

# Billie Bean





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# 1. Introduction

*A few month ago, we started spending a lot of time thinking about the future of supermarkets, with a particular focus on sustainability.*

*What ways, processes, and products can be improved? What opportunities and approaches can be developed to minimize our burdensome impact on our environment?*

There are so many factors, from food production to transportation and packaging, as well as the final presentation and sale in the store, that can be continuously adjusted to create a more thoughtful future.

For me personally, in-store communication is a big issue, whether it's advertising, company self-promotion, or the simple pricing on different products.

ng of various products. All these decisions are intended to increase the consumer's willingness to buy, regardless of their health or benefit.

It is important for consumers to receive the information they are looking for unfiltered and unadorned, but also to be encouraged to make conscious decisions and not to jump from one advertising trap to the next.

I think society as a whole can sometimes be very passive, and certain measures, which would

obviously be more sustainable, can be taken out of this sluggishness. Therefore, the more conscious offer must already come from the supermarket itself.

In the accompanying seminar, we were introduced to countless new materials derived from nature or waste, which are extremely promising. But they all have a common problem, the subsequent disposal or recycling. In the end, almost everything ends up back in the same bin, no matter how promising the material was.

We are in an urgent need of a new waste system. But also already improving even the smallest parts of a whole system is a great step in the right direction.

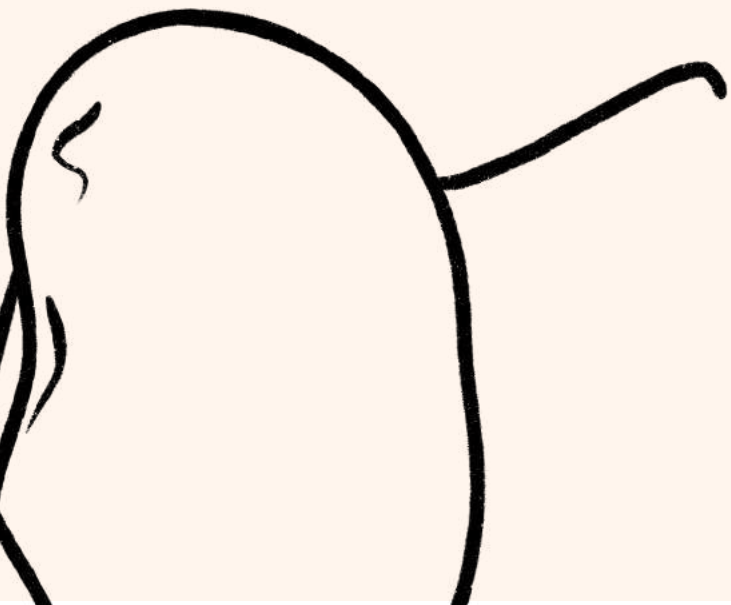






*In the seminars, we discussed many topics such as food waste, excessive transport distances for individual foods, and general eating behavior.*





## 2. Choice of topic

*Since there are so many exciting approaches to the food industry, it wasn't that easy for me to focus on one topic, as all areas are super fascinating and important.*

However, what ran through my phase of finding a topic was my interest in the way of communication in the store. How are we presented with what and, most importantly, how does the way of presentation influences our purchasing decision.

How many decisions do we make based on the way food is arranged in the store?

We know that fruits and vegetables are presented at the beginning of the store, so people put the healthy foods in the cart at the beginning. Other important staple foods are likely to be found at the other end of the store, forcing you to travel as long

a distance through the store as possible. After proudly assembling a healthy cart, you'll now be guided through the snacks and sweets to the cash registers, so you'll still permit yourself a treat or two. These strategies are used to generate the highest possible propensity to buy, not to provide the healthiest possible purchase.

So I asked myself what could be put in the cart that would be healthy for the consumer and the environment. That's how I came up with the topic of legumes. I was already interested in legumes, because they are a good alternative to meat. That was all I knew so far.

So I started to do some research. Legumes have so many extensive benefits for humans but also for the environment.

### 1. Legumes are super healthy

Legumes are high in valuable proteins, fiber, B

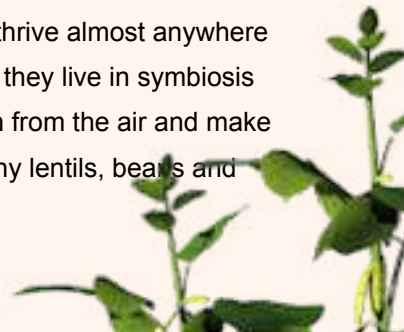
vitamins, iron, magnesium, potassium and zinc. They also contain other healthy phytochemicals. This makes them particularly valuable for a healthy diet.

Researchers have been able to show that lentils and co. can prevent cardiovascular disease, type II diabetes and high blood pressure. The seeds of legumes, as they are also called, contain little fat - but twice as much protein as wheat in addition they are completely free of gluten.

Especially for people who eat a vegetarian or vegan diet, legumes are therefore recommended as a full-value meat substitute.

### 2. lentils, peas and beans can be grown in a climate-friendly way.

Legumes are undemanding and thrive almost anywhere - even in poor soils. Their secret: they live in symbiosis with bacteria that absorb nitrogen from the air and make it available to the plant. This is why lentils, beans and



peas do not require mineral nitrogen fertilizers. This means that the plants are doubly good for the climate. The production of nitrogen fertilizer is very energy-intensive. In addition, nitrous oxide escapes into the atmosphere from fertilizer that is not absorbed. And that is almost 300 as harmful to the climate as CO<sub>2</sub>. According to the Food and Agriculture Organization (FAO), pulses, which are grown on 85 million hectares worldwide, remove up to six million metric tons of nitrogen from the atmosphere every year due to their special metabolism.

### 3. the cultivation of legumes conserves groundwater.

The cultivation of legumes protects water bodies - because no or only little nitrogen fertilizer is required. This is because wherever nitrogen fertilizer enters the soil unused, there is a risk that near-surface waters will be fertilized as well and "tip over." And some of the





unused fertilizer also reappears in the groundwater  
- as nitrate pollution.

Another advantage of organic farming is that synthetic chemical pesticides cannot get into the food, soil or groundwater in the first place - because they are not allowed to be used.

#### 4. legumes are good for biodiversity.

Legumes are excellent living nitrogen suppliers as part of a crop rotation in the field. Where legumes grew, subsequent crops thrive all the better.

But they have even more advantages: Unlike grains, legumes have flowers that provide food for bees, bumblebees and other six-legged creatures. In this way, crops help maintain biodiversity in and around the field.

And the soil also comes alive. Because as nitrogen producers, leguminosene stimulate all life in the topsoil and improve its structure. The UN therefore

calls them the "architects of healthy soils.

#### 5. They are versatile in the kitchen.

Pulses are practical all-rounders in the kitchen. Dried, they keep for a long time and are easy to portion.

Lentils, beans and the like are just as good in salads as they are in curries, soups or spreads.

### 3. Idea

After all the information, I looked up where to find legumes in the supermarket. Classically in a can with the canned goods, or in a jar in the organic department. However, the goal of the project is to make as sustainable as possible. The solution would be to buy leguminosenes unpackaged and dried.

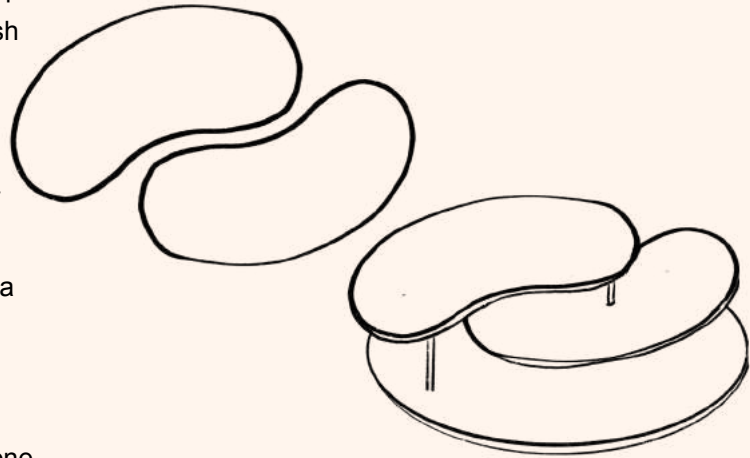
According to the psychology behind the construction of a supermarket, the beans and lentils should be presented at the beginning of the store, among the fruits and vegetables, so that the consumer's attention and

willingness to try something new is still high.  
Moreover, in many other countries legumes are part of the basic food and serve as the basis of a dish similar to potatoes or pasta in germany.

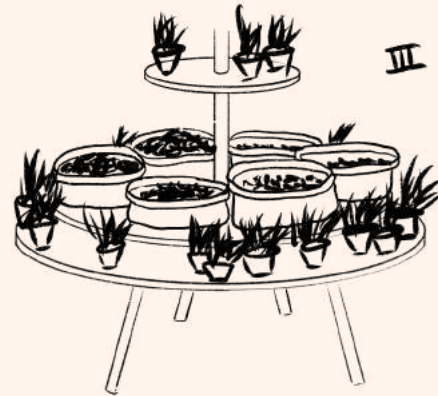
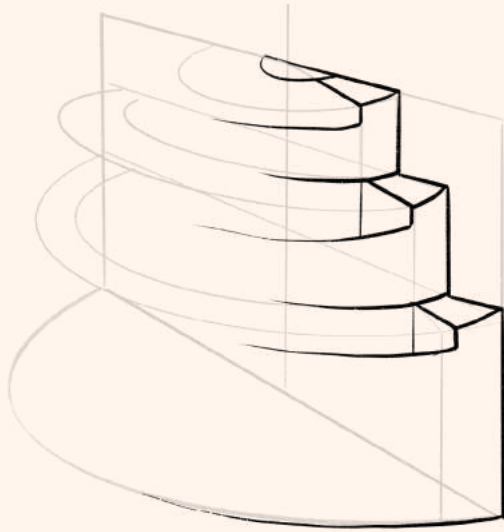
#### 4.Approach

I have made it my mission to bring the option of consuming legumes more to the attention of customers. I feel that beans in particular evoke a negative or old-fashioned association for many. There is also a lack of inspiration to incorporate them creatively and in a variety of ways into everyday life. Optimally, they can also replace one or two meaty ingredients in a meal.

The beauty of it is that we can grow beans regionally and save long transport routes. In addition, they enrich our fields for subsequent cultivation and the insect death is counteracted. All these benefits are difficult to communicate, but I wanted to present them in a modern and humorous way.

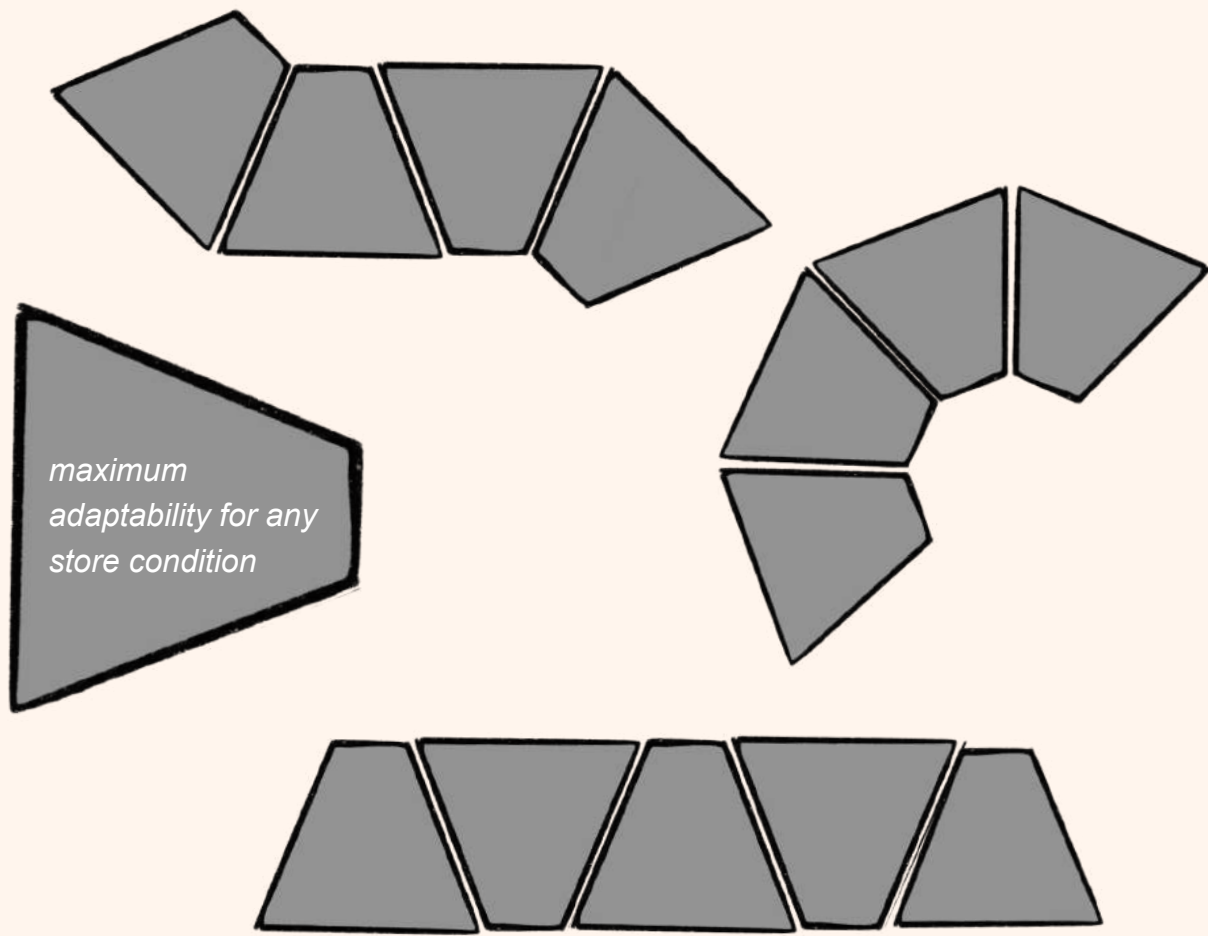


*how do i present an old fashioned  
ingredient with a modern vibe for the  
young and older generation ?*



## 5. Illustrations and shape finding

Visually, I approached the form finding to test the effect of an exhibitor. What requirements must it meet and what looks appealing but is still practical ?

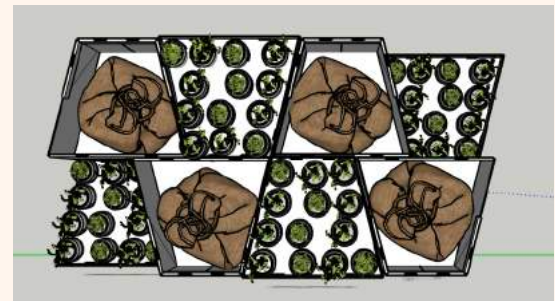
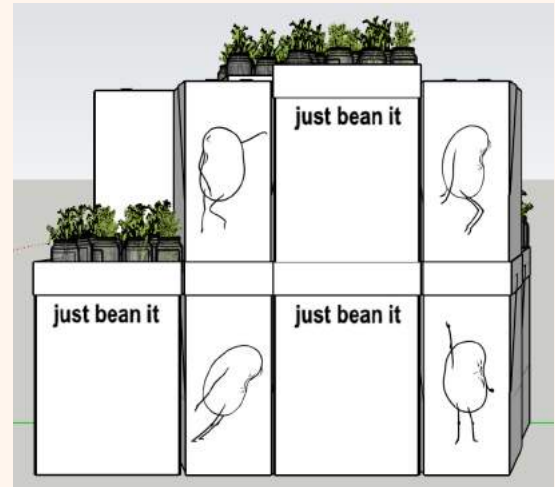


*maximum  
adaptability for any  
store condition*

Through the design process, an isosceles trapezoidal shape has prevailed. This shape allows several possible combinations. If you put them together alternately with the long and short side creates a straight line, show the short side to the front Forms a circle. In addition, the elements can be stacked.

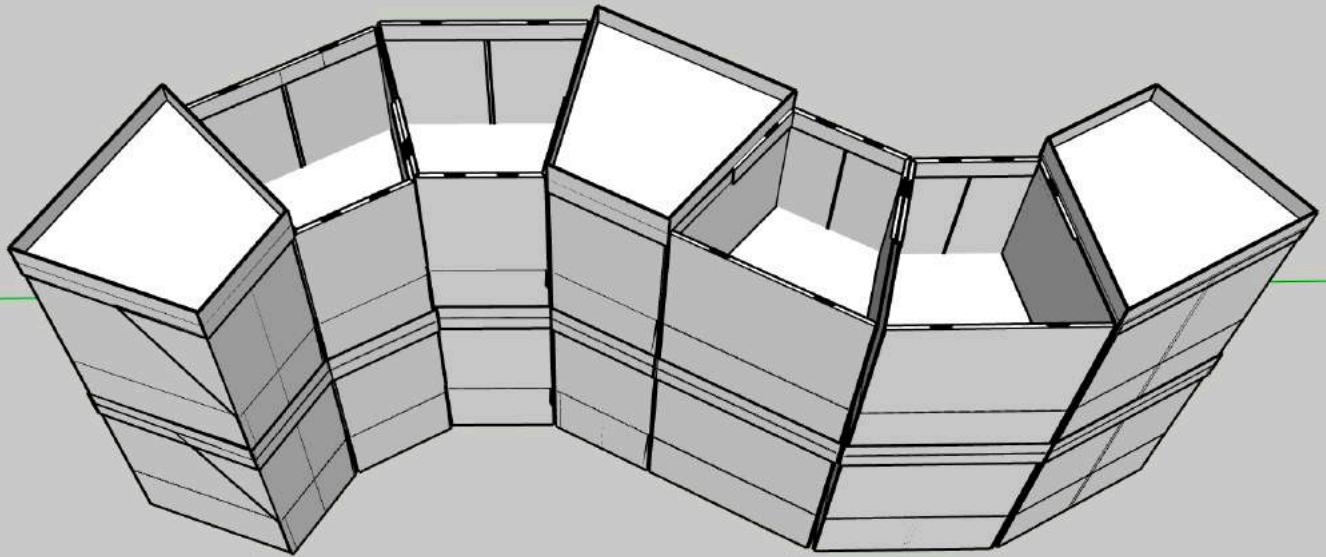
## 6. 3D Prototyping

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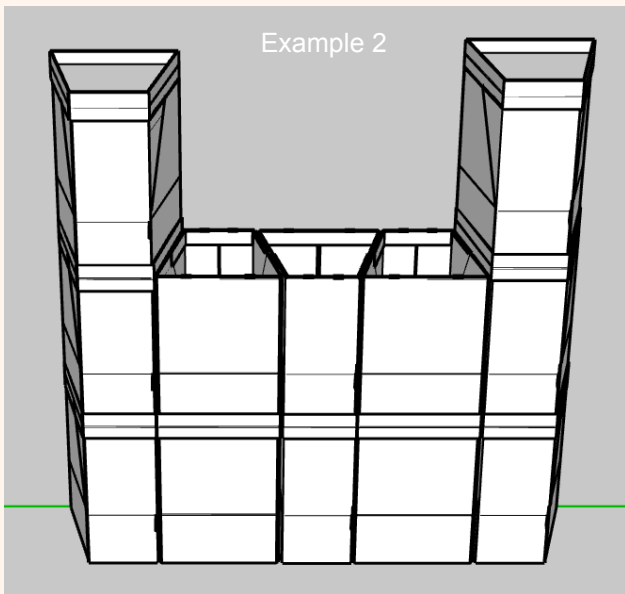


## Variations

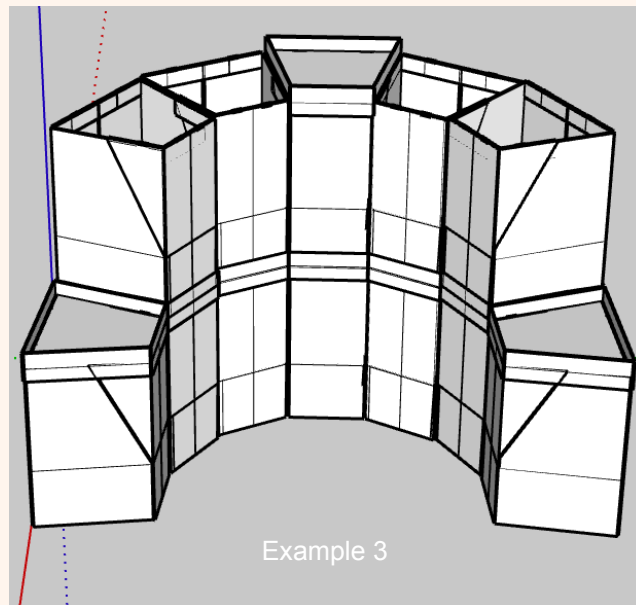


Example1

Example 2



Example 3



## 7. Create inspiration

Offering pulses unpackaged in the vegetable section is the first step. Now the inspiring communication to sell the bean to the customer is still missing.

To communicate processing ideas, I illustrated the ingredients for various recipes and printed them on the packaging. The packaging represent pillow boxes made from recycled paper. The folds are obvious and straightforward. and quick for anyone to implement without explanation. Once you have filled the desired amount of legumes, you take home an inspiring recipe right away.



# BOHNENEINTOPF



1. TOMATEN REINIGEN



2. ANBRATEN



3. MIT GEMISCHTUM AUFGEBEN



5. SALZEN

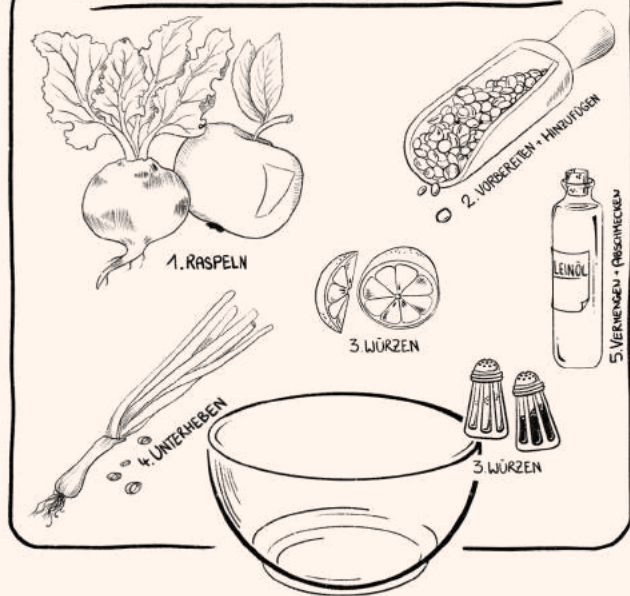


6. GEMISCHTUM AUFGEBEN

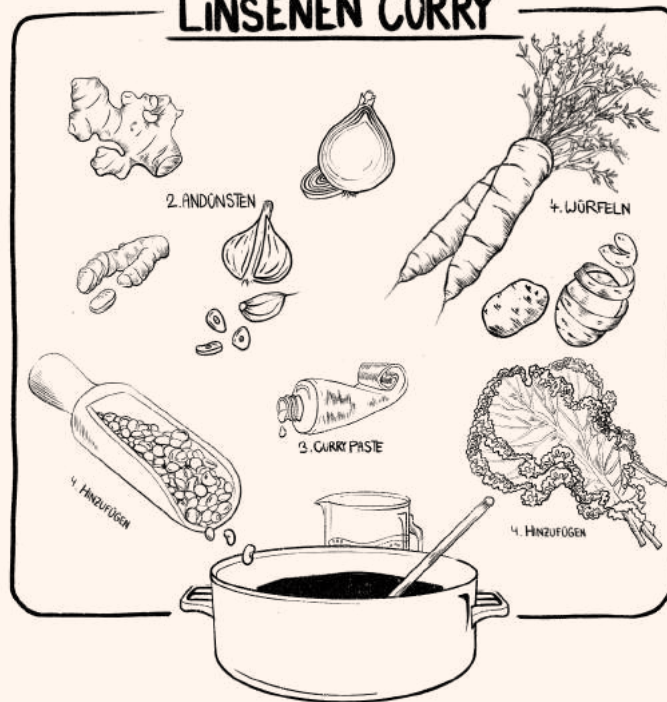




## ROTE BEETE LINSEN SALAT



## LINSENER CURRY





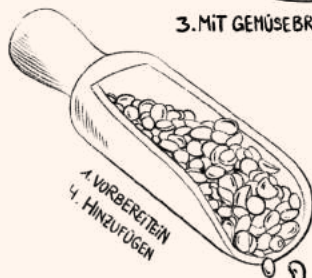
# BOHNENEINTOPF



1. TOMATEN RÖSTEN



3. MIT GEMÜSEBRÜHE AUFGIEßEN



4. VORBEREITEN  
4. HINZUFÜGEN



2. ANBRATEN



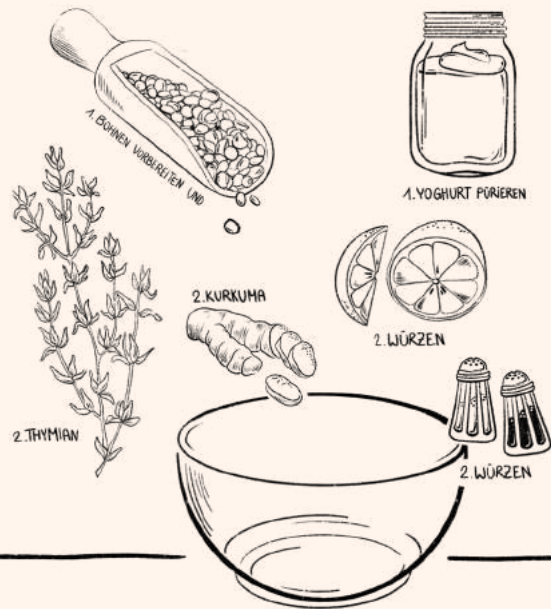
5. WÜRZEN



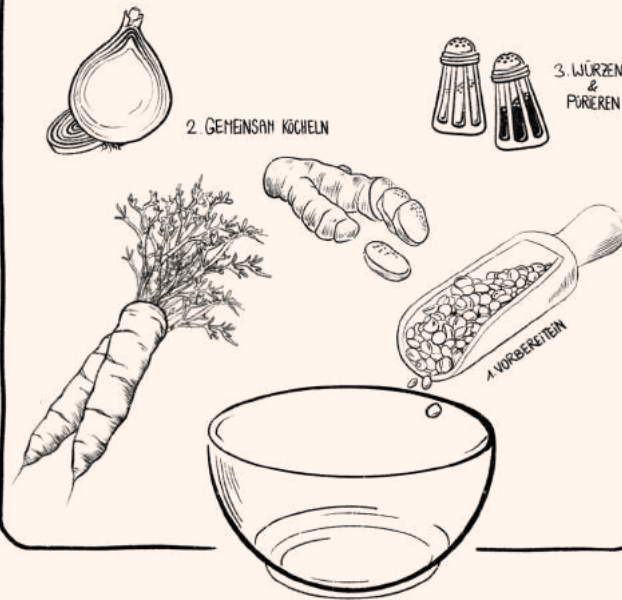
6. KÖHNEL HINZUFÜGEN



## BOHNENDIP



## LINSEN AUFSTRICH





**Billie Bean**

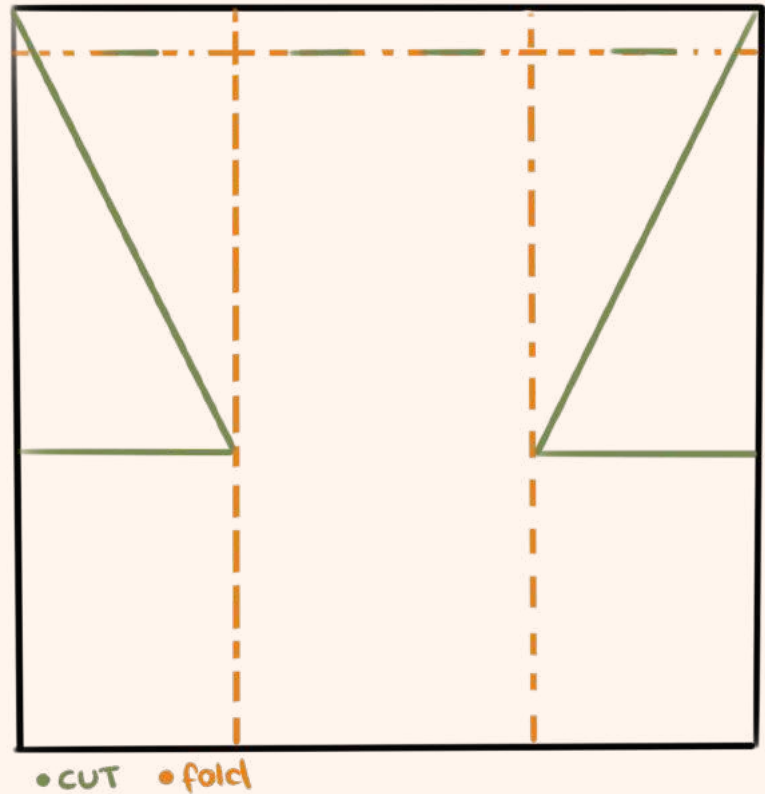


**Billie Bean**

## Technique Cardboard display

The exhibitors consist of stackable trapezoidal elements. One element consists of four folded sides, which are plugged and folded together, and an insert bottom. This insert floor provides additional stability in the whole construct because it holds the sides together. There are also shelves and intermediate pieces. The bottoms provide a stable stand for the lower elements and the intermediate pieces provide support in the connection when stacking.

The small package consists of 6 main modules and the large one consists of fourteen.



The package is delivered on a small pallet in flat form and is only assembled on site. The bottoms as well as intermediate pieces are already assembled and come to each end of the pallets and form the straight ends and prevent slipping.

In the small package are additionally two holders for the cardboard boxes and in the large four. The packaging holders are provided in each case for the modules with in which the pulses are offered.

In addition, the display stands are plotted with the intended branding.

I affectionately call the displays Billie Bean in reference to the album Thriller by Michael Jackson from 1982.

The song lyrics from 'just beat it' or rather 'just bean it' fits incredibly well with the theme of legume consumption.



# Billie Bean



**You have to show them that you're really not scared**  
(*Showing the beans not scared to eat them, bloating/uncool*)

**You're playin' with your life**  
(*eating too much meat is unhealthy*),

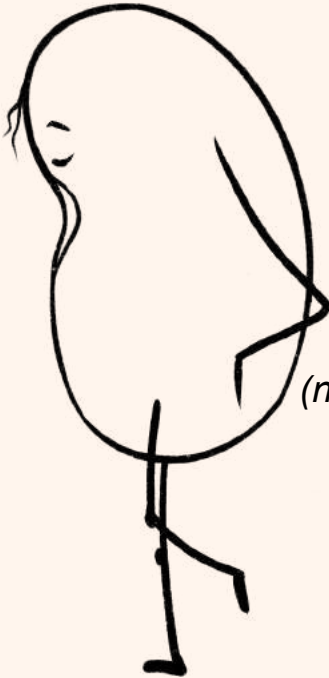
**this ain't no truth**  
(*meat industry*)

**or dare**  
(*fast-food industry*)

**They'll kick you, then they beat you,**  
(*not telling the harms of consuming wrong foods*)

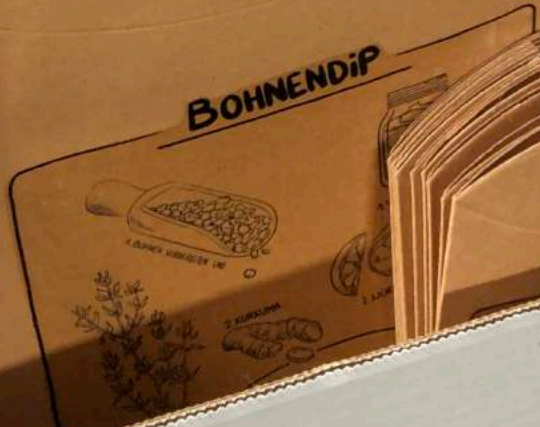
**then they'll tell you it's fair**  
(*animal treatments/consumption*)

**So beat it, but you wanna be bad,**  
**So beat it!**





**BOHNENDIP**



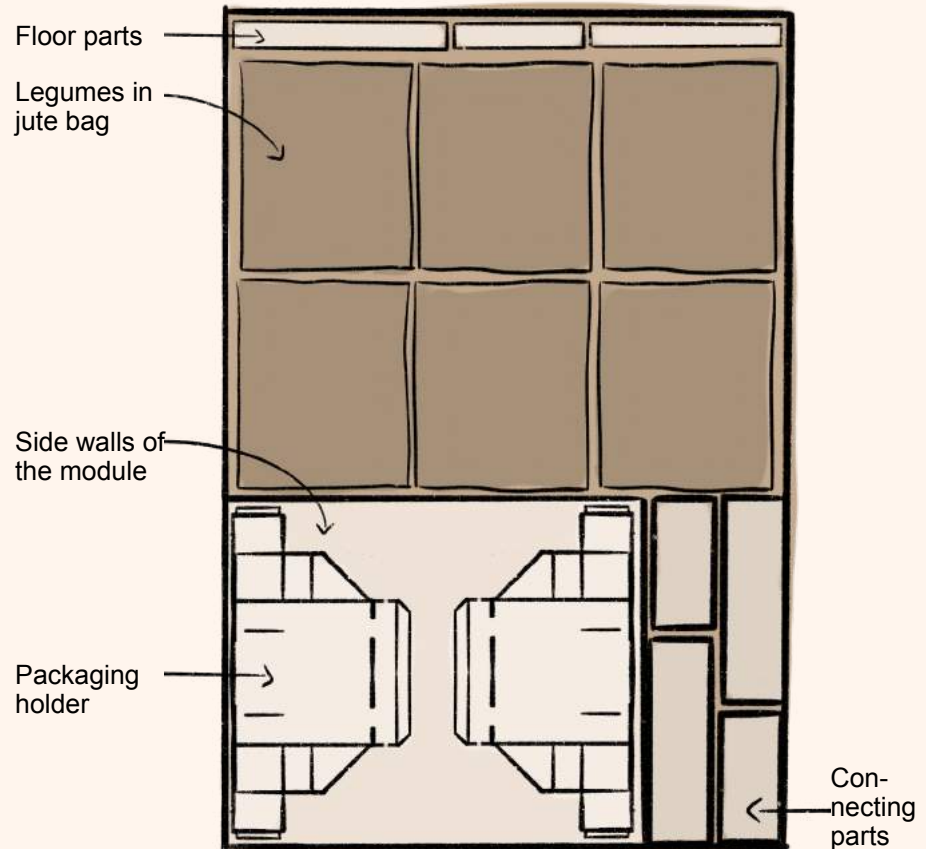
Legumes become especially digestible when we combine them with the right herbs and spices. Thyme, fennel, dill, ginger, marjoram, savory and caraway, for example, can counteract unpleasant flatulence. If we now add a source of vitamin C to the meal, our bodies can also absorb the huge supply of iron.



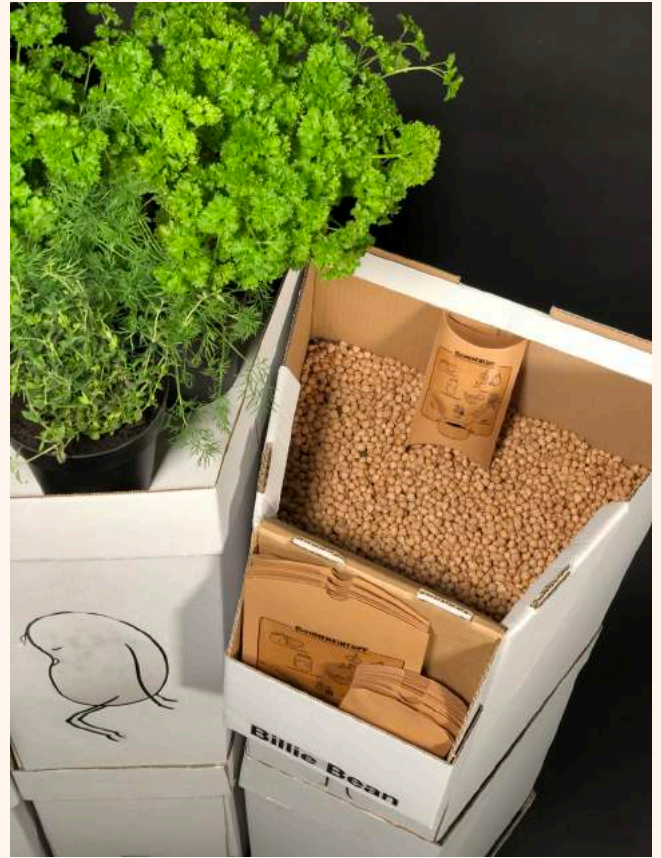
## Shipping

The supermarket display consists of two-sided fine corrugated board. The challenge was to generate the most plausible assembly method possible by folding and inserting only, since the entire product, the display including pulses, is to be delivered to the stores in a flat packs. In a single module there is space for 30L leguminous.

The package will be delivered on a standard EU pallet 120cm x 80cm and loaded as shown in the drawing.







## 11. Impact

*I find the topic particularly exciting because during the process I found more and more facts that speak for the bean.*

Not only do they nourish people, but as "architects of healthy soils," they are highly important for sustainable soil management and global food security. They have a low ecological footprint, increase carbon storage in the soil, and bring their own nitrogen fertilizer, thus counteracting climate change. For bees and bumblebees, they are an important food source with their beautiful butterfly flowers.

It is healthy for humans and for our soils. In the best case, they even replace the need for meat and can thus counteract factory farming.

My project is intended as a pop up display to catch the attention and trigger the first purchases.

This serves the supermarket as well as the

consumer to get used to the change and to try out new varieties again and again until they are firmly integrated into the vegetable department.







LINSEN ORK

BOVENKORT

ROTE BEETE LINSEN SNIJDT



Billie Bean

Billie Bean

UDK WiSe 2021/22

**Supermarket of the Future**

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