

## Pastured Poultry: The Polyface Farm Model

By Joel Salatin

The Pasture Poultry model that we have developed at Polyface Farm offers ecological and nutritional advantages over commercial and "organic."

The fundamentals of this system are

(1) portable buildings and yards; (2) fresh forage; (3) birds moved to fresh pasture paddocks daily, or almost daily.

The old free-range models utilized stationary buildings with adjacent pastures, sometimes rotated in a wheel-and-spoke design. While better than cages, this system has several disadvantages. Poultry manure is extremely high in nitrogen and quickly saturates such heavily used areas with nitrogen and pathogens, creating a bitter-tasting forage that is unpalatable to the flock. And their scratching, fluffing and dustbathing destroys much of the sod, leaving the soil exposed and raw.

To combat these weaknesses, pastured poultry producers use light range shelters that can be moved by hand or tractor each day, so that the flock also moves to fresh ground. This keeps the birds away from yesterday's vegetation regrowth and stimulates forage ingestion by the poultry. This system works for both egg layers and meat birds.

The critical element in nutritionally superior poultry is the amount of forage the birds ingest. Their sensitivity to pathogens, overly nitrogenous forage and stale paddocks already creamed of their tastiest forage is much higher than the human eye can see. What may look like perfectly good grass can be totally repugnant to the birds. Furthermore, a favorite forage is clover, which cannot grow in overly nitrogenous conditions created by routinely used poultry yards.

The green material of fresh forage provides B vitamins as well as carotenes, some of which the chicken turns into vitamin A. Omega-3 fatty acids in the forage end up in the fat. Exposure to sunlight ensures that the fat will also contain vitamin D. The more yellow the fat, the more nutritious. The same is true for egg production, with the yolk carrying the signature dark orange color characteristic of high forage intake.

Producers around the country have created ingenious portable poultry structures--we call ours the "Egg Mobile." Chicken houses on wheels and skids now dot the countryside as a method of production that finally meets the full social, nutritional and physiological needs of poultry.

These birds actually live on the ground, catching bugs and scratching in the soil. Every day is a new discovery of salad on a fresh paddock so the birds do not get bored and begin eating one another, as they do in typical confinement factory houses. On our farm, the chickens follow the cattle, which are also moved daily to new pasture. This supplies the chickens with plenty of fresh insect life, living in and under the cow patties.

Pastured poultry has two points of vulnerability: predators and weather. Every producer

has experienced losses from these and combats them in various ways. Some producers have guard animals who live with or near the flock. Dogs can be bonded to the birds and protect them from foxes and coyotes. Some folks use geese to dissuade aerial predators. Tight shelters help.

Fortunately, high tech infrastructure coupled with good management can yield production and mortality figures equal to or better than the average in the conventional poultry industry (where many chickens die from disease). The main reason this type of poultry and eggs are more expensive than the supermarket counterpart is because it requires a much higher level of management skill. This skill doesn't come cheap.

Outfoxing the foxes and outwitting the hawks take commitment and ingenuity far beyond simply adjusting the medicator controls in an industrial chicken house. Lightweight hoop houses on skids and polyethylene netting containing electrified stainless steel wire threading keeps chickens in and varmints out. Farmscale landscaping to protect riparian areas and forested zones, coupled with perennial prairie polycultures, encourages small mammal proliferation to feed predators in a balanced ecosystem. Success requires superb ingenuity and managements skills.

It also takes skill to protect chickens from the elements-- not every day is 70 degrees with an azure sky and wispy breeze. The shelters must be designed to shut tight for cold days, and have plenty of ventilation for hot days. During flooding, we put out hay bales for the chickens to perch on. In winter, our layers go in hoop houses with thick composting mulch underfoot. We do not raise meat birds during the winter months, but depend on modern technology (our freezers) to have a supply of birds throughout the winter.

Pastured poultry producers routinely try to create healthy whole farm ecosystems in order to maintain balance. Part of the balance is limiting poultry numbers to what the farm's soils can metabolize-- there should be no more than 500 birds per acre per year, or a limit of 10,000 birds per year on a 20-acre farm. One manure application from 500 broilers per acre will saturate the soil's nitrogen capacity. Interestingly, that is exactly the area required to grow the grain to feed the birds.

Modern chickens need more than just pasture. We feed our birds a "free choice" mixture of non-GMO local corn, oats and roasted soybeans, along with a mineral supplement and kelp. Our layers in hoop houses also get dried alfalfa during the winter.

The modern double breasted broiler has a high protein requirement, which is why we must add soybeans to the ration. This year, for the first time, we raised 400 Barred Rock cockerels, an Old World bird we have dubbed the "Marco Pollo." The bird is a great forager and requires less protein in the feed. Sales have been brisk. The meat is tougher than the modern bird but has a wonderful flavor that appeals to aficionados. The fat is a beautiful color and the quality of the livers is the best I have seen.

Interestingly, the single biggest impediment to adaptation of this model on a wider scale, giving consumers easier access to these superior birds, is neither predators nor weather

extremes, but government food safety and inspection regulations.

A federal law PL90-492 allows producer/growers to dress up to 20,000 birds annually without government inspectors on site, as long as the birds are "unadulterated" and "sanitary." These two subjective terms have been widely construed by bureaucrats. Some states do not allow any open-air processing and some states do not allow even one bird to be processed without massive facilities.

So far, not one case of food-borne pathogens has been reported among the thousands of pastured poultry producers, many of whom have voluntarily had their birds analyzed. Routinely, these home-dressed birds, which have not been treated with chlorine to disinfect them, show numbers far below industry comparisons. At Polyface, we even tested our manure and found that it contained no salmonella.

Pastured poultry farms exhibit trademark lush pastures and healthy chickens with deep-colored egg yolks and fat. As with any movement, some practitioners are excellent and others are charlatans. Knowing your product by putting as much attention on food sourcing as you do on planning your next vacation is the way to insure accountability.

The pastured poultry model can provide true ecological enhancement and nutritional superiority for you and your loved ones. Enjoy pastured poultry and eggs at your next opportunity-- it will be memorable.