Co-Grain™

Grain packaging redesign for grain waste situations

The current situation of grain resource waste.

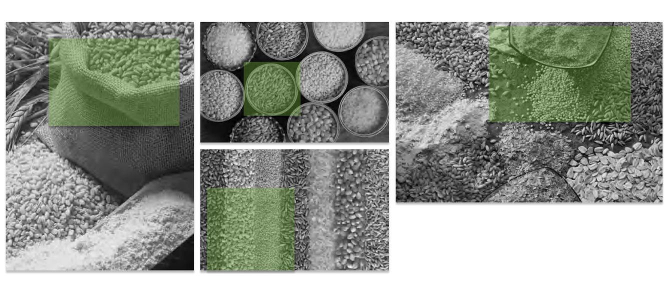
Grain waste

Household cereal waste is a common phenomenon, but one that people have become accustomed to. One reason is to buy too many grains and not consume them within a limited period. Some grains, such as rice or flour, can be stored for a longer period of time, but others, such as cereal or breadcrumbs, cannot be stored for too long. If these grains are stored in a damp or non-dry place, they may spoil.

In conclusion, household cereal waste is a common problem, but it can be solved by planning shopping, storing cereals wisely, dealing with cereal waste effectively, and developing good eating habits.

Over-purchasing and hoarding excessive amounts of grains, resulting in not being able to finish them within their shelf life, leading to waste.

How to solve the problem of grain waste?



The grains that can be recycled from household food waste include corn, rice, wheat, barley, sorghum, millet, oats, rye, and black wheat, among others. There are many ways to deal with surplus household grains, such as eating or donating them, making biomass energy, making biofuels, making organic fertilizers, or feeding animals.

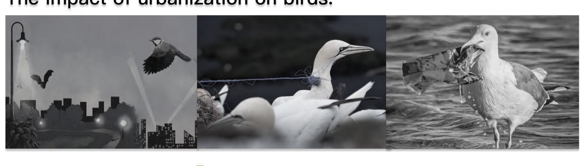
The percentage of households that experience grain waste.

1. For birds, natural grain resources can be used as edible materials.
2. Feeding grains to birds in urban or rural areas is a good way to reduce waste.

The status quo of urban birds

The habitat of birds is decreasing, their living environment is becoming increasingly harsh, and their food sources are also changing. In urban areas, birds may rely more on human-provided food, making it very difficult for them to forage. The habitat of birds is changing, and in cities, natural habitats are being destroyed, so birds may depend on artificial habitats such as parks and bird feeders.

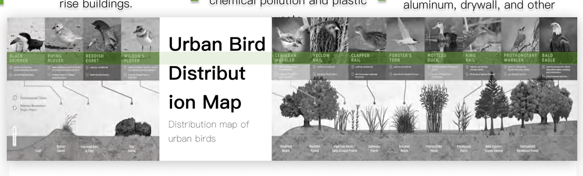
The impact of urbanization on birds.



Light pollution
Every year, light pollution causes millions of bird deaths. According to statistics, in one autumn, about 2,000 birds in Toronto were attracted by the lights and collided with high-rise buildings.

Chemical pollution
Urban birds face many challenges, including exposure to new predators and food sources, changes in habitat types, temperature ranges, and pressure factors such as chemical pollution and plastic

Urban garbage pollution.
When birds forage in places like garbage dumps, they have already deviated from their natural diet. By consuming the garbage in landfills, they inevitably ingest plastics, aluminum, drywall, and other



There are now various types of bird feeders.

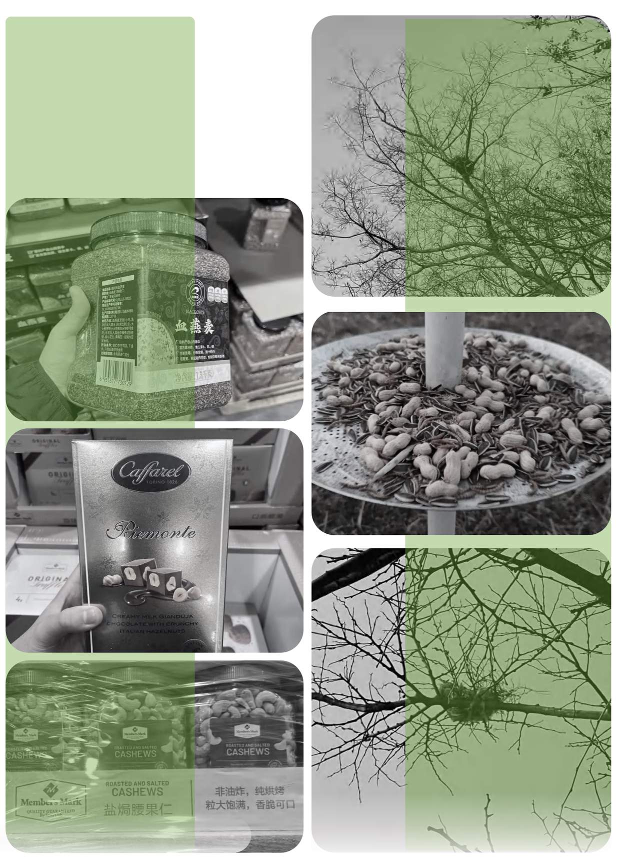
Field research

Grain research
The translator collects information on various grains through interviews with people who purchase grains to understand their living habits and whether there is any grain waste in their households.

Analysis
After collecting data from the previous step, summarize and collate information about the grains.

Bird Research
Observing and studying birds, researching a series of bird urbanization behaviors such as nest building, foraging, and more.

Summary
There is a phenomenon of grain waste in people's homes, and birds are greatly affected by urbanization, making it difficult for them to find food and requiring humans to provide food.



User Interviews

In order to find out the problem of cereal waste phenomenon in households, many people who would buy cereals in households were interviewed and analyzed.

–Miss.Chen,age:20.

"I live by myself, the supermarket cereal package is generally a large canister to buy a bucket to eat a long time are not finished to expire and waste, it is a pity."

–Miss.Xu,age:11.

"My mom always buys a lot of cereals, but she's too busy to make them, and when she thinks about it, they're already damp or have been sitting too long to eat."

–Mrs.Zhang,age:32.

"Children quite love cereals, I will carefully check the ingredient list every time I go to the supermarket to buy them, but there are fewer truly additive-free canned cereals."

DEFINE

User Profiling

Qianqian Zhao

30yrs

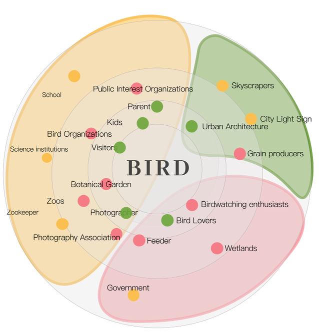
Librarian

Family: A family of three

Pain:

- The child's age is small, all natural, zero added can eat less grains.
- Busy work schedule and lack of parent-child interaction with children.
- With few family members, most canned cereals are consumed in large, infrequent quantities and tend to expire.

She is a librarian with young children, so she is very conscious of a healthy and green diet. She has few family members, and it is a great pity that every time she buys cereals, they expire or get damp and go to waste. She is busy at work and has little daily interaction and communication with her children.



key partners
- Product Processing Plant
- College students and teachers
- Environmental Protection Department
- Non-profit public interest organizations
- Processing and handling plants
- Grain recycling plants

key activities
- Production of grain packaging to bird feeder conversions
- Selling products
- Dispose of wasted grains
- Establishing a recycling service platform
- Finding eco-friendly green product partner brands

key resources
- Wasted Grains
- Technical support for high school students
- Wasted grain processing, reproduction technology
- Supermarkets provide selling space
- Environmental protection department support

value proposition
- Avoiding waste of grain resources
- Promote the establishment of circular value chain
- Educate people about birds
- Meet the multi-functionality of products
- Protecting a healthy and green living environment for human beings

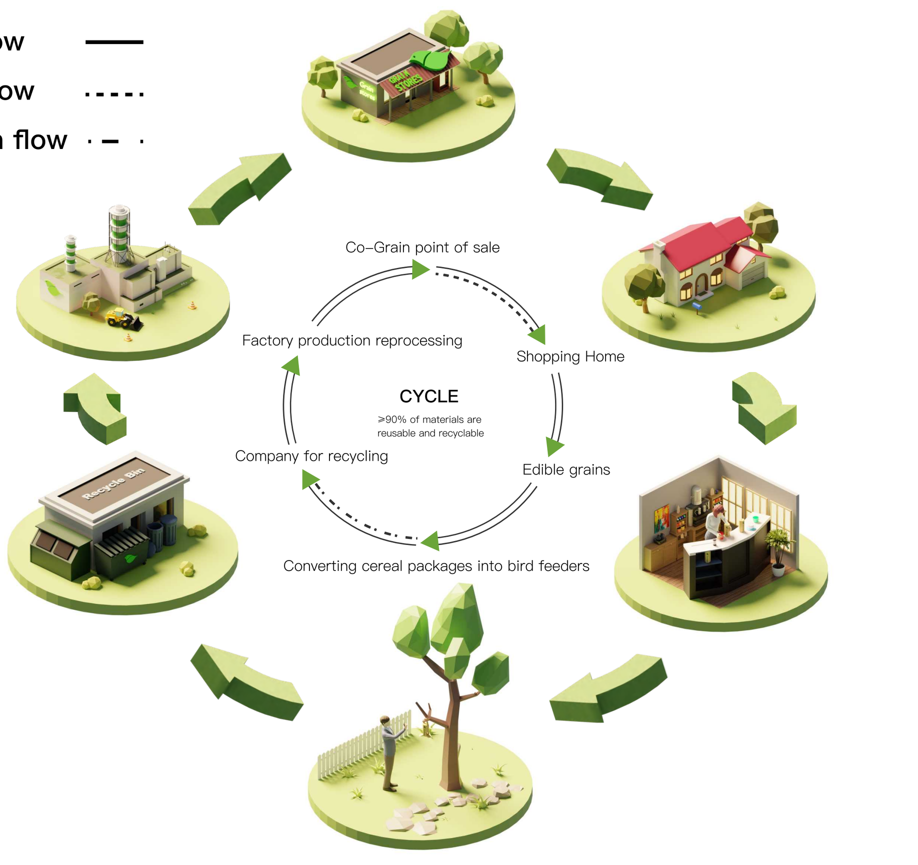
customer relationships
- Establish recycling and secondary use system through APP recycling service platform
- Promote products and bird knowledge to users through APP

channels
- Social Media
- Billboards
- Family and friends
- Supermarkets
- Environmental nonprofits

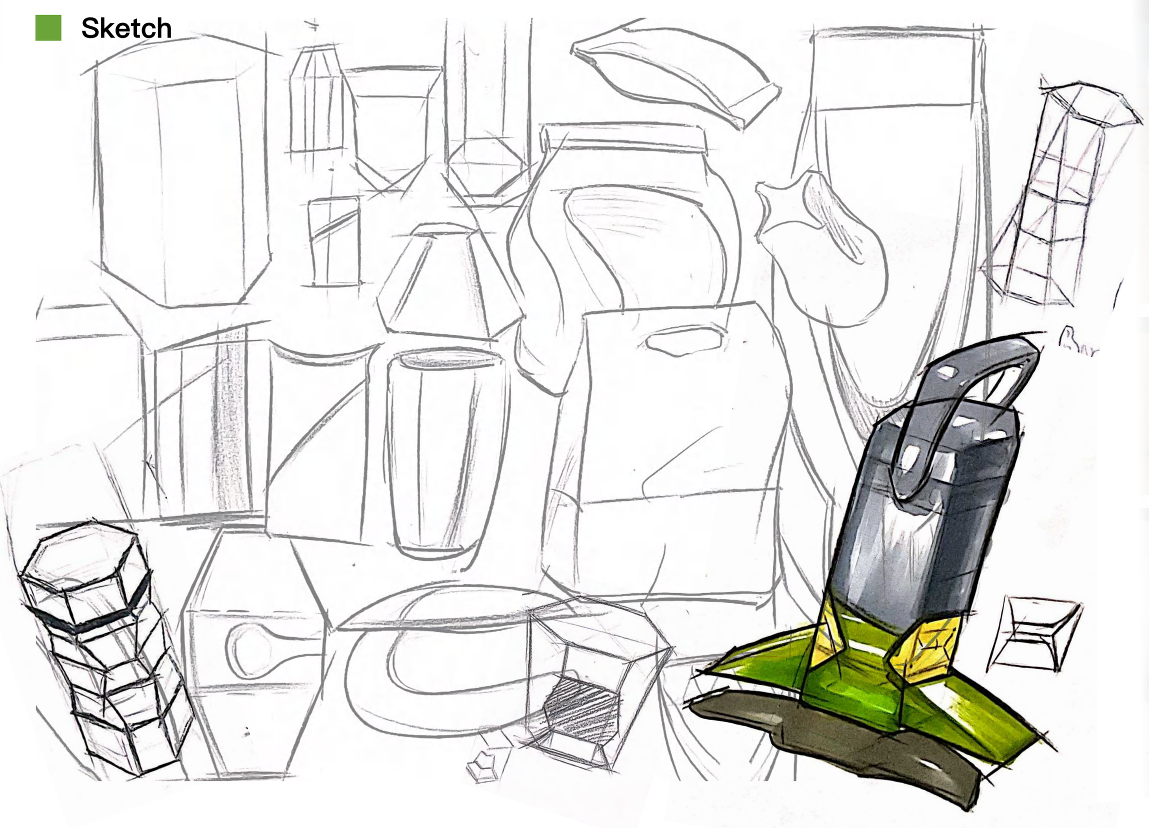
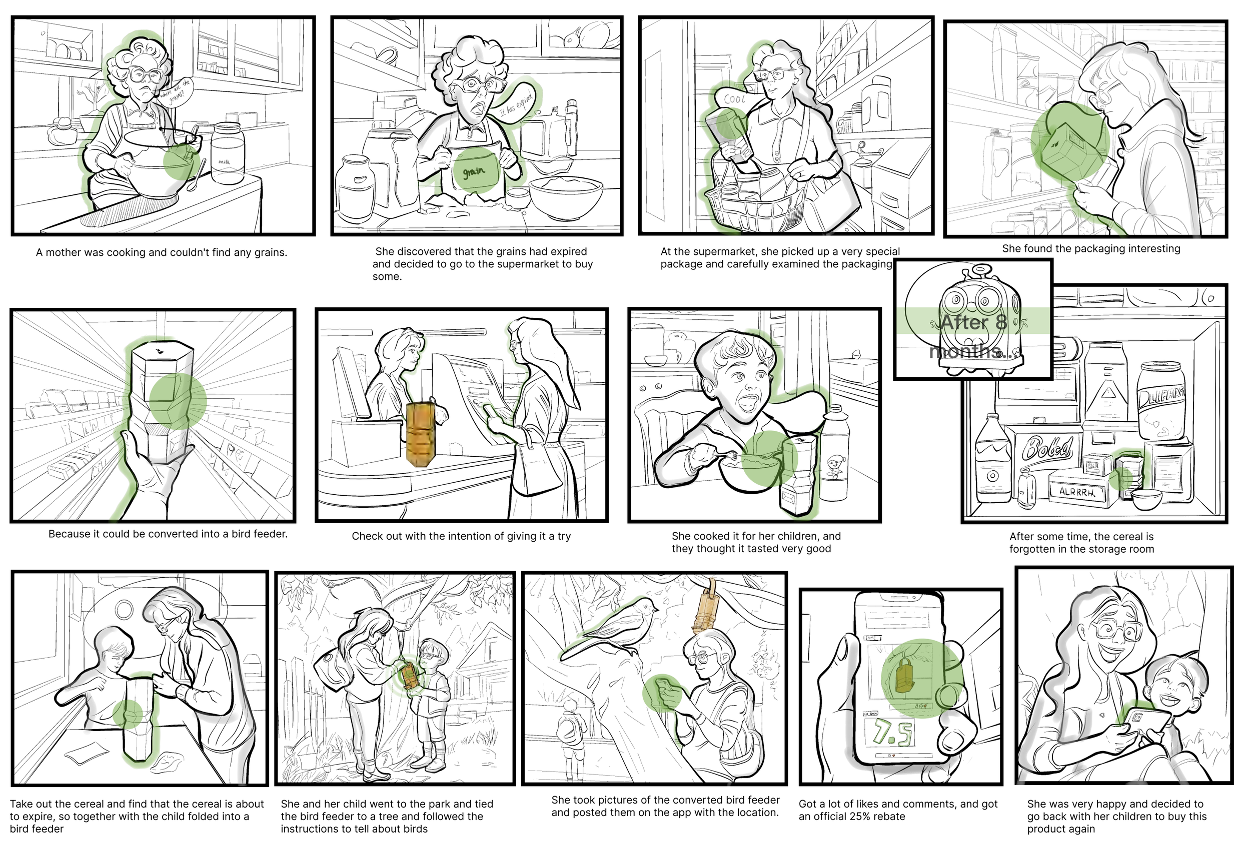
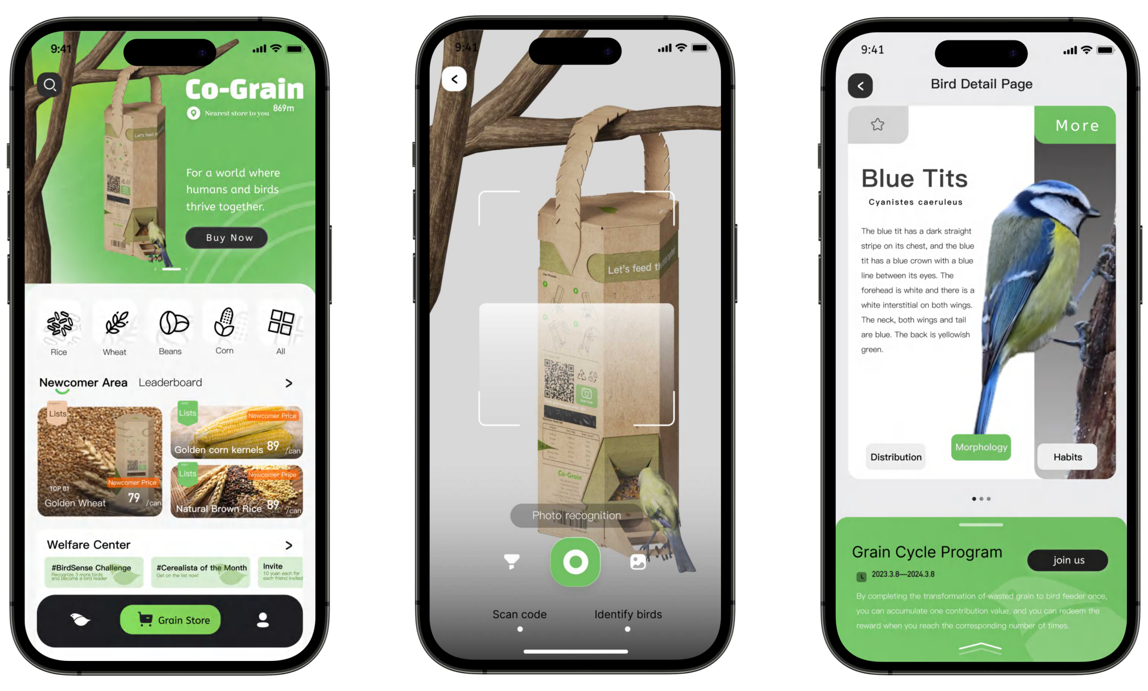
customer segments
- Environmentalist
- Grain Products, Inc.
- People who don't know what to do with grain waste

cust strictures
- Wasted Grain
- Product reprocessing
- Product packaging
- Partner brand company sponsorship

revenue streams
- User purchase of products
- Product Patents for Sale



DEVELOPMENT

Emotional version

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