

Copy First Draft

The Low-Cost No-Grain Open Source Egg Farm

Eggs are amazing. As a food, they're not only delicious, but also a nutritional powerhouse. Even more amazing is that they emerge miraculously from chickens, the charming and versatile birds that have been humanity's companion, food waste disposal system, and alarm clock for some 9,000 years and on six continents.

Today, the average American consumes 260 eggs a year, laid by a flock of 288 million hens producing almost 7 billion eggs a month. But the system behind this is problematic at best: hens are treated horrifically; the grain they're fed creates a huge land footprint; manure is concentrated into a pollution problem; farmers are trapped in a production system dictated from above; the eggs are nutritionally inferior. And the males of the egg-laying flock? They're expendable, so the hatcheries grind them up alive on their first day out of the shell.

An alternative system of egg production has been emerging in the past decades: grain-fed mobile pasture operations, where birds are free to range on a new piece of pasture every day, with grains (often organic) brought to them by the farmer. This is a thousand times better than the industrial system: the birds and the farmers have a better quality of life, the land benefits from the impact of the birds, and the eggs are far more nutritious.

But this model also has its limitations. The hens are still fed on grain (giving them access to pasture only decreases their grain requirements by 20% at most, often more like 5%). This means the overall land footprint is still huge, even if the farm itself is a thriving ecosystem. This also makes it an expensive way to produce eggs: the feed cost is still there, but the labor cost is much higher. This gets passed on to consumers as high prices, putting pasture-raised eggs out of reach for most Americans, and unlikely to challenge the industry any time soon.

What we're exploring is a different approach, one that returns the domesticated chicken to its traditional role - turning our waste into eggs and meat, with no grain required. Karl Hammer of the Vermont Compost Company, a pioneer of the modern version of this system, put it like this: "We squander enough things in the United States to let out the 285 million hens that are in cages and eating grain, and let them eat squandered residuals and not live in cages."

So what are we planning to do about it? Three things:

1. Chickens and Compost, a Match Made in Heaven

Instead of importing grains to feed our egg-laying flock, we'll be using local organic waste products: food scraps from restaurants, hay and crop residues, slaughter waste from local meat processors and manure from local dairy and horse farms. But rather than simply feed the chickens on scraps, we'll be assembling these ingredients into thermophilic, bio-active compost piles.

Compost is a designer, high-speed decomposition event with two benefits for our system: first there's an explosion of micro- and macro-biota in the pile that provide a diverse and plentiful source of protein for the chickens to hunt and peck at; second, the by-product is not just decayed organic matter, but a vibrant, balanced inoculant of soil microbiology that makes a natural and effective fertilizer. In our case, we'll be using it to feed 10,000 new hazelnut plants as part of our woody agriculture project.

2. The Open Source Incubator

To help end reliance on large centralized hatcheries, we'll be designing and testing an incubator that can hatch 100 eggs per week - and we'll publish the plans for free. A lot of information is available on DIY incubators, but they're usually not at a useful scale for a small commercial farm, and they don't have the testing, reliability and easy sourcing that would make them a viable business option. Our incubator project will start with a survey of sustainable egg farmers to find out what they need most, and will include rigorous testing and documentation of supply chains and build procedures. Proprietary incubators of this size cost a minimum of \$800, we hope to lower this cost considerably to make on-farm hatching a possibility for any small farmer.

3. The Distributive Enterprise

The goal for us is not simply to have a profitable farm - we want small-scale, sustainable egg farming to be viable everywhere, so everyone can have access to high-quality, local eggs and we can end reliance on the large and destructive industrial egg system. To achieve this, we'll be publishing every aspect of the operation as a Distributive Enterprise.

This is essentially a business that's designed to be replicated by others. It open sources not just its technologies, but also its business model, operations manuals and marketing materials, with the goal of creating an ecosystem of similar enterprises cooperating as a sort of bottom-up, decentralized franchise. Imagine every region was dotted with small farms diverting waste from landfills and watercourses and turning it into eggs and compost - with your help that's what we hope to achieve with this project.

Main message:

We're doing research to make profitable small-scale egg production operations a viable proposition all over the US.

What we're creating with the funds:

- OS plans for a 300-egg incubator, aim to reduce costs from \$800 to \$200 for a DIY build, with efficient and easy build in mind
- Full documentation of scalable compost chicken system
 - production numbers (eggs, meat, compost)
 - business model
 - time requirements
 - full instructionals
 - building the flock
 - daily tasks
 - slaughter
 - marketing infrastructure
- live SME expert webinars with named examples (donors get first call on live attendance)

what do we need the money for?

- starter flock \$300
- initial incubator \$250
- incubator prototypes \$250
- coop infrastructure \$300

Possible perks:

- Workshop voucher
- Workshop discounts
- Reduced price incubator kits - these would have to cover our costs, though. We can consider full materials vs. guts of incubator.
- An incubator.
- Chicks. - Good idea. Low cost for us once chick is in place.
- Fertile eggs for hatching (shipping?) - find out about shipping.

Suggestion: perk is a future admission to a workshop, say \$350, where kit cost is \$200.

Examine cost structure carefully, including 3dp trays. Limit of 12. Later admission to workshop would be higher.

<https://www.barnraiser.us/projects/create-crowdfunding-campaign>

Notes for copy

Expenses of a normal pastured egg farm

Lifetime of a laying = 2.5 years (6 months before laying, then 1 year, then molt, then another less productive year).

\$3.00 per sexed chick (\$2.45 for us)

\$3.60 in equipment

16 lbs feed to get to laying age, then 0.25 lbs per day, total 196 lbs feed

Organic feed: \$23 a bag (conventional is \$14).

=> \$90 feed costs per bird

250 eggs in the first year, 150 in the second = 400 eggs, 33.5 dozen

Costs per dozen:

Non-feed \$0.21

Feed \$2.70

Carton \$0.35
(- \$10 for selling stewing hen)
=> cost of \$3.08 per dozen organic

Our goal:

Reduce feed costs by using local waste streams
Reduce flock establishment/replacement costs with affordable open source incubator
Reduce labor costs with efficient processes and clear documentation (no trial and error required)
Create compost as a by-product to enable other farm enterprises

Karl Hammer:

"If 15% of the United States population - that's 40 million people - if each of those persons undertook to keep 6 hens laying (so that would mean a family of four would undertake to keep 24 hens laying), and if each of those people undertook to keep 12 broilers, there would be no poultry industry any more. That's all it takes."

"If 15% of us undertook to keep 6 hens in lay and 12 broilers, that would replace all of the industrial chicken production - egg and meat - in this country."

Copy Outline

The Low-Cost No-Grain Open Source Egg Farm

Eggs are amazing. They contain...

Chickens are amazing too, they've been the companion and garbage disposal for humans since...

But the way we do eggs right now has a lot of **problems**.

Most eggs in the supermarket come from a horror show of a system...

Bad eggs...Sad franken-chickens...Trapped farmers...Nasty by-products...Huge and bad land footprint from grain

There is an **emerging alternative**: grain-fed pastured eggs.

1000x better: happy birds, great eggs, healthy land...

But...

Barriers to entry for the farmer...

High costs to the consumer...limited audience...everyone deserves good eggs

Because: big grain...same old big footprint

And nastiest of all, the Chick Grinder

We're proposing **another way** to solve the problem: The Low Cost No Grain Open Source Compost Powered Egg Farm.

What Is The LCNOSCPEF?

1. Efficient On-Farm Hatching

- The OS Incubator and Hatching Manual
- Lowers a major barrier to entry, keeps costs down over time
- Decentralizes breeding to bring diversity and productive vigor back to traditional breeds
- No chick grinder
- No franken-birds
- Meat birds as a by-product

2. Compost Piles for Feed

- Return chickens to a scaled-up version of their traditional role
- No grains grown just for birds
 - Instead of feeding the Big Grain Monster, we clean up after the Big Civilization Monster
 - Great diverse diet for hens = great eggs
 - Safe, efficient use of waste products
 - The by-product can power your farm's fertility and repair your landscape

3. Knowledge Base

- System has to be tested and documented to so farmers can actually use it, manage risk
- Has to be approachable for novice farmers for it to spread: instructionals, videos
- Backed up with expert knowledge: the SME Webinars
- Limits of scale must be discovered
- Recipes and manuals for all operations
- Hard numbers on money and labor
- A community of farmers improving the system

Eggs With a Side Of...

In addition to all that great stuff...

- OS Incubator Distributive Enterprise
- OS Tractor: further reducing costs
- The compost generated is powering OSE's research farm, starting with a 12,000 plant hazelnut breeding project.
- Broiler chickens as a free side-business

Perks

Tshirt - find cost structure of fulfillment

Hat - same

Computer sticker - \$10

\$50 Live Interaction on all Webinars

\$20 - 12 fertile hatching eggs - find out price of shipping - \$1 + shipping

\$40 Six Chicks (straight run, available from June)

\$100 Incubator Workshop Admission (incubator materials separate)

\$100 Incubator Brains - kit with controller, sensors, thermostat, fan etc. check price.

\$150 For each workshop individually

\$200 Incubator Insides - kit with above plus turning mechanism and shelves

\$300 Both workshops admission - includes feeding options, flock management, breeding, slaughter, coop design. Opportunity to purchase instructionals

\$300 Ikea-bator - full flat-pack incubator with instruction Heaven

Great.

Marketing Notes

- Christian Shearer's ag platform? <http://planetshifter.com/node/2035>
- Lulzbot and 3DP marketing, such as main 3DP blogs
- Regrarians platform.
- Develop or find tray 3DP file.
- <https://www.facebook.com/groups/757945157664218/>
- Farmhack

[4 Ways to Make Crowdfunding Fulfillment Easy](#)

[Optimizing Rewards and Perks](#)

[How can I use Perks to raise funds?](#)

[How to Design Catchy Rewards for Your Crowdfunding Campaign](#)

Local T Shirt Printers

<http://themarkit.com/>

<http://www.weprintt-shirts.com/>

<http://www.1ststreet.com/>

<http://www.bendershirts.com/490-anvil-organic-637.html>

Online Tshirts

<https://www.4imprint.com/tag/4941/Promotional-Tees?page=3>

<http://www.ooshirts.com/t-shirts/short-sleeve-shirts/canvas-doheny>

<http://www.ooshirts.com/quote/product/108>

<http://tsdesigns.com/cloud-organic/>

<http://www.customink.com/quotes>

<http://www.customink.com/styles/anvil-organic-t-shirt/127300>

http://www.econscious.net/Shop_ep_42.html

<http://www.logosoftwear.com/custom-made/t-shirt/short-sleeve/category.php>

<http://www.cafepress.com/make/custom-mens-t-shirts>

<http://amplifier.com/features/suppliers>

<https://www.theprintful.com/>

https://printaura.com/product-view/?v=Men%27s_T-Shirt&hdn=MQ==