

## CASE STUDY

# THE MULTIPLE BENEFITS OF FARMING TRADITIONAL CHICKEN FOR MEAT AND EGGS IN CHINA



## THE CHALLENGE

Intensive farming is rising rapidly, notably in China, where population size, urbanisation and increasing affluence are on the rise. However, concerns about natural resource depletion, pollution, environmental degradation and the living conditions of people and farm animals are mounting. A new approach to food and farming is needed and it must strike an optimal balance across animal welfare, environmental, social and economic needs.

## OVERVIEW

To understand how farming systems can meet these challenges in the future, Compassion in World Farming is compiling case studies from around the globe to showcase good examples of progress towards humane sustainable livestock production.

This case study looks at the production of organic eggs and chicken meat from a traditional dual-purpose breed called 'You Chicken' in China.

The farm studied is run with several benefits to the farmers, the environment and farm animals.

The farm, in the hills near Beijing, raises premium and traditional Chinese *You Chickens* in a way that improves the welfare of the chickens, the lives of the farmers and the environmental performance of the farm. The males are raised for meat and the females are raised primarily for eggs and then used for meat at the end of their laying lives.

## KEY FINDINGS

Just outside Beijing, China, a traditional breed of chicken is being used to produce both meat and eggs, benefiting the farmers, environment and farm animals.

- Farmers are benefiting from premium prices for products from this sought-after breed.
- The farms are environmentally friendly, with no pesticide use and a bio-digester to make renewable energy from farm wastes.
- The animals on the farms also benefit from living free-range. The standard practice of killing male chicks upon hatching in egg production systems is avoided as they are reared for meat.



*Chickens benefit from foraging naturally*





*Manure is collected to make biogas*

## SOCIO-ECONOMIC BENEFITS

### Market

The eggs and chickens are marketed as providing a range of benefits: taste, quality, health, social and environmental benefits.

The *You Chicken* brand is the second largest of 20 large companies supplying eggs to the main Beijing supermarkets, although supermarkets are not the main outlet for eggs in China. There is substantial market demand in China for chicken meat with more flavour produced by slow-growing traditional breeds. The meat of end-of-lay hens is also highly valued.

### Livelihoods

The company farm employs 30 people (24 stock-people, 5 technicians and one manager). The company also supplies birds and feed to 320 independent farmers and markets the eggs and chickens they produce. Between them, these farmers rear 3 million birds per year, including 800,000 laying hens.

### Economics

The eggs are sold for nearly twice the price of standard eggs. The profit per meat bird is reportedly 2-3Renminbi (32-48US cents) for the farmers, compared with 1Renminbi for an intensively-reared bird. The company can make an additional 20Renminbi per bird.

## ENVIRONMENTAL BENEFITS

### Organic feed production

Maize, grass and alfalfa are grown on the company farm and mixed with soy bought in from elsewhere in China to produce organic feed for both the company farm and its co-operative farms. The maize is grown on fields adjacent to a large reservoir that supplies part of Beijing's water supply. Growing the maize organically and without mechanical tilling of the soil helps to minimise water pollution.

### Nutrient cycling and energy generation

Chicken droppings and crop waste (e.g. maize stalks) from the company farm are fed into an anaerobic digestion plant on site to generate methane gas. This provides gas for heating and cooking for farm workers and 1,000 local homes, providing clean and renewable energy.



*On site anaerobic digestion creates energy*

The nutrient-rich residue left after anaerobic digestion is used to fertilise the fields and the fruit and vegetable plots of local farmers. The digestion process kills bacteria and viruses, reducing the risk of disease.

Power for the street lamps around the company farm is provided by solar panels, although coal is used to provide for other energy needs on the farm.







*Chickens are naturally woodland birds*

## ANIMAL WELFARE BENEFITS

### Free-range environment

Hens and cockerels are kept free-range in paddocks with plenty of trees and opportunities to range, forage and dust-bathe. This minimises the risk of harmful feather pecking and cannibalism. Before they start laying eggs, the young hens are also kept free-range from 45 days of age.

### Slower-growing dual-purpose breed

The hens lay around 170 eggs per year, compared with around 300 for modern hen types. This reduces the demands on their bodies and the risk of bone fractures, a very common problem in modern hen types.

The males are raised for meat instead of being killed at hatching, which is the usual fate of male chicks of egg-laying breeds.

The cockerels are slower growing, reaching a weight of 1.5kg at 120 days, compared with 2kg at 35 days in standard systems. This means that *You Chicken* cockerels are much less likely to suffer from the lameness, heart problems and fatigue common in fast-growing breeds.

As a slower-growing breed, the birds used for breeding do not suffer chronic hunger from the severe feed restriction used in standard breeds to limit their growth.

### Management

A few cockerels are kept with the laying hen flocks, which provides more natural social groupings. This can be helpful for controlling aggression and feather pecking amongst the hens.

Painful mutilations to the birds' beaks are not practised. Nor is forced moulting practised – the process of depriving hens of adequate feed to induce moulting and trigger a new egg-laying cycle.

### Welfare outcomes

Mortality rates are relatively low and health problems common in standard systems are reported to be rarely seen. Antibiotic use is said to be very little for laying hens and none at all for cockerels.



*Beak mutilations are not performed*

### Room for improvement

The breeding flock is housed in cages, which severely restricts opportunities for exercise and the expression of important natural behaviours.





## POLICY RECOMMENDATIONS

- ✓ Compassion in World Farming encourages policy makers, farmers, food businesses and consumers to move beyond factory farming and seek new ways to achieve humane sustainable food production and healthy diets for all.
- ✓ The farms in this case study can act as a sector leader in the region and more widely; knowledge transfer should be encouraged.
  - ✓ Farm systems that support small-scale farmer livelihoods, food and energy security and co-operatives should be supported at every level.
- ✓ Good environmental performance should be encouraged, particularly where low-tech, small-scale, renewable energy generation is combined with free-range farming.
  - ✓ Farms that provide higher welfare for hens and chickens through good farm systems and management as well as breed choice (as seen in this case study) should be actively encouraged and supported.

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