much water there is in the malt. A higher kilned malt will have a lower moisture. Typical maximum is 3.5% for Pale Malt and 4.5% for Extra Pale Malts. Remember to store grains in a dry environment for maximum shelf life.

TOTAL NITROGEN

(DRY BASIS)
An important measure of the nitrogen (protein) in the grain. The higher the protein, the lower the extract and vice versa. High protein will cause issues with clarity and fermentation. Ale malt should be around 1.35-1.65% and up to 1.75% for lager malt.

EXTRACT

(AS IS)
This is the amount of soluble material within the malt. The IoB method mashes the grain for 60 min at 65°C so it strongly approximates the infusion method of brewing. The EBC mashing method uses a stepped temperature programme so is more representative of a typical continental mashing process. This is the extract value used in calculations in the brewhouse.

(DRY BASIS)
This expression of extract takes into account the moisture content of the malt and allows direct comparison of extract between different malts. Base malts typically have a minimum 305 L°/kg extract dry basis.



CRISP MALT, GREAT RYBURGH, FAKENHAM, NORFOLK, NR21 7AS

Analysis of Batch Crushed Maris Otter® Ale Malt

Customer:					
Batch Number:	SS14580	Your Reference:			
Bag Reference:	SS14580	Our Order No:			
Parameters		Min	Target	Max	Analysis
Moisture	%			3.5	3.5
IOB Extract 0.7mm as is basis	l deg/kg				301
IOB Extract 0.7mm dry basis	l deg/kg	305			312
IOB Colour Visual	deg EBC	5.0		6.5	5.0
Total Nitrogen dry basis	%	1.35		1.58	1.38
IOB Total Soluble Nitrogen dry basis	%				0.59
IOB Soluble Nitrogen Ratio	%	39.0		43.0	42.8
Friability	%	85.0			98.3
Homogeneity	%	95.0			99.7
Diastatic Power as is basis	deg IOB	40		85	59
Best Before	31/12/2020				

CRAFT BREWING PRODUCT RANGE			TYPICAL IoB ANALYSIS								ATTRIBUTES
PRODUCT NAME	WHOLE	CRUSHED	MOISTURE MAX	EXTRACT TYPICAL	COLOUR RANGE		TOTAL NITROGEN RANGE		SNR RANGE		
BASE MALTS											
FINEST MARIS OTTER® ALE MALT	✓	✓	3.5	305	5.0	6.5	1.30	1.65	38	48	The consistently reliable Maris Otter® continues to provide the qualities expected by the brewer
EXTRA PALE MARIS OTTER® MALT	✓	✓	4.5	305	2.5	3.5	1.30	1.60	38	48	Lower colour version of Maris Otter® Ale malt suitable for lager and golden ale brewing
BEST ALE MALT	✓	✓	3.5	306	5.0	6.5	1.30	1.65	38	48	The principal ingredient in cask and bottled ales, porters and stouts
EXTRA PALE MALT	✓	✓	4.5	306	2.5	3.5	1.30	1.65	38	48	Lower colour version of Best Ale Malt suitable for lager and golden ale brewing
LAGER MALT (PREV. EUROPILS)	✓	✓	4.5	305	2.5	3.7	1.40	1.75	36	46	Traditional European-style malt suitable for all pilsner types
GERMAN PILSEN	✓	✓	4.5	300	3.0	4.0	1.50	2.00	30	40	Pilsen malt produced at our Tivoli maltings in Hamburg suitable for continental-style brewing processes
CLEAR CHOICE® PALE MALT	✓	✓	4.5	305	3.0	5.0	1.45	1.85	38	48	Clear Choice Malt® does not contain polyphenols thus reducing the risk of haze formation, increasing shelf life and reducing cold conditioning costs
VIENNA MALT	✓	✓	4.5	302	5.0	9.0	1.30	1.65	-	-	Vienna malt is produced on a conventional kiln and provides a light golden hue
HERITAGE MALTS											
NO19 MARIS OTTER	✓	✓	4.5	305	4.0	6.5	1.30	1.65	35	45	Traditionally floor malted, this version gives a deeper flavour than the conventionally kilned Maris
CHEVALLIER HERITAGE MALT	✓	✓	4.5	290	5.0	10.0	1.65	2.20	30	45	First malted in the 1820's, Chevallier provides rich malty flavours to heritage and modern beer styles
PLUMAGE ARCHER MALT	✓	✓	4.5	290	4.0	6.5	1.65	2.20	30	45	Pale colour, subtle palate and clean flavour, this allows the hops to shine
HANÁ MALT	✓	✓	4.5	290	2.0	4.0	1.40	1.90	30	45	Exceptionally pale in colour, this promotes a fantastic pale head
COLOURED & CRYSTAL MALTS											
AMBER MALT	✓	✓	2.0	275	55	75	-	-	-	-	Gives a dry, biscuity flavour to ales and provides red hue
BROWN MALT	✓	✓	2.0	275	110	135	-	-	-	-	Provides a smoothness to Porters and other dark beers
LOW COLOUR CHOCOLATE MALT	✓	✓	2.0	272	400	600	-	-	-	-	A lighter version of our Chocolate malt
CHOCOLATE MALT	✓	✓	2.0	272	850	1050	-	-	-	-	Gives dry, toasty flavours to rich, dark beers
BLACK MALT	✓	✓	2.0	270	1000	1350	-	-	-	-	Used to provide full, rich flavour to range of darker beer styles
ROAST BARLEY	✓	✓	2.0	270	1100	1400	-	-	-	-	Provides characteristic sharp, bitter flavour to Stouts and some Porters
CRYSTAL 100	✓	✓	5.5	271	90	110	-	-	-	-	Provides sweet flavours and a light golden hue
CRYSTAL 150	✓	✓	5.0	271	145	165	-	-	-	-	Provides sweet, caramel flavours and a golden hue
CRYSTAL 240	✓	✓	3.5	270	225	265	-	-	-	-	Used to adjust colour and flavour of ales, giving deep golden to red hues
CRYSTAL 400	✓	✓	3.0	270	380	435	-	-	-	-	Used to adjust colour and flavour of ales, giving red to deep red hues
CARA GOLD MALT	✓	✓	6.5	280	12	16	-	-	-	-	Provides the opportunity to add body to beer with little impact on colour
CARA MALT	✓	✓	6.0	277	23	32	-	-	-	-	Used to adjust colour and flavour of light coloured beers
SPECIALITY MALTS											
LIGHT MUNICH MALT	✓	✓	6.0	300	15	25	1.40	1.85	-	-	Munich malts are produced on a conventional kiln and provide golden through to orange hues
DARK MUNICH MALT	✓	✓	4.5	295	35	45	1.40	1.85	-	-	
DEXTRIN MALT	✓	✓	7.0	300	2.0	3.5	1.30	2.00	25	35	Used to provide extra body to beer and to improve head retention
CHIT MALT	✓	✓	7.0	190	-	2.5	-	-	-	-	Great addition for body, haze stability, as well as promoting head retention and foam
WHEAT MALT	✓	✓	6.5	310	2.5	5.0	-	2.20	30	40	Even when used in small quantities will improve foam and head retention in all beers
RYE MALT	✓	✓	6.0	-	12	32	-	-	-	-	Provides spiciness complexity to ales and lagers
NAKED OAT MALT	✓	✓	5.5	245	2.0	7.0	-	2.70	-	-	Used in Oatmeal Stout, but can also provide smooth finish to ales
ORGANIC EXTRA PALE MALT	✓	✓	4.5	305	3.0	5.0	1.30	1.70	35	48	Malts produced from organic barley with full supply-chain traceability guaranteed
NON-MALTED CEREALS											
TORREFIED WHEAT	✓	✓	10.0	310	-	-	-	-	-	-	Pre-cooked, non-malted cereals provide the brewer with the opportunity for product differentiation. Flaked products can be added directly to the mash without the need for milling.
FLAKED TORREFIED BARLEY	-	(Flaked)	10.0	308	-	-	-	-	-	-	
FLAKED TORREFIED MAIZE	-	(Flaked)	8.5	328	-	-	-	-	-	-	
FLAKED TORREFIED RICE	-	(Flaked)	8.5	305	-	-	-	-	-	-	
FLAKED TORREFIED OATS	-	(Flaked)	11.0	292	-	-	-	-	-	-	
RICE HULLS	-	(Hulls)	-	-	-	-	-	-	-	-	

CRAFT BREWING PRODUCT RANGE			TYPICAL EBC ANALYSIS								ATTRIBUTES	
PRODUCT NAME	WHOLE	CRUSHED	MOISTURE MAX	EXTRACT TYPICAL	COLOUR RANGE		TOTAL NITROGEN RANGE		KI RANGE			
BASE MALTS												
FINEST MARIS OTTER® ALE MALT	✓	✓	3.5	80.6	5.5	7.2	8	10	43	54	The consistently reliable Maris Otter® continues to provide the qualities expected by the brewer	
EXTRA PALE MARIS OTTER® MALT	✓	✓	4.5	80.6	2.8	3.9	8	10	43	54	Lower colour version of Maris Otter® Ale malt suitable for lager and golden ale brewing	
BEST ALE MALT	✓	✓	3.5	80.8	5.5	7.2	8	10	43	54	The principal ingredient in cask and bottled ales, porters and stouts	
EXTRA PALE MALT	✓	✓	4.5	80.8	2.8	3.9	8	10	43	54	Lower colour version of Best Ale Malt suitable for lager and golden ale brewing	
LAGER MALT (PREV. EUROPILS)	✓	✓	4.5	80.6	2.8	4.1	9	11	41	52	Traditional European-style malt suitable for all pilsner types	
GERMAN PILSEN	✓	✓	4.5	79.3	3.3	4.4	9	13	34	45	Pilsen malt produced at our Tivoli maltings in Hamburg suitable for continental-style brewing processes	
CLEAR CHOICE® PALE MALT	✓	✓	4.5	80.6	3.3	5.5	9	12	43	54	Clear Choice Malt® does not contain polyphenols thus reducing the risk of haze formation, increasing shelf life and reducing cold conditioning costs	
VIENNA MALT	✓	✓	4.5	79.8	5.5	9.9	8	10	-	-	Vienna malt is produced on a conventional kiln and provides a light golden hue	
HERITAGE MALTS												
NO19 MARIS OTTER	✓	✓	4.5	80.6	4.4	7.2	8	10	40	51	Traditionally floor malted, this version gives a deeper flavour than the conventionally kilned Maris	
CHEVALLIER HERITAGE MALT	✓	✓	4.5	76.7	5.5	11	10	14	34	51	First malted in the 1820's, Chevallier provides rich malty flavours to heritage and modern beer styles	
PLUMAGE ARCHER MALT	✓	✓	4.5	76.7	4.4	7.2	10	14	34	51	Pale colour, subtle palate and clean flavour, this allows the hops to shine	
HANÁ MALT	✓	✓	4.5	76.7	2.2	4.4	9	12	34	51	Exceptionally pale in colour, this promotes a fantastic pale head	
COLOURED & CRYSTAL MALTS												
AMBER MALT	✓	✓	2.0	72.8	61	82	-	-	-	-	Gives a dry, biscuity flavour to ales and provides red hue	
BROWN MALT	✓	✓	2.0	72.8	121	148	-	-	-	-	Provides a smoothness to Porters and other dark beers	
LOW COLOUR CHOCOLATE MALT	✓	✓	2.0	72.0	440	660	-	-	-	-	A lighter version of our Chocolate malt	
CHOCOLATE MALT	✓	✓	2.0	72.0	935	1155	-	-	-	-	Gives dry, toasty flavours to rich, dark beers	
BLACK MALT	✓	✓	2.0	71.5	1100	1485	-	-	-	-	Used to provide full, rich flavour to range of darker beer styles	
ROAST BARLEY	✓	✓	2.0	71.5	1210	1539	-	-	-	-	Provides characteristic sharp, bitter flavour to Stouts and some Porters	
CRYSTAL 100	✓	✓	5.5	71.8	99	121	-	-	-	-	Provides sweet flavours and a light golden hue	
CRYSTAL 150	✓	✓	5.0	71.8	159	181	-	-	-	-	Provides sweet, caramel flavours and a golden hue	
CRYSTAL 240	✓	✓	3.5	71.5	247	291	-	-	-	-	Used to adjust colour and flavour of ales, giving deep golden to red hues	
CRYSTAL 400	✓	✓	3.0	71.5	418	478	-	-	-	-	Used to adjust colour and flavour of ales, giving red to deep red hues	
CARA GOLD MALT	✓	✓	6.5	74.1	13	18	-	-	-	-	Provides the opportunity to add body to beer with little impact on colour	
CARA MALT	✓	✓	6.0	73.3	25	35	-	-	-	-	Used to adjust colour and flavour of light coloured beers	
SPECIALITY MALTS												
LIGHT MUNICH MALT	✓	✓	6.0	79.3	17	28	9	12	-	-	Munich malts are produced on a conventional kiln and provide golden through to orange hues	
DARK MUNICH MALT	✓	✓	4.5	78.0	39	50	9	12	-	-		
DEXTRIN MALT	✓	✓	7.0	79.3	2.2	3.9	8	13	29	40	Used to provide extra body to beer and to improve head retention	
CHIT MALT	✓	✓	7.0	50.8	-	2.8	-	-	-	-	Great addition for body, haze stability, as well as promoting head retention and foam	
WHEAT MALT	✓	✓	6.5	81.9	2.8	5.5	-	14	34	45	Even when used in small quantities will improve foam and head retention in all beers	
RYE MALT	✓	✓	6.0	-	13	35	-	-	-	-	Provides spicity complexity to ales and lagers	
NAKED OAT MALT	✓	✓	5.5	65.1	2.2	7.7	-	17	-	-	Used in Oatmeal Stout, but can also provide smooth finish to ales	
ORGANIC EXTRA PALE MALT	✓	✓	4.5	80.6	3.3	5.5	8	11	40	54	Malts produced from organic barley with full supply-chain traceability guaranteed	
NON-MALTED CEREALS												
TORREFIED WHEAT	✓	✓	10.0	81.9	-	-	-	-	-	-	Pre-cooked, non-malted cereals provide the brewer with the opportunity for product differentiation. Flaked products can be added directly to the mash without the need for milling.	
FLAKED TORREFIED BARLEY	-	(Flaked)	10.0	81.4	-	-	-	-	-	-		
FLAKED TORREFIED MAIZE	-	(Flaked)	8.5	86.5	-	-	-	-	-	-		
FLAKED TORREFIED RICE	-	(Flaked)	8.5	80.6	-	-	-	-	-	-		
FLAKED TORREFIED OATS	-	(Flaked)	11.0	77.2	-	-	-	-	-	-		
RICE HULLS	-	(Hulls)	-	-	-	-	-	-	-	-		

CRAFT BREWING PRODUCT RANGE			TYPICAL ASBC ANALYSIS								ATTRIBUTES	
PRODUCT NAME	WHOLE	CRUSHED	MOISTURE MAX	EXTRACT TYPICAL	COLOUR RANGE		TOTAL NITROGEN RANGE		S/T RANGE			
BASE MALTS												
FINEST MARIS OTTER® ALE MALT	✓	✓	3.5	80.6	2.5	3.1	8	10	43	54	The consistently reliable Maris Otter® continues to provide the qualities expected by the brewer	
EXTRA PALE MARIS OTTER® MALT	✓	✓	4.5	80.6	1.5	1.9	8	10	43	54	Lower colour version of Maris Otter® Ale malt suitable for lager and golden ale brewing	
BEST ALE MALT	✓	✓	3.5	80.8	2.5	3.1	8	10	43	54	The principal ingredient in cask and bottled ales, porters and stouts	
EXTRA PALE MALT	✓	✓	4.5	80.8	1.5	1.9	8	10	43	54	Lower colour version of Best Ale Malt suitable for lager and golden ale brewing	
LAGER MALT (PREV. EUROPILS)	✓	✓	4.5	80.6	1.5	2.0	9	11	41	52	Traditional European-style malt suitable for all pilsner types	
GERMAN PILSEN	✓	✓	4.5	79.3	1.7	2.1	9	13	34	45	Pilsen malt produced at our Tivoli maltings in Hamburg suitable for continental-style brewing processes	
CLEAR CHOICE® PALE MALT	✓	✓	4.5	80.6	1.7	2.5	9	12	43	54	Clear Choice Malt® does not contain polyphenols thus reducing the risk of haze formation, increasing shelf life and reducing cold conditioning costs	
VIENNA MALT	✓	✓	4.5	79.8	2.5	4.2	8	10	-	-	Vienna malt is produced on a conventional kiln and provides a light golden hue	
HERITAGE MALTS												
NO19 MARIS OTTER	✓	✓	4.5	80.6	2.1	3.1	8	10	40	51	Traditionally floor malted, this version gives a deeper flavour than the conventionally kilned Maris	
CHEVALLIER HERITAGE MALT	✓	✓	4.5	76.7	2.5	4.6	10	14	34	51	First malted in the 1820's, Chevallier provides rich malty flavours to heritage and modern beer styles	
PLUMAGE ARCHER MALT	✓	✓	4.5	76.7	2.1	3.1	10	14	34	51	Pale colour, subtle palate and clean flavour, this allows the hops to shine	
HANÁ MALT	✓	✓	4.5	76.7	1.3	2.1	9	12	34	51	Exceptionally pale in colour, this promotes a fantastic pale head	
COLOURED & CRYSTAL MALTS												
AMBER MALT	✓	✓	2.0	72.8	23	32	-	-	-	-	Gives a dry, biscuity flavour to ales and provides red hue	
BROWN MALT	✓	✓	2.0	72.8	46	56	-	-	-	-	Provides a smoothness to Porters and other dark beers	
LOW COLOUR CHOCOLATE MALT	✓	✓	2.0	72.0	166	249	-	-	-	-	A lighter version of our Chocolate malt	
CHOCOLATE MALT	✓	✓	2.0	72.0	353	436	-	-	-	-	Gives dry, toasty flavours to rich, dark beers	
BLACK MALT	✓	✓	2.0	71.5	415	561	-	-	-	-	Used to provide full, rich flavour to range of darker beer styles	
ROAST BARLEY	✓	✓	2.0	71.5	457	581	-	-	-	-	Provides characteristic sharp, bitter flavour to Stouts and some Porters	
CRYSTAL 100	✓	✓	5.5	71.8	38	46	-	-	-	-	Provides sweet flavours and a light golden hue	
CRYSTAL 150	✓	✓	5.0	71.8	61	69	-	-	-	-	Provides sweet, caramel flavours and a golden hue	
CRYSTAL 240	✓	✓	3.5	71.5	94	110	-	-	-	-	Used to adjust colour and flavour of ales, giving deep golden to red hues	
CRYSTAL 400	✓	✓	3.0	71.5	158	181	-	-	-	-	Used to adjust colour and flavour of ales, giving red to deep red hues	
CARA GOLD MALT	✓	✓	6.5	74.1	5	7	-	-	-	-	Provides the opportunity to add body to beer with little impact on colour	
CARA MALT	✓	✓	6.0	73.3	10	14	-	-	-	-	Used to adjust colour and flavour of light coloured beers	
SPECIALITY MALTS												
LIGHT MUNICH MALT	✓	✓	6.0	79.3	6.7	11	9	12	-	-	Munich malts are produced on a conventional kiln and provide golden through to orange hues	
DARK MUNICH MALT	✓	✓	4.5	78.0	15	19	9	12	-	-		
DEXTRIN MALT	✓	✓	7.0	79.3	1.3	1.9	8	13	29	40	Used to provide extra body to beer and to improve head retention	
CHIT MALT	✓	✓	7.0	50.8	-	2.4	-	-	-	-	Great addition for body, haze stability, as well as promoting head retention and foam	
WHEAT MALT	✓	✓	6.5	81.9	1.5	2.5	-	14	34	45	Even when used in small quantities will improve foam and head retention in all beers	
RYE MALT	✓	✓	6.0	-	5.4	14	-	-	-	-	Provides spicity complexity to ales and lagers	
NAKED OAT MALT	✓	✓	5.5	65.1	1.3	3.3	-	17	-	-	Used in Oatmeal Stout, but can also provide smooth finish to ales	
ORGANIC EXTRA PALE MALT	✓	✓	4.5	80.6	1.7	2.5	8	11	40	54	Malts produced from organic barley with full supply-chain traceability guaranteed	
NON-MALTED CEREALS												
TORREFIED WHEAT	✓	✓	10.0	81.9	-	-	-	-	-	-	Pre-cooked, non-malted cereals provide the brewer with the opportunity for product differentiation. Flaked products can be added directly to the mash without the need for milling.	
FLAKED TORREFIED BARLEY	-	(Flaked)	10.0	81.4	-	-	-	-	-	-		
FLAKED TORREFIED MAIZE	-	(Flaked)	8.5	86.5	-	-	-	-	-	-		
FLAKED TORREFIED RICE	-	(Flaked)	8.5	80.6	-	-	-	-	-	-		
FLAKED TORREFIED OATS	-	(Flaked)	11.0	77.2	-	-	-	-	-	-		
RICE HULLS	-	(Hulls)	-	-	-	-	-	-	-	-		

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BASE MALTS

These are the workhorses of the mash; the ultimate source of your fermentable sugars, enzymes and nitrogenous compounds required for producing excellent beer. They need to deliver these each and every time you brew. Crisp have a wide range of base malts to provide you with a broad palate of flavours to build your beers upon. From the malt forward Maris Otter®, through our Best Ale and authentic German Pils to our honey-sweet Clear Choice®; we've got a range to suit every beer style and brewing method. Try them individually or mix them up to create something unique to you.

Some base malts, including Vienna and Dextrin, are made using the conventional kilning technique as described on pages 20 and 21. Using differing steeping, germination and kilning times and temperatures we can manipulate the flavours and colour formed in the malts.



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— FINEST —
MARIS OTTER®
ALE MALT

TASTING NOTES
WONDERFULLY SWEET MALT,
WITH NOTES OF BAKED BREAD
AND LIGHT TOFFEE



COLOUR (IoB)
5.0 – 6.5

BEER STYLES	USAGE RATE	RECIPE
<i>Light, dark & strong milds, English ales, IPAs, stouts, porters, barley wines, golden ales</i>	<i>Up to 100%</i>	<i>Crisp English ESB See page 109</i>

Maris Otter® Ale Malt is prized all over the world for the incredibly rich and moreish ales that it helps create. Our brewers tell us it is always flavourful, easy to brew with and returns that characteristic malt body that has made it famous over more than 50 years of barley cultivation.

Bred at PBI in Cambridge by Dr GDH Bell, the variety was taken up by Crisp farmers from the very beginning, since the barley thrives in the chalk soils and moist sea air of the North Norfolk coast.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	3.5% max	3.5% max	3.5% max
EXTRACT	305 L°/kg	80.6%	80.6%
COLOUR	5.0-6.5 EBC	5.5-7.2 EBC	2.5-3.1 °L
TN/TP	1.30-1.65%	8.0-10.0%	8.0-10.0%
SNR/KI/ST RATIO	38-48	43-54	43-54



FIND OUT MORE

—EXTRA PALE—

MARIS OTTER® MALT

TASTING NOTES

SUBTLE SWEETNESS, WITH BOLD GRAINY AROMAS, BALANCED WITH MALT BREAD NOTES



COLOUR (IoB)
2.5 – 3.5

BEER STYLES	USAGE RATE	RECIPE
<i>Blondes, pale ales</i>	<i>Up to 100%</i>	<i>Crisp IPA See page 113</i>

At Crisp we also malt a low colour (Extra Pale) version of the Maris Otter® barley. This was originally developed for low colour beer production in traditional breweries where a higher level of modification is demanded for both efficient extract delivery and good brewhouse performance.

Due to the pale colour this can also be used for light continental styles or even cut with our Lager Malt to form a slight malt base for fuller lager styles.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.5% max	4.5% max	4.5% max
EXTRACT	305 L°/kg	80.6%	80.6%
COLOUR	2.5-3.5 EBC	2.8-3.9 EBC	1.5-1.9 °L
TN/TP	1.30-1.60%	8.0-10.0%	8.0-10.0%
SNR/KI/ST RATIO	38-48	43-54	43-54

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BEST ALE MALT

TASTING NOTES
SWEET MALT BREAD,
WITH AFTERNOTES OF
LIGHT CARAMEL



COLOUR (IoB)
5.0 – 6.5

BEER STYLES	USAGE RATE	RECIPE
<i>Light, dark & strong milds, English ales, IPAs, stouts, porters, barley wines</i>	<i>Up to 100%</i>	<i>Crisp Golden Ale See page 112</i>

Our Best Ale Malt is the workhorse of many a brewery and is at home in a variety of beer styles. The 2-row winter barley varieties that go into our Best Ale have been planted in the light, sandy soils of North Norfolk. We source the lowest nitrogen barley from our farmers.

During malting, high cast moistures and a balance of optimal germination time and temperature results in an even, well modified malt with a rich colour and balanced sweet, malt flavour which is ideally suited to ale brewing.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	3.5% max	3.5% max	3.5% max
EXTRACT	306 L°/kg	80.8%	80.8%
COLOUR	5.0-6.5 EBC	5.5-7.2 EBC	2.5-3.1 °L
TN/TP	1.30-1.65%	8.0-10.0%	8.0-10.0%
SNR/KI/ST RATIO	38-48	43-54	43-54

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EXTRA PALE MALT

TASTING NOTES

INTENSELY SWEET MALTINESS,
WITH THE SUBTLETY OF FRUIT
LOAF AFTERTASTES



COLOUR (IoB)
2.5 – 3.5

BEER STYLES	USAGE RATE	RECIPE
Golden ales, blondes, lagers, pale ales	Up to 100%	Crisp IPA See page 106

Crisp have developed a low colour Extra Pale Malt for low colour beer styles such as lager, blondes and pale ales. Made from the same barley as our Best Ale Malt you can be assured it is Norfolk born and bred.

It is perfectly suited to the traditional UK brewing style where a single strike temperature is used as the malt has a moderate to high level of modification which gives excellent extract, flavour and run-off.

Use it at 100% for lagers and pale ales or mix in some speciality malts for just about any hop driven beer style.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.5% max	4.5% max	4.5% max
EXTRACT	306 L°/kg	80.8%	80.8%
COLOUR	2.5-3.5 EBC	2.8-3.9 EBC	1.5-1.9 °L
TN/TP	1.30-1.65%	8.0-10.0%	8.0-10.0%
SNR/KI/ST RATIO	38-48	43-54	43-54

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LAGER MALT

Previously Europils

TASTING NOTES
WELL-BALANCED FLAVOUR NOTES,
WITH CRUSTY BREAD AROMAS
AND EARTHY RICHNESS



COLOUR (IoB)
2.5 – 3.7

BEER STYLES	USAGE RATE	RECIPE
All lagers & light ales	80 – 100%	Crisp Pre-prohibition Lager See website for details

We take English spring barley with a slightly higher protein than our Best Ale Malt and the subsequent low temperature kilning produces Lager Malt with a sweet but not "malty" character.

Lager malts from continental Europe tend to be higher in protein, have less modification and a lower SNR which means the malt then requires processing in a rising temperature programme. This is the reason that decoction and heated mash vessels are the dominant brewing system on the continent.

However, Lager has been optimised for UK brewing and so it works comfortably in a UK single strike temperature brewery or on a continental system.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.5% max	4.5% max	4.5% max
EXTRACT	305 L°/kg	80.6%	80.6%
COLOUR	2.5-3.7 EBC	2.8-4.1 EBC	1.5-2.0 °L
TN/TP	1.40-1.75%	9.0-11.0%	9.0-11.0%
SNR/KI/ST RATIO	36-46	41-52	41-52

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GERMAN PILSEN MALT

TASTING NOTES
STRONG BREADY AROMAS
WITH PALATABLE, GRAINY
EARTHINESS



COLOUR (IoB)
3.0 – 4.0

BEER STYLES	USAGE RATE	RECIPE
Continental lager malt	Up to 100%	Crisp German Pilsner See website for details

At our Hamburg maltings we malt Danish and German spring barley to produce a classic German Pilsen style malt for lager production.

With a high protein content this malt benefits from a rising temperature programme and lautering, but our customers have also used it successfully in traditional UK brewhouses.

The higher molecular weight proteins give excellent head retention and mouthfeel. High levels of speciality malt and non-malted cereals can be used with this malt while maintaining fermentation vigour. This malt can be used in single temperature mashing but you may need to increase finings rates to drop out the additional protein.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.5% max	4.5% max	4.5% max
EXTRACT	300 L°/kg	79.3%	79.3%
COLOUR	3.0-4.0 EBC	3.3-4.4 EBC	1.7-2.1 °L
TN/TP	1.50-2.00%	9.0-13.0%	9.0-13.0%
SNR/KI/ST RATIO	30-40	34-45	34-45

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SCOTTISH PALE ALE MALT

TASTING NOTES
BALANCED MALT SWEETNESS



COLOUR (IoB)
5.0 – 7.0

BEER STYLES	USAGE RATE	RECIPE
<i>Light, dark and strong milds, English ales, IPAs, stouts, porters, barley wines</i>	<i>Up to 100%</i>	<i>Crisp Amber Ale See page 107, Crisp Best Bitter See page 108</i>

Our Scottish Pale Ale Malt is the workhorse of many a brewery and is at home in a variety of beer styles. We source the lowest nitrogen spring barley from our farmers in Fife up to Moray.

During malting, high cast moistures and a balance of optimal germination time and temperature results in an even, well modified malt with a rich colour and balanced sweet, malt flavour which is ideally suited to ale brewing.

We recently launched the malt with our USA distributor, BSG.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	3.5% max	3.5% max	3.5% max
EXTRACT	310 L°/kg	82.0%	82.0%
COLOUR	5.0-7.0 EBC	5.5-7.5 EBC	2.5-3.3 °L
TN/TP	1.40-1.65%	8.8-10.3%	8.8-10.3%
SNR/KI/ST RATIO	38-43	43-48	43-48

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SCOTTISH EXTRA PALE ALE MALT

TASTING NOTES
SUBTLE MALT SWEETNESS



COLOUR (IoB)
2.5 – 3.5

BEER STYLES	USAGE RATE	RECIPE
Golden ales, blondes, lagers, pale ales	Up to 100%	Crisp IPA See page 113, Crisp Table Beer See page 116

We have developed a low colour Scottish Extra Pale Ale Malt for low colour beer styles such as lager, blondes and pale ales. Made from the same barley as our Scottish Ale Malt, its 100% Scottish grown.

It is perfectly suited to the traditional UK brewing style where a single strike temperature is used as the malt has a moderate to high level of modification which gives excellent extract, flavour and run-off.

Use it at 100% for lagers and pale ales or mix in some speciality malts for just about any hop driven beer style.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.5% max	4.5% max	4.5% max
EXTRACT	310 L°/kg	82.0%	82.0%
COLOUR	2.5-3.5 EBC	2.8-4.0 EBC	1.5-2.0 °L
TN/TP	1.40-1.65%	8.8-10.3%	8.8-10.3%
SNR/KI/ST RATIO	38-43	43-48	43-48

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CLEAR CHOICE PALE MALT

TASTING NOTES

INTENSELY SMOOTH MOUTHFEEL.
MILD MALTINGS WITH A WARM
HONEY SWEETNESS



THE MALT HANDBOOK



COLOUR (IoB)
3.0 – 5.0

BEER STYLES	USAGE RATE	RECIPE
All Ale Styles	80 – 100%	Crisp German Kolsch See page 111

Clear Choice® Pale Malt is new in 2022 and replaces our Extra Pale and Ale versions of Clear Choice. Clear Choice is a unique offering from Crisp Malt and is a specially selected barley variety has no proanthocyanidins; these are flavonoid polyphenols that impart astringency and also form chill haze with proteins in the final beer. After fining or filtration, the result is a super clear, shelf stable wort with beautiful honey sweetness. This new colour spec achieves a balance between our Extra Pale and Ale colour ranges.

We also recommend using Clear Choice® for cloudy beers where oxidative darkening of polyphenols is a concern. The clarity benefits of Clear Choice® are not just evident in bottle, can and keg, but also help produce extremely bright cask beer too.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.5% max	4.5% max	4.5% max
EXTRACT	305 L°/kg	80.6%	80.6%
COLOUR	3.0-5.0 EBC	3.3-5.5 EBC	1.7-2.5 °L
TN/TP	1.45-1.85%	9.0-12.0%	9.0-12.0%
SNR/KI/ST RATIO	38-48	43-54	43-54



VIENNA MALT

FIND OUT MORE



TASTING NOTES
 A MEDLEY OF CARAMELISED SUGAR, FRUIT AND BREAD, WITH LAYERS OF SUBTLE SPICES

BEER STYLES	USAGE RATE	RECIPE
Vienna lager, altbier, kellerbier, kolsch	Up to 100%	Crisp Vienna Lager See page 118

In the 1840s English maltsters developed air kilning techniques that would pave the way for light coloured beers. German brewers took this technique back to Vienna and Munich respectively and the malt styles were born.

Our Vienna Malt is made from English 2-row spring barley and is kilned to a slightly higher temperature than our Best Ale Malt. The result is a golden hued wort with a sweet, bread like aroma and flavour. Since it is a conventionally kilned malt, Vienna can be used as a base and is perfect creating its namesake, Vienna lager, in addition to other styles.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.5% max	4.5% max	4.5% max
EXTRACT	302 L°/kg	79.8%	79.8%
COLOUR	5.0-9.0 EBC	5.5-9.9 EBC	2.5-4.2 °L
TN/TP	1.30-1.65%	8.0%-10.0%	8.0-10.0%



FIND OUT MORE



THE HERITAGE MALT COLLECTION

Download our FREE Heritage Malt booklet to learn all about the origins of these unique barley varieties that shaped brewing history.

- INCLUDING:**
- A Guide to Floor Malting
 - Heritage Malt Product Data Sheets
 - Brewing Recipes
 - Usage Tips





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HERITAGE MALTS

The process of discovery is often a happy accident. In the case of Chevallier barley, a combination of an itchy toe, some good soil and a keen eye, turned a single ear of barley into a worldwide phenomenon and established the flavour of English beer for a century.

It's with a similar serendipity that our heritage malt range came about. Our friends at the John Innes Centre were searching for an old variety that could combat the disease, fusarium head blight and happened on Chevallier. Not only did it successfully resist this disease but the malt it produced made for a beer laced with a richness of flavour we hadn't encountered before in modern varieties. From just a handful of seeds, we have spent the past decade re-discovering the flavours of Chevallier and have been spurred on to uncover the stories and flavours of two more barleys that made brewing history, alongside our beloved Maris Otter.

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Alternative malt for Maris Otter® Ale Malt

TASTING NOTES
 DEEP MALTINESS BALANCED WITH
 A MARMALADE LIKE SWEETNESS,
 WITH SUBTLE FRESH BREAD



BEER STYLES	USAGE RATE	RECIPE
Golden ales, barley wines, IPAs, DIPAs	80 - 100%*	Crisp Victorian Steampunk Ale See page 117

Chevallier Heritage Malt was the first ever selected landrace for malting and it's what our founders Fred and George Smith would have malted back in 1870. Chevallier reigned supreme for over 100 years as the dominant barley variety in England from the 1820's to 1920's. It was propagated all over the world and was being grown in Australia commercially as recently as 1960. It formed the backbone of many Victorian ales and in its revived form, we've seen it win awards for its depth of flavour.

It has a robust maltiness, like a Maris Otter turned up to eleven, with a rich marmalade character and a long aftertaste. In new make spirit for whisky, its malt bursts through.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.5% max	4.5% max	4.5% max
EXTRACT	290 L°/kg	76.7%	76.7%
COLOUR	5.0-10.0 EBC	5.5-11.0 EBC	2.5-4.6 °L
TN/TP	1.65-2.20%	10.0-14.0%	10.0-14.0%
SNR/KI/ST RATIO	30-45	34-51	34-51

FIND OUT MORE



TASTING NOTES
FRESHLY BAKED BREAD,
CLEAN AND SMOOTH



BEER STYLES	USAGE RATE	RECIPE
Blonde pilsner-style lagers	Up to 100%	Crisp English Pilsner See page 110

Haná is where this barley originated, the Hana valley in Czech Moravia. It was used to produce the very first Pilsner beers back in the 1840s in Bohemia and became the progenitor for the vast majority of successful lager barley varieties to this day.

It brings that perfect bready, crisp continental flavour to all lager types, especially Pilsners and Helles beers. Its malting character is like a continental variety so treat it as such in the brewhouse with a step temperature programme to solubilise the higher protein content. This will promote fantastic head retention. Haná is exceptionally pale in colour.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.5% max	4.5% max	4.5% max
EXTRACT	290 L°/kg	76.7%	76.7%
COLOUR	2.0-4.0 EBC	2.2-4.4 EBC	1.3-2.1 °L
TN/TP	1.40-1.90%	9.0-12.0%	9.0-12.0%
SNR/KI/ST RATIO	30-45	34-51	34-51

FIND OUT MORE



Alternative malt for Maris Otter® Ale Malt

TASTING NOTES
BOLD BREADY BACKBONE, WITH COMPLIMENTARY SWEETNESS AND MALTY AFTERNOTES



HERITAGE

BEER STYLES	USAGE RATE	RECIPE
Best bitter, porters, barley wines	80 - 100%	Crisp Barley Wine See website for details

Crisp is one of the largest buyers of Maris Otter barley and some of our farmers have been growing it since its first crop in 1965. The mother field, where all certified Maris Otter seed comes from, is located in North Norfolk, just a short tractor drive from our maltings. Praised by home and commercial brewers for its depth of flavour, it has also found homes in malt driven whiskies in both the UK, Europe and in the emerging American single malt category.

This variety, like the other heritage grains, is floor malted and is gently kilned over three days in our natural draft kiln, giving a deeper flavour than the conventionally kilned Maris Otter.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.5% max	4.5% max	4.5% max
EXTRACT	305 L°/kg	80.6%	80.6%
COLOUR	4.0-6.5 EBC	4.4-7.2 EBC	2.1-3.1 °L
TN/TP	1.30-1.65%	8.0-10.0%	8.0-10.0%
SNR/KI/ST RATIO	35-45	40-51	40-51

FIND OUT MORE



TASTING NOTES
SMOOTH, SWEET, MALTY WITH
A HINT OF CARAMEL



BEER STYLES	USAGE RATE	RECIPE
Golden ales, blondes, lagers, pale ales	Up to 100%	Crisp 20th Century NEIPA See page 106

Plumage Archer is the offspring of Plumage and Archer and was the world’s first commercially produced cross-bred barley. It was developed by Dr Beavan at Warminster Maltings. It had a similar impact on the brewing world as Chevallier and for many years they sat side by side, each providing their own nuance to 20th century British beers. Our brewers savour its pale colour, subtle palate and clean flavour.

Much like IPAs of old, it is at home as a supporting player to bold hop character, especially the fruity and aromatic new world varieties. It plays especially well in Hazy IPAs and it produces a delicate, fruity new make spirit for whisky.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.5% max	4.5% max	4.5% max
EXTRACT	290 L°/kg	76.7%	76.7%
COLOUR	4.0-6.5 EBC	4.4-7.2 EBC	2.1-3.1 °L
TN/TP	1.65-2.20%	10.0-14.0%	10.0-14.0%
SNR/KI/ST RATIO	30-45	34-51	34-51



COLOURED & CRYSTAL MALTS

Leaving the world of conventional kilning behind, we move on to a range of malt where major increases in process temperature are required. The higher colours and stronger flavours of our roasted malts are a result of the same Maillard chemistry that forms the intense aromas and colour of roast coffee, or the delicate biscuit taste in a beautifully baked loaf of bread.

We manage this transformation inside our Speciality Malt Plant by carefully controlling the temperature of the heated surfaces that the grain comes into contact with. Our RevTech speciality malt process is the first of its kind in the UK and gives us unparalleled control over colour formation and flavour profile. It uses less energy than a conventional roasting drum and the grains don't come in contact with combustion gasses due to its all electric nature. The gentle transport of the grain through the column means we can roast just about any cereal, not just malted barley.

AMBER MALT

Also known as Biscuit Malt

FIND OUT MORE

TASTING NOTES

BOLD, MALTY BACKBONE, WITH INTENSE BISCUIT AROMAS. DRY WITH BALANCED TOAST FLAVOURS

BEER STYLES

Old ales, mild ales, brown ales, bitters, dark ales

USAGE RATE

Up to 5%

RECIPE

Crisp Amber Ale
See page 107

This is the palest malt made using a roasting technique. After conventional kilning, the malt is dry and pale in colour hence it is known as “white malt”. It is transferred to our Speciality Malt Plant and passes through the roasting column where the flavour is transformed through the application of heat. The temperatures used through the column determine the colour and flavour of the roasted malt.

Amber Malt is typified by a dry, toasted biscuit finish and can add an amber hue to the beer.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	2.0% max	2.0% max	2.0% max
EXTRACT	275 L°/kg	72.8%	72.8%
COLOUR	55-75 EBC	61-82 EBC	23-32 °L

BROWN MALT

FIND OUT MORE

TASTING NOTES

LIGHTLY ROASTED FLAVOUR NOTES, WITH MILKY COFFEE UNDERTONES, AND HITS OF SWEET PASTRIES

BEER STYLES

Old ales, mild ales, brown ales, bitters, dark ales, porters

USAGE RATE

Up to 5%

The next stage up from Amber Malt is our Brown Malt. The colour is produced in the same manner as Amber, but is roasted for that bit longer to give a nutty roast dryness with a light brown hue, perfect for brown ales and milds.

Remember that when assessing roasted malts, it is the resultant colour and flavour of the wort and beer that is important rather than the colour of the outer barley husk of the malt in your hand.

Different varieties of barley may give roasted malts with differing husk colour, but will produce wort with the expected colour and flavour when mashed.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	2.0% max	2.0% max	2.0% max
EXTRACT	275 L°/kg	72.8%	72.8%
COLOUR	110-135 EBC	121-148 EBC	46-56 °L

LOW COLOUR CHOCOLATE MALT

FIND OUT MORE

TASTING NOTES

DISTINCT ROASTED AROMAS, WITH CREAMY COFFEE NOTES. INTENSE SMOOTHNESS AND ADDED BODY

BEER STYLES

Stouts, porters, strong mild

USAGE RATE

Up to 5%

RECIPE

Crisp Dark Mild
See website for details

Another step up in colour into the chocolate range, so called because of the flavour it produces in the final beer, not due to the presence of actual chocolate.

Low Colour Chocolate Malt imparts a delicate chocolate aroma and taste much like a mellow cold brew coffee. This malt type lacks the astringency of the more darkly roasted malts.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	2.0% max	2.0% max	2.0% max
EXTRACT	272 L°/kg	72.0%	72.0%
COLOUR	400-600 EBC	440-660 EBC	166-249 °L

CHOCOLATE MALT

FIND OUT MORE

TASTING NOTES

RICH, ROASTED AROMAS. TOP NOTES OF ESPRESSO COFFEE, WITH UNDERTONES OF BLACK PEPPER AND TOASTED NUTS

BEER STYLES

Stouts, porters, strong mild

USAGE RATE

Up to 5%

RECIPE

Crisp London Porter
See website for details

Chocolate Malt shares many of the characteristics of Black Malt, but because it is roasted for a shorter period of time and to a lower final temperature, it lacks the astringency of Black Malt.

Its main use is in darker beers that require a depth of colour to tend the eye and entice the palate. Chocolate Malt has been used in Irish stout for years and the marriage of Chocolate Malt and Roasted Barley in varying proportions can give rise to a range of flavours from sweet and mellow to acrid and bitter.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	2.0% max	2.0% max	2.0% max
EXTRACT	272 L°/kg	72.0%	72.0%
COLOUR	850-1050 EBC	935-1155 EBC	353-436 °L



BLACK MALT

Also known as Patent Malt

FIND OUT MORE

TASTING NOTES

AN INTENSE HIT OF ROASTED NOTES, WITH LAYERS OF LIQUORICE, SMOKINESS AND NUTTINESS

BEER STYLES

Porters, stouts

USAGE RATE

Up to 3%

The darkest of our roasted malts. When you need an intensely dark colour for stouts and porters this is an excellent malt to use. Despite its reputation as a highly astringent malt, nothing could be further from the truth. This malt brings with it a roasted character with some bitterness and astringency, but also flavours of currants and berries.

This malt can also be used for the colour adjustment of pale beers either in the mash or by sprinkling on top of the mash at the sparge stage, to impart a ruby hue.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	2.0% max	2.0% max	2.0% max
EXTRACT	270 L°/kg	71.5%	71.5%
COLOUR	1000-1350 EBC	1100-1485 EBC	415-561 °L

ROAST BARLEY

FIND OUT MORE

TASTING NOTES

DEEPLY ROASTED, WITH PROMINENT SMOKY AROMAS. SUBTLE BITTERNESS (AT HIGHER %)

BEER STYLES

Stouts

USAGE RATE

Up to 5%

RECIPE

Crisp Irish Stout
See website for details

Roast Barley is our darkest grain and it is made from unmalted barley. The colour produced can be almost opaque and the flavour is similar to a dark, bitter roast coffee. In stouts a combination of Chocolate, Black Malt and Roast Barley gives excellent complexity and balance.

Remember that these dark grains will have an acidifying effect on the mash, so ensure your salts have been adjusted adequately.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	2.0% max	2.0% max	2.0% max
EXTRACT	270 L°/kg	71.5%	71.5%
COLOUR	1100-1400 EBC	1210-1539 EBC	457-581 °L



CRYSTAL 100 MALT

FIND OUT MORE

TASTING NOTES

STRONG CARAMEL AROMAS, WITH DELICATE FRESH FRUIT UNDERTONES

BEER STYLES

Milds, bitters, best bitters

USAGE RATE

Up to 10%

RECIPE

Crisp Mild
See website for details

Crystal and Cara Malts are so named for the caramelisation and crystallization of the sugars present in the barley kernel. We take green malt from germination and by applying heat while maintaining the moisture content we are able to liquify the endosperm of the barley, transforming the starch into sugars. Heat is then applied and the caramelisation begins.

In the case of Crystal Malts, when the endosperm cools, sugar crystals are formed. When you cut across the grain the glassy sheen of crystalized sugar can be seen.

Each Crystal Malt imparts a clean, nutty, caramel-like sweetness to your beers. Extra Light Crystal gives a subtle caramel flavour.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	5.5% max	5.5% max	5.5% max
EXTRACT	271 L°/kg	71.8%	71.8%
COLOUR	90-110 EBC	99-121 EBC	38-46 °L

CRYSTAL 150 MALT

FIND OUT MORE

TASTING NOTES

DEEP, RICH CARAMEL FLAVOURS, WITH SUBTLE SMOKY SPICES AFTERTASTES

BEER STYLES

Bitters, best bitters, milds

USAGE RATE

Up to 10%

RECIPE

Crisp Best Bitter
See page 108

To make Light Crystal we increase the temperature further and the endosperm darkens and flavours develop further. Think of Crystal Malts like you would make caramel at home. With Light Crystal the crystalised sugars present imparts an intense caramel flavour. Light Crystal will also impart a reddish hue to the beer and it works very well in Bitters and Ruby beers.

The number after the word Crystal refers to the EBC colour of the malt if you mashed at 100% of the grain bill. To get a rough conversion to Lovibond, just divide by two.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	5.0% max	5.0% max	5.0% max
EXTRACT	271 L°/kg	71.8%	71.8%
COLOUR	145-165 EBC	159-181 EBC	61-69 °L



CRYSTAL 240 MALT

FIND OUT MORE

TASTING NOTES

INTENSE, DARK CARAMEL FLAVOUR NOTES, WITH MELLOW UNDERTONES OF SPICED COFFEE, AND DARK FRUITS

BEER STYLES

Best bitters, milds, porters, (not stouts)

USAGE RATE

Up to 10%

RECIPE

Crisp Strong Mild
See website for details

With Medium Crystal those intense caramel flavours of thick treacle toffee are developed. To achieve these kinds of flavours the temperature is raised a further step from Light Crystal and the sugars darken further still giving the beer a deep copper hue.

Remember that Crystal Malts have no enzymes or FAN preserved so be careful with the addition rate in your mash. You want to add enough to get the depth of flavour desired, but not so much that you will have issues in fermentation due to a lack of nutrients.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	3.5% max	3.5% max	3.5% max
EXTRACT	270 L°/kg	71.5%	71.5%
COLOUR	225-265 EBC	247-291 EBC	94-110 °L

CRYSTAL 400 MALT

FIND OUT MORE

TASTING NOTES

WELL-ROUNDED FLAVOUR PROFILE, DOMINATED BY TREACLE TOFFEE AROMAS. AN INITIAL HIT OF ROASTED NOTES WITH HINTS OF DRIED FRUITS

BEER STYLES

Ruby, porters

USAGE RATE

Up to 10%

RECIPE

Crisp Ruby
See website for details

Dark Crystal Malt has the highest degree of caramelisation. The flavours are now transformed into sultanas, raisins, plums and dark, dried fruits. By now the sugars are actually being broken down by chemical processes and so the residual sweetness that the other Crystal Malts impart are being replaced by an increase in bitter flavours.

Crystal Malt sugars are non-fermentable so add a level of dextrin sugars that are preserved through to the final beer.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	3.0% max	3.0% max	3.0% max
EXTRACT	270 L°/kg	71.5%	71.5%
COLOUR	380-435 EBC	418-478 EBC	158-181 °L



CARA GOLD MALT

FIND OUT MORE

TASTING NOTES

RICH FRUITY AROMAS WITH AN INTENSE SWEETNESS. SUBTLE SPICY NOTES

BEER STYLES

All beer styles
(foam and mouthfeel)

USAGE RATE

Up to 15%

RECIPE

Crisp Golden Ale
See page 112

Cara Gold is the lowest colour of the crystallised malts. Cara Gold yields fruity and toffee flavour notes that are carried through to the beer.

This low malt colour produces a golden orange lager with increased body and fullness, and a softer, rounder mouthfeel with improved drinkability.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	6.5% max	6.5% max	6.5% max
EXTRACT	280 L°/kg	74.1%	74.1%
COLOUR	12-16 EBC	13-18 EBC	5-7 °L

CARA MALT

FIND OUT MORE

TASTING NOTES

INTENSE CARAMEL SWEETNESS, WITH RESIDUAL MALTINESS

BEER STYLES

All beer styles
(foam and mouthfeel)

USAGE RATE

Up to 15%

RECIPE

Crisp Session Bitter
See page 115

Cara Malt is a very low colour Crystal Malt which has an almost completely glassy endosperm. It contains a greater degree of sweetness than Crystal Malt and the harsher nutty roasted flavours are not present.

It greatly improves body, foam retention and beer stability whilst adding little colour. It has therefore, become very popular in the production of lagers where it is used to assist in enhancing flavour and character. For this reason it has also become a common constituent in low alcohol beers.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	6.0% max	6.0% max	6.0% max
EXTRACT	277 L°/kg	73.3%	73.3%
COLOUR	23-32 EBC	25-35 EBC	10-14 °L



FIND
OUT
MORE

SPECIALITY MALTS

If you're looking for something different, try some of our specialist malt. Using rye, wheat or oats can help to enhance the body and improve head retention, whilst creating deep flavours and spice to the beer.

By malting these grains using a variety of techniques, including our RevTech Speciality Malt Plant, our maltsters are able to elevate these humble grains into malts that are bursting with flavour and mouthfeel.

As new beer styles emerge it is often the malts that shine bright; from the creamy body of a NEIPA created by adding our Naked Oat Malt, to the deep red tone and spice notes in a Rye IPA from our high colour Rye Malt, our speciality malts are here to add that something extra.



LIGHT MUNICH MALT

FIND OUT MORE

TASTING NOTES

WELL-ROUNDED FLAVOUR PROFILE, WITH FORWARD SPICY NOTES AND DELICATE PASTRY AROMAS

BEER STYLES

Marzen, maibock

USAGE RATE

Up to 100%

RECIPE

*Crisp German Maibock
See website for details*

Our Light Munich Malt is created by taking Vienna Malt a stage further in the kiln. The additional heat promotes melanoidin reactions to produce rich bread crust flavours. Again, Light Munich Malt can be used as a base since the enzymes are suitably preserved in this malt.

The use of Munich and Vienna Malts are not just for German style beers, they add a beautiful subtle complexity to many beer styles.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	6.0% max	6.0% max	6.0% max
EXTRACT	300 L°/kg	79.3%	79.3%
COLOUR	15-25 EBC	17-28 EBC	6.7-11 °L
TN/TP	1.40-1.85%	9.0-12.0%	9.0-12.0%

DARK MUNICH MALT

FIND OUT MORE

TASTING NOTES

RICH TOASTED BREAD AROMAS, WITH BALANCED MALTY SWEETNESS

BEER STYLES

*Dunkel, bock,
doppelbock*

USAGE RATE

*We recommend
15-20%**

A magical thing happens when amino acids and reducing sugars combine at critical temperatures; the Maillard reaction. Starting with higher protein spring barley we germinate to higher levels of modification then adjust early kilning conditions to utilise the malt enzymes to hydrolyse protein and convert starch in sugars.

Finally, a long drying phase with a higher temperature results in the Maillard reaction taking place to produce pronounced rich malt, freshly baked bread crust and the characteristic Munich bite at the back of the palate.

**Up to 100% (lower DP and extract than light Munich so at 100% less speciality malt can be added).*

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.5% max	4.5% max	4.5% max
EXTRACT	295 L°/kg	78.0%	78.0%
COLOUR	35-45 EBC	39-50 EBC	15-19 °L
TN/TP	1.40-1.85%	9.0-12.0%	9.0-12.0%



DEXTRIN MALT

Alternative malt for CaraPils, CaraFoam, Torrefied Wheat

FIND OUT MORE

TASTING NOTES

A FUNCTIONAL MALT WITH EARTHY, GRAIN AROMAS. PROMOTES SMOOTHNESS AND BODY

BEER STYLES

Added as a foam and body enhancer

USAGE RATE

5-15%

RECIPE

Crisp Table Beer
See page 116

Dextrin Malt is produced by constraining the germination phase, which results in retention of higher molecular weight polysaccharides which will provide positive attributes to the finished beer in terms of greater body and mouthfeel. These dextrans will contribute positively to head formation.

This malt can be particularly beneficial when brewing with well modified Extra Pale Malt to produce golden ales or pilsner-style beers. The low colour permits usage rates of up to 15% without impacting on final product colour. It can be useful in a low gravity beer such as a session IPA that is trying to emulate a higher gravity beer in terms of body.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	7.0% max	7.0% max	7.0% max
EXTRACT	300 L°/kg	79.3%	79.3%
COLOUR	2-3.5 EBC	2.2-3.9 EBC	1.3-1.9 °L
TN/TP	1.30-2.00%	8.0-13.0%	8.0-13.0%

THE MALT HANDBOOK



FIND OUT MORE

TASTING NOTES

GRAIN AND EARTHY AROMAS GOOD BODY AND SMOOTHNESS

USAGE

Use Chit Malt at up to 10% of the grist.
Pair with Crisp's Naked Oat Malt, Crisp's Wheat Malt and Crisp's Cara Gold Malt for the ultimate hazy beer.

Chit Malt is a highly functional malt that has undergone a very short germination, resulting in a barely malted product. As a result, it retains a lot of its grain characteristics, and offers plenty with regards to mouthfeel properties.

Chit Malt is a great addition for body, haze stability, as well as promoting head retention and foam. The incredibly low colour will not effect the beer colour. The perfect addition for any craft beer, but particularly beneficial for hazy brews.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	7.0% max	7.0% max	7.0% max
EXTRACT (DRY)	190 L°/kg	50.8%	50.8%
COLOUR	2.5 EBC	2.4 EBC	2.4 EBC



WHEAT MALT

FIND OUT MORE

TASTING NOTES
TOUCH OF ACIDITY, GENTLE,
REFRESHING & CREAMY

BEER STYLES	USAGE RATE	RECIPE
Hefeweizen, wheat beers, wit	Up to 50% - huskless so watch run off	Crisp Irish Stout See website for details

In brewing, Wheat Malt can be used as the base malt at around 55% inclusion for wheat beers.

When mixed with barley malt, Wheat Malt can improve head retention, improve mouthfeel and introduce flavour changes in other beer types.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	6.5% max	6.5% max	6.5% max
EXTRACT	310 L°/kg	81.9%	81.9%
COLOUR	2.5-5.0 EBC	2.8-5.5 EBC	1.5-2.5 °L
TN/TP	2.20%	14.0%	14.0%

RYE MALT

FIND OUT MORE

TASTING NOTES
EARTHY, SPICY
AFTER-TASTE

BEER STYLES	USAGE RATE	RECIPE
Rye IPAs, rye pale ales, red ale, roggenbier	Up to 15%*	Crisp London Porter See website for details

In brewing, when mixed with barley malt, Rye Malt can improve head retention, improve mouthfeel and introduce flavour changes of a toffee/caramel note at lower inclusion rates and a spicy after-palate at higher inclusion rates.

Most notably, Rye Malt will also impart a reddish hue to beers.

**Rye Malt is higher in beta glucans which can cause issues at higher rates. Recommend rice hulls.*

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	6.0% max	6.0% max	6.0% max
EXTRACT	-	-	-
COLOUR	12-32 EBC	13-35 EBC	5.4-14 °L



NAKED OAT MALT

FIND OUT MORE

TASTING NOTES

CREAMY, OATY

BEER STYLES

NEIPAs, oatmeal stout, oaty pale ales

USAGE RATE

Up to 30%

SEE RECIPE

Crisp Oaty Pale Ale
See page 114

Crisp Naked Oat Malt has become a stalwart of the NEIPA recipe. We malt naturally naked oats to increase potential extract. Naked Oat Malt gives a lovely creaminess and mouthfeel in all styles of beer and is especially suited to juicy hop bombs and heavy beers. They also impart a toasted, biscuit aroma and palate.

Oats are high in β -glucan and for both brewing and baking uses Naked Oat Malt can contribute beta-glucans (soluble fibre) to add an extra property.

If run-off is a concern at higher addition rates, mix 50/50% with our Flaked Torrefied Oats.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	5.5% max	5.5% max	5.5% max
EXTRACT	245 L ^o /kg	65.1%	65.1%
COLOUR	2.0-7.0 EBC	2.2-7.7 EBC	1.3-3.3 °L
TN/TP	2.70%	17.0%	17.0%

ORGANIC EXTRA PALE MALT

FIND OUT MORE

TASTING NOTES

SUBTLE MALT SWEETNESS

BEER STYLES

NEIPAs, oatmeal stout, oaty pale ales

USAGE RATE

Up to 30%

SEE RECIPE

Crisp Oaty Pale Ale
See page 114

Crisp's Organic Extra Pale fully complies with the strict regulations which govern the qualification of food as 'organic'.

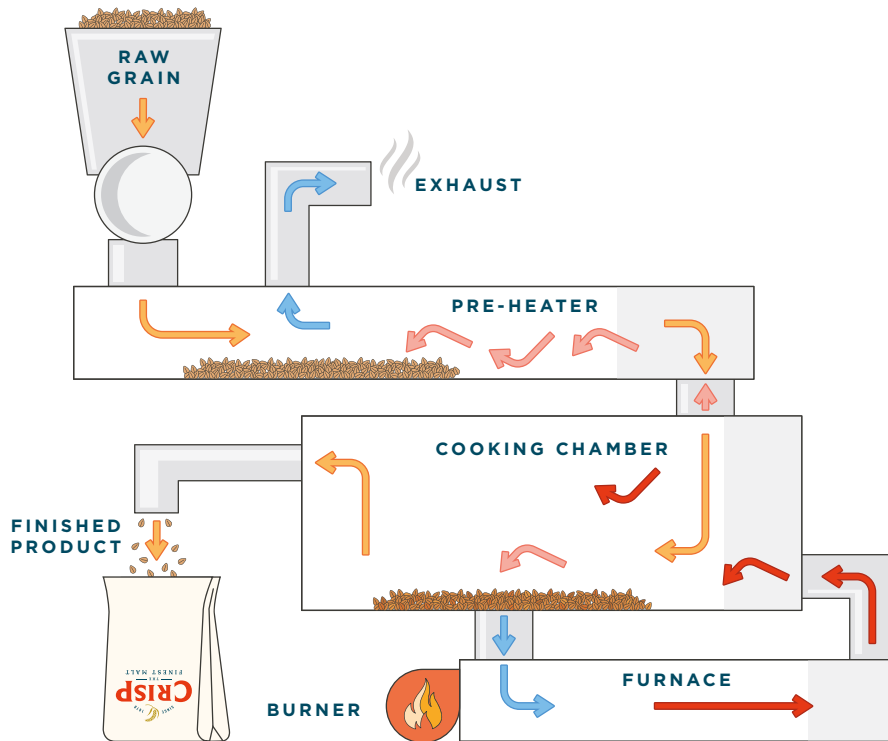
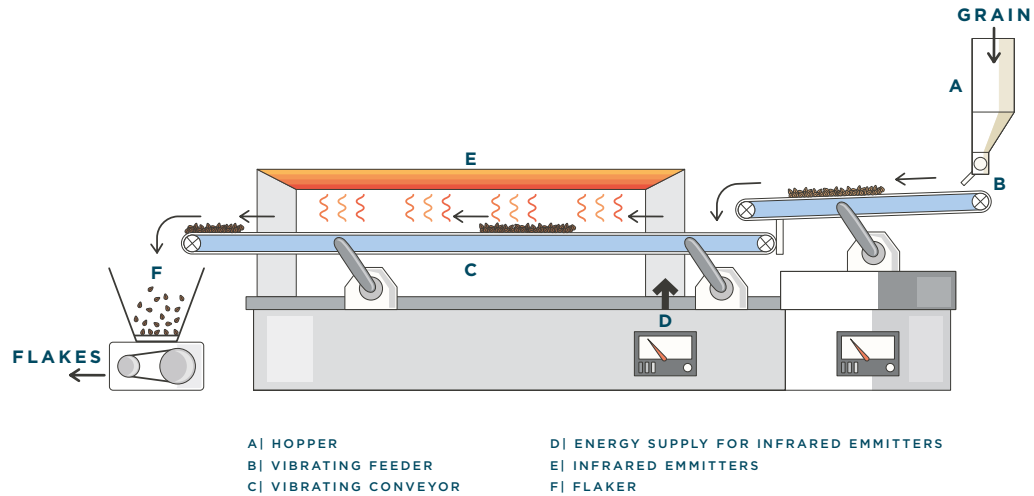
These rules and systems, having their basis in EU law, apply not only to the handling and processing of the organic barley at the malting plant, but also through the supply chain from the condition of the land sown and the provenance of the through to the cultivation and harvesting.

This malt is perfect for low colour beer styles such as lager, blondes and pale ales.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.5% max	4.5% max	4.5% max
EXTRACT	305 L ^o /kg	80.6%	80.6%
COLOUR	3.0-5.0 EBC	3.3-5.5 EBC	1.7-2.5 °L
TN/TP	1.30-1.70%	8.0-11.0%	8.0-11.0%

THE TORREFYING PROCESS



FIND
OUT
MORE

NON-MALTED CEREALS

Our selection of non-malted cereals are made using torrefying and micronising techniques to gelatinise the starchy endosperm which means the cereal doesn't need to be pre-cooked before it is used in your mash tun. In addition, all of the flaked products don't need to be milled either.

Some non-malted cereals can add protein for head retention, body and mouthfeel and others will lighten the colour and allow for super pale, crisp beers to be developed.

They can also be used in distilling in the mash tun as a sugar substrate for the production of innovative craft spirits.

NON-MALTED

TORREFIED WHEAT

FIND OUT MORE

TASTING NOTES
SLIGHT GRAIN

BEER STYLES

All styles. Main benefit is improved head retention

USAGE RATE

10% max

Torrefied Wheat has long been used by brewers up and down the UK to provide additional head potential on all beer styles. The higher molecular weight proteins and glycoproteins are head positive and also promote mouthfeel. It is especially useful when base malts are particularly low in nitrogen/ protein.

Torrefied Wheat has a very slightly grain character to it.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	10.0% max	10.0% max	10% max
EXTRACT	310 L°/kg	81.9%	81.9%

FLAKED TORREFIED BARLEY

FIND OUT MORE

TASTING NOTES
SLIGHTLY MORE HARSH FLAVOUR/
BITE THAN TORREFIED WHEAT

BEER STYLES

All styles. Main benefit is improved head retention. Suited to stouts for bite.

USAGE RATE

10% max

Flaked Torrefied Barley consists of barley grains that have been cooked at high temperature, resulting in gelatinisation of the starchy endosperm. Adding it promotes head retention and adds body to the finished beer. Its flavour is slightly stronger than its wheat counterpart. It does not require milling before being added to the mash, and retains its husk so can be used as an alternative to wheat in beers where the recipe already has a lot of huskless grains.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	10.0% max	10.0% max	10.0% min
EXTRACT	308 L°/kg	81.4%	81.4%

FLAKED TORREFIED MAIZE

FIND OUT MORE

TASTING NOTES
CORN FLAKES, CORN

BEER STYLES

Continental lagers, prohibition lager

USAGE RATE

Up to 25%

RECIPE

Crisp Pre-Prohibition Lager see website for details

Flaked Torrefied Maize consists of maize grits that have been micronized at high temperatures which bursts open the starches and thus gelatinises the maize. It lightens wort and can add a unique corn flake-like sweetness to beers.

Maize can also be used by distillers to create bourbon style whisky without needing to pre-cook the maize. Crisp's Flaked Torrefied Maize is GM-free.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	8.5% max	8.5% max	8.5% max
EXTRACT	328 L°/kg	86.5%	86.5%

FLAKED TORREFIED RICE

FIND OUT MORE

TASTING NOTES
DRYNESS & CRISP FINISH

BEER STYLES

Light lagers

USAGE RATE

Up to 25%

RECIPE

Crisp Low Gluten Pale Ale see website for details

Flaked Torrefied Rice consists of rice grains that have been cooked at high temperature, resulting in gelatinisation of the starchy endosperm, and then flaked. It lightens wort colour, reduces protein levels and imparts a characteristic dryness to finished beers.

Rice has low gluten so can be used for crafting low gluten products.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	8.5% max	8.5% max	8.5% max
EXTRACT	305 L°/kg	80.6%	80.6%

FLAKED TORREFIED OATS

FIND
OUT
MORE

TASTING NOTES

SMOOTH, CREAMY
MOUTHFEEL

BEER STYLES

Stouts, NEIPAs

USAGE RATE

Up to 25%

RECIPE

Crisp Oatmeal Stout see website for details

Flaked Torrefied Oats consist of husked oat grains that have been cooked at high temperature, resulting in gelatinisation of the starchy endosperm, and then flaked. They will give a smooth, creamy mouthfeel to finished beers.

The presence of oat husk can assist with wort separation, especially if the grist contains naked grains such as Malted Rye, Naked Oat Malt or Wheat Malt.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	11.0% max	11.0% max	11.0% max
EXTRACT	292 L°/kg	77.2%	77.2%



NON-MALTED



FIND
OUT
MORE

DISTILLING MALTS

Crisp have been making distilling malt in Scotland for over 40 years. We now have two maltings, one in the traditional brewing town of Alloa and the other in the heart of Speyside at Portgordon. Between them, they cater for the malt requirements of Scotch Whisky production; plain, peated and high diastatic.

Over the years we've forged long lasting partnerships with farmers in Morayshire, Aberdeenshire and Fife, to grow low nitrogen (protein) distilling varieties which allows us to produce flavourful distilling malts that are prized not just in Scotland but also in Japan, the USA and Europe.

Our peating process on Speyside ensures the fullest absorption of 'reek' by the grain during the peat burn. Whereas with some dry smoked peated malts the flavour and aroma quickly fades over a short time, our method produces a lasting rich peat smoke character in the malt and so it can be transported all over the world without issue.

To cater to small and large distillers alike, our plain pot still and peated malts are available in bulk, one tonne or 25kg bags.

PREMIUM POT STILL MALT

FIND OUT MORE

TASTING NOTES
NEUTRAL MALT FLAVOUR

PSY

410 Litres of alcohol – per tonne

Made from spring distilling approved varieties, our Premium Pot Still Malt is GN free to avoid any ethyl carbamate issues in the still. Flavourful and high alcohol yielding, this malt is the workhorse of many a Scottish distillery. The north east of Scotland produces especially low nitrogen barley which translates into excellent spirit yield in the distillery.

With enough diastatic power to convert itself and other malts, you can combine it with our speciality malts to create complex and layered whiskies.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.3%	–	–
SOLUBLE EXTRACT AS IS	78.6%	80%	80%
FERMENTABILITY	87.2%	n/a	n/a
PSY	410 laa/t	n/a	n/a
TN (MALT)	1.45%	9.0%	9.0%
SNR	38.0	43.0	43.0
FRIABILITY	93%	–	–

SCOTTISH PEATED MALT

FIND OUT MORE

TASTING NOTES
PEAT SMOKE, PHENOLIC

PSY

410 Litres of alcohol – per tonne

We've been making peated malt at our Speyside maltings in Portgordon for the past 20 years. We supply distillers not just in Scotland but all over the world including prominent whisky makers in Japan, the USA, Australia, Europe and England.

Our peated malt is prized for its intense smoke character and this is all down to our wet smoking method which allows the peat smoke to penetrate the barley kernel fully. We can provide various levels of peating dependent on the customer's requirements and typically produce three levels of "smokiness"; lightly peated malt (15 ppm phenol), medium peated malt (25ppm) and heavy peated malt (50ppm). Higher levels of phenol are available on request.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	4.3%	–	–
SOLUBLE EXTRACT AS IS	78.6%	80%	80%
FERMENTABILITY	87.2%	n/a	n/a
PSY	410 laa/t	n/a	n/a
TN (MALT)	1.45%	9.0%	9.0%
SNR	38.0	43.0	43.0
FRIABILITY	93%	–	–

HIGH DIASTATIC POWER (HDP) MALT

FIND
OUT
MORE

TASTING NOTES
NEUTRAL FLAVOUR

DIASTATIC POWER

160°IoB (dry)/600°WK/176°Lintner

From barley grown in central Scotland and malted at our Alloa maltings, our HDP Malt is used to produce grain whisky as well as other spirits where the majority of the grain bill lacks enzymes for conversion. At just 10% addition, this malt will convert any starch-rich cereal such as wheat, rice or maize.

This can be used at normal malt mashing temperatures with our flaked products to produce American-style whiskies. HDP Malt is known as Distillers Malt in the USA.

TYPICAL ANALYSIS

PARAMETER	IoB	EBC	ASBC
MOISTURE	6.5%	—	—
DU	60	—	—
DP	160°IoB (dry)	600°WK	176°Lintner



OUR DISTRIBUTION NETWORK



FIND OUT MORE

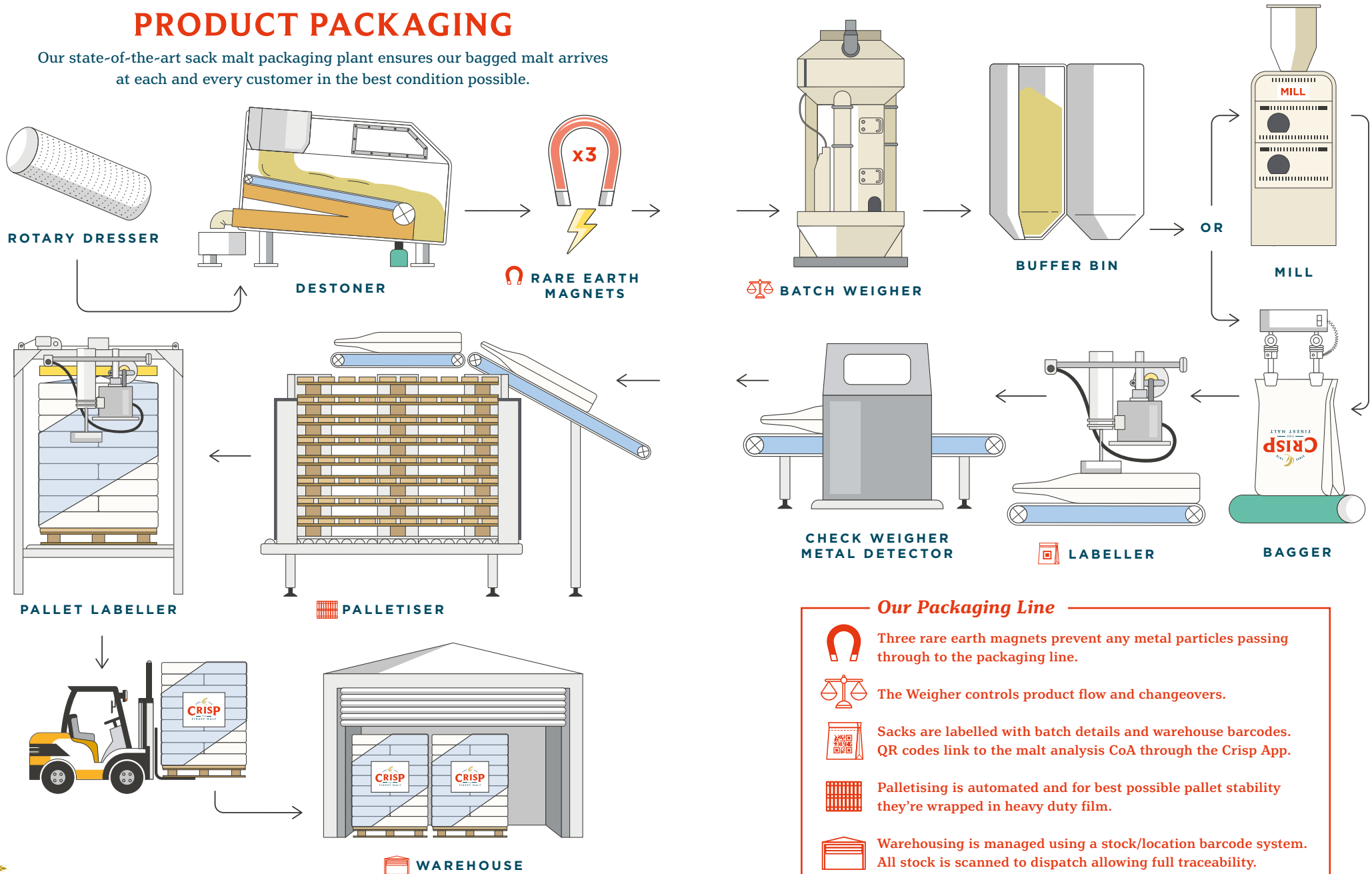
 **Get in Touch**
 Please email us on export@crispmalt.com, with your name, location, annual quantities and contact information and we will introduce you to your local distributor

We've partnered with knowledgeable, approachable and trusted distributors around the world.






In regions where we can't physically be there, our distributors are hand-picked to ensure the high levels of customer service, product quality and technical support offered to our local brewers and distillers is continued to fellow brewers and distillers overseas.

PRODUCT PACKAGING

Our state-of-the-art sack malt packaging plant ensures our bagged malt arrives at each and every customer in the best condition possible.



Our Packaging Line

-  Three rare earth magnets prevent any metal particles passing through to the packaging line.
-  The Weigher controls product flow and changeovers.
-  Sacks are labelled with batch details and warehouse barcodes. QR codes link to the malt analysis CoA through the Crisp App.
-  Palletising is automated and for best possible pallet stability they're wrapped in heavy duty film.
-  Warehousing is managed using a stock/location barcode system. All stock is scanned to dispatch allowing full traceability.



FIND MORE
RECIPES
ONLINE!

FIND
OUT
MORE

RECIPES


Our technical team have been mashing, boiling and fermenting away on our pilot kit to bring you these recipes.

The calculated malt weights and liquor volumes are for a 10bbl brew at a commercial efficiency, but we've also put the % contribution by each malt so that you can scale the recipe to suit your brew length.

We've included a lot of different styles to showcase the tremendous range of malts that Crisp has to offer. Feel free to use the recipes as they are presented or use them as a jumping off point for your imagination.

HAPPY BREWING!

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CRISP 20TH CENTURY NEIPA

A British juice bomb | ABV 4.8% | IBU 10 | OG 1052 SG

Plumage Archer was the dominant malt variety in the early 20th Century and here we are pairing it with modern English hops. Plumage Archer provides a neutral flavour base allowing the oats to showcase their silky smoothness. We selected these new UK hops from the Charles Farams hop development program, they are perfect for a juice bomb.

BASICS

BATCH SIZE (LITRES):	1636
BATCH SIZE (UK BARRELS):	10
ORIGINAL GRAVITY:	1052 SG
FINAL GRAVITY:	1015 SG
IBUs:	10
COLOUR (EBC/SRM):	12 / 6
BREWHOUSE EFFICIENCY:	80%

INGREDIENTS

MALTS	(kg)	%
PLUMAGE ARCHER	221	60
WHEAT MALT	35.7	10
DEXTRIN MALT	19.1	5
NAKED OAT MALT	69.2	15
TORREFIED OATS	46.1	10

HOPS	(g)	Contribution%	Alpha Acid%	Add
OLICANA	500	60	8	20 mins
ARCHER	500	40	5	20 mins
OLICANA	100	0	8	Flame out
JESTER T45	0	0	8	Flame out
GODIVER	200	0	7.5	Flame out
OLICANA	0	0	8	Dry hop
JESTER T45	200	0	8	Dry hop
GODIVER	0	0	8	Dry hop

METHODS / TIMINGS

TEMPERATURES
MASH TEMP: 68°C / 154°F
COLLECTION TEMP: 20°C / 68°F
FERMENTATION TEMP: 22°C / 71.6°F
MASH LIQUOR VOL (LITRES): 904
LIQUOR / MASH RATIO: 2.5 : 1
TIMINGS
MASH: 60 mins BOIL: 90 mins

YEAST
66% Nottingham & 34% Windsor

Crisp's Top Tip

"Mixing naked malted oat with torrefied oats will give a lovely smoothness and haze without causing problems."

CRISP AMBER ALE

Amber colour with malty, dry caramel finish | ABV 4.1% | IBU 25 | OG 1040 SG

The Amber Malt in this recipe will colour the beer and shine through with a malty, dry caramel finish. Expect moderate hop bitterness with classic USA bittering hops and a finish of floral and piney Aurora and delicate spice from the Perle hops.

BASICS

BATCH SIZE (LITRES):	1636
BATCH SIZE (UK BARRELS):	10
ORIGINAL GRAVITY:	1040 SG
FINAL GRAVITY:	1008.5 SG
IBUs:	25
COLOUR (EBC/SRM):	16 / 8
BREWHOUSE EFFICIENCY:	85%

INGREDIENTS

MALTS	(kg)	%
BEST ALE	234	91
CRYSTAL 150	9	3
AMBER	9	3
CARA	8	2.5
ROAST BARLEY	1	0.5
TOTAL	261	

HOPS	(g)	Contribution%	Alpha Acid%	Add
CHINOOK	235	15	13	Start of boil
CENTENNIAL	340	15	9	Start of boil
AURORA	582	20	7	Middle
AURORA	728	25	7	End
PERLE	728	25	7	End

METHODS / TIMINGS

TEMPERATURES
MASH TEMP: 67°C / 153°F
COLLECTION TEMP: 18°C / 64°F
FERMENTATION TEMP: 21°C / 70°F
MASH LIQUOR VOL (LITRES): 701
LIQUOR / MASH RATIO: 2.7 : 1
TIMINGS
MASH: 60 mins BOIL: 60 mins

YEAST
ENGLISH ALE

Crisp's Top Tip

"The higher mash temperature on this brew will enhance the mouthfeel of the final beer."

CRISP BEST BITTER


Toffee, caramel and raisin notes | ABV 4.4% | IBU 26 | OG 1043 SG


The addition of Crystal Malts to English bitters started after WWI and the best versions are served on cask. Our recipe uses Crystal 150 to provide toffee, caramel and raisin notes balanced out by a smorgasbord of classic and modern English hops.

BASICS




BATCH SIZE (LITRES):	1636
BATCH SIZE (UK BARRELS):	10
ORIGINAL GRAVITY:	1043 SG
FINAL GRAVITY:	1009 SG
IBUs:	26
COLOUR (EBC/SRM):	21 / 11
BREWHOUSE EFFICIENCY:	85%

INGREDIENTS

 MALTS	(kg)	%
BEST ALE	233	85
CRYSTAL 150	21	7
AMBER	12	4
CARA	12	3.5
ROAST BARLEY	2	0.5
TOTAL	280	

 HOPS	(g)	Contribution%	Alpha Acid%	Addition
ADMIRAL	424	30	15	Start of boil
BRAMLING CROSS	848	30	7.5	Middle
ENDEAVOUR	565	20	7.5	Flame out
KEYWORTHS MID-SEASON	565	20	7.5	Flame out

METHODS / TIMINGS

 TEMPERATURES	
MASH TEMP:	66°C / 151°F
COLLECTION TEMP:	18°C / 64°F
FERMENTATION TEMP:	23°C / 73°F
 MASH LIQUOR VOL (LITRES):	756
 LIQUOR / MASH RATIO:	2.7 : 1

TIMINGS

MASH: 60 mins **BOIL:** 60 mins

YEAST

WINDSOR ALE



Crisp's Top Tip

"The higher fermentation top temperature on this beer will encourage the yeast to produce fruity esters."

CRISP ENGLISH ESB


Bold Maris Malt body with caramel | ABV 5.5% | IBU 30 | OG 1052 SG


This Strong bitter is a great recipe to let our heritage Maris Otter® barley showcase its malt character to the fullest. Highly drinkable with a good balance between our malts and classic English hop varieties, this beer is darkened and sweetened with caramel notes by the Crystal, Amber and just a touch of Roast Barley to deepen the reddish hues.

BASICS


BATCH SIZE (LITRES):	1636
BATCH SIZE (UK BARRELS):	10
ORIGINAL GRAVITY:	1052 SG
FINAL GRAVITY:	1009 SG
IBUs:	30
COLOUR (EBC/SRM):	23 / 12
BREWHOUSE EFFICIENCY:	80%

INGREDIENTS

 MALTS	(kg)	%
MARIS OTTER® ALE	321	92
CRYSTAL 150	18	4.5
AMBER	12	3
ROAST BARLEY	2	0.5
TOTAL	353	

 HOPS	(g)	Contribution%	Alpha Acid%	Addition
CHALLENGER	1397	40	7	Start of boil
FUGGLE	889	20	5.5	Middle
EAST KENT GOLDINGS	1505	40	6.5	Flame out

METHODS / TIMINGS

 TEMPERATURES	
MASH TEMP:	66°C / 151°F
COLLECTION TEMP:	18°C / 64°F
FERMENTATION TEMP:	21°C / 70°F
 MASH LIQUOR VOL (LITRES):	879
 LIQUOR / MASH RATIO:	2.5 : 1

TIMINGS

MASH: 60 mins **BOIL:** 60 mins

YEAST

LALLEMAND LONDON ESB



Crisp's Top Tip

"A 20 minute steep in the copper prior to casting the wort will extract aromas of lavender, spice, honey and thyme from the East Kent Goldings hops."

CRISP ENGLISH PILSNER

Clean, crisp & soft | ABV 4.6% | IBU 18 | OG 1044 SG

The original Moravian variety grown in the UK. Hana's soft and smooth flavour is paired with citrus and stone fruit flavours from Olicana giving a fruity take on a modern UK lager.

BASICS

BATCH SIZE (LITRES):	1636
BATCH SIZE (UK BARRELS):	10
ORIGINAL GRAVITY:	1044 SG
FINAL GRAVITY:	1008 SG
IBUs:	18
COLOUR (EBC/SRM):	7 / 3.5
BREWHOUSE EFFICIENCY:	80%

INGREDIENTS

MALTS	(kg)	%
HANA PILSEN MALT	278	90
VIENNA MALT	31	10
TOTAL	309	

YEAST

DIAMOND LAGER

HOPS	(g)	Contribution%	Alpha Acid%	Addition
CHALLENGER	1000	50	6	60 mins
OLICANA	700	34	8	30 mins
OLICANA	500	16	8	10 mins

METHODS / TIMINGS

TEMPERATURES
MASH TEMP: 63°C / 145.4°F
COLLECTION TEMP: 10°C / 50°F
FERMENTATION TEMP: 12°C / 53.6°F
MASH LIQUOR VOL (LITRES): 714
LIQUOR / MASH RATIO: 2.5 : 1

TIMINGS

MASH: 60 mins BOIL: 60 mins



Crisp's Top Tip

"This European style malt would benefit from a stepped mashing but will be OK on a mash tun."

CRISP GERMAN KOLSCH

Clean, balanced and brilliantly clear | ABV 4.4% | IBU 25 | OG 1041 SG

The Kolsch style is all about balancing malt, hops and the delicate fruit character of the speciality Kolsch yeast. Another key characteristic is brilliant clarity and this is achieved with our Clear Choice®, polyphenol free malt, which won't throw a chill haze. A beautifully refreshing, crystal clear lager.

BASICS

BATCH SIZE (LITRES):	1636
BATCH SIZE (UK BARRELS):	10
ORIGINAL GRAVITY:	1041 SG
FINAL GRAVITY:	1007 SG
IBUs:	25
COLOUR (EBC/SRM):	1.3 / 0.6
BREWHOUSE EFFICIENCY:	85%

INGREDIENTS

MALTS	(kg)	%
CLEAR CHOICE® PALE	258	97
VIENNA	8	3
TOTAL	266	

YEAST

KOLSCH

HOPS	(g)	Contribution%	Alpha Acid%	Addition
HALLERTAU BLANC	582	30	10.5	Start of boil
HUELL MELON	873	30	7	Middle
HUELL MELON	582	20	7	Flame out
MANDARINA BAVARIA	479	20	8.5	Flame out

METHODS / TIMINGS

TEMPERATURES
MASH TEMP: 63°C / 145°F
COLLECTION TEMP: 17°C / 63°F
FERMENTATION TEMP: 20°C / 68°F
MASH LIQUOR VOL (LITRES): 719
LIQUOR / MASH RATIO: 2.7 : 1

TIMINGS

MASH: 60 mins BOIL: 60 mins



Crisp's Top Tip

"A lager fermented with an ale yeast, keep an eye on the top temperature on this one."

CRISP GOLDEN ALE

Quaffable summer ale | ABV 4.5% | IBU 20 | OG 1043 SG

This classic Golden Ale is all about showcasing hops without any caramel sweetness. The Cara Gold achieves the golden colour without any caramel sweetness but also lends the beer some body and a rounded mouthfeel despite the dry finish. Perfect on cask, for a quaffable summer ale.

BASICS

BATCH SIZE (LITRES):	1636
BATCH SIZE (UK BARRELS):	10
ORIGINAL GRAVITY:	1043 SG
FINAL GRAVITY:	1008 SG
IBUs:	20
COLOUR (EBC/SRM):	10.5 / 5
BREWHOUSE EFFICIENCY:	80%

METHODS / TIMINGS

TEMPERATURES
MASH TEMP: 66°C / 151°F
COLLECTION TEMP: 18°C / 64°F
FERMENTATION TEMP: 21°C / 70°F
MASH LIQUOR VOL (LITRES): 741
LIQUOR / MASH RATIO: 2.5 : 1

TIMINGS

MASH: 60 mins **BOIL:** 60 mins

INGREDIENTS

MALTS	(kg)	%
BEST ALE	261	90
CARA GOLD	35	10
TOTAL	296	

YEAST

WINDSOR ALE

HOPS	(g)	Contribution%	Alpha Acid%	Addition
FIRST GOLD	652	30	7.5	Start of boil
MINSTREL	815	30	6	Middle
MINSTREL	543	20	6	Flame out
EAST KENT GOLDINGS	502	20	6.5	Flame out



Crisp's Top Tip

"The 3°C free rise in fermentation temperature encourages yeast growth in the first 24 to 36 hours in FV."

CRISP IPA

Classic English hops and strong bready malt | ABV 4.7% | IBU 25 | OG 1043 SG

This is our version of the original English India Pale Ale with our workhorse Best Ale Malt and some Munich Malt to add a light toast and bready quality. The beer is well attenuated like its Indian forebears. Hops dominate in this timeless style.

BASICS

BATCH SIZE (LITRES):	1636
BATCH SIZE (UK BARRELS):	10
ORIGINAL GRAVITY:	1043 SG
FINAL GRAVITY:	1007 SG
IBUs:	25
COLOUR (EBC/SRM):	1.5 / 0.8
BREWHOUSE EFFICIENCY:	80%

METHODS / TIMINGS

TEMPERATURES
MASH TEMP: 63°C / 145°F
COLLECTION TEMP: 18°C / 64°F
FERMENTATION TEMP: 21°C / 70°F
MASH LIQUOR VOL (LITRES): 750
LIQUOR / MASH RATIO: 2.5 : 1

TIMINGS

MASH: 60 mins **BOIL:** 60 mins

INGREDIENTS

MALTS	(kg)	%
EXTRA PALE	285	95
LIGHT MUNICH	15	5
TOTAL	300	

YEAST

LONDON ALE

HOPS	(g)	Contribution%	Alpha Acid%	Addition
SOVEREIGN	1482	40	5.5	Start of boil
EAST KENT GOLDINGS	627	20	6.5	Middle
ERNEST	1254	40	6.5	Flame out



Crisp's Top Tip

"Use DWB, a blend of brewing salts that "Burtonise" water to give the typical dry finish and accentuated bitterness of this beer style."

CRISP OATY PALE ALE

Floral and piney with malt richness | ABV 4% | IBU 24 | OG 1039 SG

This is our English Pale Ale recipe but with a twist; the addition of Naked Oat Malt to lend body and texture. A late addition of Slovenia Aurora gives a floral and pine character to this very drinkable of ales.

BASICS

BATCH SIZE (LITRES):	1636
BATCH SIZE (UK BARRELS):	10
ORIGINAL GRAVITY:	1039 SG
FINAL GRAVITY:	1008 SG
IBUs:	24
COLOUR (EBC/SRM):	15.5 / 7.5
BREWHOUSE EFFICIENCY:	85%

METHODS / TIMINGS

TEMPERATURES
MASH TEMP: 64°C / 147°F
COLLECTION TEMP: 18°C / 64°F
FERMENTATION TEMP: 21°C / 70°F
MASH LIQUOR VOL (LITRES): 704
LIQUOR / MASH RATIO: 2.7 : 1

TIMINGS

MASH: 60 mins **BOIL:** 60 mins

INGREDIENTS

MALTS	(kg)	%
BEST ALE	214	86
CRYSTAL 100	11	4
NAKED OAT	36	10
TOTAL	261	

YEAST

WEST COAST PALE ALE

HOPS	(g)	Contribution%	Alpha Acid%	Addition
FIRST GOLD	782	30	7.5	Start of boil
MINSTREL	978	30	6	Middle
AURORA	1118	40	7	Flame out



Crisp's Top Tip

"Oats give up soluble fibre to the beer giving a nice smooth finish and enhanced body."

CRISP SESSION BITTER

Highly drinkable. Light caramel and fruity | ABV 3.7% | IBU 20 | OG 1037 SG

Session bitters were designed to be highly drinkable with low ABV to slake the workers' thirst. The Cara Malt adds body and also some fruit notes to the ale which is well supported by using a characterful British Ale yeast.

BASICS

BATCH SIZE (LITRES):	1636
BATCH SIZE (UK BARRELS):	10
ORIGINAL GRAVITY:	1037 SG
FINAL GRAVITY:	1008 SG
IBUs:	20
COLOUR (EBC/SRM):	16 / 8
BREWHOUSE EFFICIENCY:	80%

METHODS / TIMINGS

TEMPERATURES
MASH TEMP: 66°C / 151°F
COLLECTION TEMP: 18°C / 64°F
FERMENTATION TEMP: 21°C / 70°F
MASH LIQUOR VOL (LITRES): 631
LIQUOR / MASH RATIO: 2.5 : 1

TIMINGS

MASH: 60 mins **BOIL:** 60 mins

INGREDIENTS

MALTS	(kg)	%
BEST ALE	223	90
CRYSTAL 150	12	4.5
CARA	15	5
ROAST BARLEY	1	0.5
TOTAL	251	

YEAST

ENGLISH ALE



Crisp's Top Tip

"The combination of slightly higher mash temperature and Cara Malt will give this beer more body and depth."

HOPS	(g)	Contribution%	Alpha Acid%	Addition
ADMIRAL	326	20	15	Start of boil
TARGET	621	40	10.5	Middle
FLYER	621	40	10.5	Flame out

CRISP TABLE BEER

Rounded body with floral citrus hops | ABV 2.5% | IBU 20 | OG 1031 SG

Low ABV beers are a tricky recipe to get right. They can often end up very thin and lacking in mouthfeel. The key is to have lots of non-fermentable sugars to add body, which is exactly what this hefty addition of Dextrin Malt achieves. We've also added great drinkability by utilising a range of fruit forward American aroma hops.

BASICS

BATCH SIZE (LITRES):	1636
BATCH SIZE (UK BARRELS):	10
ORIGINAL GRAVITY:	1031 SG
FINAL GRAVITY:	1012 SG
IBUs:	20
COLOUR (EBC/SRM):	4 / 2
BREWHOUSE EFFICIENCY:	85%

INGREDIENTS

MALTS	(kg)	%
EXTRA PALE	163	80
DEXTRIN	42	20
TOTAL	205	

YEAST

LAGER

HOPS	(g)	Contribution%	Alpha Acid%	Addition
AMARILLO	543	30	9	Start of boil
CASCADE	699	30	7	Middle
MOSAIC	272	20	12	Flame out
AMARILLO	362	20	9	Flame out

METHODS / TIMINGS

TEMPERATURES

MASH TEMP:	68°C / 154°F
COLLECTION TEMP:	17°C / 63°F
FERMENTATION TEMP:	20°C / 68°F

MASH LIQUOR VOL (LITRES): 554

LIQUOR / MASH RATIO: 2.7 : 1

TIMINGS

MASH: 60 mins BOIL: 60 mins



Crisp's Top Tip

"Mashing slightly thicker (2.2:1) with a higher temperature will reduce the amount of fermentable sugar which will help control ABV and give body to the beer."

CRISP VICTORIAN STEAMPUNK ALE

Fruit, marmalade and rustic hops | ABV 5.5% | IBU 35 | OG 1051 SG

We first brewed for the Craft Brewers Conference (CBC) in 2018. This recipe combines the old world and new. We utilise Chevallier® as the base malt to give a rich, robust, marmalade and malty base and layer on top the classic California Common hops, Northern Brewer. We've added an Australian twist with Vic Secret hops making this a truly well-travelled ale.

BASICS

BATCH SIZE (LITRES):	1636
BATCH SIZE (UK BARRELS):	10
ORIGINAL GRAVITY:	1051 SG
FINAL GRAVITY:	1008 SG
IBUs:	35
COLOUR (EBC/SRM):	23 / 12
BREWHOUSE EFFICIENCY:	85%

INGREDIENTS

MALTS	(kg)	%
CHEVALLIER®	245	76
LIGHT MUNICH	50	15
CRYSTAL 150	25	7
LOW COL CHOCOLATE	4	1
TOTAL	324	

HOPS

HOPS	(g)	Contribution%	Alpha Acid%	Add
NORTHERN BREWER	198	25	9	Start of boil
NORTHERN BREWER	198	25	9	Middle
VIC SECRET	119	25	15	10 mins before end
VIC SECRET	119	25	15	Flame out

METHODS / TIMINGS

TEMPERATURES

MASH TEMP:	68°C / 154°F
COLLECTION TEMP:	15°C / 59°F
FERMENTATION TEMP:	17°C / 62°F

MASH LIQUOR VOL (LITRES): 809

LIQUOR / MASH RATIO: 2.5 : 1

TIMINGS

MASH: 60 mins BOIL: 90 mins

YEAST

CALIFORNIA COMMON



Crisp's Top Tip

"To further develop flavour and colour, increase the boil time on the recipe to 90 mins."



CRISP VIENNA LAGER

Dry, smooth and bready | ABV 4.8% | IBU 20 | OG 1044 SG

The Vienna Lager was first originated by Anton Dreher in Vienna in 1841, the style being defined by the toasty character of the Vienna Malt. This version is light in body and dry in finish making it a very drinkable brew. The Perle and Styrian hops give a soft, delicate bitterness in perfect balance to the malt.

BASICS

BATCH SIZE (LITRES):	1636
BATCH SIZE (UK BARRELS):	10
ORIGINAL GRAVITY:	1044 SG
FINAL GRAVITY:	1007 SG
IBUs:	20
COLOUR (EBC/SRM):	9 / 4.5
BREWHOUSE EFFICIENCY:	85%

INGREDIENTS

MALTS	(kg)	%
GERMAN PILSEN	86	30
VIENNA	195	70
TOTAL	281	

YEAST

GERMAN STYLE LAGER

HOPS	(g)	Contribution%	Alpha Acid%	Addition
PERLE	652	30	7.5	Start of boil
STYRIAN EAGLE	337	30	14.5	Middle
AURORA	435	20	7.5	Flame out
STYRIAN EAGLE	225	20	14.5	Flame out

METHODS / TIMINGS

TEMPERATURES
MASH TEMP: 63°C / 145°F
COLLECTION TEMP: 13°C / 55°F
FERMENTATION TEMP: 15°C / 59°F
MASH LIQUOR VOL (LITRES): 760
LIQUOR / MASH RATIO: 2.7 : 1

TIMINGS
MASH: 60 mins BOIL: 60 mins



Crisp's Top Tip

"Mashing in at a lower temperature will give a more fermentable wort and a crisper finish to the beer."



GET IN TOUCH

GET IN TOUCH

We love nothing more than visiting breweries and distilleries, talking to you about your process and getting hands on to help you get the very best out of Crisp malt.

We know this can only happen when we build strong relationships with our customers, we'd love to hear from you, understand your malt needs and show how our malts can make all the difference to your beers and spirits.

CHEERS!



Crisp Malt

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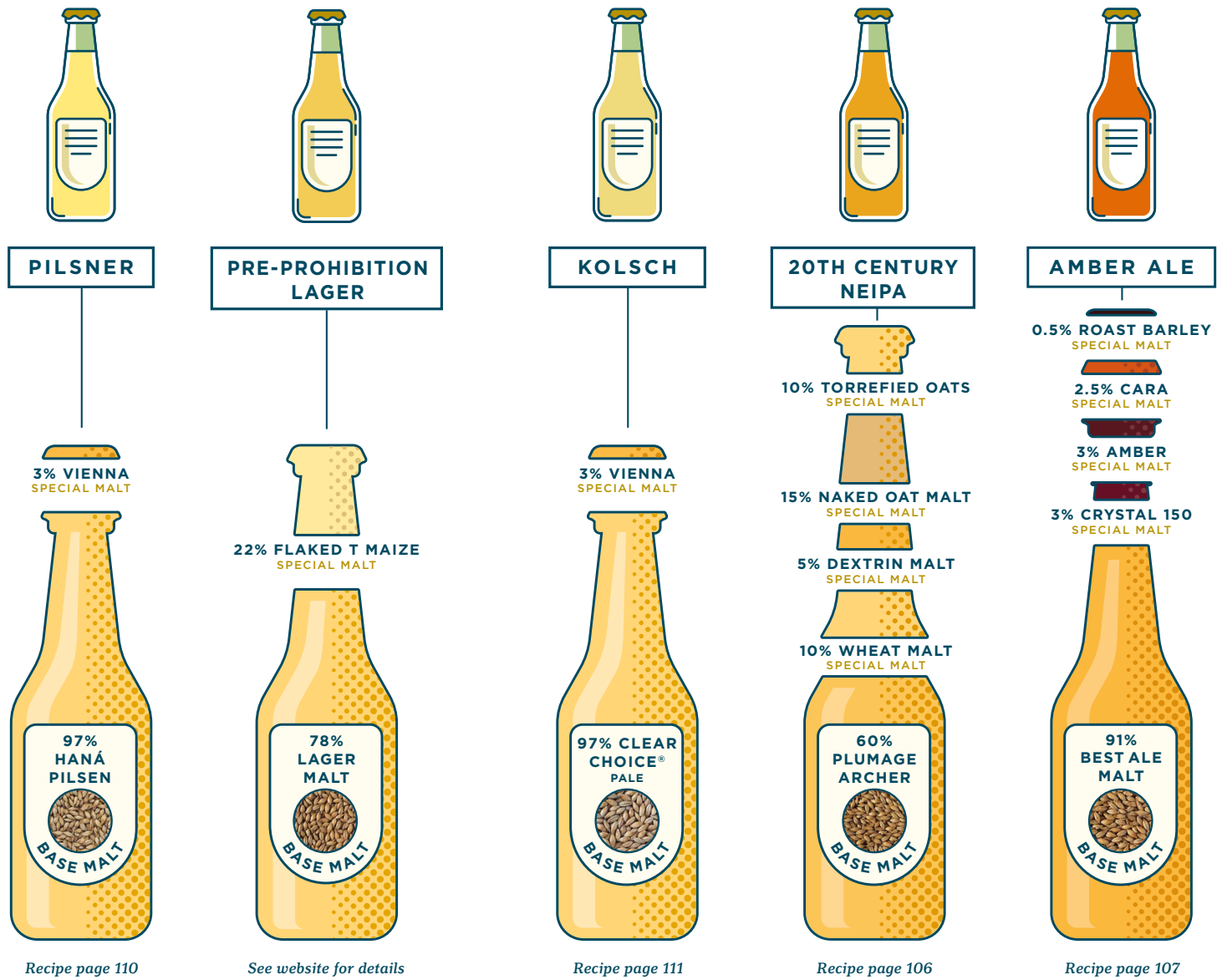
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BEER BUILDING BLOCKS



BEER BUILDING BLOCKS

				
BEST BITTER	ENGLISH ESB	BROWN ALE	PORTER	OATMEAL STOUT
0.5% ROAST BARLEY SPECIAL MALT	0.5% ROAST BARLEY SPECIAL MALT	4% WHEAT SPECIAL MALT	4% RYE SPECIAL MALT	10% FLAKED T OATS SPECIAL MALT
3.5% CARA SPECIAL MALT	3% AMBER SPECIAL MALT	2% CHOCOLATE SPECIAL MALT	4% CHOCOLATE SPECIAL MALT	2% BROWN SPECIAL MALT
4% AMBER SPECIAL MALT	4.5% CRYSTAL 150 SPECIAL MALT	6% BROWN SPECIAL MALT	4% BROWN SPECIAL MALT	2% CRYSTAL 400 SPECIAL MALT
7% CRYSTAL 150 SPECIAL MALT		3% CRYSTAL 150 SPECIAL MALT	3% CRYSTAL 400 SPECIAL MALT	6% BLACK SPECIAL MALT
				
85% BEST ALE MALT BASE MALT	92% FINEST MARIS OTTER® ALE MALT BASE MALT	85% FINEST MARIS OTTER® ALE MALT BASE MALT	85% BEST ALE MALT BASE MALT	80% BEST ALE MALT BASE MALT
Recipe page 108	Recipe page 109	See website for details	See website for details	See website for details

Shelf life for our products is 12 months in dry and pest free conditions unless otherwise stated. All specifications presented are average typical analysis values only.

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