

Massachusetts Mobile Poultry Processing Units

New Entry Sustainable Farming Project

New Entry
Sustainable Farming
Project



New England Small Farm Institute



Poultry Processing – the missing link

- Growing demand for local, farm-raised meat & poultry (>250 FM)
- Small-scale producers with limited access to legal processing facilities
- Affordability of small-scale infrastructure

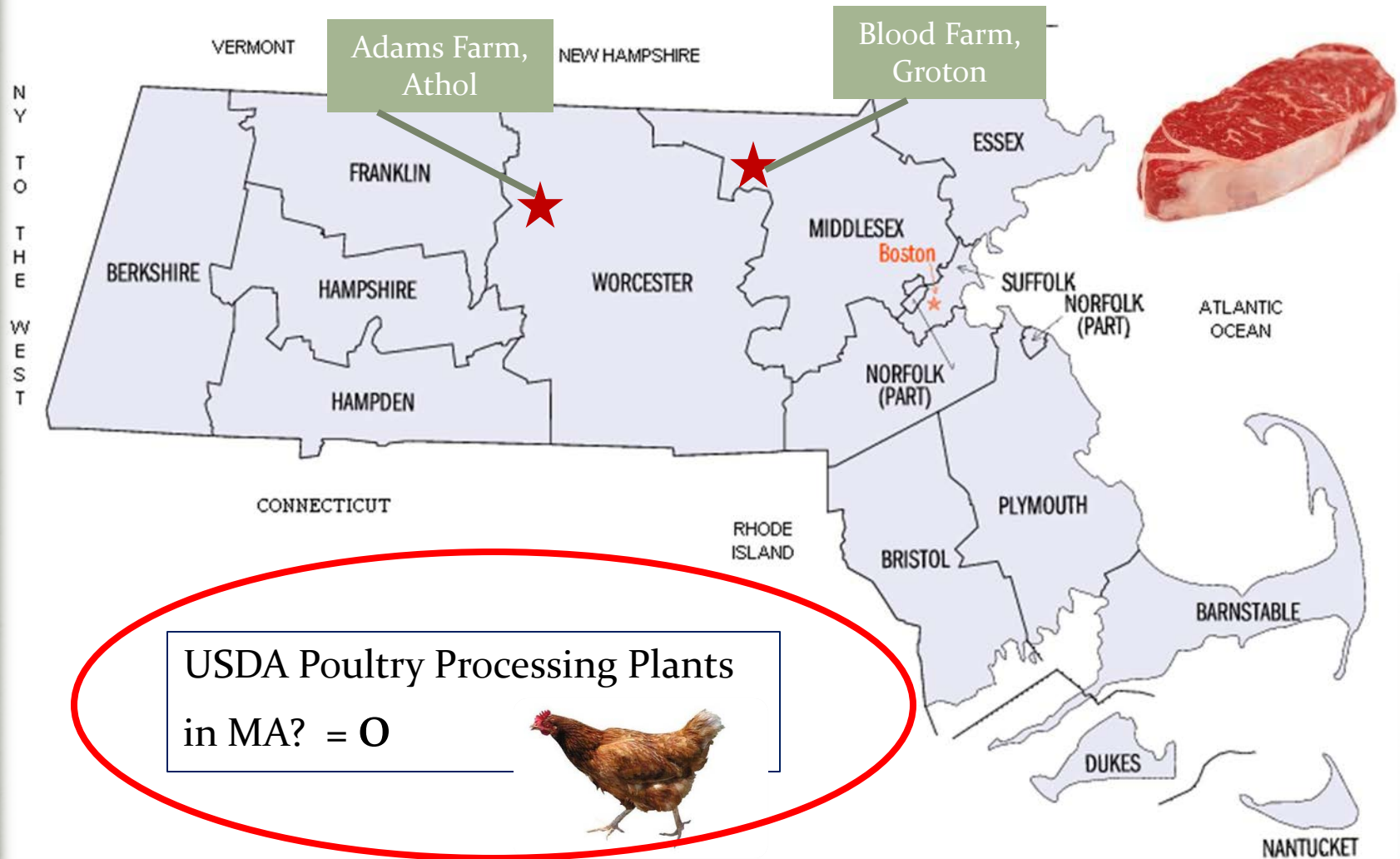


Photo by Edible Boston

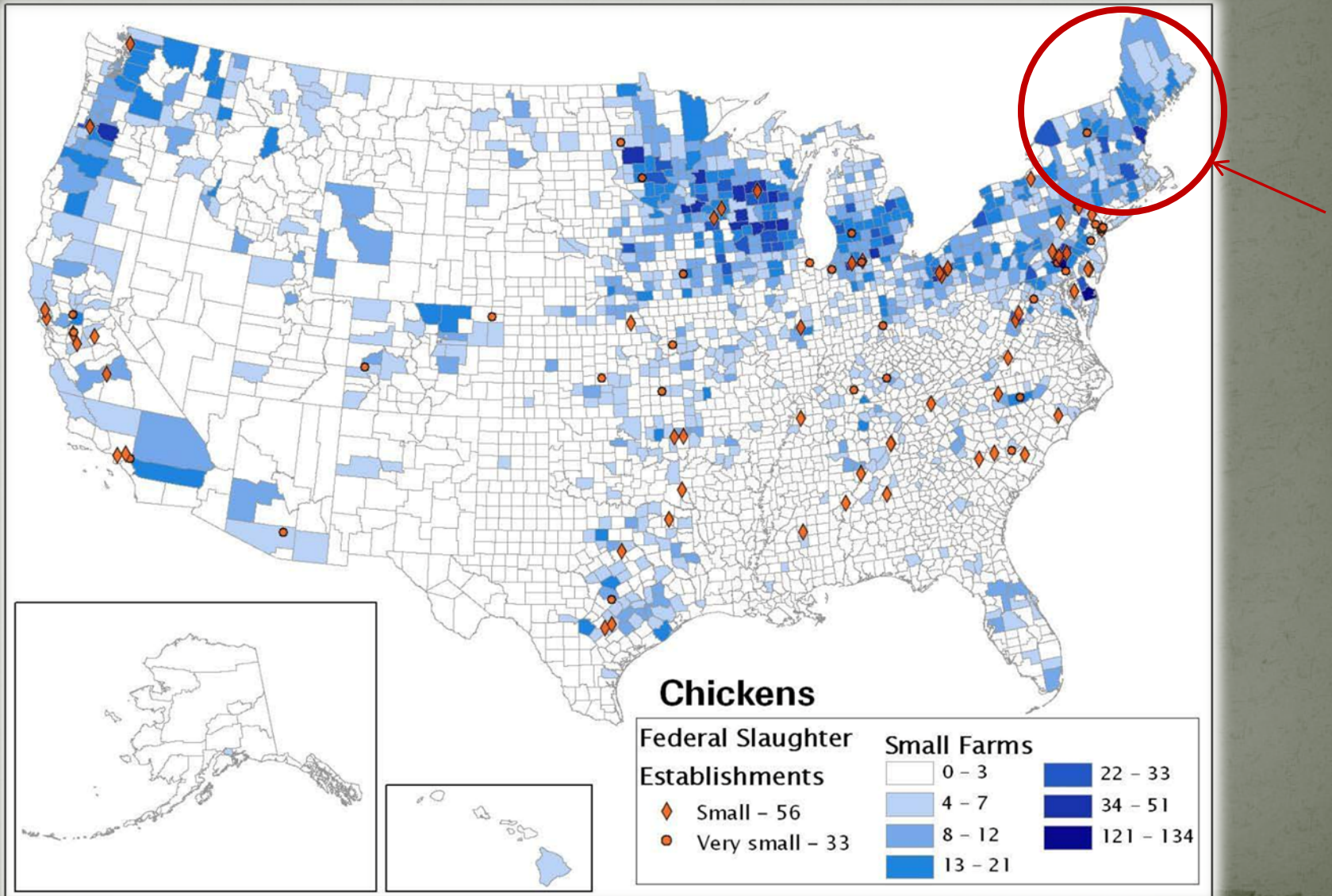


Photo by John Suchocki / The Republican

Massachusetts' USDA Processing Plants



New England Poultry Processing Plants



Current and *Potential* MA Poultry Producer-Processors



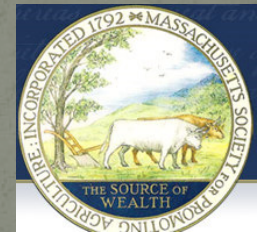
History of Massachusetts MPPUs

- 1999
 - NESFI - W. Mass Farmer Unit
- 2006 -2007
 - Open Air Unit Demo & Data Collection and Regulatory Feedback/Modifications
- 2008-2010 (4 yrs *Pilot Project*)
 - Approval of open-air prototype (Unit #1)
 - 7+ licensed users
 - > 180 producers “trained”
 - July 2010 – *USDA Plant opened in Vermont*
 - Alternate model - enclosed unit
- 2011
 - Enter “routine status” by DPH
 - Approval of Enclosed Prototype (Unit #2)
 -more on-farm facilities licensed



Key Partners / Agencies / Funders

- Evolving process with regulators
 - MDPH FPP – requires \$225/yr license
 - MDEP – wastewater / solid waste disposal
 - MDAR – animal health / compost reg
 - “Home Rule” - Local BOH - approvals
- Major Support / Funding from:
 - USDA Rural Development - RBEG
 - Mass Society for Promoting Agriculture
 - Mass Dept of Ag Resources
 - Agricultural Innovation Center
 - Northeast SARE R&E
 - Individual Donors (thanks!)



MPPUs in Massachusetts



Unit #1

“Western Mass”
operated by New
England Small Farm
Institute

Unit #2

“Eastern Mass”
operated by New
Entry Sustainable
Farming Project

MPPT

“Martha’s Vineyard”
operated by Island
Grown Initiative

Unit #1 – Open Air Prototype



- 24' utility trailer
- Slatted composite floor
- 6 fixed broiler cones & cabinet
- Electric stun knife
- Poultryman scalding/picker (custom chute)
- Small holding tank
- Propane heater for handwash sinks
- *Extensive* custom fabrication
- \$25-35,000 to replicate

Operating Costs – Unit #1 (open air)

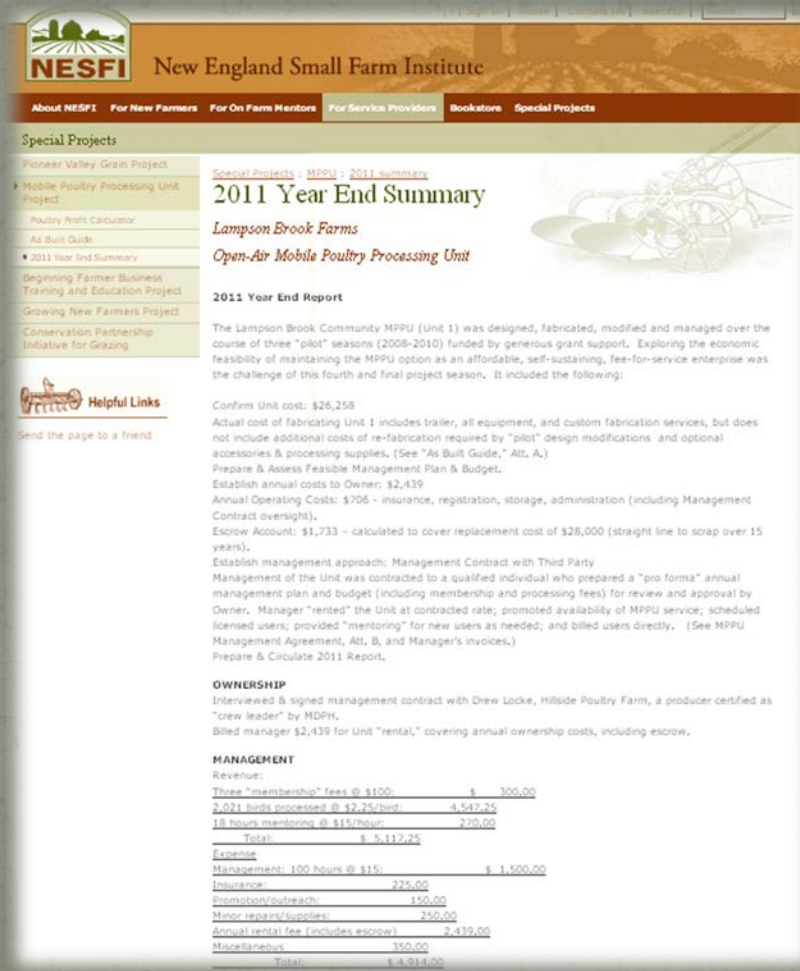
- Membership fee (\$100/yr)
- Per-Bird fee (\$2.25/bird)
- Transport (paid by user)
- Manager travels w/ unit
- Costs covered in 2011

- **Net profit = \$203.25**

- 2,021 birds processed
- 3 producers/users
- *Est. economic value = \$40,000+*

- See full 2011 report at:

http://www.smallfarm.org/main/special_projects/mppu/2011_summary/



NESFI New England Small Farm Institute

About NESFI For New Farmers For On Farm Mentors For Service Providers Bookstore Special Projects

Special Projects

- Pioneer Valley Grain Project
- Mobile Poultry Processing Unit Project
- Poultry Profit Calculator
- As Built Guide
- 2011 Year End Summary
- Beginning Farmer Business Training and Education Project
- Growing New Farmers Project
- Conservation Partnership Initiative for Grazing

Helpful Links

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Special Projects - MPPU : 2011 summary

2011 Year End Summary

Lampson Brook Farms

Open-Air Mobile Poultry Processing Unit

2011 Year End Report

The Lampson Brook Community MPPU (Unit 1) was designed, fabricated, modified and managed over the course of three "pilot" seasons (2008-2010) funded by generous grant support. Exploring the economic feasibility of maintaining the MPPU option as an affordable, self-sustaining, fee-for-service enterprise was the challenge of this fourth and final project season. It included the following:

Confirm Unit cost: \$26,258

Actual cost of fabricating Unit 1 includes trailer, all equipment, and custom fabrication services, but does not include additional costs of re-fabrication required by "pilot" design modifications and optional accessories & processing supplies. (See "As Built Guide," Att. A.)

Prepare & Assess Feasible Management Plan & Budget.

Establish annual costs to Owner: \$2,439

Annual Operating Costs: \$706 - insurance, registration, storage, administration (including Management Contract oversight).

Escrow Account: \$1,733 - calculated to cover replacement cost of \$26,000 (straight line to scrap over 15 years).

Establish management approach: Management Contract with Third Party

Management of the Unit was contracted to a qualified individual who prepared a "pro forma" annual management plan and budget (including membership and processing fees) for review and approval by Owner. Manager "rented" the Unit at contracted rate; promoted availability of MPPU service; scheduled licensed users; provided "mentoring" for new users as needed; and billed users directly. (See MPPU Management Agreement, Att. B, and Manager's invoices.)

Prepare & Circulate 2011 Report.

OWNERSHIP

Interviewed & signed management contract with Drew Locke, Hillside Poultry Farm, a producer certified as "crew leader" by MDPH.

Billed manager \$2,439 for Unit "rental," covering annual ownership costs, including escrow.

MANAGEMENT

Revenue:

Three "membership" fees @ \$100:	\$ 300.00
2,021 birds processed @ \$2.25/bird:	4,547.25
18 hours mentoring @ \$15/hour:	270.00
Total:	\$ 5,117.25

Expense

Management: 100 hours @ \$15:	\$ 1,500.00
Insurance:	225.00
Promotion/outreach:	150.00
Minor repairs/supplies:	250.00
Annual rental fee (includes escrow):	2,439.00
Miscellaneous:	350.00
Total:	\$ 4,814.00

Lessons Learned – Unit #1 (open air)

Challenges

- Durability on long hauls
- Weather
- Equipment Issues
- Waste Handling

Benefits

- Clean up
- “Ambiance”
- Ease of transportation
- Repairs/Maintenance
- Less costly to construct



Unit #2 – Enclosed Prototype



- 26' aluminum trailer
- 12' tall; 9,000 lbs (1,800 on tongue, bumper pull)
- Ashley kill cabinet & 8 broiler/4 turkey cones
- Electric stun knife
- Ashley AM30 scalding
- Pickwick SPJ30 picker w/ kickout chute
- Wall and pass-through
- 4-man evisceration table
- Electric on-demand heater for handwash sinks
- "Bells & Whistles"
- 10 kw diesel generator
- \$ 90,000 to replicate



Operating Costs – Unit#2 (enclosed)

- No membership fee
- Rental fee (sliding scale; \$1/bird)
- Transport (paid by user)
- Extensive training and on-site supervision on first use
- No regular unit manager
- Out-of-Pocket Costs covered
 - **BUT** no repair /maint /escrow or mgmt / admin income generated in 2011 (first year)
- 2,580 birds processed
- 2 producers/users; 14 producers at community processing day
- *Est. economic value = \$56,000+*

2012 MPPU Rental Fees	
Number birds	Rental Fee
< 150 birds	\$ 150
151-200	\$ 200
201-250	\$ 250
251-300	\$ 300
301-350	\$ 350
351-400	\$ 400



Lessons Learned – Unit#2 (enclosed)

Challenges

- Transportation – towing
- Clean up
- Leveling
- Operational “kinks”
- Costly repairs



Benefits

- Higher through-put
- Generator – location flexibility
- “Weatherproof”
- Waste management
- Privacy (NIMBY!)
- USDA Inspection?



Management Lessons Learned

1. Attracting Producers – is there a market?

- Market Survey
- Competitive analysis
 - New USDA Plant
 - DPH pref for on-farm
- Regulatory compliance
- Transportation
- DIY? Labor? Cost?

Production and Processing Calculators

Poultry Profit Calculator

Number of batches:
 Number of birds per batch:
 Total birds processed:
 Birds reported to be in slaughter date:

Which processing option is best?
☐ Option A: Custom Processing with MPPU

Expenses

Acquire Birds	Annual total	Per-bird expenses	% of Annual
For bird expenses			
Purchase price	\$175.00	\$1.75	5%
Transportation	\$100.00	\$1.00	3%
Total	\$275.00	\$2.75	8%
For batch expenses			
Slaughter/processing	\$100.00	\$1.00	3%
Total	\$100.00	\$1.00	3%
Report on own farm expenses			
Total	\$175.00	\$1.75	5%
Total Bird Acquisition Expenses:	\$175.00	\$1.75	5%

Raise Birds	Annual total	Per-bird expenses	% of Annual
For bird expenses			
Feed (chickens)	\$100.00	\$1.00	3%
Feed (ducks/geese)	\$100.00	\$1.00	3%
Total	\$200.00	\$2.00	6%
For batch expenses			
Feed (chickens)	\$100.00	\$1.00	3%
Feed (ducks/geese)	\$100.00	\$1.00	3%
Transportation (per batch)	\$100.00	\$1.00	3%
Slaughter/processing	\$100.00	\$1.00	3%
Total	\$400.00	\$4.00	12%
Report on own farm expenses			
Feed (chickens)	\$100.00	\$1.00	3%
Feed (ducks/geese)	\$100.00	\$1.00	3%
Transportation (per batch)	\$100.00	\$1.00	3%
Slaughter/processing	\$100.00	\$1.00	3%
Total	\$400.00	\$4.00	12%

Calculator to Compare Poultry Processing Costs: MPPU vs Off-Farm

Number of birds per batch:
 Number of batches:

Processing costs using MPPU	Processing costs using off-farm custom slaughter
MPPU annual membership fee: \$ 175.00	Per-bird fee (including bag): \$ 5.00
MPPU per-use fee: \$ 175.00	Transportation (per batch): \$ 180.00
Annual state slaughter license: \$ 225.00	Paid labor (per batch): \$
Annual town licensing fees: \$ 100.00	
Small Equipment (e.g. bag sealer, knives): \$ 40.00	Total annual costs:
Ice (per batch): \$ 100.00	Cost per bird:
Propane (per batch): \$ 40.00	
Paid labor (per batch): \$	
In-kind expenses for unpaid labor (per batch): \$ 100.00	
Total annual costs:	
Cost per bird:	

http://nesfp.nutrition.tufts.edu/training/MPPU_Calculator.html



Management Lessons Learned

2. Do you have a Viable Business Plan?

- Repairs / upkeep
- Management fees
- Depreciation
- Replication?



Management Lessons Learned

3. How will you provide Unit oversight?

- Producer-Processor Trainings
- On-Farm “Overseer” role?



Management Lessons Learned

4. *What is your Shared Use Management Policy?*

- Inventory
- Cleanliness
- “Not my fault”

Future Plans / Addressing Challenges

Unit #1 (open air)

- Unit Manager & licensed trained crew
- Smaller travel radius
- Equip fixes



Unit #2 (enclosed)

- Docking stations or “neutral sites”
 - 50-150 birds (smallest scale)
 - Licensed “trained crew”
- ↑ On-farm DIY rentals (>200 birds)
- Dedicated tow truck
- USDA Inspection?



Thank you and Questions?

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For more MPPU
information, visit our
website:

<http://www.nesfp.org>



Thank you to our livestock /
MPPU training and
education funders:

