Initial Discussion

Our CREST team met at the start of the year with our New Zealand Beef and Lamb client Fiona Greg and Rod Hare from Futureintech to discuss initial ideas. Fiona had a brief for a Breakfast food where the meat (Beef or Lamb) was the “HERO”. Initial discussion around breakfast and meat-based breakfasts in particular, indicated that there were not very many options that were convenient. This became one of the main aims of our project.

Aim:

Our aim was to create a healthy breakfast option using beef or lamb that can be prepared quickly for a hungry and busy family. The product should meet the following criteria;

- Provide a source of protein, iron, zinc, Vitamin B12, yet low in fat
- Sustain someone throughout the morning, high satiety
- Be prepared and cooked in under 15 minutes, using basic household appliances
- Be targeted to the household shopper

Problems we encountered

Some of the problems we encountered were:

- The length of time to precook the filling so it would develop flavour but not dry out. We had to be careful not to keep adding too many ingredients as the meat needed to be the HERO in the product and not be overshadowed by other ingredients. We also wanted to keep fat, salt and sugar to the minimum.
- Not be too thick or doughy. It needed to be a significant snack but easy to hold and consume on the go.
- Dexterity needed to achieve an acceptable colour
- Achieving a crunchy dough on the outside but soft dough inside

Further Development

As we had a limited time frame for this project there are some things we would have liked to have investigated further, such as:

- Creating more complex and varied flavour combinations
- Perfecting the shell like, we could only estimate shell thickness due to time constraints
- Develop packaging for heating which keeps product warm and protected hands

Research

A wide variety of research methods were used throughout the planning, developing and processing of our product. Such as:

- Surveys to establish like, dislikes and prior experiences
- Questionnaire to find out about consumer breakfast eating habits
- Focus groups
- Market research to establish what other products are available
- Some trialing

Initially we scoped consumer interest using surveys. As most New Zealanders eat a cereal based breakfast we decided to look at international breakfast ideas for inspiration. We provided consumers with visual pictures and descriptions of products, their feedback indicated a preference for a product that was bread based, required minimal preparation but could also be stored for a reasonable period of time. This also reflected the main specifications identified in our brief.

Trialing a selection of the three most preferred concepts allowed us to start to eliminate ideas. The three most desirable product ideas were:

- Empanada, a pastry based meal parcel
- Steam bun, a bread based meal parcel
- Hash brown, a potato and meat patty

Sensory profiles and interviews with consumers tasting the product enabled us to identify desirable features in each of the products.

Design Development

From consumer feedback we were able to identify that the steam bun was the most desirable concept, with its bread-like outer layer it was considered to be more acceptable to the consumer as a breakfast food as it was perceived to be healthier than the pastry based Empanada or the fried Hash Brown. However the proportion of dough to filling was a factor as the filling needed to be the HERO in the product.

Further research into bread-based food products revealed a Turkish product called a Gozleme (derived from the Turkish word goz meaning “compartment”). We decided to trial the Gozleme which fitted well into the brief provided by New Zealand Beef and Lamb but also was easily made in the time we had available for practical lessons with equipment available to us.

Initial feedback from sensory testing was positive, so after discussion with our client we went on to further develop the Gozleme idea.

We trialled a variety of Gozlemes with “breakfast themed” fillings:

- Lamb, feta and cumin
- Beef and BBQ sauce
- Beef and Egg
- Beef and Tomato sauce

Of these the Beef and Tomato sauce was the most acceptable to the consumer.

Further research around breakfast themed fillings indicated that there were not many options indicated that there were not very many options that were convenient. This became one of the main aims of our project.

Conclusion

The "Go Go Gozleme" created by our team meets brief provided by New Zealand Beef and Lamb as it is:

- A good source of iron (see nutrition information panel)
- Satisfying
- Able to be prepared in under 3mins from frozen using a common household appliance
- Targeted the household shopper

Our product also meets all the criteria for the Heart Foundation Tick

Testing

Once the idea was decided on and the flavour combination confirmed, we wanted to carry out testing to identify the product specifications. Some of the variables we tested were:

- Quantity of filling
- Method of reheating to ensure the product was safe to eat
- Thickness of dough
- Temperature of cooking
- Time of cooking
- Size of gozleme

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