THE FEASIBILITY OF ESTABLISHING A STAND ALONE USDA-CERTIFIED POULTRY PROCESSING FACILITY FOR INDEPENDENT PRODUCERS IN SE MICHIGAN

INTRODUCTION

In 2014, while trying to purchase prepared chicken to serve at a small farm fundraiser, I learned that locally grown and processed poultry is all but extinct in SE Michigan. At that time I was unable to identify a restaurant able to source locally grown poultry for the making of barbecue chicken, although one venue did offer to utilize a local *distributor*, who would gladly sell him poultry that was grown and processed somewhere else.

I also keep my own flock of a heritage breed of chickens, which I breed in small numbers. I process excess males at Munsell's Poultry Processing, a small but active USDA-certified poultry processing facility. I searched for other USDA processors that, like Munsell's, serve small independent farmers in Michigan, but found none. Since SE Michigan has a population of about 7.5 million people and Munsell's processes about 50,000 birds per year, this means that on average every citizen in SE Michigan is allotted just 0.7% of a single locally grown and USDA-processed chicken per year. No wonder locally grown poultry products in Michigan are so scarce.

While these numbers do not account for poultry processed at USDA facilities run by individual farms, or for poultry processed in non-USDA facilities, it remains clear that the lack of reliable processing is an important barrier to bringing independently grown but USDA-processed poultry to conventional markets in Michigan. Indeed, because Munsell's is the only USDA-certified poultry processor in the state that serves independent producers, it seems that the market for local poultry here is not only small, but also fragile.

Altogether, these events led me to incorporate a new company, Mighty Fine Poultry Processing, LLC, and to apply for funding from the USDA Local Food Promotion Program (LFPP) to determine the feasibility of establishing a new USDA-certified poultry processing facility to serve independent producers in SE Michigan. The goal was certainly not to compete with Munsell's Poultry Processing facility, but rather to increase the amount of locally grown poultry produced and consumed in Michigan by stabilizing options at the processing step.

This report describes the work that was done as part of that USDA-funded feasibility study, which began in October of 2015 and was completed in September of 2016. Briefly, the work of this study included the following:

- Surveys of independent poultry producers to better understand the supply of locally produced poultry, and surveys of distributors to better understand demand for these products in Michigan.
- Identification of potential sites for a new facility, as well as relevant regulations, example building specifications, equipment needs, utility requirements, and waste stream options.
- Input of values identified above into an existing Feasibility Template to calculate feasibility of an effort to establish a new USDA poultry processing facility in Michigan to serve independent producers.
- Creation of this summary report of the work conducted, to benefit other efforts aimed at restoring the production and consumption of locally grown and processed poultry products in the United States.

THE REGION

Southeast Michigan consists of rural areas where local foods are produced, and populated urban areas where local foods are scarce and highly valued. Despite the ability of the region to produce local poultry and the interest in the population in consuming it, almost no locally produced poultry is actually available in SE Michigan. This is due at least in part to the lack of availability of USDA-certified poultry processers that serve independent producers in Michigan. This project aims to solve that problem by determining the feasibility of establishing a new USDA-certified poultry process facility in SE Michigan, with a goal of increasing both production and consumption of locally produced poultry in Michigan.

PRODUCER SURVEY

One objective of the proposal was to better understand the current supply of local poultry products in Michigan. This was accomplished by surveying producers across Michigan for information about the poultry produced. Altogether this survey represents an estimated 40,000 birds grown annually by 62 different producers. Perhaps most strikingly, this survey revealed that over 60% of respondents did not access conventional market channels, and instead sold their poultry products primarily to neighbors, family, and friends.

PRODUCER SURVEY SUMMARY

62 respondents raising chickens, turkeys, and other poultry in Michigan

Number of birds raised and processed per year	
2,000-5,000:	3%
500 – 2000:	23%
100 – 500:	34%
less than 100:	40%

Special attributes	
Free range:	87%
Cage free:	89%
Vegan fed:	16%
Heirloom:	62%
Organic:	17%

Products produced “most often” or “sometimes”	
Whole bird	92%
Breast	24%
Eggs	82%
Other	34%

Poultry meats sold primarily at	
Farmer’s Markets	34%
Wholesale Distributors	2%
Grocery Stores	5%
Restaurants	2%
Institutions	2%
Other	63%

Price of whole processed chicken	
Less than $6/lb at Farmer's Market	35%

Price per pound of breast meat
Varies from $6/lb to >$10/lb

Where poultry is processed	
On the farm	13%
Custom (non USDA)	34%
Michigan USDA processor	42%
Other	11%

Interest in other services "strongly" or "somewhat" interested	
Humane Slaughter	82%
Smoked, sausage, or ground meats	67%
Freezer space	45%
Brokering, wholesale, or retail services	46%
Branding or marketing	46%
Discounted feed	74%
Food testing	59%

Interest in producing more poultry if new USDA processor available	
Yes	63%
No	10%
Possibly	27%

DISTRIBUTOR SURVEY

This proposal also attempted to determine the current demand for local poultry products in SE Michigan. This was accomplished by surveying grocers, restaurants, and distributors in SE Michigan for the amount of local poultry products purchased and the price. Altogether the results of the survey represent over 150,000 pounds per week in poultry purchases at $1.54 - $3.00 per pound, which are typically sold to consumers at a 90-100% mark-up. Boneless skinless chicken breasts were the primary product purchased. Respondents were able to access little or no Michigan-grown poultry, but all were interested in doing so. Instead, it was discovered that the "local" poultry market for grocers, restaurants, and distributors in SE Michigan is broadly dominated by products from Miller Poultry, which processes nearly 500,000 birds per week at their plant in Orland, Indiana.

POTENTIAL FACILITY SITES

Four potential facility sites in Washtenaw County were identified and are summarized below.

Street	Twp/City	Acres	$/Acre	Price	Building	Zoning
Enterprise Dr	Scio Twp	2.14	$303,738*	$650,000	11,750 sq ft	Industrial
Jackson Rd	Scio Twp	1.13	$190,265	$215,000	NA	Industrial
Cherry Hill Rd	Superior Twp	2.00	$ 85,000*	$170,000	Storage	Agricultural
Stone School Rd	Ann Arbor	2.00	$ 70,000	$140,000	NA	Industrial

* includes building on site

1. 170 ENTERPRISE DRIVE, SCIO TOWNSHIP

The property at 170 Enterprise Drive in Scio Township is just west of Ann Arbor within a small established industrial park. The site includes a 11,970 square foot Class C industrial building on 2.15 acres, with 20 parking spaces, 1 loading dock, and 2 grade-level drive-in doors. Overhead piping for water and compressed air has been installed throughout the building. The site is zone I-1 Industrial and is listed at $650,000.

2. JACKSON ROAD, SCIO TOWNSHIP

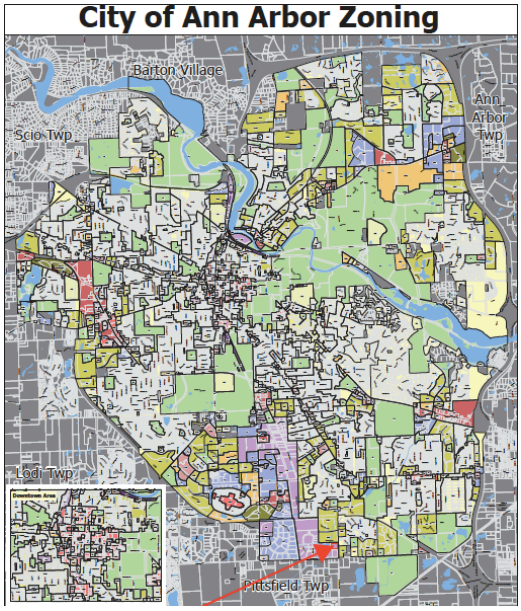
This 1.13 acre property on Jackson Road in Scio Township has easy access to I-94, Tractor Supply, Menard's and Lowe's. The site is zone I-1 Limited Industrial, and is listed at $215,000.

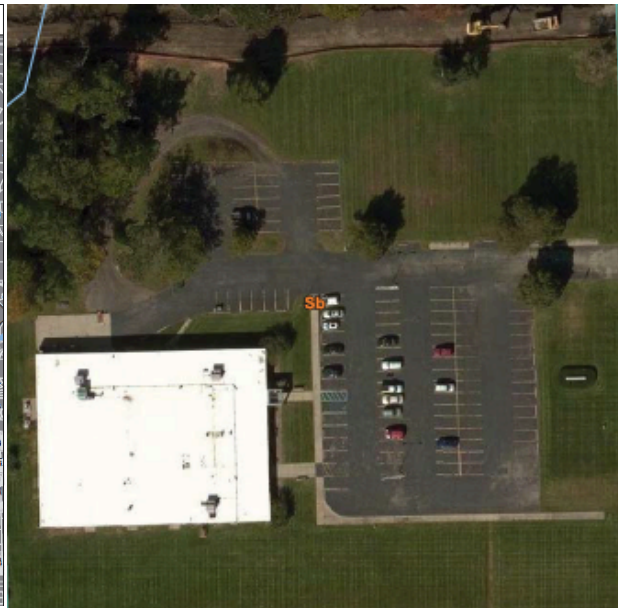
3. 10996 CHERRY HILL ROAD, SUPERIOR TOWNSHIP

At the time that this site was originally evaluated, this 2-acre property at 10996 Cherry Hill Road in Superior Township included a small storage building and was listed at $170,000. Since then the building has been demolished, and the property was recently relisted at $95,000. The site is zoned agricultural.

4. STONE SCHOOL ROAD, ANN ARBOR

The current parcel at Stone School Road in Ann Arbor is approximately 5.3 acres, and includes a building on the south half of the property. The owner wishes to divide the property, and to sell the ~ 2 acres of open land on the north side of the property at $70,000 per acre.





FEASIBILITY ANALYSIS

Finally, information gathered was used to calculate the feasibility of this proposed effort, using the Feasibility Template developed at Oklahoma State University (www.agmrc.org/media/cms/feasibilitytemplate_FBBB1058664B5.xls) In particular, the following assumptions were used as Inputs:

- First year processing volume and revenue:
  - 35,000 whole chickens at $4/bird
  - 3,000 cut chickens at an additional $2/bird
  - 4,000 whole turkeys at $9/bird
- Annual growth in processing volume of 5% per year
- Annual payroll costs of $150,000
- Annual supply and miscellaneous costs of $60,000
- Monthly utility costs of $1500
- Total land costs of $140,000
- Total building costs of $476,675, as calculated by Georgia Organics for a facility this size http://sustainagga.caes.uga.edu/documents/PoultryFeasibility2012.pdf p.42-44
- Starting property tax costs of 0.5% or $3683
- Total equipment costs of $120,000

This information was plugged into the feasibility template, with the following result:

Gross Sales

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Whole Chicken	$0	$140,000	$147,000	$154,350	$162,068	$170,171	$178,679	$187,613	$196,994	$206,844	$217,186
Cut Chicken	$0	$6,000	$6,300	$6,615	$6,946	$7,293	$7,658	$8,041	$8,443	$8,865	$9,308
Whole Turkeys	$0	$36,000	$37,800	$39,690	$41,675	$43,758	$45,946	$48,243	$50,656	$53,188	$55,848
Total	**$0**	**$182,000**	**$191,100**	**$200,655**	**$210,688**	**$221,222**	**$232,283**	**$243,897**	**$256,092**	**$268,897**	**$282,342**
Expenses											
Variable	$0	$176,076	$178,146	$180,252	$182,409	$184,606	$186,844	$189,123	$191,446	$193,813	$196,227
Fixed	$0	$127,676	$138,276	$128,098	$120,172	$113,815	$111,549	$109,125	$101,130	$92,939	$89,876
Other	$0	$60,000	$60,600	$61,206	$61,818	$62,436	$63,061	$63,691	$64,328	$64,971	$65,621
Total Expenses	**$0**	**$363,752**	**$377,022**	**$369,556**	**$364,399**	**$360,858**	**$361,453**	**$361,939**	**$356,904**	**$351,724**	**$351,725**
Before Tax Profit	$0	($181,752)	($185,922)	($168,901)	($153,711)	($139,635)	($129,170)	($118,042)	($100,812)	($82,827)	($69,383)
Tax	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
After Tax Profit	**$0**	**($181,752)**	**($185,922)**	**($168,901)**	**($153,711)**	**($139,635)**	**($129,170)**	**($118,042)**	**($100,812)**	**($82,827)**	**($69,383)**

Estimate of Cash Flows

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
After Tax Profits	$ -	$ (181,752)	$ (185,922)	$ (168,901)	$ (153,711)	$ (139,635)	$ (129,170)	$ (118,042)	$ (100,812)	$ (82,827)	$ (69,383)
Depreciation	$ -	$ 32,960	$ 45,200	$ 36,800	$ 30,800	$ 26,528	$ 26,516	$ 26,528	$ 21,164	$ 15,812	$ 15,812
Principle	$ -	$ 29,429	$ 31,474	$ 33,662	$ 36,001	$ 38,503	$ 41,179	$ 44,041	$ 47,102	$ 50,375	$ 53,877
Cash Flow	**$ -**	**$ (178,220)**	**$ (172,196)**	**$ (165,762)**	**$ (158,912)**	**$ (151,610)**	**$ (143,833)**	**$ (135,554)**	**$ (126,749)**	**$ (117,390)**	**$ (107,447)**

(does not consider increases or decreases in working capital loan)

Altogether these calculations show that given these cost assumptions, this kind of effort to build a small stand-alone poultry processing facility from the ground up is not financially feasible within a 10-year time frame. However, it is important to note that situations in which some part of the infrastructure such as land and building are already in place, or in which more birds can be expected to be processed per year, may be financially feasible.

CONCLUSIONS

Major conclusions from this study include the following:

1. The Producer Survey demonstrated that over 60% of producers did not sell their products in conventional markets, but instead sold their meat primarily to family, friends and neighbors (p.2).

2. The Distributor Survey demonstrated a very large unmet demand for local poultry by grocers, restaurants, and distributors (p.3).

3. The lack of sales to conventional markets by the majority of producers (Conclusion 1), combined with the large unmet demand for local poultry products (Conclusion 2), suggest a need for improved distribution channels to move locally grown and processed poultry to Michigan markets.

4. The Producer Survey demonstrated that local producers produce whole birds most often (p.3), while the Distributor Survey demonstrated that the greatest demand is for boneless skinless chicken breasts (p.3).

5. The Producer Survey demonstrated that a majority of independent producers are interested in the ability to produce value-added products such as smoked meats, ground meats, and sausage (p.3).

6. The Producer Survey demonstrated that a majority of independent producers would produce more poultry products if more USDA-certified poultry processing options were available (p.3).

7. The Feasibility Analysis demonstrated that a simple stand-alone poultry processing facility aiming to process ~50,000 birds per year is unlikely to be financially feasible within a 10-year time frame (p.6).

Altogether the results of this study show a very high unmet demand for local poultry products in SE Michigan, and strong interest from small independent producers in increasing production to meet that demand if more USDA processing options are made available. On the other hand, this study also shows that establishing a new stand-alone USDA processing facility is unlikely to be financially feasible, if it relies only on processing and a small amount of cutting for its revenue streams.

Meanwhile, this study also points to untapped opportunities to help solve the problem of creating distribution channels to move more locally produced and processed poultry to market. Importantly, solving this problem has the potential to benefit both producers and consumers, and to create additional revenue streams to stabilize the processing business model. Consistent with this view, a second Planning Grant proposal was submitted to the USDA LFPP program in 2016, this time to develop plans for a more complex facility that would not only process poultry for independent producers, but would also aggregate, store, and distribute poultry products to SE Michigan consumers. That work is now ongoing, with a second report expected in 2017.

Wendy Lockwood Banka
Mighty Fine Poultry Processing, LLC
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wbanka@umich.edu