Six Foods: Edible Insects

Cambridge, United States

Rose Wang

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Mushroom Lettuce Wraps

Cricket

Hornworm Salsa

Mealworm Tacos

Eat Bugs
Elevator Pitch

Concise Summary: Help us pitch this solution! Provide an explanation within 3-4 short sentences.

At Six Foods, we believe that 6 legs are better than 4. The way meat is currently produced is environmentally unsustainable. In response, we make delicious food from insects as a healthier and more sustainable protein source. We hope to kick-start an insect-eating movement!

Problem: What problem is this project trying to address?

The livestock industry is a leading cause of climate change, pollution, land degradation, and biodiversity loss. Currently, livestock produce 18% of greenhouse gas emissions, more than all forms of transportation combined. 70% of agricultural land in the world and ~50% of the water used in the U.S. is used to farm animals for consumption. By 2050 global demand for animal products is expected to double, a demand we cannot meet.

Solution: What is the proposed solution? Please be specific!

At Six Foods, we hope to inspire others to limit the industrially-farmed meat they consume and instead turn to insects for their protein source. Insects are the most environmentally sustainable way to eat meat, and introducing insects into our diets can increase the demand for insect farming and decrease the demand for livestock farming. This will address the root cause of many environmental problems. - If we raised insects instead of cattle we could reduce global greenhouse emissions by ~10%. - For every pound of insects we ate instead of a pound of beef, we could save 2,000+ gallons of water. - Insects are the most efficient living creatures for converting feed to food, 12x as efficient as beef.

Impact: How does it Work

Example: Walk us through a specific example(s) of how this solution makes a difference; include its primary activities.

When the Western world starts eating insect foods because they taste good and are sustainable, the supply of insects will increase to meet the rising demand. The goal is that insects can be transformed into burger patties and other meat forms, so that insect meat sales will cannibalize some of the animal meat sales. When this happens, more people can start insect farms. As more worldwide insect sourcing channels open up, we can reduce the pressure on livestock production. Realistically, we will not eliminate livestock farming altogether. But if we did, greenhouse gas emissions would decrease by ~10%. If a reduction in livestock production can even contribute to a 1% decrease in greenhouse gas emissions, we would be making a huge impact.
Marketplace: Who else is addressing the problem outlined here? How does the proposed project differ from these approaches?

The insect food space in the US is currently limited to novelty foods and protein bars made from crickets. There are only ~5 companies in operation. We differ from them in 3 ways: 1. Taste: We are using mealworms rather than crickets, because mealworms’ nuttier taste is perfect for snack foods. They are also cheaper. 2. Education: We are investing in our future consumers by educating them about insect farming sustainability through science classes. 3. Farming: We are working with farmers to start insect farms locally as models for scale.

About You

Organization:
Six Foods

First Name
Rose

Last Name
Wang

Twitter URL
https://twitter.com/sixfoods

Facebook URL
https://www.facebook.com/sixfoodsedibleinsectfoods

About Your Project

Organization Name
Six Foods

Organization Country
, MA, Cambridge, Middlesex County

Country where this project is creating social impact
, MA, Cambridge, Middlesex County

How long has your organization been operating?
Less than a year

Your Solution

Founding Story: Share a story about the “Aha!” moment that led you to get started and/or to see the potential for this to succeed.

We have all eaten insects in our pasts. Laura is an African Studies major and ate termites in Tanzania. Rose ate scorpions in Lijiang, a major hub of entomophagy in China. Meryl ate worms in her 10th grade chemistry class. When Laura read an article about eating insects, we joked that we should join the movement. The joke turned serious when we realized that we shared similar bug-eating experiences. Our “Aha!” moment came when we put mealworm lettuce wraps in the fridge at a competition and upon our return found that 75% of the wraps had been eaten. It was the perfect (accidental) social experiment – people loved eating bugs without knowing it.

Select Sector(s): To which of Unilever’s categories of sustainability does your solution apply?


Measurable Impact

Audience: Who have you identified as your customers/recipients and why? How will you get your solution to them or engage them in your initiative?

Because our product is so niche, we have segmented our consumers into Paleo dieters, pescatarians, yogis, and animal-rights activists, because they either need more protein or they are dissatisfied with animal meat production. We also want to engage farmers who are currently looking for more sources of income during their off-seasons. If demand for insect foods increases, than farmers can meet that demand and make money with higher margins because insects are more efficient and cheaper to farm.

Impact: What is the impact of the work to date and expected impact in the future?

Our impact is intrinsically tied to changing perceptions about insects, so our efforts have been focused on product development and proving that people will eat insects. So far, we have tested our foods on +100 people once a week for a month, and ~80% of them really like our food and ~50% say they would purchase our products. We are also working with renowned chefs to develop several different packaged food product lines
that we can bring into stores, bakeries, and restaurants. We will measure demand through units sold and total sales. Our real measurement of success will be the cannibalization of animal meat consumption by insect meat. Our prediction is that over the next 5 years, there will be little changes in the livestock market. However, once we start creating burger patties and other various meat forms out of insects, we can decrease animal consumption by 5% in 10+ years.

Growth, Finance & Leadership

Scaling the Solution: How do you intend to scale your activities over the next two years (e.g., reach new markets, diversify solutions, etc.)? What will make this possible?

We see ourselves as the mediators between the insect supplies and the insect consumers. In the next 2 years, we will distribute our insect foods through various channels: major healthy food stores (i.e. Whole Foods), bakeries, restaurants, and school cafeterias. As we generate sales, we will reinvest some of our earnings to help farmers establish insects farms in the US as well as open up sourcing from Mexico and SE Asia.

With the prize money from Changemakers, we will be able to set up our initial supply chain to bring 1-2 products to market through a retail channel. The publicity will help generate sales we can reinvest back into bringing more products to market. The demand generation of insects will allow for more insect farming.

Financial Sustainability: What is your business model to ensure financial sustainability?

Our business is self-sustaining because we are selling products. All we need is the initial capital to set up the supply chain (e.g. COGS, packaging, shipping) and the more sales we can generate, the more money we will have to invest in product development and scaling insect farms. As the market grows, our marginal, per-unit costs decrease due to bulk production. That way we can maintain higher profit margins and sustain as a business.

Experience: Please provide examples of any previous entrepreneurial initiatives you have pioneered.

We are 3 Harvard College graduates. Laura raised $14,000 to build a playground in her community through lemonade and cookie sales. She has also started Wema, a non-profit in Kenya. Rose has managed 2 businesses-The Harvard Shop, a retail store, and HSA Cleaners, a drycleaners. She has also worked in merchandising at Abercrombie and product marketing at Microsoft. Meryl studies Design for Social Innovation at School of Visual Arts in New York.

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