

ARLIN
BRE
SLOWBEE



UNSPENT

Many breweries sell their used grain on as animal feed; some simply throw it away. **Lucy Corne** chats to an engineer-turned-entrepreneur who transforms the grains into a tasty snack that rightfully serves as a perfect accompaniment to a pint.



Does not contain beer. One issue the team has had is getting people to understand the concept of spent grain

“Spent grain is a bit of a bastard.” As I chat with Christo Worst over a morning beer I soon realise that this has become his mantra. Christo is the founder of Beer Crisps, a company that reincarnates malted barley used in the brewing process and turns it into tasty chips.

The project officially kicked off in March 2018, although the idea started to germinate before that. “It really all began when I went for an interview as brewery manager at Darling Brew in 2017,” says Christo. The timing didn’t quite work out and instead, his engineering career took him to Germany. It was there that he started looking into waste products and thinking about how they could be utilised and turned into something useful. “I started looking at spent grain as a possible product to focus on and researched what was already being done with it. I found people doing things like cookies and biscotti but it didn’t really make sense to me,” says Christo. “You don’t think of cookies when you’re drinking beer – I wanted to make something that worked in a beer context.”

HANDS-ON BEGINNINGS

“Spent grain”, as it is known in the beer industry, refers to the grains leftover once the brewing process is complete. These grains have already been milled and then mashed – that is, steeped in hot water for around an hour. Much of the sugars have been extracted to use in beer, but the leftover husks are still nutritious. Most

breweries sell or donate their spent grain to farmers to use as animal feed, but Christo was looking for a more innovative approach. “Spent grain has been around for thousands of years and nobody has done anything with it,” says Christo, “which struck me as odd.”

In March 2018, he made his first spent grain crisp. “We started on an extremely small scale, doing everything by hand,” Christo reminisces. “We were making individual dough balls and rolling them out with a rolling pin, then cutting them with cookie cutters. It was slow and tedious – we could make about six chips per minute!” And the speed of the process wasn’t the only issue. Making the chips taste good was of course key – and getting them to not break the equipment was an unexpected challenge. “As I said, spent grain is a bastard,” laughs Christo. “It clogs everything up, the dough often doesn’t bind properly and the grain husks are so hard – even after use in the brewing process. They’re still hard enough that they can break your equipment. I suddenly started to see why people don’t work with it!”

Once Christo got the recipe to a place where “it didn’t taste like cardboard”, he decided it was time to scale up. The first move was onto the viewing platform above Darling’s shiny stainless steel brewhouse, where the Beer Crisps team worked on equipment bought from a local bakery. Then, in April 2019 the Beer Crisps operation moved to small premises just off Darling’s main street. Here the team – including Adriaan Odendaal, who helped develop the business plan – quickly went from making six crisps a minute to

producing 1000 packets per day.

SUPPORTING LOCAL, THINKING GLOBAL

All of the grain used in the crisps comes from Darling Brewery – about 450kg per week, which represents only a fraction of the total grain used at that brewery. The spent grain makes up about 40% of the dough used for the crisps, with the rest consisting of potato flour, maize meal, maize starch and sunflower oil.

Once the dough is mixed, rolled and cut out (by machine - the cookie cutter days are long-gone), the crisps are briefly baked and then flash fried. They’re then seasoned in what is essentially a customised cement mixer, before being packaged. It took a while to get the seasoning right, but eventually all the experimentation paid off when Pick ‘n’ Pay started to list the crisps in their stores in mid-2020. They’re also stocked in a number of liquor stores, including Tops, as well as some breweries and boutique food shops.

But Christo wasn’t happy with just getting the crisps out to the South African market. “We want to have a global footprint, because nobody else has done this,” Christo says. “I have searched and I haven’t found anyone doing what we’re doing elsewhere.”

A SUSTAINABLE SNACK

They began exporting to the UK, and the crisps were embraced during lockdown, when British pubs were told they had to serve a “substantial meal” in order to be allowed to trade. Beer Crisps work well as nachos, a dish that took off in British pubs alongside pickled eggs and simple



Grab some Beer Crisps and design your own nachos - or use their recommended recipe

sandwiches. Sadly, sales have all but disappeared with the UK's latest round of restrictions, which have seen pubs closed completely for the past few months.

But Christo is hopeful that sales will pick up in the UK and is also seeking a partner to take Beer Crisps to the USA. They certainly have plenty of selling points – they're weirdly moreish despite their unusual texture. Or perhaps it's because of the texture, which happily lacks the greasiness of normal chips. They contain 50% less fat than standard potato chips and are higher in fibre. You know that feeling you have when you're at a braai and spend three hours eating chips before the fire is lit? Beer Crisps don't make you feel that way. They actually feel kind of healthy, the little chunks of grain lending a sense that you're

ingesting some good roughage. And of course they speak of sustainability and synergy: using a leftover ingredient from the brewing process to create a snack to drink with the beer that the grains were originally used to make. It's one of those circle of life things.

"We throw away so much of what we could use without a second thought so I'm really happy to be making something from a waste product," says Christo. When I was working in engineering I always wanted to do something cool and this is it. It's something that I want to tell people about." And considering the difficulties that come with turning spent grain into something delicious on a sizable scale, Christo might just be the only South African telling people about it for some time to come. 🍷



As well as the main range, there are two flavours exclusive to Darling Brew including the new mature cheddar version

RECIPE: BEER BRAISED CHIPOTLE CHICKEN NACHOS

INGREDIENTS

- 600g chicken breast
- 2 tsp chilli flakes
- 250ml salsa
- 2 cloves garlic, minced
- 125ml of your favourite beer (we like using Darling Brew's Slow Brew Lager)
- 1 tbsp honey
- 2 tbsp extra virgin olive oil
- Salt to taste
- 2 tsp smoked paprika
- 2 cups grated cheese
- 1 bag (125 g) of Beer Crisps
- 1 jalapeño, sliced (to serve)

Guacamole

- 1 avocado, smashed
- ¼ cup fresh coriander, chopped
- 1 tbsp onion, finely chopped
- 1 garlic clove, minced
- juice of 1 lime
- salt

METHOD

1. Preheat the oven to 180°C.
2. In a bowl, combine the chicken, half the olive oil, garlic, chilli flakes, paprika, honey, and a pinch of salt. Combine well, thoroughly coating the chicken with the marinade.
3. Heat the remaining olive oil in a large non-stick pan over medium high heat. When the oil is hot, add the chicken and sear for about three minutes per side. Reduce the heat and pour in the beer and half of the salsa. Cover partially and leave to simmer for 15-20 minutes, or until the chicken is tender and cooked through.
4. Shred the chicken with two forks and continue to cook until the sauce thickens. Add the remaining salsa. Remove from the heat.
5. To assemble, layer the crisps, chicken, and cheese in an ovenproof dish. Transfer to the oven and bake for 10 minutes or until the cheese is melted.
6. While the nachos are baking, whip up the guacamole – all you have to do is combine the ingredients in a bowl.
7. Top the nachos with the guacamole, sprinkle with sliced jalapeños and serve immediately with a crisp, cold beer.