Since our origins in 1994, Straus has bottled family farm certified Organic Cream-Top Milk in reusable glass bottles.
Our Mission

Straus Family Creamery is driven by our mission:

To help sustain family farms in Marin and Sonoma Counties by providing high quality, minimally processed organic dairy products.

To support family farming and revitalize rural communities everywhere through advocacy and education.
A set of practices that support the cycling of on-farm resources, promote ecological balance, and conserve biodiversity. - USDA

Albert Straus:
- Organic Dairy Farmer
- CEO
- Circular Economy Trailblazer

ORGANIC FARMING
A NEW WASTE MANAGEMENT FRAMEWORK

All Materials Have Potential Value.

Our actions impact that value.
Valuing Material Yields Economic Benefits
Our word choices matter.

MATERIALS

At Straus Family Creamery we chose to manage materials, not waste.
DEFINING ZERO WASTE @ STRAUS

Zero Waste...?

• **IN PRINCIPLE:** “Zero Waste: The conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health.” - ZWIA

• **STRAUS STRATEGIC APPROACH:** Working towards only using materials that have actual value in the REconomy and have minimal life cycle environmental impacts. - Joseph

• **IN PRACTICE:** 90% environment & land fill diversion. Continuous improvement (aka – highest and best use of materials). Multitude of codified material management strategies and efforts. - TRUE Zero Waste
ABOUT TRUE ZERO WASTE

In practice what does ZERO WASTE really mean?

TRUE (Total Resource Use & Efficiency) Zero Waste Certification is an award that recognizes excellence in waste management. The program is administered by GBCI (Green Business Certification Inc.).

To be eligible for TRUE Zero Waste, the applicant must prove their facilities divert at least 90% of waste away from landfill, incineration, and the environment and utilize a variety of best practices in waste management.

*(unsolicited)* - I personally challenge every food manufacturer to pursue TRUE Zero Waste certification. Join us in transforming the waste-first economy into an actual REconomy. Only together can we make this transformation a reality.
OUR ZERO WASTE FACILITIES

Creamery
- Facility Type: dairy manufacturing
- Size: 27,000 square feet
- Location: Marshall, California
- Employees: 75
- Diversion Rate: 91.7%
- Certification Level: Gold

Warehouse & Office
- Facility Type: storage & logistics
- Size: 55,750 square feet
- Location: Petaluma, California
- Employees: 48
- Diversion Rate: 95%
- Certification Level: Gold
How we measure diversion from landfill:

“Diversion” under the TRUE Zero Waste Framework includes waste that is avoided, reduced, reused, recycling, composted, or converted to bioenergy (not incinerated). Straus Family Creamery tracks materials in 19 categories or “streams” across our two facilities.

### Monthly Waste Tracker

<table>
<thead>
<tr>
<th>Diversion Rate</th>
<th>Total: Landfill</th>
<th>Total: Alternative Streams</th>
<th>Month</th>
<th>Creamery Compost</th>
<th>Creamery Recycling</th>
<th>Creamery Glass</th>
<th>Cardboard - IC</th>
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<tbody>
<tr>
<td>92.2%</td>
<td>7,164</td>
<td>84,904</td>
<td>Dec-18</td>
<td>1,170</td>
<td>2,008</td>
<td>7,800</td>
<td>13,980</td>
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<tr>
<td>90.6%</td>
<td>7,164</td>
<td>68,764</td>
<td>Nov-18</td>
<td>1,170</td>
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<td>92.3%</td>
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<td>Sep-18</td>
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<td>2,008</td>
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<tr>
<td>94.0%</td>
<td>7,164</td>
<td>112,480</td>
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<tr>
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<tr>
<td>91.6%</td>
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<td>2,358</td>
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<td>92.9%</td>
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<td>90.2%</td>
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<td>Jul-17</td>
<td>-</td>
<td>2,358</td>
<td>7,800</td>
<td>4,700</td>
</tr>
</tbody>
</table>
Also... We “dumpster dive” 4 times per year.
ACCOUNTING

How we measure diversion from landfill & the environment:

“Diversion” under the TRUE Zero Waste Framework includes waste that is avoided, reduced, reused, recycling, composted, or converted to bioenergy (not incinerated). Straus Family Creamery tracks materials in 19 categories or “streams” across our two facilities.

\[
\text{Diversion Rate} = \frac{\text{Waste Diverted}}{\text{Total Waste}}
\]

2018 Diversion Rate = \( \frac{1.05 \text{ million pounds}}{1.135 \text{ million pounds}} \) = 92%
Converting Organic Waste into Renewable Energy

Straus Family Creamery captures liquid waste from the creamery to use as a feedstock for the methane digester on the Straus Dairy Farm.

We collect this material in tanks at the creamery and transport it by truck to the farm 6 miles away. The digester transforms this organic waste and cow manure into biogas that is used to generate electricity. In 2018, the digester generated 150,000 kWh for use on the farm and exported 180,000 kWh to the grid during periods when generation exceeded farm demand.
The Original Circular Package: Glass Milk Bottles

For 25 years, Straus Family Creamery has bottled our retail milk products in reusable glass bottles, preventing millions of pounds of waste from single-use milk cartons and supporting the circular economy for glass.

- Straus bottles are rinsed and sanitized before being filled with fresh organic milk.
- Our organic milk products are packaged in reusable glass bottles made from 30% recycled content.
- Straus customers pay a $2.00 deposit on each bottle, then rinse and return bottles for a refund!
- We ship milk in reusable crates, reducing packaging waste in distribution.
PACKAGING STRATEGY

Developing the Sustainable Packaging Roadmap

Straus Family Creamery remains deeply concerned about the downstream impacts of our plastic product packaging. We are currently developing a Sustainable Packaging Roadmap to guide future packaging decisions for all product families. The Roadmap recommends both medium-term sustainability improvements and long-term objectives. The Roadmap is a holistic framework that considers the full lifecycle of materials, from sourcing of raw materials to disposal by end consumers.
Reducing Waste at the Source Through Supplier Engagement

Ingredient packaging is a pervasive source of waste at our facilities, which is why we have expanded our waste management strategy to include supplier engagement.

We try to mitigate the waste impacts of our supply chain by asking vendors to use 100% recyclable materials. In 2018, we worked with our egg supplier to eliminate a plastic seal from the egg yolk packaging. We also partnered with a local printing company to implement our first upstream reusable containers.
Guidelines for Sustainable Purchasing

Straus Family Creamery adopted the Sustainable Purchasing Policy in 2019 to codify existing purchasing practices and connect them to our broader mission. The goal of the policy is to equip employees with advice and resources for making the most ethical and environmentally-conscious choices. The policy includes specific guidance in several categories: cleaning supplies, office supplies, paper products, food products, and electronics.

PURCHASE WITH PURPOSE

**Buy less and buy better.**
Before making a purchase, consider, Do I really need this? The best way to reduce waste is to reduce consumption. Buying less is more efficient, more economical, and more beneficial to the planet. When you do make a purchase, give preference to products that are ethically produced from sustainable materials.

**Be resourceful to maximize the useful life of all items and materials.**
Consider the utility of an item or material before discarding it. Can it be used again or used for a new purpose? Invest in durable goods that can be used repeatedly instead of disposable ones. Spending more on a durable good usually pays off in the long run.

**Consider the waste impacts of your purchase.**
Choose products and product packaging that is 100% recyclable and avoid items designed for landfill. Take responsibility for your waste by properly disposing of it in accordance with the Waste Management Policy.

**Support local and mission-aligned businesses.**
Straus is proud to be a family-owned, farmer-first business. We use our business to drive positive change, and we should use our purchasing power to support other businesses doing the same. Seek out mission-aligned businesses to support and shop local when possible.
Maximizing Diversion

Straus Family Creamery seeks to maximize both quantity and quality of recycled materials. Separating materials helps to preserve quality and increase recyclability.

2018: Recycled **350,000 lbs. of material**.
- Mixed Recycling: 190,000 pounds
- Corrugate: 116,000 pounds
- Milk Caps: 26,000 pounds
- Shrink Wrap: 18,000 pounds

Milk caps are too small to be processed by the MRF (materials recovery facility), so we collect them separately.
Conduct Biannual Waste Audits & Analyze Results

Straus Family Creamery conducts biannual waste audits of all garbage, compost, and mixed recycling. The Sustainability Team leads audits with the assistance of employee volunteers. We remove all materials from the dumpsters, then sort, weigh, and document them. We use this data to estimate annual waste generation. We share this data with operators and leadership teams to correct mistakes, improve processes, and create an innovation mindset.

**SUMMARY**

Our Q4 audit went smoothly thanks to the cooperation of our amazing volunteers. We used a slightly different methodology for this audit, sorting waste by source rather than material type. This method was more exact and produced more accurate results. This audit was our first since achieving TRUE Zero Waste Certification, and we are happy to report that we have improved waste diversion since 2018! While garbage was about the same as last audit, our recycling and compost streams were significantly higher. We hope to drive even higher rates of diversion in 2020.

**KEY TAKEAWAYS**

- On Track to Meet Zero Waste Goals
- The results of this audit suggest that we are on track to meet the requirements of our Zero Waste Certification and even improve total waste diversion over 2018!
- Top Source of Waste
  - The yogurt line was the biggest source of landfill waste, which consisted mostly of waste cartons and the sealed yogurt cups. Unfortunately, there are no short-term solutions for reducing these materials.
  - Record Breaking Compost!
  - This week was a big week for butter production, and butter composting: we composted 422.6 pounds of material. Composting organic wastes helps to reduce methane emissions from landfills.
  - Breakroom Waste as Area of Opportunity
  - Breakroom garbage accounts for 6% of the landfill stream, but a significant portion of this waste could be diverted. Going forward, we will test new strategies to encourage employees to compost and recycle their waste.

<table>
<thead>
<tr>
<th>STREAM</th>
<th>WEIGHT</th>
<th>MONTHLY ESTIMATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landfill</td>
<td>1,109 lb</td>
<td>5,596 lb</td>
</tr>
<tr>
<td>Recycling</td>
<td>627 lb</td>
<td>2,893 lb</td>
</tr>
<tr>
<td>Compost</td>
<td>442.5 lb</td>
<td>1,796 lb</td>
</tr>
</tbody>
</table>

*Mixed recycling stream, not including glass.

**LANDFILL STREAM**

- 6% Breakroom
- 14% Ingredient Packaging
- 14% QA
- 10% Maintenance
- 6% Ice Cream Line
- 6% Glass Line
- 6% Ice Cream Base
- 12% Butter Line
- 6% Ghee Line

**ACTION ITEMS**

1. Improve recycling quality as butter line. Since the last audit, we have added more recycling bins and posted signs on the butter line, recycling is a higher rate of diversion of butter boxes. However, we also observed many contamination with the recycling.
2. Collect 2019 data for TRUE Zero Waste. Baginski is currently in the process of collecting 2018 waste stream data to submit in 2020 to maintain our Zero Waste Certification. Data must prove that we diverted at least 50% of waste away from landfills.
3. Lead Zero Waste training in March. The Sustainability Team will lead a zero waste training to review audit results and waste management.
Employee Engagement Is “Secret Ingredient”

The “secret ingredient” in Straus Family Creamery’s zero waste program is employee engagement across departments.

Sustainability Team determines the direction of zero waste initiatives, but ultimately, operations employees in production & logistics execute them. Often, the best waste management solutions originate from the employees who handle waste everyday.

Alicia leads zero waste efforts in human resources, including paperless waivers and bulk snacks for breakrooms.
Business Case 1: Reusable Pallet Wraps

Straus Family Creamery reduced waste by replacing disposable shrink wrap with durable pallet wraps.

In 2018, Straus Family Creamery purchased 75 reusable pallet wraps to reduce the amount of shrink wrap used to ship products between our Marshall plant and Petaluma logistics center. Based on sample data on shrink wrap usage, we determined that the pallet wraps would reduce shrink wrap consumption by 15,500 pounds annually, resulting in a payback period of just one year. We estimate that the net benefit will be at least $13,000 over three years.
Business Case 2: Reduced Garbage Service

Straus Family Creamery made $5,000 disappear from annual expenses by right sizing.

Steady improvements in reducing and diverting waste, especially hard-to-recycle materials such as shrink wrap, enabled us to reduce garbage service at our Petaluma facility in 2019. We switched from two pick-ups per week to one – cutting monthly garbage fees from $956 to $502, a nearly 50% reduction.

Recycling shrink wrap significantly reduced the volume of landfill waste we generate.
BUSINESS CASES

Business Case 3: Reusable Transport Packaging

Crates, when valued appropriately, help avoid millions of pounds of corrugated demand each year.

Reusable Plastic HDPE Crates

99% Return Rate
600k Circulated in 2017
$10 Crate Deposit

RESOURCES

SOCIAL HANDLES

strausfamilycreamery.com
@strausfamilycreamery
@StrausMilk
@strausorganic
@strausfamilycreamery

SOCIAL HASHTAGS

#Straus25
#TasteTheStrausDifference
#StrausFamilyCreamery

strausfamilycreamery.com