STARKS

500 People

270 Households

↓

Can We Feed Ourselves?

Background demographic data for Starks:

573 population, 270 households
Residents over age 55: 229
Residents under age 18: 143

Median Household income: $35,000($10,000 lower than state average)
Unemployed: 6.6% (lower than state average for 2012]
Disabled workers: 130

W/o hs diploma: 32.16%
W/advanced degrees: 13.9% bachelor degrees; 2.4% post grad degrees

Rural community with population depletion over 20th century from 2000, in 1900, to 500 in 2000. No schools, post office, gas/service stations; one convenience store, one auto repair business.

One active dairy farm (organic), three commercial vegetable operations, two beef operations, est. 2000+ acres of open, under-used farmland currently in hay, leased land for conventional dairy operations app. 100 acres.

The area is increasingly sought out by beekeepers due the relatively small amount of conventional/genetically modified farming activity here.

Abundance of prime farmland on land adjacent to Sandy River - interval, sandy loam – and upland – some clay base, much of it virtually rock free.

The following material was compiled for the public and presented verbally at two public meetings with simple, hand-written flip charts. The point of the exercise was to demonstrate the production capacity of the town in relation to its population's food needs.

Following figures on consumption rates based on USDA statistics and data from various food producer organizations (National Cattlemen's Assoc., US Poultry & Egg Assoc., National Pork Council).

Annual Animal Protein Consumption Rates Per Person – US

Beef	60 lb.
Pork	50 lb.
Chicken	80 lb.
Turkey	20 lb.
Eggs	250

Estimated local production necessary for 500 residents:

	@ 100%	@50%
Beef	30,000 lb.	15,000 lb.
Pork	25,000	12,500
Chicken	40,000	20,000
Turkey	10,000	5,000
Eggs	125,000	62,500

In order to create realistic, achievable levels of production within 3 years, we polled producers in Maine for their experiences with various species. No large-scale figures were available for pork. As modest, initial goals, we estimated at less than 100% for beef and chicken as follows:

Estimated numbers of individual animals needed to be raised here:

Beef (50% of town requirement per person)	60 head
Pork	n/a
Chicken (2 whole chickens per month per household)	8000 (@5 lb)
Turkey (one per household)	250 (@ 20 lb)
Laying Hens	500

Estimated acreage needed for production for pasture raised (based on averages from multiple Maine producers; numbers change based on local soils and individual farm practices, forages, rotations, etc.:

Beef - total size of herd: 240 to slaughter 60 per year	720 acres
Chicken - in chicken tractors on pasture @ 100 per acre	80 acres
Turkey – heritage foragers @ 50 per acre	5 acres

It must be stressed that these are estimates and averages. The point is to show the potential in this community. For instance, the two established beef producers here could supply 50% of the town's requirements by doubling their current production, or one or two new, small-scale beef producers added to the present capacity would suffice.

Other examples:

- pastured poultry raised in rotation w/ dairy animals on existing dairy farm;
- pastured turkey a possibility for very small acreages;
- laying hens divided between 2 or 3 farms as low-cost diversification

Milk

US average milk consumption: 12 gal per person per year

Starks requirement = 6000 gallons per year

Dairy cows to produce = 6

Acreage required = 18

USDA Annual Per Capita Averages of Vegetable Consumption – US

1 pound potatoes per person, per week
155 pounds all other vegetables per person, per year

Estimates for Starks:

26,000 pounds potatoes, @1ton per acre (easily achievable by existing vegetable producers)	13 acres

Following estimates based on informal queries of local friends and neighbors as to which vegetables were most commonly purchased for their families on a weekly basis:

26,000 pounds onions	13 acres
13,000 pounds carrots	6.5 acres
10,000 pounds winters squash	.5 acres

Without calculating the acreages or tonnage necessary to feed the town, the following fruits and vegetables are currently being raised here:

Year-round greens in hoop-houses - spinach, lettuce, beets, chard, kale, arugula;
Corn, tomatoes, string beans, dried beans, sweet potatoes, cabbage, broccoli, zucchini, fiddleheads, dandelion, lambs quarters, assorted herbs;
Strawberries, apples, pears, elder berries, rhubarb

Wheat Consumption Based on USDA 2011 Statistics

PP/PC - 130 lbs. = 32.5 tons annually for Starks = 13 acres required

Two wheat producers in the community currently produce less than 10 tons annually. However, both of these producers have only begun experimenting with wheat in the last three years and both are looking to increase their production. Either could easily produce the entire town requirements on a fraction of their highest quality acreages, both have sufficient equipment and storage.

In addition, MA3's facility has a wood-fired brick oven for bread production capable of turning out 100 to 200 loaves of bread per day.

Using the most advanced, sustainable/economical/biological farming methods available as introduced by the presenters at MAINE ALTERNATIVE AG's summer, 2012 speaker series, we estimate that between 50% and 80% of the community's food needs could be produced (on acreages estimated above) by the farmers already established here using less than half of the presently under-used farmland (+2000) in the town. Remove beef from the equation, and the food needs could be produced by putting under 200 additional acres in production.