

- OCTOBER 7, 2020 -

# Scaling Up Pastured Poultry Production



- PRESENTED BY -

Bruce Hennessey

Maple Wind Farm

- HOSTED BY -

**FACT**

Food Animal Concerns Trust

# Introductions



**Food Animal Concerns Trust (FACT)** is a national nonprofit organization that advocates for the safe and humane production of meat, milk, and eggs.



## **Larissa McKenna**

Humane Farming Program Director

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FACT's services for livestock and poultry farmers include:

- **Fund-a-Farmer Grants - *applications now available!***
- **Conference scholarships**
- **Free webinars**
- **Humane Farming Mentorship Program**

# Our Presenter



Bruce Hennessey

Maple Wind Farm



SCALING UP:  
Making the Decision to Grow



## MISSION

To Promote Community Health and Welfare  
By Producing High Quality Pasture-Raised Meats  
Through Regenerating Soil and Water Resources

# Every Enterprise is Connected

Tall grass grazers



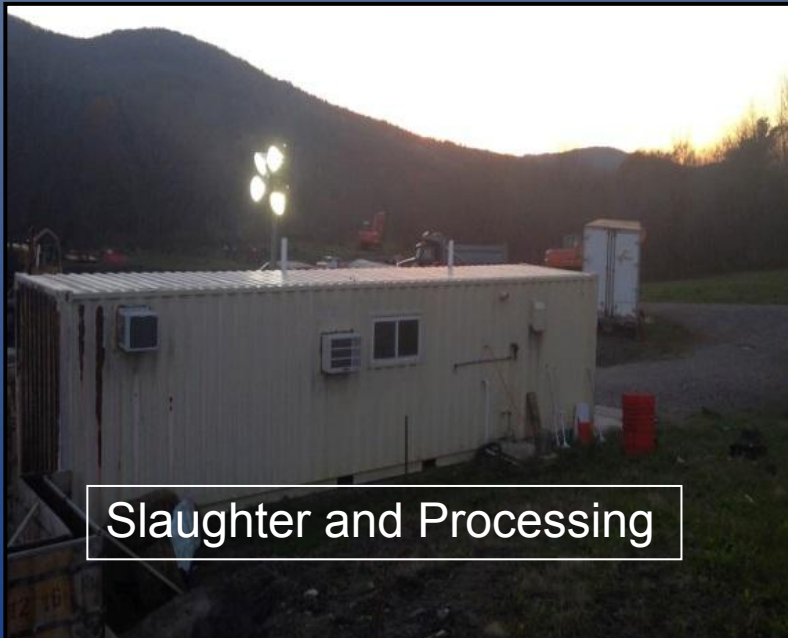
Cleaners and Fertilizers



Renovators/Compost  
Converters



Slaughter and Processing



# Brief History – 22 Years in Farming



# First Beef





# To Poultry



# Then Pigs



# On To Sheep



# Expanding Land: Lease and Purchase



# Organic Vegetables



# Processing



# CALAMITY FARM

WIND



FIRE



FLOOD



MARKET FORCES





## VISION

- Produce \$100k profit per year by 2023
- Our community values our work and supports us
- All staff and owners understand their role and are held accountable
- All non-essential tasks, equipment, enterprises and actions are removed. We reduce waste in all its forms
- We develop a culture of constant improvement
- Staff and Owners work no more than 40 hrs/week without loss of production
- We build soil health, fertility and organic matter
- Staff and Owners are paid a living wage
- All of us have educational opportunities



# The ONLY three ways to Increase Profit:

- \* Reduce Overhead (Land and Labor)
  - \* Increase Gross Margin/Unit
- \* Increase Turnover (# of Units w/ Current Overhead)

# THE LAND OF MISFIT ENTERPRISES

Horse Farming

Maple Sugaring

Family Cow, Cow/Calf to Finish



Organic Vegetables

Farrow to Finish Hogs



Grassfed Lamb



Haying



## Common Themes of Enterprises That Don't Work

- Too much time/energy compared to return
- Does not connect ecologically and financially with other enterprises
- Physical/Geographical Issues. Access to processing, markets and land. Does not fit resource base.
- Nature of diverse farm does not allow the time to perfect smaller enterprises
- Emotional aspect is the strongest positive
- Being profitable requires compromising values

# The Motivation to Change/Invest: Factors in our decisions to expand, add or subtract an enterprise

## \*Business sitting in the dreaded middle

- Too small to really afford help and stay profitable
- Too much to do by ourselves

## \*Lots of new farms to the marketplace doing the same things.

- Need to differentiate from others

## \*Local Food movement reaching maturity in our area.

- Lots of choices and market outlets
- Downward price pressure

## \*Market, Land and Financial Opportunities

- Sale of State-Inspected MPU: 30k small farm birds lost to the market. Only farm doing this at scale in VT!
- Availability of state/local support for scaling up:  
F2P, VLT

# Identifying areas for expansion

- Inspected Poultry Processing
  - Provide a service to other farms (up to 20k birds/yr)
  - Value-Added Meat production: differentiation!
  - Sell into all markets – out of state, institutions...
- Increased pasture-raised chicken/turkey production
  - Up to 40k Broilers per season
  - Up to 1000 Turkeys per season
  - Up to 3000 Laying Hens
- Grass Fed Beef and Pasture-Raised Pork production
  - Up to 50 Steers per season
  - Up to 200 hogs per season
- Capture more of the Value Chain
  - Invest in online store platform for retail sales
  - Add value to raw product
  - Invest in Marketing Plan
  - Home Delivery: Reducing the Convenience Barrier

# Market Opportunity



State Mobile Unit was sold in 2012, resulting in a loss of 30,000 inspected birds to the VT market

# Poultry Processing at Maple Wind Farm



# Processing: A Major Investment





# Build vs. Buy



# Permitting

- Processing more than 50% of our own birds enables operation under Accepted Agricultural Practices
- Worked with Agency of Agriculture to design wastewater system – paid for 80% in exchange for design and inspection of system.

# Financing

- Sale of development rights to Vermont Land Trust
- No-interest loan from City Market
- Grant from Working Lands Enterprise Fund



# Inspected vs. Non-inspected

- Under Inspection we:
  - Had to build an inspectable facility, i.e. washable walls, stainless fittings, etc.
  - Follow strict SSOPs and SOPs
  - Operate under HACCP as required by federal regulation
  - Have an inspector present at all times during slaughter
  - Conduct microbiological testing to demonstrate the effectiveness of our process
  - Can sell to all outlets and further process (part/grind/sausage/drycure)

# HACCP

- Required to write a HACCP plan along with SSOPs, SOPs, GMPs
- HACCP is like another language but there are many model plans out there that can be adapted
- Supporting documentation: federal regulations or scientific studies justifying decisions that are made
- Lots of paperwork to fill out
- Requires validation – records that show that your plan is working as intended
- Need someone on staff who is HACCP-certified
- 90-day validation period

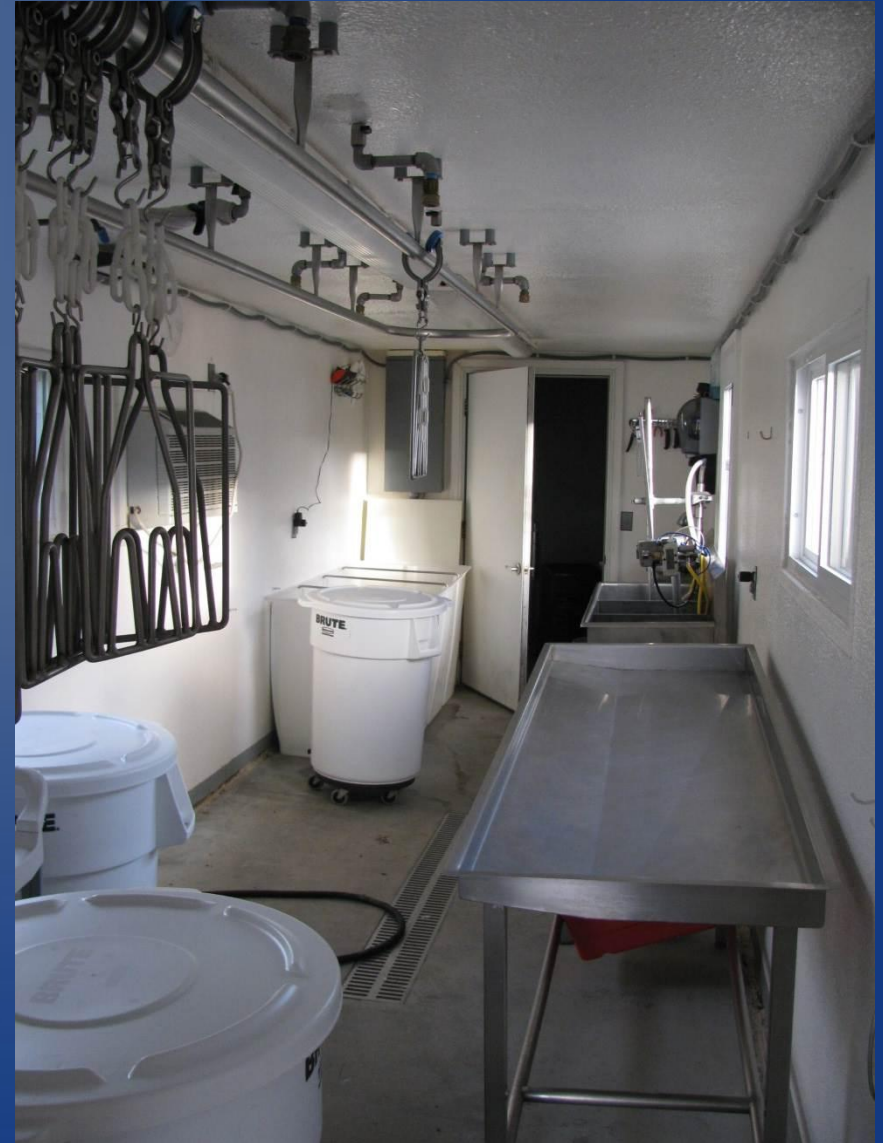
# Dirty Side



1-2 people kill, scald, and pluck (200 birds/hr)

# Clean Side

- 5-7 People:
  - Hang, wash, heads/feet, oil gland
  - J-cut, eviscerate
  - Final wash, QC, into chill crates and rolled into air chiller
- Parting/Packaging can happen simultaneous to slaughter



# Improvements Made



- New floor with adequate drainage
- Wall separating clean and dirty sides
- New evisceration rail and trolley system
- Improved Lighting for inspector
- Hands-Free Rinse station and sinks



# Labor

- Challenging to find
- Seasonal (how can we retain them?)
- Specialized skills
- Reliability issues
- Injury risk (carpal tunnel, cuts), safety
- Pay at least \$13/hr
- Personality fit is key
- Create a fun environment
- Be a labor advocate for your own employees



# Working with Inspectors

- Has been a great experience
- Start with Vermont Meat Inspection (much more willing to help/answer questions than USDA)
- Get them involved from the start (feedback on plans, HACCP review)
- Be receptive to their concerns; they're reasonable people and generally want the same thing as you
- Know the rules
- Develop relationships

# Switch to USDA

- Work out kinks under state inspection
- Motivated by desire to increase market access (out-of-state)
- Initiate early (can take some time)
- Online Label approval
- We are a part-time seasonal plant so no dedicated USDA inspector
- Our actual inspectors are the same, different head inspector
- Otherwise process is the same

# Processing for other Farms

- Only meat breed chickens and turkeys
- Minimum 30 chickens, 10 turkeys (largest customer brings about 4000 chickens/year)
- Must be in crates, withhold feed, pickup next day
- 2020: \$6.00/chicken, \$1/lb./turkey \$12 minimum extra for big birds. \$3.50/bird for parting
- Issues with bird cleanliness, feed withholding, tardiness, dirty totes
- Positive feedback
- Harder than our own birds (less consistent)

# Starting Basic Economics 2012

|   |   |
|---|---|
| Labor                                   | \$3.20 (8 people do 300 birds in 10 hours)              |
| Ice                                     | \$.40 (2.5 pounds/bird, \$1/5# bag)                     |
| Bags/Labels                             | \$.30   |
| Misc (cleaning supplies, propane, etc.) | \$.50   |
| <b>Total Operating Costs</b>            | <b>\$4.30/bird</b>                                      |
| We Charge                               | \$5.50/bird   |
| <b>That Leaves</b>                      | <b>\$1.30/bird (Depreciation, Overhead, Net Profit)</b> |

# The Barn Fire Bump: Expansion



- Air chilling
- Poultry Processing and Value-Added
- Distribution Center
- Pastured Poultry Expansion

# Basic Economics w/ Air Chilling 2020

|   |   |
|---|---|
| Labor                                   | \$1.50 (10 staff @ \$15/hr do 1000 birds in 10 hours)   |
| Chilling cost                           | \$.35 (6 hours blast chilling time to temp)             |
| Bags/Labels                             | \$.40   |
| Misc (cleaning supplies, propane, etc.) | \$.70   |
| <b>Total Operating Costs</b>            | <b>\$2.95/bird</b>                                      |
| We Charge                               | \$6.00/bird   |
| <b>That Leaves</b>                      | <b>\$3.05/bird (Depreciation, Overhead, Net Profit)</b> |

In 2017 the investment in air chilling created operational savings of \$12,220 over 2015 numbers (based on 26000 chickens processed). Pay back on processing room/air chiller portion of barn at current numbers is 5 years.

In 2012, MWF Produced 750 Broilers and 200 Turkeys with exempt on-farm processing. Since then:

| 2013:  | 2015:                          | 2018:                         | 2020:   |
|--|--------------------------------|-------------------------------|---|
| Farm      Outside<br>4,500/1,500<br>Broilers | 13,500/8,000<br>Broilers       | 18,500/<br>10,000<br>Broilers | 30,000/<br>10,000<br>Broilers                         |
| 300 Turkeys                                  | 500 Turkeys                    | 700 Turkeys                   | 1000 Turkeys  |
| State-Inspe<br>cted<br>Facility              | USDA-Inspec<br>ted<br>Facility | USDA-Inspe<br>cted Facility   | New Field<br>Methods, Air<br>Chilling, Value<br>Added |



# Pastured Poultry Expansion

## Chicken Tractor Production

10'x12', 75 birds, 2 people, 5 minutes



## Mobile Range Coop Production

21'x36', 500 birds, 2 people, 10 minutes



# Poultry Expansion Cost/Benefit

|   |  |
|---|--|
| <p>Cost: 50 Chicken Tractors, Dolly, Portion of Truck Dep., Water system, Feeders</p> <p>\$14,500</p>   | <p>Cost: 8 Mobile Field Shelters, Portion of Truck Dep., Gravity Wagons, Feeders/Waterers</p> <p>\$60,000</p>  |
| <p>Time to move, feed, water: 4 hrs</p>   | <p>Time to move, feed, water: 1.5 hrs.</p>   |
| <p>Labor for 4000 birds at full capacity (2 people, \$15/hr, includes FICA, etc):<br/>\$120/day = ~\$.03/bird/day x 28 days in the field = \$0.84/bird before feed costs.</p> | <p>Labor for 4000 birds at full capacity (2 people, \$15/hr, includes FICA, etc):<br/>\$45/day = ~.01/bird/day x 28 days in the field = \$0.28/bird before feed costs.</p> |
| <p>Labor Costs/Season @ 20 weeks full capacity: \$16,800</p>  | <p>Labor Costs/Season @ 20 weeks full capacity: \$6,300</p>  |
| <p><b>Benefits:</b> Can be done by one person if needed. Can isolate smaller batches. Works on smaller fields. Cheap initial investment.</p>                                  | <p><b>Benefits:</b> Most work done by truck. Feed-out efficiency. Group size fit to processing infrastructure. Lots more time for other projects.</p>                      |
| <p><b>Negatives:</b> Workplace injuries. Need a larger body frame, limits labor pool. Inefficient feed-out.</p>   | <p><b>Negatives:</b> More to breakdown. Difficult in wet conditions. Need large flat fields, no rocks.</p>   |
| <p><b>Cost of Production reduction: \$10,500</b></p>  | <p><b>Payback on investment = 5.5 years</b></p>  |

# Some Ecological Results

- 1-3% additional organic matter in depleted soils
- Better forage quality
- Yields from 1.5 tons/acre to 4 tons/acre
- 70% grass/forbs, 30% legumes
- Very little open soil – only on headland roads and in recent pig paddocks. High density sward.

# Resources

A list of organizations and agencies that continue to help us:

**Ranch Management Consultants – Ranching (Farming) for Profit!!!**

**NRCS**

Towns of Richmond and Huntington, VT

VHCB

City Market, Burlington

UVM Center for Sustainable Ag

VT Farm Fund

NOFA-VT

***Essentialism* by Greg McKeown**

VLT

**Featherman/Plant in a Box**

Intervale Foundation

Yankee Farm Credit

Vt Agency of Agriculture

Farm to Plate (Working Lands Initiative)

UVM Medical Center

Rural Vermont

VGFA

***Profit First!!!* By Mike Michalowicz**

# Thanks!

- Feel free to e-mail with any questions:
- Bruce Hennessey, [maplewind0@gmail.com](mailto:maplewind0@gmail.com)



Questions?

*Please type into the chat bar*

# Connect with



## Upcoming webinars

- 🐔 **October 26:** Designing Silvopasture Plantings (Part 1)
- 🐔 **November 2:** Why Trees Die in Silvopasture (Part 2)
- 🐔 **November 9:** Silvopasture Decision Making (Part 3)

## Grants, Scholarships, Mentorship & More!

- 🐔 **Fund-a-Farmer Grants – applications due by December 1**
- 🐔 **Mentorship program – application in November**
- 🐔 **Scholarships - ongoing**
- 🐔 **Customized handouts on pastured-raised food available**
- 🐔 **Sign up for emails @ [foodanimalconcernstrust.org/farmer/](http://foodanimalconcernstrust.org/farmer/)**

## Join us on social media

