



Non Profit Chickens (NPC)

When it makes no cents to have your own chickens.

Eggspensive



- In Thailand fresh eggs are 4-6 Thai Baht each around 6 for a dollar.
- When the cost of buying egg laying chickens (a laying life of 2 years,) and the cost of buying layer feed in small amounts, it was just as cheap to buy eggs than produce them.
- A friend started a business and he calculated he needed, 200 chickens but he also had to make and mix his own feed, and sell into a premium market, to be able to get a return for his investment. I only needed 3 chickens to meet my egg needs.
- I thought by having my own chickens it would save money
- Was it worth the time and expense?

Value vs Profit

With the cost of the chicken and food I was able to produce eggs for around the same cost I could buy them from the local store.

How could I add value to the chicken so that it was worth more to me than just producing an egg each day.?

I decided to buy the chickens and work on the problem over time. After all I worked for a Non - Profit organization it was a good fit to have a non profit chicken project.



Composting Chicken Toilet

Chicken manure stinks and is a problem in an urban backyard.

My first observation was most of the chicken manure was where they roosted at night. So I built a pit with a roost over it and trained the chickens to perch on it

Then I built a pit with a screen lid on it that was large enough for most of the manure to fall and also keep the chickens out.

By doing this I was able to put composting worms in the pit to help break down the manure.

I found that not all the manure fell through but by hosing it down, it not only kept the top clean, it also broke the droppings in small pieces and softened it for the worms to break down faster. This reduced the smell significantly



Compaction and Scratching



- Chickens constantly walking on the ground compact it ,making it attractive for smelly anaerobic bacteria.
- I placed about 10-15 cm fresh cut weeds on the soil to stop compaction and reduce smell.
- I had noticed that chickens when let out constantly move ,and can energetically scratch for hours.
- For the first 2-3 weeks they just walked on the weed layer. Then they began to scratch vigorously.
- 4-6 weeks later they had shredded all the material and it now looks like the right hand side.

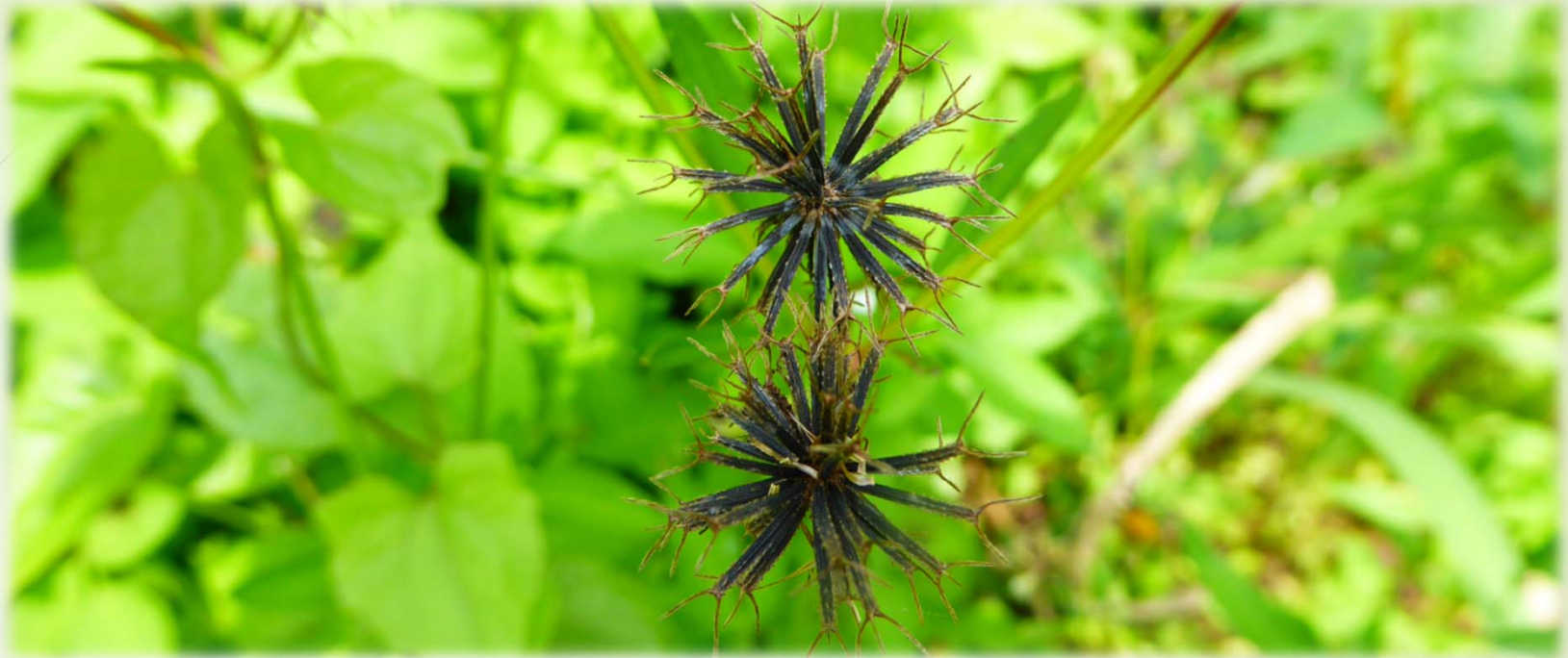
Value added

The chickens love of scratching was adding value to me by turning weeds into compost for my garden.

They did all the work ,while providing eggs.

I found that it needed to be green material and it needed to be a thick layer and I also needed to keep it moist , by spraying regularly with a hose.





Weed seed no problems.

The road side weeds are full of seeds , thorns and grasses I never want in my garden. But so far I have found that the chickens deal with them no problems and will eat the burrs like these ones which is a real bonus

The weeds around my street are often a mix of legumes , grasses and soft leaved weeds which is a good mix for composting



Super Napier Grass

16-18% protein

1 rai can produce 80 t/year

1 hectare produce 500 t/year

Laying chickens require 16 % + protein

Laying chickens can include 10 – 30 % forage into their diet.

A possible way to reduce feeding costs?



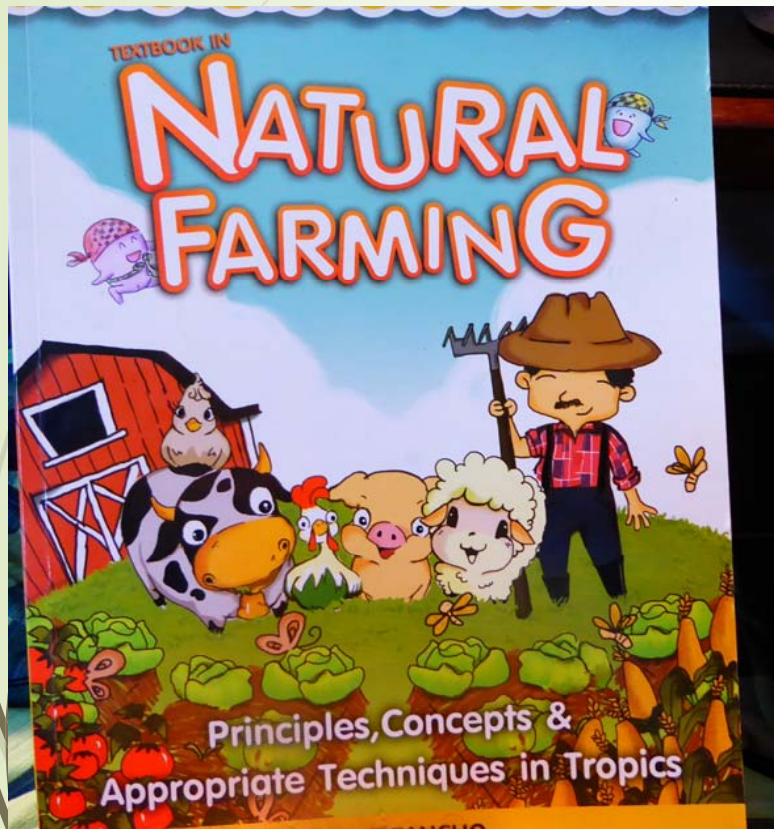
Super Napier grass growing in a circle around a compost pit with nitrogen fixing tree , climbing legumes and bananas



Composting pit 70 cm deep , 1m in dia.



Natural farming has a recipe for making a fermented layer feed that includes grass. But I have no way of cutting the thick grass fine enough for chickens to eat.



Commercial feed	30%
Red soil	30%
Chopped green grass	20%
Rice bran	10%
Fermented plant juice or fermented lactic acid	10%

After seeing a friend's home made wood chipper made from a 6 hp motor and mower parts provided the inspiration for me to come up with a way of using my weed eater to cut super Napier grass for chicken feed.



It works...



Cutting super Napier grass



Now it is possible to make cheaper feed

7 stalks = 4.5 kgs or 20 liters volume

Wilting after cutting



Experimenting with different ratios

Cut napier grass filling 20 liter bucket

Same bucket compressed tightly to make fermented feed after wilting the grass. Now holds 10 kgs





Finished fermented feed ready for use. Being stored Anaerobically in a way that can be easily accessed each day. (garbage bag with sand in it)

I feed the concentrated feed at 60 grams per bird/day in a standard chicken feeder under the cover of a shed roof and add 30 grams chopped grass to the concentrate. Store bought feed is normally fed at 80 grams/bird/day. A saving of 20 grams/bird/day.

Also feed fresh Chaya , un-milled rice always on the ground. As I want chickens to eat dirt and have to work to find the food.

bugs from worm farm are feed occasionally.



Chopping Chaya , lucenia , and other legume trees.



After feeding fermented grass as a part of the diet , I found that the manure broke down very quickly and could be handled without any odor and used as a liquid fertilizer. Here is an Indian Natural farming recipe that I use.



For more information go to youtube and type this from the picture below into the search or go to the original website of the inventor Mr Subhash Palekar <http://palekarzerobudgetspiritualfarming.org/zbnf.aspx>



Fertilizer ? Or snake oil !!!

The chicken manure in the video is at least partially composted by worms and is not fresh. (I am not recommending use of fresh manure)

This is experimental and is used on heavy mulches and primarily seen as an aid to break down mulch.

Sometimes I also will add seaweed ,rock phosphate in small amounts.

If I put airstones instead of stirring can also add indigenous micro organism from forest on the 3 rd day to increase fungal activity.



On the left a store bought fertigator adapted to apply large volumes of liquid fertilizer.

On the right a bottle sprayer connected to hose and the more traditional watering can. At times I also just use a small plastic dish then “ spray” the liquid out with a vigorous flick of the wrist which works very well and is much quicker than the watering can.



Under the roof , bio char , old potting mix and non mature compost

Potting soil is matured by chickens feeding and scratching on it.

In Thailand there is cheap potting mixes that are much better when matured for a longer time and can have a high PH due to high content of burnt rice hulls.

Inside the chicken pen is ideal as makes an ideal smell free composting floor.

I feed the chickens unhulled rice on it and keep it moist with regular watering and microbial teas. Then use it as potting mix at any time.



This tap is one of the most important parts of the system

Keeping everything moist is what makes the system work. This enables microbes and fungi to do their magic.

Half the pen is undercover. (potting mix side) while the weed mulch side gets sunlight which is important for the chickens health.

I also once a week add either diluted worm juice , wood vinegar , or a diluted home made microbial fertilizer.

The floor is a living system and needs air , water and food.

Chickens scratching and dropping help aerate and feed the system but still needs water.

occasional turning over with a hoe is needed if becoming compacted with people walking on it.



Accommodation



Added Egstras

Apart from giving fresh healthy eggs , shredding weeds for compost, providing fertilizer for the garden, and helping mature bio char and compost .

They are a fantastic educational tool for the family. How much value can you put on , your child learning about caring for animals and being a part of producing their own food.

They make good pets

They can also help control pests in the garden. (or destroy the garden)

So in summary .

When they are integrated into a garden system, with access to fresh weeds they can provide a lot of value other than just producing eggs and make it worthwhile investment for the backyard





