



# Non-Alcoholic Beverages

## FLAVOUR ADDITION

Barley malt extracts can add characteristic malt flavours to non-alcoholic beverages.

**Cedarex Malt Extract:** can be used as a base material in non-alcoholic malt beverages to provide malt flavour, sweetness and flavour enhancement.

**Unhopped Irish Stout:** can be used to provide roasted, bitter and beer style flavour notes.

**Light Malt Extract:** is a particularly good source of clean malt flavours with minimal colour.

**Dried Malt Extracts:** are an ideal base for instant malt beverages.

## FLAVOUR NOTES

**Roasted:** Darker malt extracts such as Unhopped Irish Stout can be used in beverages for a strong roasted beer flavour.

**Fruit and Molasses:** Using the Actimalt EXD range can provide fruity, treacle and molasses notes.

**Caramel:** Used at a low inclusion level, Actimalt Dried Crystal can contribute towards caramel flavours.

**Cereal:** Caramalt Flour is particularly useful in providing cereal flavours ideal for nutritional supplement drinks.

## FLAVOUR MASKING

The addition of malt extract in beverages can produce a masking effect on unpleasant flavours sometimes present with vitamin blends.

## COLOUR IMPROVEMENT

**Torrax and Clarimalt:** can be used as an alternative to caramel colour. Torrax liquids provide colour adjustment with minimal flavour at very low inclusion levels of around 1%. Lighter malt extracts can be used to contribute more subtle colour contribution and red/brown hues to other beverages such as smoothies, soft drinks and squashes.

## CLEAN LABEL

Muntons products are based on cereals and can contribute to a clean label. The addition of malt extract can promote a reduction in refined sugar content. The lighter in colour extracts are, the sweeter the taste.



## BEVERAGE TECHNICAL INFORMATION

	Clarimalt XD Liquid	Clarimalt XD2 Liquid	Clarimalt XD3 Liquid	Clarimalt XD4 Liquid	Clarimalt XD5 Liquid
<b>Dosage Information</b>					
<b>Kg addition to change 100hl by 1 EBC</b>	1.25	1.03	0.77	0.67	0.59
<b>Flavour &amp; Aroma</b>					
<b>Contribution depends on dosage</b>	Low level				Negligible

# Biscuits, Crackers and Cookies

## FLAVOUR ADDITION

Biscuits with a prominent malt flavour can be achieved by using light malt extracts at an inclusion level of around 8%. Overall flavour enhancement will be seen at lower levels than this.

## FLAVOUR NOTES

A number of flavour notes can be provided by adding malt extracts or malt flours to premiumise and differentiate. These include:

**Savoury:** Crystal and Roasted Malt flours can be used to enhance savoury flavours in crackers and savoury snacks.

**Cheese:** Light Malt Extract can be used in savoury crackers to enhance cheese flavours. Suggested inclusion level 4%

**Beer:** Spraymalt Hopped Light can be used to replicate or enhance beer flavours in crackers at a suggested inclusion of 2%.

**Cereal:** Actimalt Liquid Regular at a suggested inclusion of 3% in biscuits

**Chocolate:** Maltichoc can be used to add premium roasted and smoky chocolate notes.

**Vine Fruit:** Actimalt Liquid EXD 200 offers flavours and aromas of raisins and sultanas.

**Caramel & Toffee:** At low levels (<2%), Actimalt Dried Crystal offers caramel flavour notes. When used at higher levels, toffee flavours are achieved.

**Treacle:** Actimalt Liquid EXD 800 can be used at a suggested inclusion of 4% in biscuits.

## COLOUR IMPROVEMENT

A range of colours can be achieved in the final product by using our malt flours which are up to 1450 EBC in colour, or band dried products up to 75 EBC in colour.

Diastatic malt flours can be used in yeasted crackers to improve surface colour. Suggested inclusion level of 0.5%.

Liquid malt extracts and spray dried extracts can be used as partial sugar replacement (up to 20%) to improve colour development as well as flavour.

Torrax products can add colour with minimal flavour which is particularly useful in chocolate based products. Suggested inclusion level of around 1%.

## COST REDUCTION

Maltichoc, a blend of malted flour and extracts, can be used to replace up to 50% of cocoa in baked applications. It offers significant cost savings as well as improved texture, lower carbon footprint and reduces exposure to the volatile cocoa market.

Maltichoc can also be used to premiumise existing recipes without the need for additional cocoa powder, giving a richer chocolate flavour and colour.

## TEXTURE IMPROVEMENT

Diastatic flours can provide a larger volume and improved texture in yeasted products. Naturally synthesised amylase breaks down starch to give a sustained release of sugars to feed yeast for optimum fermentation.

Malted cut grains and flakes create a rustic appearance with malty flavour, texture and contribute to wholegrain content. Suggested inclusion level 5-10%.

## SALT & SUGAR REDUCTION

The addition of hopped malt extracts can enable the reduction of salt.

The addition of malt extract can offer a reduction in refined sugar content particularly in biscuits where Spraymalt Extra Light can be used to replace up to 20% of the sugar content.

## CLEAN LABEL

Muntons products are based on cereals and can offer a clean or cleaner label.



# Breakfast Cereals

## FLAVOUR ADDITION

Malt extracts naturally enhance and complement the flavour profile of cereal based products, specifically those with sweet, cereal, nut and chocolate flavours.

Light Malt Extract is used to provide low level flavour addition in corn and rice based products.

**Malt:** Maltense Light Malt Extract can provide a full, sweet malt flavour.

**Malted Milk:** Malted Milk Powder is ideal as a milk and sugar substitute in instant cereals, also offering an excellent indulgent flavour and mouthfeel.

## FLAVOUR NOTES

The majority of products that include a malted ingredient do not have a prominent malt flavour. Malted ingredients are used to make subtle flavour adjustments and to create a preferred or enhanced flavour profile.

**Biscuit and Cereal:** Wheat Malt Flour TFC and Caramalt Flour can be used in breakfast drinks, where solubility may not be required. Wheat Malt Extract is ideal for use in yoghurts.

**Nutty:** Light Malt Extract

**Honey:** Actimalt Liquid Regular

**Caramel and Toffee:** Used at a low inclusion level, Actimalt Dried Crystal can contribute caramel flavours. At higher inclusion levels, Toffee flavour notes are present.

**Vine fruit:** Actimalt Liquid EXD 200 will provide / enhance currant and raisin flavours.

**Chocolate:** The Torrax range can be used to enhance and premix chocolate flavoured products.

## COLOUR IMPROVEMENT

Torrax liquids can be used as an alternative to caramel colour. Darker Torrax liquids provide colour adjustment with minimal flavour at very low inclusion levels of around 1%. Lighter malt extracts can be used for a subtle colour contribution and red/brown hues.

## TEXTURE IMPROVEMENT

Cut grains and flakes are commonly used in granolas and mueslis for added texture, at inclusion levels as low as 10%.

Malt extracts can be used as a partial replacement of honey or glucose to provide more "crunch" in granola clusters. The suggested inclusion is 8%. Malt extracts can also provide a crisper texture in cereal flakes and extruded products.

## FORTIFICATION

Malt extract can be used to naturally supplement or fortify the nutritional content of cereal based products. Barley malt extract naturally contains a range of vitamins, minerals and trace elements.



## SUGAR REDUCTION

The addition of malt extract can promote a reduction in refined sugar content. Spraymalt Extra Light can be used to replace up to 20% of sugar content.

## CLEAN LABEL

Muntions products are based on cereals and can offer a clean or cleaner label.



# Confectionery

## FLAVOUR ADDITION

Light Malt Extract is a particularly good source of clean malt flavour, used to deliver the characteristic flavour in malted honeycomb centres. Dark Malt Extract can provide a stronger, more intense malt flavour.

At lower inclusion levels, subtle malt flavour addition can premiumise chocolate, toffee, fudge and caramel.

## FLAVOUR NOTES

### Roasted, Coffee, and Dark chocolate:

The Torrax range can be used in desserts and beverages to premiumise the flavour profile.

**Caramel and Toffee:** Actimalt Dried Crystal used as low as 0.5% inclusion level can contribute towards caramel flavours in fudge. At higher inclusion levels of 5-7% in chocolate confectionery, Toffee flavour notes are present.

**Dark Fruit:** Actimalt Liquid EXD 800 at inclusion levels of 5-7% provides dark fruit flavours such as sultana, raisin and cherry in chocolate confectionery, providing complexity or differentiating a flavour profile.

**Cream liqueur:** Spraymalt EXD 350 used at 5-7% inclusion on chocolate can provide similar flavour notes to those found in liqueurs, such as Bailey's and Kahlua.

**Bitterness:** Using hopped malt extracts such as Spraymalt Hopped Light at around 3% inclusion can provide the bitter back notes found in beer.

## COLOUR IMPROVEMENT

Lighter malt extracts can be used to contribute subtle colour contribution, such as off-white, cream and pale brown hues, suitable for nougat. Darker malt extracts can be used to provide a range of brown, red-brown and dark brown colour hues, suitable for fudges and caramels. The Torrax range can be used as an alternative to caramel colour. The Torrax range of liquids and powders can provide colour adjustment with minimal flavour at very low inclusion levels of 1%. This is useful for boiled sweets and soft candies.

## TEXTURE IMPROVEMENT

Actimalt Dried Regular, when used at around 3% inclusion level, can improve creaminess and mouthfeel of chocolate tablets, pralines and truffles.

Actimalt Liquid Regular can be used in nougat at inclusion levels of around 10% to improve stickiness and mouthfeel.

## CLEAN LABEL

Muntons products are based on cereals and can offer a clean or cleaner label.



# Dairy Products

## FLAVOUR ADDITION

Light Malt Extract is a particularly good source of clean malt flavours with minimal colour.

Dark Malt Extract can provide a stronger malt flavour to a range of dairy products.

## FLAVOUR NOTES

**Biscuit and Cereal:** Wheat Malt Flour TFC and Caramalt Flour can be used in breakfast drinks, where solubility may not be required. Wheat Malt Extract is ideal for use in yoghurts.

**Roasted, Coffee, and Dark chocolate:** The Torrax range can be used in desserts and beverages to premiumise the flavour profile.

**Vine fruit, Treacle, and Molasses:** The Actimalt EXD range are particularly useful for providing complexity or to differentiate a flavour profile.

**Caramel and Toffee:** Used at a low inclusion level, Actimalt Dried Crystal can contribute caramel flavours. At higher inclusion levels, Toffee flavour notes are present.



## FLAVOUR MASKING

The addition of malt extract in dairy products can mask unpleasant flavours, such as acidic flavours, that can be present.

## FLAVOUR BALANCING

Malt extracts can provide a more balanced flavour profile, by smoothing prominent sweet, sour or acidic flavours.

## COLOUR IMPROVEMENT

Lighter malt extracts can be used to contribute subtle colour contribution, such as off-white, cream and pale brown hues. Darker malt extracts can be used to provide a range of brown, red-brown and dark brown colour hues. The Torrax range can be used as an alternative to caramel colour. The Torrax range of liquids and powders can provide colour adjustment with minimal flavour at very low inclusion levels of 1%.

## TEXTURE IMPROVEMENT

Dried malt extracts can be used in beverages, ice cream, chilled and frozen desserts to provide richness, body and mouthfeel.

Malted Chocolate Powder and Malted Milk Powder will provide significantly more mouthfeel, due to the dairy components.

## CLEAN LABEL

Muntions products are based on cereals and can offer a clean or cleaner label. Malt extract can also promote a reduction in refined sugar content. Lighter colour extracts are sweeter in taste.



# Meat, Poultry & Meat Substitutes

## FLAVOUR ADDITION

Light malt extract can enhance savoury flavours at inclusion levels of 2-3%.

Roasted malt extracts provide savoury and smoky flavours to meat products and texturized vegetable proteins. Torrax XD Liquid can be included at around 1% for this benefit.

## FLAVOUR NOTES

A number of flavour notes can be provided by adding malted ingredients. These include; smoky, roasted, charcoal notes which can enhance chargrill flavouring in barbecue products. Suggested products are Torrax XD3 Dried and RBM Flour with inclusion levels of 0.5-1.0%.

Beer flavours in batter can be provided by including hopped malt extracts.

## FLAVOUR MASKING

The addition of malt extract in texturized vegetable proteins can mask unpleasant flavours and aroma of soy.

## COLOUR IMPROVEMENT

Torrax liquids can be used as an alternative to caramel colour or to replace colour lost during processing or cooking. Darker Torrax liquids provide colour adjustment with minimal flavour at very low inclusion levels of 1%. Lighter malt extracts can be used for a subtle colour contribution and red/brown hues and enhance gloss and sheen.

## TEXTURE IMPROVEMENT

Malted Wheat Flakes and Nuttimalt products can be used in breadcrumb coatings for rustic appearance and a firm crunchy texture.

Using malt extract in beef burgers for example, benefits the mouthfeel by creating a more succulent product.

## CLEAN LABEL

Muntons products are based on cereals and can offer a clean or cleaner label. The addition of hopped malt extracts can enable a reduction in salt content.



# Snacks

## FLAVOUR NOTES

**RBM Flour and the Torrax Dried range:** can provide smoky, roasted and meaty flavours at inclusion levels of 0.5-1.0%

**Crystal Malt Flours such as XD200 and Nut Brown:** can be used in seasonings to boost savoury flavours, as well as enhancing colour.

**Hopped Malt Extracts:** can provide bitter and hopped flavours often associated with beer.

**Light Malt Extract:** can be used in savoury crackers to provide savoury and cheese flavours. Suggested inclusion level 4%.

## FLAVOUR ENHANCEMENT

**Actimalt Liquid Regular:** has natural flavour enhancing properties due to naturally occurring glutamic acid. Additionally, extracts can enable a rounded flavour profile and reduce dependence on expensive herbs, spices and flavourings when used at 3%.



## COLOUR ADDITION

Torrax liquids can be used as an alternative to caramel colour or to replace colour lost during processing or cooking. Darker Torrax liquids provide colour adjustment with minimal flavour at very low inclusion levels of 1%. Lighter malt extracts can be used to give a subtle colour with red/brown hues.



## CLEAN LABEL

Muntons products are based on cereals and can offer a clean or cleaner label. The addition of hopped malt extracts can promote a reduction in salt content. Malt extract can also promote a reduction in refined sugar content. Lighter colour extracts are sweeter in taste.



# Soup, Sauces, and Seasonings

## FLAVOUR NOTES

A number of flavour notes can be provided by adding malt extract as an ingredient.

**Torrax XD products:** provide smoky, meaty and roasted flavours.

**Actimalt Liquid EXD 200:** enhances fruit flavours in sauces as well as adding molasses flavour notes.

**Hopped Irish Stout Extract:** provides hopped notes associated with beer flavours.

## FLAVOUR ENHANCEMENT

Barley malt extracts have flavour enhancing properties due to naturally occurring glutamic acid. Additionally, extracts can give a rounded flavour profile and reduce dependence on expensive flavourings when used at 3% in sauces.

## FLAVOUR MASKING

Light malt extract used at a suggested level of 3% can mask acidic notes sometimes present in tomato products. This effect is also seen in guacamole, salad dressings and similar products.

## COLOUR ADDITION

Torrax liquids can be used as an alternative to caramel colour or to replace colour lost during processing or cooking. Darker Torrax liquids provide colour adjustment with minimal flavour at very low inclusion levels of 1%. Lighter malt extracts can be used to contribute a subtle colour contribution and red/brown hues and enhance gloss and sheen.

## CLEAN LABEL

Muntions products are based on cereals and can offer a clean or cleaner label.



# Bread

## FLAVOUR ADDITION

In yeasted fruit products like Malt Loaf, where a strong malt flavour is desirable, Muntons EXD range can provide these characteristic flavours. The suggested inclusion level would be 6% of flour weight.

## FLAVOUR NOTES

Crystal malt flours exhibit a balance of sweetness, malt and roast flavours. The darker the crystal malt flour, the less sweet and more roasted they become. Roasted malt flours provide more intense smoky, roasted and bitter flavours.

The suggested inclusion level of crystal malt flours would be 3% of flour weight and roasted malt flours at 1.5% of flour weight.

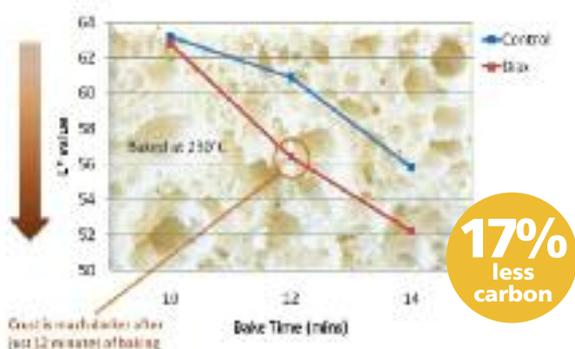
Cheese flavours are enhanced and savoury flavour notes are provided in savoury breads with Spraymalt Light inclusion, at a level of around 4% of flour weight.

Beer and stout flavours can be achieved by using hopped malt extracts in combination with roasted malt flours.

## COLOUR IMPROVEMENT

A range of colours can be achieved in the final product by using our malt flours which are up to 1450 EBC in colour.

Diastatic malt flours can provide additional crust colour to bread at a suggested inclusion level of 0.5% baker's weight.



## Bread

### COST REDUCTION

The amylases naturally present in diastatic malt flours break down starch to give a sustained release of sugars to feed yeast for optimum fermentation, which can provide a larger volume in yeasted products.

These natural sugars provide additional crust colour during baking, giving the opportunity to save energy use by reducing bake time.

### TEXTURE IMPROVEMENT

Malted cut grains and malted flakes are used to create rustic style breads, by providing textured pieces, a cereal-malt flavour, and also contribute to the wholegrain content. Typical usage level is around 10% of flour weight.

A granary style bread can be achieved when these particulates are combined with crystal malt flours.

Nuttimalt TFC makes an attractive crunchy topping.



### SALT & SUGAR REDUCTION

The addition of hopped malt extracts can promote a reduction in salt content.

Malt extract can also promote a reduction in refined sugar content, particularly in tea cakes where Spraymalt extra light can be used to replace all sugar in the recipe.

### CLEAN LABEL

Muntons products are based on cereals and can offer a clean or cleaner label.

