

***“Full Circle Farming: Integrating Livestock into your Mixed Vegetable Operation”***

**Workshop Description:** There are numerous agricultural benefits from having livestock present on your farm, whether you intend to raise them to sell, or include them for their fertility contributions to your operation. Unsure of where to begin? This session, led by Tim Livingstone of Strawberry Hill Farm, will cover the basics of introducing different types of livestock; the different benefits that each can offer; and basic considerations for your management plan. This session will discuss and compare the integration of cattle; chickens; sheep and pigs.

**Speaker: Tim Livingstone  
Strawberry Hill Farm, NB**

I guess this is a pretty big topic. We all try to close that circle; I'm going to talk specifically about livestock. Why we want livestock on the farm, some hazards of livestock, and some cost analysis - because we don't want to do things on the farm that aren't bringing in money (or paying for themselves.)

My wife and I own Strawberry Hill Farm, where we farm over 40 vegetable varieties, plus raspberries, blueberries, and strawberries. We bought the farm in 2011, bringing our CSA with us. We have 16 grass fed beef, as well as pasture raised chickens, pigs, and free range eggs. We decided early to go with certified organic for the whole farm, but with animals it's especially challenging. Lots of farmers will do organic vegetables but not certify their animals. I'm glad we did, but there are some trade offs.

Last year, we had laying hens that worked an entire field before we sowed sweet corn. This helped our fertility a lot. And the sweet corn -while not a huge money maker - is a pretty high value crop and one of our most popular. After the corn, we bring in the cows and they clean everything. We don't need to use a chopper, they'll clean it down to "stubble".

We have a field that went from sweet corn, to red clover, with chickens in the rotation to build the soil. The field is near the house, so it's easy enough to manage chickens on it. The chickens eat the clover, which is nutritious, and they work fertility into the soil, and it produces excellent meat. We have 108 acres along the Saint John River, which means three different soil types from the top to bottom of our slope. As you get higher, the soil quality is worse (and the top of the hill was conventionally farmed.) We're working cows through on rotational grazing (1 - 3 days per block); they're utilizing the field, performing a function, and it will eventually turn that soil around. We find the impact of cows is minimal because they're on the land such a short time. We can carry twice as many animals as a similar non-rotated system. Try to limit our time spent on cows to 15

minutes a day, maybe 30. Can't let cows and other livestock take away from the vegetables which are the main source of our income.

We also have land that goes down to a stream and wooded area. The cows are able to work the edges of the land where we wouldn't be able to use machinery, and the grass there is great. The cows love it.

### **10 Reasons to Raise Livestock**

1. They can be very enjoyable ("Pigs especially a riot!")
2. They utilize unused portions of the farm
3. There is a ready market for humanely raised and organic meat
4. They can provide steady year round income
5. Livestock manure is an excellent fertilizer
6. Livestock can re-utilize wastes.
7. They are good for the land if managed well
8. They give a decent return on labour investment if managed well
9. They help round out the sales and products offered
10. Livestock are part of a complete system.

### **10 Reasons not to Raise Livestock**

1. They tie you to the farm
2. They are generally costly to set up (hens are probably the least, and cows the most expensive to set up)
3. Livestock is dependent upon you
4. There is a relatively high cost to feed and house livestock
5. Livestock manure has to be handled carefully so as to not contaminate crops (cited the 90/120 day rule re: time after harvesting, before applying)
6. There is a lot to learn about livestock
7. They love to eat vegetables
8. Livestock requires the ability to handle death
9. It requires butchering - no pets.
10. Livestock are addictive - you get attached to them (most of the time.)

For a funny video clip "Hazards of Raising Backyard Chickens" go to [www.onegirlsrant.com](http://www.onegirlsrant.com).

### **Beef Cows**

The cost to start up with cows is \$800 - \$2,000 per bred female cow. Assuming you have a tractor, you're looking at a set up cost of \$9,500 on average to make hay for them (hay mower, hay tedder, hay rake, hay baler, hay wagon, and fencing supplies.) According to Joel Salatin, the average livestock farmers in the USA are 70 years old whereas the average farmer is 60. I think this is about the initial capital needed to get livestock (takes longer) as well as livestock becoming addictive. You tend to get attached...

Tim ran through the cost of setting up, keeping, overwintering cattle, as well as the cost of butchering and processing the meat to figure out his optimal way of getting meat products to clients.

### **Broiler Chickens**

You need some infrastructure to have chickens - a barn or enclosure to house them, heat lamps, feeders, etc. The cost p pound for whole chickens coming out of the slaughter house is \$2.10 to \$2.90 based on our feed costs. Can be much higher with normal organic rations.

Some factors to consider with broilers:

There's a fast turnover: you can do 2-3 batches per year with a good set up

You have to distribute the manure well

There seems to be lots of market opportunities with chicken

It's a summer job only; leaves you free in the winter

On the negative side:

Losses can be high, even for experienced growers

You need licensed processing facilities, especially if you're wholesaling

Numbers limited by the quota system.

### **Pigs**

This is our first year with pigs. Anyone raising organic piglets, wants the piglets, so it's hard to acquire them.

They're fun critters

They eat unused or poor looking eggs and lots of veggies chickens won't eat

They root up and turnover the soil

They're easy to fence and care for

We're not sure what the hard costs are going to be

### **Hens**

We do hens on grass with a roll out nest structure. We have a hen house with sloping trays for collecting the eggs. They're part of a sweet corn to mixed vegetable rotation.

With heritage breeds of chickens, it's important to do the numbers. You need to look at your grain costs, and numbers of eggs. If your hens eat as much and lay fewer eggs, your costs are higher than with more conventional breeds of chickens, even if you're able to charge a bit more for the eggs.

Some problems we've encountered:

Government egg board regulations or wholesale

The Cold

    Huddling under lights

    Cold weather/frozen water/frozen eggs (we're building an insulated room)

Very large eggs (the more grain they eat to stay warm, the bigger the eggs)  
Cannibalism  
Very hard or impossible to cure once started  
What is allowed for organic  
Lack of support system

In summary, I think livestock are part of a well rounded farm. They're really enjoyable for the most part (though there are days when the cows are in the veggies that I wonder!) They help with year round income, but do need to be well managed. Costs are higher, infrastructure is higher, and they require daily attention.