



# LOW CARBON STATEMENT

*This statement describes Muntons commitment to sourcing barley with a low carbon footprint and how that can be achieved without increasing on farm input costs.*

Muntons, established in 1921 is an independent manufacturer of malt and malted ingredients for the food and beverage industry. Although small in terms of malting, producing 180,000t malt per year at plants in Stowmarket, Suffolk and Bridlington, East Yorkshire when it comes to malted ingredients we are arguably the largest in the world producing around 40,000t per year in Stowmarket.

Muntons is passionate about environmental protection and is continually looking to reduce its carbon footprint. Since 1999 we have consistently outperformed climate change emissions targets set by government. In fact we have had an energy action plan in place for over 12 years so caring about our environment and taking steps to become more sustainable is not a new concept to us.

The subject of low carbon/sustainability is a vast one and awareness of/interest in the subject is growing with each day that passes. We have been involved in a number of projects centred on low carbon including work with HGCA & NIAB-TAG to raise awareness of the very real issues facing our supply chain. We firmly believe that legislation will force all of us to look more closely at the impact we have on our environment so we are working with those in our supply chain to get ahead of the game and pre-empt this inevitability.

We have coined the phrase '*Practical Sustainability*' to describe our active lead in promoting low carbon farming. To us this means taking action now that protects supply chain businesses by addressing the most intensive carbon areas of the supply chain and looking for sensible solutions now rather than waiting for the perfect carbon calculator to emerge which likely will never happen. Analysis of our own carbon footprint is now in its 6<sup>th</sup> iteration and work continues within Muntons to reduce our direct impact. However, the biggest impact on our total carbon footprint is the growing of our raw materials - barley & wheat. This accounts for a massive 60% of our footprint. It is therefore important for us not to get bogged down with research projects, but rather get out there and do something! The series of knowledge transfer days that we organised in conjunction with HGCA & NIAB-TAG were designed to do just that.

We have worked with a number of organisations from fertiliser manufacturers & compost suppliers to those involved in precision farming to look at various ways the carbon footprint of farming can be reduced. The manufacture and use of nitrogen fertiliser contributes the most to the cereal carbon footprint, but fertiliser manufacturer GrowHow has invested very significantly in abatement technology that has dramatically reduced the impact they have on the environment and a simple change to abated nitrogen fertiliser will have a very positive impact on farm – reducing that element of the footprint by around 50%. A big part of being able to make changes to a carbon footprint is being able to measure it. To do this a carbon calculator is required – but it has to be easy to use and robust in its assumptions and data handling.

We found that although there were carbon calculators available for farmers to use they were incredibly complicated and for this reason decided to create our own model. Our simple calculator was designed to show growers the possible reduction that can be made simply by switching to an abated nitrogen fertiliser.

***Practical Sustainability: Low Carbon Malt Making Real Changes in the Supply Chain – NOW!***

Feedback from our knowledge transfer days indicated that although growers do not simply want to be told what to do they do want guidance from us as to what level they should be aiming to achieve on a carbon calculator. Although a useful tool in the initial phase of our low carbon work, our calculator is too simple to be used as a definitive model so the HGCA in collaboration with a number of organisations including Universities, independent consultants and Muntons has developed a carbon calculator for arable crops. Using this model we are in the process of defining what we believe to be the 'low carbon range' for growing malting barley.

Approximately 20% of the grain purchased at our Stowmarket site is sourced directly from the farm and it is very important to us to maintain good relationships with our growers. By working with them on a one to one basis we aim to achieve our goal of producing 100% low carbon malt. In Bridlington we have been involved with trials on farm using compost derived from green vegetation and both sites have hosted a number of supplier open days. Our relationship with our merchant suppliers is equally as important to us and we are working closely with a number of them to engage their growers – a key aim is to create low carbon grower groups to achieve this.

Our work so far has suggested that the average range on the carbon calculator is between 300-500kg (CO<sub>2</sub>e). It will be our intention to ask growers to register below 300 in order to qualify for a low carbon contract. The abatement technology for liquid fertiliser is not yet as advanced as solid fertiliser production so we will be asking liquid users to go as low as is possible for them - reducing the amount of inorganic fertiliser used by supplementing with green compost for example. For liquid fertilisers using solid ammonium nitrate components at least that part can be sourced as abated hence improvements are possible for all nitrogen based fertilisers.

**To qualify for a low carbon contract growers must adhere to at least two of the following:**

- **Use of abated nitrogen fertiliser**
- **Precision farming techniques that result in more efficient use of/reduction of inputs**
- **Use of Green compost to improve soil structure/reduce the inorganic fertiliser used**
- **Use of alternative fertilisers that comply with PAS110 (\*No onions or other products know to taint grain are permitted \*)**
- **Nitrogen fixing cover crops**
- **Adherence to Conservation Grade/LEAF protocols to improve biodiversity**
- **Compliance with the SAI Platform Protocol**

Although becoming a 'low carbon grower' should not add cost to the production of malting barley (it will in fact result in reduced inputs and therefore generate cost savings) there is a need to 'entice' good, professional growers with an attractively priced contract to get them signed up to growing low carbon barley for malting. There will be a need for an audit process to ensure that the grain we receive is in fact low carbon and work is currently underway to put a protocol in place to do this.

Although the calculator we are using to measure carbon footprint on farm is currently limited to a single crop it is important to us that we take a 'whole farm/whole supply chain' approach to reducing our carbon footprint. We want our growers to be committed to reducing their carbon footprint and to caring for the environment in which we live and we want our customers to see the value of lower carbon products that are produced using more efficient & sustainable methods. The transition to 100% low carbon grain purchase will begin in earnest going into the 2013 harvest with a view to be producing 100% low carbon malt by 2015.

*If you require more information please contact Melissa Abbott at Muntons: [melissa.abbott@muntons.com](mailto:melissa.abbott@muntons.com)*