

A PROPOSAL FOR DAIRY PRODUCERS

Augment milk sales. Start selling cheese.

The Minimum Industrial Complex —
hydroponic forage, milk processing, and a
ripening chamber in one building on your
farm.



$\frac{1}{3}$ the feed cost | **95%** less water | **6,000 L** per day | **100%** organic-compliant



The commodity trap

\$0

PREMIUM CAPTURED

Fluid milk clears at the federal order price. Your quality, your genetics, your feed program — none of it shows up in the check.

48 hrs

VS. 18 MONTHS

Milk is a two-day asset. An aged wheel is an asset you can hold, price, and sell on your own schedule.

37%

OF FARM EXPENSES

Feed is the single largest cost on US livestock farms — \$81.0 billion a year. Hydroponic fodder cuts that line to roughly a third.



One building, three stages

STAGE 01

Hydroponic forage plant



Barley fodder mats grown indoors on a 7-day cycle — year-round feed on a fraction of the land and water.

STAGE 02

Milk processing plant



Vat, press, and brine line sized for a single-herd volume. Milk moves from the parlour to the vat the same morning it is drawn.

STAGE 03

Cheese ripening chamber



Humidity- and temperature-controlled shelving. Wheels age 3 to 18 months, so you decide when to sell and at what price.

One slab. One permit. One crew. Feed in at one end, finished wheels out the other.



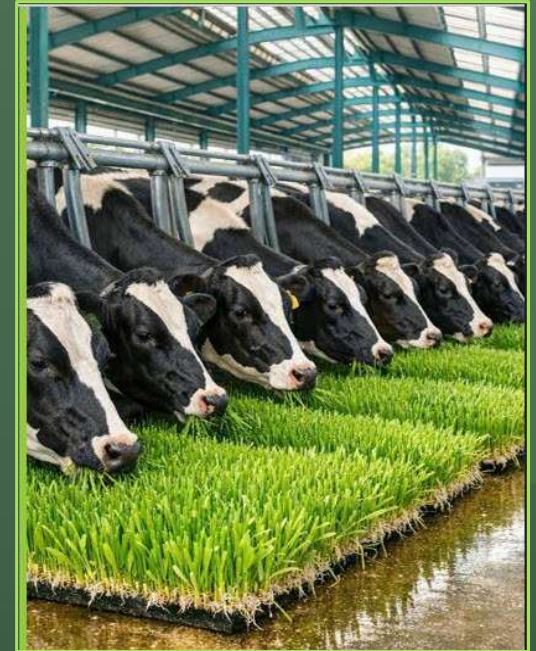
Stage 01 — the forage plant

HOW IT RUNS

- Turnkey containers, ready to run — a level pad, power and water.
- Scalable from 60 kg to 800 kg of fresh fodder a day.
- No ploughing, no rented ground — fresh forage every day of the year.
- Germination control that beats mould and mildew, 365 days a year.

WHAT IT CHANGES

- Feed cost falls to roughly a third of what you pay today.
- Milk volume and quality rise; fertility up, culls down.
- Germinated under the US organic program, OMRI-certified inputs.
- Consistent feed means consistent butterfat and protein.



WATER PER TON OF FORAGE ~~71,300 gal~~ → **145 gal**



The three units, spec by spec

Stage	Capacity	Format	Control
Hydroponic forage plant	60–800 kg / day	Mobile container	Climate-controlled germination
Milk processing plant	Up to 6,000 L / day	Turnkey container	Cheese, yogurt and smoothies
Cheese ripening cellar	Per varietal	Insulated chamber	Temp, humidity and aeration by app
The COMPLEX	One site	Level pad, power, water	Full technical support included

95% less water

145 gallons per ton of hydroponic fodder against 71,300 gallons for a ton of field forage.

1/3 the feed cost

Feed is 37% of US livestock farm expenses. Growing your own takes that line down to about a third.

1 m³ less methane

Per animal per year on hydroponic forage — 106 g less CO₂ released with every feeding.



What changes in the barn

REPORTED ON FARMS FEEDING FRESH FODDER

- ▶ Lower feed cost per cow
- ▶ Increased revenue per CWT
- ▶ Higher milk volumes
- ▶ Dramatically improved fertility rates
- ▶ Substantially lower involuntary cull rate
- ▶ Greatly improved herd health and coat condition
- ▶ Reduced need for mineral supplement

Demand is moving to organic, local and artisanal dairy. The COMPLEX is how a small farm gets there without leaving the farmyard.

ORGANIC BY DESIGN

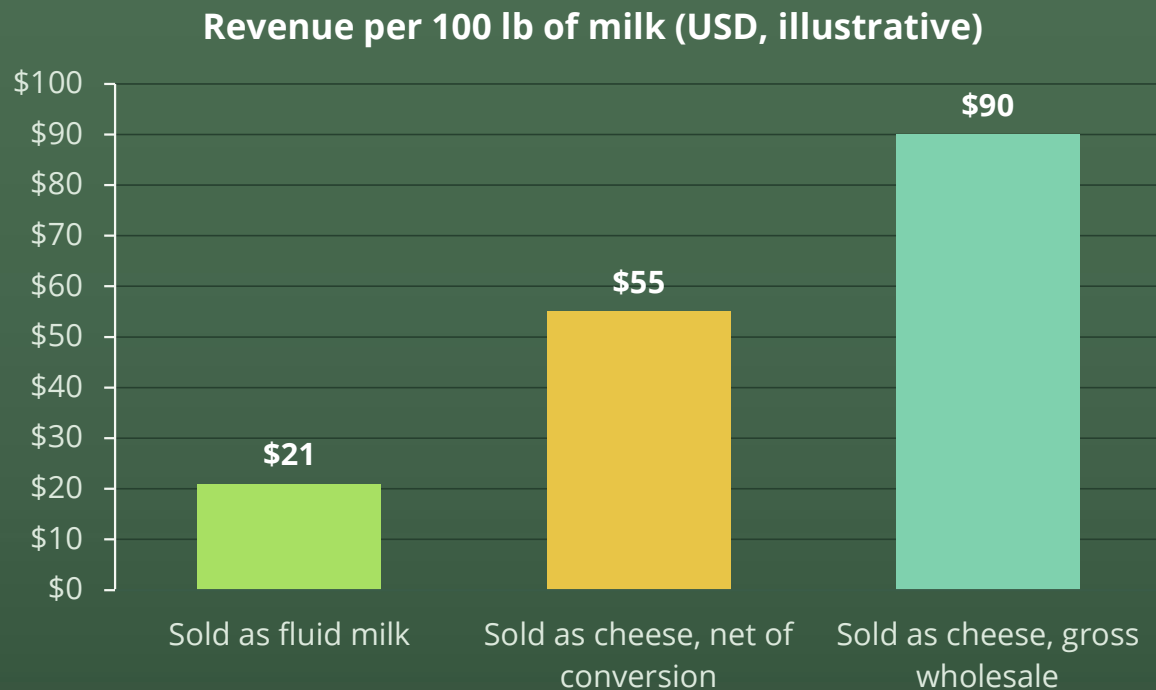
Grain is germinated under the US organic program using OMRI-certified inputs — no pesticides, no chemical residue in the finished cheese.

A LIGHTER FOOTPRINT

A single cow belches roughly 220 lb of methane a year. On hydroponic forage each animal releases about 1 m³ less methane annually.



Where the money goes instead



THE TAKEAWAY

Roughly 100 lb of milk makes 10 lb of cheese. Even after paying for the plant, the labour and the shrink, the same milk earns about two and a half times more once it leaves your farm as cheese.

Illustrative figures — replace with your own milk revenue and target cheese price.



Four steps to a first wheel

1. Calculate twelve months of milk revenue.

We model your actual revenue against a cheese scenario using your volumes, not averages.

2. Pick a cheese and a market.

A firm alpine-style keeps 12 to 18 months and sells well at farm shops, farmers' markets and regional grocers.

3. Site walk and permit path.

We map the complex onto your existing yard and identify the dairy plant licence you will need.

4. Build, commission, first make.

Roughly seven months from signed drawings to your first wheel going on the shelf.



Let's talk about your farm

Send your herd size and current milk price. We'll build the numbers for your farm.

Allan M. Olbur

GREENFIELD HYDROPONICS

EMAIL adamo@GreenfieldHydroponics.com
PHONE 224-425-9236
WEB <https://www.GreenfieldHydroponics.com>

**Be part of this
agricultural
revolution.**

The time is now.

