



Enabling Food Innovation Project

ASHOVER CIDER LIMITED

Ashover Cider Limited was founded in 2011 using excess apples in the village to make 100% apple juice cider. The company has outgrown its original facility and due to local demand is scaling up its operation, moving into larger premises and investing in new equipment. The company produces standard cider but also some flavoured ciders.

Project Brief: Aug 2017

1. An outlet is required for the pomace to make a value added product from this waste stream.
2. Help is required in processing kit layout to ensure minimising times they move the cider about, and to minimise aeration.
3. Information is required on cider made from wild ferments versus added yeasts.
4. More information is required on flavour development in cider and the link between process variables and cider flavour.
5. Information is required on body in cider, and what can be done to increase body in their product.
6. A process of how to make syrup or cordial from raw materials is required in order to hand make the flavourings for their flavoured ciders.
7. They wish to understand if they create a process without the use of sulphites and sorbates.

The Response: Aug 2017

1. The team is to supply technical advice on the link between cider process variables and finished product sensory properties.
2. The team will reviews plans for a new factory layout, giving advice when new kit arrives and before hand based on SALSA and GMP principles.
3. Potential new value-added uses for the apple pomace are to be determined, potentially utilising a new Post doc specialising in waste management or be part of a student degree project.

Benefit to the Business:

Ashover Cider Company has benefited from working with the university to try and reduce waste and improve efficiency. The company has gained valuable information regarding fruit regarding fruit sources and options around juice suppliers. We feel that we have support from experts in the field. Mick Philbin - Ashover Cider.



Student NPD project: Feb to May 2018

After completing the initial project, the Food Innovation team then engaged one of the Food Science student NPD project groups to develop a food product from an apple juice or cider by-product. It was decided to look at creating an ingredient that could be used for a sweet product (muffins) and a savoury product (extruded snack) and the latter was selected to enter into the UK Ecotrophelia competition.

Ecotrophelia UK: June 2018

A team of food science students recently won gold prize competing in the Ecotrophelia UK competition for food innovation with a spicy BBQ flavoured savoury snack made from the bi-product of Ashover Cider. They won with their Pom-Puffs product – a tasty and nutritious snack made from extruded apple pomace and maize, packaged in a recyclable pouch.



Ecotrophelia UK is a 'Dragons Den' style competition that challenges teams of UK students to develop an innovative, eco-friendly food and drink product. From idea generation through to the final packaged product, the teams get a hands-on experience of what it takes to bring an eco-friendly food or drink product to market.

The Nottingham team took on the challenge of finding a way to turn the bi-product of cider, apple pomace, into a tasty product that appeals to consumers. Using the state-of-the-art food processing facilities at the Sutton Bonington campus the team developed a process to dry out the apple pomace, grind it down and then mix with maize and other flavourings to create a tasty snack that is high in fibre, but low in calories and salt.

Alongside producing the actual product the team had to devise a business and marketing plan and design the packaging. With support from the University's Food Innovation Centre and Research and Innovation teams they were able to create their winning proposition.



The teams pitched their ideas to judges from top names in the food and drink industry including Marks and Spencer, Coca-Cola, Unilever, PepsiCo, Mondelez, Sainsbury's, Warburtons, Tesco, Food Manufacture, Institute of Food Science and Technology (IFST) and Campden BRI. Additional sponsorship was also provided by Food Matters LIVE.

Lisa Williamson, a food science student at the University of Nottingham and captain of the team, said, "Ecotrophelia has been a very positive experience for the team. We applied what we've learned in our studies, demonstrated our knowledge to the dragons and received great feedback as a result! We're also grateful for the technical support that we've received along the way" The other team members added, "We're overwhelmed to have won the competition. All the hard work done alongside our degree has finally paid off. Our teamwork and incredible belief in our product is what made it a success. It is also strongly aligned to the 'RICH Pickings' values - Reuse, Innovate, Community, Honesty".

Each member of the gold-winning team took home a share of £2,000 and an invitation to become an IFST Young Ambassador.

The University of Nottingham team will go on to compete against 19 other national teams from across Europe for the chance to win up to €6,000 at the Ecotrophelia European final, which will be held at SIAL in Paris on 21st and 22nd October 2018.

Associate Professor, Emma Weston from the division of food sciences mentored the team and said, "I'm incredibly proud of what the team has achieved, they have developed an outstanding product and honed skills that will be a huge benefit to their future careers in the food industry. The next stage of the competition will enhance these skills even further as they will be mentored by some of the businesses, giving them first-hand experience of translating their ideas into a commercial enterprise."

Bertrand Emond, Head of Membership and Training at Campden BRI said, "We are delighted that we are continuing to attract and inspire the best food science and technology students to take part in Ecotrophelia. It's a fantastic way for them to get exposure to some of the industry's biggest players and potential future employers. Around 300 students from 16 different universities across the UK have now taken part since 2013 and we are very grateful for the continued support that competition receives from the industry sponsors. Innovation and creativity is essential for the continued success of the food industry and Ecotrophelia helps to achieve this".

The UK heat of this Europe-wide competition was organised by UK food and drink research organisation, Campden BRI, in conjunction with the Institute of Food Science & Technology (IFST), the independent qualifying body for food professionals in Europe.

