



A HEIFER PROJECT INTERNATIONAL CASE STUDY BOOKLET



This study is sponsored by Southern Region USDA Sustainable Agriculture Research & Education (SARE) and is a Heifer Project International case study booklet. This study is compiled and distributed by the National Center for Appropriate Technology (NCAT).



PASTURED POULTRY

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This booklet was compiled by Anne Fanatico of the National Center for Appropriate Technology (NCAT) as a guide and summary of the “Integrating Pastured Poultry into the Farming Systems of Limited Resource Farmers” project. The project was conducted from 1996-1999 by NCAT and Heifer Project International (HPI). It was funded by Grant #LS96-76 from the USDA’s Southern Region Sustainable Agriculture Research and Education (SARE) program.

HPI is a private nonprofit corporation dedicated to community development through sustainable livestock production. The headquarters is located in Little Rock, Arkansas, USA.

NCAT is a nonprofit organization with offices in Butte, Montana and Fayetteville, Arkansas, USA which manages a host of public programs dealing with sustainable agriculture, along with energy conservation, low-income energy and housing issues, and sustainable community development. NCAT’s role through its projects is to improve the economic well-being and quality of life of urban and rural residents, all the while working to improve the environment and conserve America’s natural resources.

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FOREWORD & ACKNOWLEDGEMENTS

This booklet summarizes the experiences of 35 Southern farm families who, from 1996-1999, participated in a project titled “Integrating Pastured Poultry into the Farming Systems of Limited Resource Farmers.”

The experience proved favorable for 27 of the project families who continue to raise range poultry for home-use and for sale to growing customer bases.

We hope this booklet will prove useful as a decision-making guide for other farmers interested in adding diversity and improving profits in their own agricultural enterprises through pastured poultry production.

We are thankful to many people who assisted in compiling this booklet. Especially helpful were the farmer grantees who took special care to keep close records of their enterprises and share that information for the benefit of potential producers.

Other people, organizations and agencies who made special contributions to the project are the National Center for Agricultural Law Research and Information; Extension agents and staff at Tuskegee University, Southern University, Kentucky State University, South Carolina State University, Florida A&M University and Fort Valley State University; members of the American Pastured Poultry Producers Association; and the Joel Salatin family of Swoope, VA.

We thank those individuals who were so generous in sharing photographs and slides they snapped during field days, trainings and activities on their farms. Their work helps greatly to tell the pastured poultry story and appears throughout this booklet.

We are also very appreciative of the four farm families in the “Featured Farmers” chapter of this booklet. We thank them for sharing both the trials and the triumphs they experienced while learning the techniques of raising, processing and marketing poultry on-farm as a way to supplement their income.

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INTRODUCTION

“PASTURED POULTRY IS A NICHE MARKET YOU CAN TAP”

Pastured poultry is a niche market in which some consumers are willing to pay more for what many of them consider to be tastier, healthier and more humanely grown chicken. The poultry industry in the U.S. was pasture based until the 1950s when confinement housing became the norm. Small, independent producers have been replaced by highly integrated companies.

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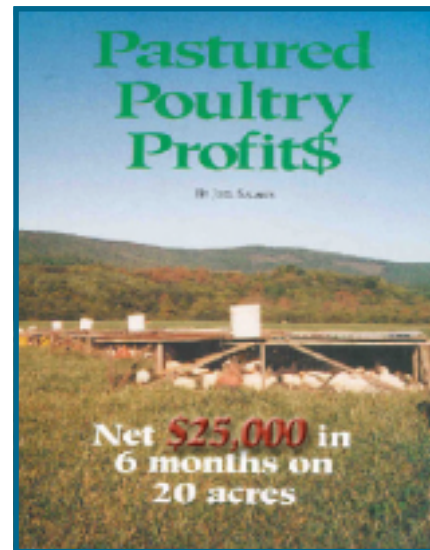
- ADVANTAGES OF PASTURE SYSTEMS
- MAJOR ACTIVITIES OF THE PROJECT
- FUTURE & COLLABORATIVE WORK

Today there are many consumers interested in “natural” poultry products. Consumers have different interpretations of the term “natural” but it usually includes flocks of chickens that roam on grassy pasture and eat only non-medicated feeds that do not contain unappealing by-products. Some consumers want certified organic products or gourmet products, believing that pastured poultry delivers better nutrition and taste.

Some are motivated by nostalgia and look for that Sunday fried chicken they enjoyed on Grandma’s farm. Some consumers are interested in range poultry for welfare or aesthetic reasons, or because they think it is an environmentally sound way to produce poultry. Other distinctions made by consumers and retailers have to do more with processing than production. Some consumers are attracted to the concept of on-farm processing, while others demand government inspected processing. Some consumers also make marketing distinctions. For example, they may prefer to buy direct from the farmer to support local food production and strengthen rural communities.

Heifer Project International (HPI), a non-profit development corporation dedicated to community development through sustainable livestock production, seeks ways to help farmers find profitable, low-capital production and marketing enterprises. In April 1996, HPI was funded by the USDA’s Agriculture Research and Education (SARE) program for the 3-year project, “Integration of Pastured Poultry Production into the Farming Systems of Limited Resource Farmers.”

The HPI project helped limited resource farmers in the South boost incomes and diversify their operations by growing, processing and marketing chickens on their farms. The project employed the methods of Joel Salatin of Virginia, author of *Pastured Poultry Profits: Net \$25,000 in 6 Months on 20 Acres*.



PASTURED POULTRY:

- IS A SUSTAINABLE LIVESTOCK PRODUCTION SYSTEM THAT INTEGRATES WELL WITH OTHER FARM ENTERPRISES AND CAN HELP KEEP MORE FAMILY FARMERS ON THEIR LAND.
 - HAS THE POTENTIAL TO PROVIDE JOBS IN RURAL AREAS AND AID IN COMMUNITY DEVELOPMENT THROUGH ADDED INCOME AND YOUTH INVOLVEMENT.
 - FEATURES CHICKENS IN FIELD PENS MOVED DAILY TO FRESH PASTURE.
 - USES NON-MEDICATED FEED.
 - PROVIDES FOR ON-FARM SLAUGHTER.
 - UTILIZES DIRECT MARKETING FROM THE FARM.
-

ADVANTAGES OF A PASTURED POULTRY SYSTEM

In the Salatin pastured poultry model, chickens are raised in floorless field pens moved daily to fresh pasture. Seventy-five to 90 broilers are kept in each 10' x 12' x 2' pen.



Mobile pens of chickens are spread out across a pasture

The chickens receive exercise and fresh air while foraging for plants and insects, and their manure adds fertility to the pasture. They are fed a supplemental feed concentrate, usually without routine medications such as antibiotics. Feed costs are reduced by keeping birds on pasture.

Production is usually seasonal — participants order day-old chicks from early April to October from hatcheries. Chicks are brooded and moved onto pasture at about 2- 3 weeks — when they are feathered out and when weather permits.

MOST FARMERS PRODUCING LESS THAN 1,000 BIRDS PER YEAR ARE ABLE TO SELL ALL OF THEIR PRODUCT.

Processing & Marketing

Birds are usually slaughtered on-farm at about 8 weeks of age and customers come directly to the farm to pick up their chicken. Although marketing is usually word-of-mouth, producers put significant effort into planning sales, reminding customers of pick-up dates, and having the birds ready on time.

Although pastured poultry is a high-labor enterprise, especially for small-scale start-ups, the participants and their customers were happy with the final product and believe pastured poul-

try enterprises help build community. Participants often teamed up with each other or other pastured poultry producers in the area — sharing brooding and processing facilities, marketing together, and buying inputs together.

Materials & Equipment

Limited-resource farmers need value-added agricultural enterprises that will allow them to start small and gradually build an operation as needed, without incurring substantial debt.

One field pen has about \$100-150 worth of lumber, chicken wire, screws, and tin. Other materials include waterer and feeders. Processing equipment can be expensive. There are also feed costs and the costs of buying chicks.

The reason that producers are interested in range poultry production is generally economic—they want to earn money.

Indirect Benefits

Profits may not be high initially. There are other indirect reasons for raising pastured poultry, such as improving pasture fertility, increasing farm diversity, family work ethics, community involvement and improving lifestyles. Farmers may simply want to raise chickens for home use, family and friends. As experience and production increase, profits increase as well.



Farmer trainees place chickens in killing cones on processing day.

MAJOR ACTIVITIES OF THE PROJECT

HPI discussed the project with its affiliated farmer groups and identified interested producers.

Training sessions

Two major 3-day training sessions were held at the Salatin farm in Swoope, VA—in June 1996 and October 1997. About 40 other hands-on training sessions and field days, held in different locations in the South, trained farmers in all aspects of pastured poultry production. Participants built pens, moved the pens, and butchered chickens; they learned about brooding, feeding, record-keeping, food safety, and marketing.

Educators, including local Extension agents, were trained to provide technical support to the farmers. Materials used at the training sessions included a May 1996 survey of 13 producers who had already adopted the pastured poultry model.

Legal summary

The survey was conducted by the National Center for Appropriate Technology (NCAT) which administers Appropriate Technology Transfer for Rural Areas (ATTRA), a national sustainable agriculture information service. The National Center for Agricultural Law Research and Information conducted a legal summary of federal and state laws regarding on-farm processing of poultry in all the southern states, including Puerto Rico and the Virgin Islands.

IN THE HPI TRADITION, GRANTEE FAMILIES SIGNED A CONTRACT TO “PASS ON THE GIFT” BY TRAINING ANOTHER FARMER AND RETURNING THE PRICE OF THE CHICKS TO HPI.

Getting started

After training, the grantee families each received from HPI about \$300 in start-up funds to allow them to build a pen, buy 100 chicks, and a feeder and waterer. HPI provided small-scale processing equipment.

The farmers were also required to keep a book prepared by HPI to record income and expenses for the project, along with production information such as feed type and costs, labor budget, pasture management, problems encountered, and quality of life information.

NCAT compiled the records and used the information for this booklet. Three HPI field representatives provided follow-up support to the farmers.

Several 1890 landgrant universities — Southern University, Kentucky State University, and Tuskegee University — were involved from the beginning of the project, and in the second year, South Carolina State, Florida A & M University, and Fort Valley State University became involved.

PASTURED POULTRY GROWERS FORM APPPA

AS PART OF THE PROJECT, THE AMERICAN PASTURED POULTRY PRODUCERS ASSOCIATION (APPPA) WAS FOUNDED TO HELP PRODUCERS AROUND THE COUNTRY NETWORK. APPPA PUBLISHES THE QUARTERLY NEWSLETTER *GRIT!* FOR EXCHANGE OF IDEAS AND INFORMATION — INCLUDING REVIEWS OF LEGAL ISSUES REGARDING ON-FARM POULTRY PROCESSING, INFORMATION ON CHICKEN FEED, RATIONS, NEW AND USED PROCESSING EQUIPMENT, MARKETING, REFERRALS, AND SOURCES OF CHICKS.

APPPA'S BASE OF ACTIVE PASTURED POULTRY PRODUCERS IS USEFUL NOT ONLY FOR NETWORKING AMONG PRODUCERS BUT ALSO FOR CONSUMERS LOOKING FOR HIGH-QUALITY CHICKEN PRODUCTS IN THEIR AREA. APPPA MEMBERSHIP IS NOW ABOUT 500.

Some of these universities have pastured poultry demonstration sites and their associated Extension agents offer support to pastured poultry farmers.

On-Farm Results

On-farm results are encouraging—most farmers are very pleased with the enterprise. “Not only did we make a few dollars, but I am very happy that we can open the freezer and see 40 chickens we can eat,” said a Kentucky producer.



The project generated substantial publicity in alternative farming magazines and some project participants, including farmers, were invited to give talks at conferences about pastured poultry.

FUTURE & COLLABORATIVE WORK

A major indication of the first project is the need for government approved processing facilities especially for those producers interested in commercializing range poultry.

To meet this need, HPI began a second poultry project with support from Southern Region SARE in 1999 called “Enhancing Feasibility for Range Poultry Expansion.” There is an increasing demand for range poultry — including regionally produced.

Processing Investments

In order for producers to access processing facilities, investments are needed to build independent processing plants. Currently, very few facilities exist for custom processing of poultry—integrated processing plants do not serve independent farmers. A way to spread investment risk for limited resource farmers is collaboration with other farmers and associates—a mobile processing unit (MPU) is one of the options.

The project will examine the steps needed for building an approved MPU in three states (Kentucky, Alabama, and Mississippi), as well as feasibility issues that farmers need to examine when planning a business, such as developing a marketing plan. A “feasibility toolbox” will be created as a resource for farmers. Also examined will be nutritional resources (obtaining feed in bulk, and getting nutritional advice for natural formulations.) and obtaining reliable stock.

HPI is very interested in other groups involved in range poultry as well. In a separate SARE-funded project, Southern University (project leader Jim McNitt) will be studying integration of pastured poultry with vegetable production.



Producer Life Issues

The University of Wisconsin (project leader Steve Stevenson) received a SARE grant in 1997 to examine the economic and quality of life issues for pastured poultry producers, as well as the nutritional qualities of pastured poultry compared to conventional poultry (fat, cholesterol, texture, flavor, microbes, and vitamins.) when processed on-farm or in government-inspected plants. They are also carrying out marketing analyses.

PLEASE SEE “APPENDIX 6: RESOURCES” (P. 32) IF YOU WOULD LIKE TO ORDER A COPY OF HPI’S FINAL PROJECT REPORT.

FEATURED FARMERS

Adventures in raising, processing & marketing poultry on the farm

FEATURED FARMERS ARE:

LAURA & RALPH ROGERS • ROSA & ALVIN SHAREEF • BEN GAMBLE • PLEN YEP

FEATURED FARMERS LAURA & RALPH ROGERS -- WOODBINE, KY

Providing home-raised poultry to family and neighbors and learning to hatch and sell baby chicks in the community



Laura and Ralph Rogers have been involved with Heifer Project International (HPI) projects in the past through a local group, Whitley County Small Farms Project. Operating on 9 acres, they keep cattle, goats, bees, and poultry. Their two children, Sarah and William (ages 8 and 5), have participated in farm activities and pastured poultry for the past 3 years. Ralph works off farm in electrical lighting.

The Rogers were trained at the initial HPI session at the Salatin farm in June '96. Laura had previously kept chickens but was interested in learning how to butcher by herself.

Snapshot: Getting Started

The Rogers built a pen for the first batch of 105 chicks, which arrived on the farm on 6/27/96 and were placed in field pens 3 weeks later. A total of 17 birds were lost during production due to sudden storms and occasional crushing when moving the pen.

A total of 88 birds were slaughtered at 9 and 10 weeks old on 8/29/96 and 9/5/96. Twenty-five chickens were sold at \$6.00 each and 21 were given away as free samples. There were 31 customers or recipients of samples. The Rogers kept 42 birds for home consumption.

They used a total of 1244 lbs. of feed or 14 lbs. per chicken. The feed cost 13 cents per lb.

Their expenses and income are summarized below.

Note: For all the Featured Farmers, production numbers may not add up exactly -- the only numbers available were those provided by the farmers.

Fixed Costs	Costs before Amortization	Amortization Factor ¹	Cost after Amortization
Pen	\$136.10	10 batches	\$13.61
Waterer	\$22.95	10 batches	\$2.30
Direct Costs			
Chicks			\$53.00
Hired Help			\$25.00
Feed			\$166.58
Total Costs			\$260.49
Income/Value² of 69 chickens @ \$6.00 each			\$414.00
Net			\$153.51
¹ The fixed costs were amortized since it is assumed the items will be used for at least 10 batches.			
² The value of birds kept for home consumption is included with the income. Any birds given away as free samples are not included as income — they are a marketing cost, although not counted as such in this chart.			
Total Labor Budget			84.5 hours (training time not incl.)
Earnings per hour			\$1.82/hr

Note: For all Featured Farmers, although the initial earnings per hour are low, there is potential for improvement as producers increase in experience and scale of production.

Since beginning, Laura has raised about 6 more batches of 100 chickens each. She no longer keeps 100 birds in a pen since they are crowded when they get larger.

Ralph built a second broiler pen. Now 50-75 broilers are kept in each. Ralph has modified the new pen with fiberglass on top instead of the usual aluminum. Mortality is low once the birds are on pasture, although stray dogs can be a threat.

Laura moves the pens herself and the children help feed the birds. She starts raising birds in the spring and starts her last batch in August.

Laura also hatches baby chicks for sale as a separate enterprise. She has incubator equipment that can set 500 eggs at a time.

She sells Golden Lace Wyandotte and Buff Orpington chicks for layer stock at 70 cents apiece. She has sold at a local stock sale in the past, but people now come to her directly.

Brooding has been troublesome for Laura. She sections off a corner of her barn with plywood and hangs heat lamps to brood chicks. More and more cracks are forming in the walls as the barn ages, creating drafts.

Hatchery Chick Problems

A second problem in brooding has been the quality of the broiler chicks Laura receives from mail-order hatcheries. The chicks are often damaged by the time they reach her and sometimes starving since they have exhausted their yolk sac feed reserves. The hatchery replaces them but Laura has still invested time and resources in trying to save the damaged chicks.

Laura has also noticed a large range of quality with the healthy chicks she receives from hatcheries—some batches of birds perform very well; others do not.

Due to problems with ordering by mail and unreliable quality, she has decided to apply her hatching skills to broiler breeders as well as layers. She is currently applying for funding and exploring ways to hatch good quality broiler chicks on her farm and relay this technology to other farmers. She believes it is important for farmers to be able to raise their own broiler chicks in their communities.

Processing Equipment

Laura slaughters the birds at about 8–9 weeks. She uses processing equipment on loan from HPI

and shares it with other farmers as needed. The killing cones, scalding, and picker work well. It took some time to find a stainless steel table for evisceration. Chickens are not weighed at processing.

Laura bags the birds for a nice appearance and sells them fresh. Customers are timely in their arrival to pick up the birds. Five-year-old William has been especially helpful in catching the birds for slaughter as well as in the processing.

The Rogers enjoy keeping about half of the birds they raise and selling the other half. Son William refuses to eat chicken from the supermarket.

Laura continues to sell the birds for \$6.00 each. She decided on her price by what she thought people would be willing to pay. Marketing on the Rogers farm is by word-of-mouth, although they have also advertised on the radio. Laura could sell more chickens if she raised more. She seeks input from her customers with a questionnaire. Some comments from their first customers were: “real tender,” “cooks fast,” and “love it.”

In terms of record-keeping, she keeps track of how much she pays for feed, how many birds she sells, and her income. She does not know her earnings per hour when labor is figured in but is happy with the enterprise. Manure from the chickens on pasture has increased the pasture fertility for the other livestock.

Instilling Family Values

On the farm, the Rogers value the opportunity to involve the whole family in hard work and shared religious values. The pastured poultry enterprise enhances these values, because the whole family has been involved.

The children both know that the first thing to do every morning is move the chickens and feed all the animals.



Ralph Rogers takes chickens from cages for processing

FEATURED FARMERS ALVIN & ROSA SHAREEF -- NEW MEDINAH, MS

Raising and processing chickens in a Muslim community and spreading the word: “We have become ambassadors for pastured poultry.” Want to expand processing capability to reach out-of-state markets.



Alvin and Rosa take a brief break

The Shareefs raise pastured poultry in a small Muslim community in Mississippi called New Medinah where about 10 families live. New Medinah was started in 1987 when a number of Muslims throughout the country each bought an acre of land in the area—for a total of 84 acres. Rosa and others moved there from northern cities like Chicago.

Families in New Medinah have been involved with HPI in the past through the Marion County Self-Help Organization. The families living there now graze sheep, goats, and poultry on the land. They have also tried cut flower and vegetable enterprises; however, pastured poultry forms the cornerstone of their farm operation. Rosa teaches in the community school and Alvin works off-farm. Rosa, Alvin, and Abdul Mahmoud trained at the first Salatin session in Virginia in June 1996. Rosa saw pastured poultry as an enterprise with definite potential.

Snapshot: Getting Started

The Shareefs' first 100 chicks arrived on the farm on approximately 9/9/96. They were placed in pastured field pens 3 weeks later. A total of 6 birds were lost during production. A total of 94 were slaughtered at almost 8 weeks of age on 11/2/96. Sixty-four chickens were sold at a price of \$1.40 per lb (birds weighed about 4 lbs) and 10 birds were given away as free samples. There were 21 customers and recipients of the samples. The Shareefs kept 16 processed chickens for their own eating. They used 900 lbs. of feed (10 lbs per chicken). The feed cost 18 cents per lb. Their expenses and income for the first batch of 100 birds are summarized below.

Fixed Costs	Costs before Amortization	Amortization Factor ¹	Cost after Amortization
Pen	\$121.72	10 batches	\$12.18
Brooder	\$58.90	10 batches	\$5.89
Processing supplies	\$74.56	10 batches	\$7.46
Dolly	\$66.51	10 batches	\$6.65
Other	\$25.65	10 batches	\$2.57
Direct Costs			
Chicks			\$48.00
Feed			\$161.90
Freezer bags			\$3.70
Wood shavings			\$21.40
Total Costs			\$269.75
Income/Value ² of 70 chickens @ \$4.47 each			\$314.11
Net			\$44.36
¹ The fixed costs were amortized since it is assumed the items will be used for at least 10 batches.			
² The value of birds kept for home consumption is included with the income. Any birds given away as free samples are not included as income — they are a marketing cost, although not counted as such in this chart.			
Total Labor Budget			115.5 hours (training time not incl.)
Earnings per hour			\$0.38/hr

Since then, other families in New Medinah have been involved in pastured poultry. Abdul and Hafeeza Mahmoud also raise pastured poultry and share the processing equipment with the Shareefs. Other members of the community help out with slaughter. The families in New Medinah also work with a Mennonite family who live close by and raise pastured poultry, have hatchery capabilities, and sell feed. All members of New Medinah seem happy to have access to buying a local product that is raised and slaughtered following their religious standards.

ALL MEMBERS OF THE SHAREEF FAMILY HAVE THEIR PARTICULAR WORK NICHES.

WIFE ROSA'S JOB IS CARING FOR BABY CHICKS IN THE BROODER. SHE ALSO MONITORS WATER INTAKE IN THE SUMMER MONTHS ON PASTURE—THE BIRDS DRINK A LOT DURING HOT MISSISSIPPI SUMMERS!

HUSBAND ALVIN MOVES THE PENS, AND FEEDS AND WATERS THE BIRDS.

SON AHMED (9) IS THE EGG WASHER FOR THE LAYER ENTERPRISE.

DAUGHTER IMANI (16) COLLECTS EGGS AND MOVES CHICKS FROM THE BROODER TO THE CRATE WHEN IT IS TIME TO PUT THEM ON PASTURE.

SON SABIR (19) MAKES TIME IN HIS BUSY COLLEGE SCHEDULE TO HELP ON PROCESSING DAYS.

ALVIN'S FATHER, ABDUL-HAKIM SHAREEF, PERFORMS THE KILLING WITH A SPECIAL PRAYER FOR HALAL SLAUGHTER, AND **ALVIN'S MOTHER'S** JOB FOR THE FIRST FEW YEARS WAS PREPARING A DINNER FOR EVERYONE AFTER PROCESSING.

Muslim Market

The market served by the Shareefs and Mahmouds is mainly a state-wide Muslim market. There is also an annual gathering and Rosa makes sure pastured poultry is on the banquet menu. However, they also market to local non-Muslim customers. They initially posted flyers on bulletin boards in the area, put articles in the local newspapers, and acquired business cards in order to tap a specialty niche market, but now rely on word-of-mouth.

Spreading the word

The Shareefs have given many talks and slide shows during their three years of raising pas-

tured poultry. Rosa and Alvin spoke at the Small Farmers Conference in Nashville, TN, in November 1997. Rosa was an invited speaker at the 2nd International Conference of Women in Agriculture held in Washington, DC, in June of 1998, as was Laura Rogers.

Both the Shareefs and Mahmouds also raise layers for table eggs. They have discovered that once you have loyal customers for one product, they are often interested in buying additional products. Niche markets can also be found for specialty products such as livers, and gizzards. A local Nigerian family only wants to buy stewers—no fryers or broilers. A local Vietnamese family likes the chicken feet.



Marketing Birds

They could sell many more birds, especially if they had access to a USDA-approved plant that would permit them to sell across state lines. They currently sell 3 ½ lb fryers for \$5–6 each. They base their price on what customers in the area seem able to pay. Across the Louisiana state line, many people pay \$7 for a premium bird—the Shareefs have been contacted by potential markets in Louisiana. Rosa writes for an international newsletter and has realized that she could have many out-of-state customers.

An initial customer comment: “These are some fine-looking birds.” Rosa adds that “After caring for the chickens I thought I wouldn’t be able to eat them. I got over that fast. They were tender with an exceptional taste. KFC and Popeye’s have nothing on these chickens.”

Slaughtering Facility

The slaughtering facility is a screened-in pavilion. Rosa acquired a 13-foot stainless steel table for eviscerating for only \$50 from a local restaurant. They use processing equipment on loan from HPI; however, processing one bird at a time is slow. Customers often come to watch the processing and bring their children. Family

members are very strict about not allowing anyone to process if they have a cold or other illness. The Shareefs and Mahmouds generally sell fresh but some chickens are frozen for later pick-up.

Seasonal Production

The Shareefs can raise pastured poultry all year round since snow rarely falls in the winter. However, they don't raise broilers during the winter since it is unpleasant to process birds with no hot water. The layers stay on pasture all year round. Broilers are put back on pasture by February—if there is a hard freeze, tarps are used over the pens for protection.

The Shareefs were fortunate to find a free source of used bell waterers from a nearby farmer. After keeping what they needed for their operation, the children cleaned up and sold extra waterers as a business venture.



Rosa and her family felt proud that they “were able to raise a good, quality product which we and our customers liked.”

The family broods chicks in a separate building. They had trouble brooding at first—10% loss was not uncommon. However, more recently mortality has been low (about 3%) for the entire rearing period.

Figuring Profits

The Shareefs clear about \$2-2.50 per bird in profit. They generally figure their profit for each batch. They use a Mississippi farm record book and plan to use QuickBooks in the future. They do not have an hourly calculation for return to labor.

Early problems included a dog that broke into a pen and killed all the layers, and a faulty freezer

that forced the Mahmouds to discard a batch of birds.

Goodbye, City Life

The Shareefs value “being away from the big cities, eating healthy food that we can grow with few chemicals, and uncrowded living conditions for the entire family.” Raising pastured poultry enhanced these values because they “were able to raise a good, quality product which we and our customers liked. We were able to instill good work ethics in our children—caring for something which is dependent on us.”

Raising pastured poultry did take time away from other things. “We were not able to travel out of town as freely as we used to without getting someone else to feed the chickens.” The Shareefs believe community life in their area would be improved if more people were raising pastured poultry. “People would be eating healthier food and be working towards similar goals which would help bond the community. Also, if more of us were raising pastured poultry, we could reach a broader market and purchase feed in bulk for a cheaper price.”

BOTH THE SHAREEFS AND MAHMOUDS WOULD LIKE TO MARKET 1,000 BIRDS PER MONTH, AND THEIR GOAL IS TO FARM FULL TIME.

FEATURED FARMER BEN GAMBLE -- FLATWOOD, AL

Bringing youth back to the community with pastured poultry

Ben Gamble lives in Flatwood, a small community near Catherine, Alabama. Flatwood Heifer Project started in 1993 with a proposal for obtaining brood cows with calves. Beef producers in Flatwood are trying to direct market the beef, processed at a nearby USDA approved plant, with a label called Down South Foods.

Ben raises pastured poultry on his own parcel of land. Most farmers in the community own land parcels of 40 or 80 acres. Ben cooperates with several community members on the pastured poultry enterprise: George Baldwin, Gregory Eaton, and Eaton's two teenage sons Cedric and Fredric. Ben is especially interested in the youth in his community, training them in martial arts which he learned in the military and looking for ways to convince young people to return to Flatwood community to improve it. Ben also works off-farm as a substitute teacher and school bus driver. Ben and George were trained at the initial session at the Salatin farm in June '96. Ben sees pastured poultry as an enterprise with great potential for the youth.

Snapshot: Getting Started

Ben and George started with a double batch of 200 chickens (in 2 pens) which arrived on the farm 6/15/96. Four weeks later, the chickens went out to pasture.



Ben Gamble at the eviscerating table

Only 5 were lost during production. They slaughtered about 140 chickens at 10 weeks old on 8/23/96 and sold them to 16 different customers.

The price was \$4 to 4.50 per chicken. They kept about 50 for layers. They kept about 25 to eat for themselves. Ben and George used 1550 lbs of feed (7.91 lbs. per chicken). The cost of feed was 13 cents per lb.

Expenses and income for the first batch of 200 birds are summarized below.

<u>Fixed Costs</u>			
	Costs before Amortization	Amortization Factor ¹	Cost after Amortization
Pen (2 pens)	\$74.00	10 batches	\$7.40
<u>Direct Costs</u>			
Chicks (200)			\$141.50
Feed (for 200 chickens)			\$200.44
Total Costs			\$349.34
Income/Value ² of 196 chickens @ \$4.25 each			\$834.00
Net			\$484.66
			(2 batches)
¹ The fixed costs were amortized since it is assumed the items will be used for at least 10 batches.			
² The value of birds kept for home consumption is included with the income. Any birds given away as free samples are not included as income — they are a marketing cost, although not counted as such in this chart.			
Total Labor Budget			65.0 hours
			(training time not incl.)
Earnings per hour			\$3.73/hr/man (2 men)

Ben now continuously runs 2 Salatin-style 10'x12' pens, along with one large pen of his own design. His steel catch pen is large (18' x 12'), with chicken wire and an aluminum top. It is easy to move and, although he stocks more birds in it, they have more room. He likes to see the birds moving around and exercising in the pen.

He does not keep his cattle in the pasture with the poultry. He finds his customers prefer to see a pastoral scene of chickens grazing and believes cattle manure could mar that image.

Ben and Gregory Eaton brood chicks together. The brooder is a separate 12' x 12' building. They add fresh newspaper bedding every 2-3 days. They have had good success with brooding. Ben provides a medicated feed at first. He is satisfied with the quality of chicks he receives from the hatchery.

Ben processes depending on the size of bird desired by the customer, ranging from small cornish hens to large baking hens. He uses processing equipment on loan from HPI. The scalding does not heat the water sufficiently, so he uses a supplemental water heater. Processing one bird at a time is slow. Sometimes his customers help pluck the chickens.

Some of his older customers prefer to buy live birds. He does not weigh birds at processing because it is too time-consuming. He freezes some of the birds for customers. He raises roaster hens and turkeys for Thanksgiving. He finds that his urban customers are especially excited about the chickens.

Calculating a Price

In order to calculate a price for his birds, he calculates the cost of feed needed to raise the birds and adds in a profit for himself. He is not only interested in providing a quality product to his customer and building a relationship with them, but also realizing a profit for himself.

Ben is very interested in reducing feed costs. He mixes his own feed (soybean meal, corn, and fish meal) in a large container. He believes that the birds are able to forage sufficiently to obtain other nutrients needed in the diet.

The forages on his land are bahia, clover, and dallisgrass on gently sloping land. Ben also sows wild game seed for the poultry—including oats, centipede grass, and clover. The birds particularly relish clover, barley and rye.

He is careful about record-keeping. He made extra copies of the record book provided by HPI and notes the date his chicks arrive, brooder mortality, and calculates a profit for each batch. Ben pays the Eaton boys for help during processing.

Needs USDA facility

Ben is not satisfied with his current earnings. He wants to be able to process more birds at a time to reduce labor. He would like access to a USDA-approved processing facility in order to be able to sell to restaurants in the future.

The first year, he lost a lot of chickens to predators: raccoons, opossum, and foxes. Now he keeps a dog tied to a cable run near the pens to deter predators. When he moves the pens to fresh pasture, he also moves the dog.

Ben values farm life because of the high-quality, fresh vegetables and meat available and the good health it brings.

FROM BEN'S INITIAL BATCH, HIS CUSTOMERS COMMENTED THAT THE TEXTURE OF THE MEAT WAS DIFFERENT AND VERY SWEET. BEN THOUGHT THE CHICKEN WAS "FINGER-LICKIN' GOOD."

FEATURED FARMER PLEN YEP -- INMAN, SC

Raising chickens in a traditional style for a Cambodian community



Plen Yep (standing) poses with other farmer trainees at a Kentucky training.

Plen Yep and his wife Chean-Chaum live in a community of about 10 Cambodian families near Inman, South Carolina. The farm is 14 acres with one acre for pastured poultry. Other enterprises include fruit trees and caged fish production.

His two children Paith (22) and Rebecca (14) also help with pastured poultry production and processing. Plen works off the farm at a mill. Plen was trained in pastured poultry production in Kentucky.

Snapshot: Getting Started

Plen started with a first batch of 300 chicks. They arrived on the farm 6/4/97 and were placed in pastured field pens 5 weeks later. Plen reported a total of 57 of the 300 birds were lost during production due to heavy rain and a cold night in August. A total of 190 were slaughtered at 12 weeks old on 8/28/97. Plen kept 20 for eating at home and gave away 10 as free samples. Thirty were sold live.

Processed chickens were sold for \$6.25 each. Chickens used for home and free samples were valued at \$4.50 each. Plen used 3050 lbs of feed (14 lbs. per bird). The feed cost 15 cents per lb. His expenses and income for the first batch of 300 birds are summarized below.

<u>Fixed Costs</u>	Costs before Amortization	Amortization Factor ¹	Cost after Amortization
Pen (3)	\$350.00	10 batches	\$35.00
<u>Direct Costs</u>			
chicks (300)			\$245.29
Feed (for 300 birds)			\$448.00
Processing			\$50.00
Total Costs			\$778.29
Income/Value ² of 206 chickens @ \$6.25 each			\$1287.50
Net			\$509.21
¹ The fixed costs were amortized since it is assumed the items will be used for at least 10 batches.			
² The value of birds kept for home consumption is included with the income. Any birds given away as free samples are not included as income — they are a marketing cost, although not counted as such in this chart.			

Birds are processed at about 12 weeks for fuller flavor. The family processes in a shed using equipment on loan from HPI. They sell the birds for about \$6 to \$7 a piece, weighing them if requested by customers. Most customers pick them up fresh but they freeze some for other customers. The Yeps bag the birds.

They sell the meat to Cambodian families in the area and other locals. It is not difficult to market the birds—in fact, Plen is unable to meet the high demand for his poultry. Many customers say his chicken is the closest to what they were able to get in Cambodia and they want to buy more. He also enjoys his chicken and believes that the way it is raised gives it the good taste he remembers from his childhood. Plen used to let the birds out of the pen to roam freely during the day, but he now keeps them confined in the pen.

Brooder setup

Plen is happy with the quality of chicks he receives from the hatchery. The brooder set-up is in a separate out-building. He has modified the building somewhat, but it will require more work for future batches, particularly electrical wiring and isolating the chicks. Now the family has 3 pens which they operate continuously spring, summer, and fall. They also keep some layers for table egg production.

Enhancing Family & Community Values

It is important to Plen that the farm be able to provide the family with a stable financial, social, and cultural environment, including peace of mind. Pastured poultry enhances these values because it increases the level of financial security of the farm, provides a social and cultural environment for his children, and strengthens his community. The community plays a big role in the way the chicken is raised, especially in terms of taste and preference, since the community wants chickens raised the Cambodian way.

THE CONCENTRATE DIET IS SOMETIMES SUPPLEMENTED BY RICE AT FINISHING, A CAMBODIAN TRADITION.

It is not difficult to market the birds — in fact, Plen is unable to meet the high demand for his poultry.

ROUND-UPS

SUMMARIZING THE EXPERIENCES OF 19 POULTRY PRODUCERS IN THE SOUTH

This section discusses areas of further interest to potential or practicing producers: Mortality, brooding, weather issues, and feed. It summarizes the experiences of 19 producers: Alabama (5), Kentucky (9), Mississippi (2), and South Carolina (3), including those featured earlier in this booklet. Only first names have been used for privacy.

The experiences described in this section represent a learning curve by beginners. For detailed how-to information on pen construction, brooding, feeding, pasture management, record-keeping, etc. please see the Resources Section. The Resource Section lists the *HPI Record Book* (available free of charge from ATTRA) which addresses all of these topics. The Resources Section also provides ordering information for Joel Salatin's state-of-the-art book *Pastured Poultry Profits*.

Appropriate Technology Transfer for Rural Areas (ATTRA), the national sustainable agriculture information service funded by the USDA, offers free general information on sustainable chicken production. Producers can call ATTRA from 8:00 a.m.- 5:00 p.m. Monday-Friday at its toll-free number, 800-346-9140.

The enterprise activities (ordering of chicks, moving to them to pasture, and processing) were carried out at various times, indicating that this enterprise and its activities can be manipulated to suit the producer and scheduled to fit between peak time demands, anticipation of appropriate weather, and availability of equipment.

In this chapter:

- Pens
 - Brooding
 - Weather
 - Pasture
 - Feeding
 - Mortality
 - Processing
 - Marketing
 - Labor & Earnings
 - Quality of Life
-

PEN CONSTRUCTION

In this project, the costs of building the field pen varied from \$40.00 to \$343.00 with an average of \$145.20. The time spent building the field pens averaged about 9 hours and ranged from 2 to 24 hours.

The pen is 12' x 10' x 2' with a wood framework. Aluminum roofing covers three-fourths of the roof. The sides are enclosed with chicken wire with one end enclosed with aluminum roofing. A section of the roof lifts off as a door for access to the pen.

The pens are moved with a dolly. The dolly is placed under one end and the farmer pulls from the other end.

Designs vary

While most participants followed a blueprint for Salatin's pen, some participants varied the structure of the pens to suit their needs—usually to move the pen more easily, to help dissipate heat, to have smaller pens, or to allow free access to the pasture.



To prevent predator problems, Steve and Kim used 2x2's instead of 1x2's to make the pen sturdier than Salatin's. Too heavy for Kim to move, wheels were added. It also has a heat lamp and a fan.

Lee did not raise 100 birds at one time, because he wasn't sure if he could process and sell that many at once. Instead he raised 2 batches of 50 birds each.

Lee built his cages smaller than Salatin's (8'x8' instead of 10'x12').

Albert and Sheila were also interested in a smaller pen due to their rough, hilly land.

Free-Ranging Birds

Trenton cut a hole in the pen to allow 6-week-old birds access to the outside for free-ranging. He thinks this reduces stress and plans to continue the practice with other batches; however, he lost two chickens to a fox.

Plen also let his birds out of the pen at times. He had to train his dogs not to kill the chickens (they initially killed 10). Hawks also posed a threat.

Servicing Pens

The average time to service the brooder or pens was about 30 minutes per day.

There are many housing options for poultry on range, including modifications to the Salatin-style field pen. Please call and request the free ATTRA publication *Range Poultry Housing* (see Resources Section).

BROODING SET-UPS

Time spent preparing the brooding area averaged about 4 hours.



Salatin brooder

Many participants brooded their chicks in boxes. Theodore used a cardboard box surrounded by chicken wire. A heat lamp provided warmth and the feeder and waterer were placed in the box. As the chicks grew, they were placed in larger and larger boxes to prevent over-crowding. Norma brooded in a 4' x 6' covered cage with 4 heat lamps. Five chicks were lost to chill before she put in sawdust. Albert and Sheila used a "freezer box cut in half with three lights from the top." The chicks piled up—19 were lost.

Trenton placed a box completely within a toolshed, which proved to be too busy a place.



John and Angela placed their box in a mobile home and added fresh newspaper bedding every 2-3 days. They lost about 25 chicks in the brooder due to temperature problems and had to add a second heat lamp and a fan for ventilation.

Lee brooded chicks in an enclosed area of a barn. Steve and Kim also used a part of their barn, enclosing chicks in a furniture crate. They cut additional holes in the crate when they realized the chicks needed more ventilation.

Don had a friend who brooded chicks for him very successfully in industrial-style brooders. Don would eventually like to have a brooder at home, but it is not a priority.

In addition to *Pastured Poultry Profits*, there are many books available on brooding chicks. Call ATTRA (see the Resources Section) to order the free publication *Sustainable Chicken Production Overview*, which lists small-scale poultry production books.

In general, chicks were moved onto pasture at about three weeks of age.

WEATHER ISSUES

Salatin considers weather the biggest variable in pastured poultry production. Although the pen construction calls for covering three-fourths of it with roofing, rain can still get in. Salatin recommends spreading hay inside the pen if cold rain settles in. Sometimes it becomes necessary to cover open sides of the pen with scrap metal roofing or plywood to protect birds from strong winds. For extreme heat, Salatin recommends propping up the enclosed end of the pen to ventilate.

Most participants tried out their first batch during the spring or summer when the daytime temperatures were typically very hot (i.e.

high in the mid 90s and low in the mid 70s). However, temperature swings could be dramatic. A Kentucky producer experienced temperature swings from highs of 102° to lows of 50° in the months of July and August. In the hottest weather participants considered different ways to cool the birds down. An Alabama producer considered only putting 50 birds per pen or to use a gabled roof to reduce heat stress.

The weather was very wet for one Kentucky producer (over 6 inches of rain in June) and the ground under the pen was muddy and quickly depleted of grass. “Chicken breasts seemed to stay wet and dirty.” An Alabama producer also found that the hot and rainy conditions in August significantly increased his labor since he had to check on the water supply so often.

Sudden storms were problematic throughout the growing season. One Louisiana producer lost 28 birds in April from a drastic change in weather (sudden cold temperature, thunderstorms). The pen was later modified by nailing tin onto the pen to weather proof one corner and placing hay inside the pen. A Kentucky producer lost 6 birds during a storm when they piled on top of each other. A South Carolina producer lost birds due to heavy rain and a cold night in August.

PASTURE MANAGEMENT

Salatin recommends a “perennial polyculture” or a mix of perennial forages. His pastured poultry follow a cattle rotation—cattle shorten the pasture for chickens. Proper pasture management requires allowing sufficient rest time for the plants to recover after grazing. Many participants kept other animals, but generally did not mix them with the chickens on pasture.

Theodore found it was not difficult to “keep the chickens ahead of the cows” since he control-grazed cattle in paddocks.

In Albert and Sheila’s operation, cattle and sheep shared the pasture with the chickens—if the chicken feed was spilled, the cattle and sheep cleaned it up after the pen was moved.

Roosevelt found there was no problem with cattle being in the same pasture. “At first they were curious and attempted to eat from the pens. After a week the cattle ignored the pens except at feeding time.” He thought the poultry enhanced the pasture for his cattle, and neighboring cattle farmers were also impressed.

Lee kept goats in the same pasture with the chicken pens. Although the goats climbed on the pens, there was no serious problem. Goats broke through a pen at Laura and Ralph’s—an A-frame roof instead of a flat roof prevents goat damage.

In general, no pasture preparation other than mowing or haying was done for the chickens. The land used had various former purposes: tobacco, hay, pasture, lawn, an old peach field, etc. Little seeding for the benefit of chickens was done.

MOST PARTICIPANTS MENTIONED THAT THE PASTURE QUALITY IMPROVED WHERE THE PEN HAD BEEN LOCATED. A DARK VIVID GREEN COLOR AND THICK FORAGE WAS EVIDENT UNLESS PASTURE REGROWTH WAS SLOW DUE TO DRY WEATHER OR APPROACHING FROST.

Forages in the pasture included clover, annual lespedeza, fescue, orchardgrass, “weeds,” warm season annual grasses. In the lower South, bahia, common bermudagrass, and dallisgrass were the norm. One participant seeded the area with white clover. Usually flat or gently sloping land was used, and the forage was generally 4-6” high.

One Alabama producer experienced some problems with fire ants. Laura and Ralph found small stumps in the pasture could make it difficult to move the pen—they keep one pen in a pasture area and one in a wooded area.

FEEDING

Overall, feed per chicken ranged from 8 to 27 lbs., with the average amount being about 14 lb. Feed cost ranged from 8 to 21 cents per lb and averaged about 15 cents per lb.



Differences in amounts fed may be due to quality of the feed, the length of time the chickens were kept until slaughter, the feed efficiency of the chickens, and spillage.

See Appendices 2, 3, 4 and 5 for averages on total feed, feed per chicken, total cost and cost of feed per pound.

A strong marketing advantage of pastured poultry can be the use of a “natural,” non-medicated diet. Many consumers are interested in poultry raised without routine antibiotics or unappealing by-products in the feed.

Commercial vs. Home Mix

Many participants used a non-medicated commercial ration; others had the feed mill mix custom rations; others home-mixed rations on farm. Many participants started with a commercial starter ration for brooding and then switched to a home-mixed finishing ration. One producer found that buying non-medicated commercial feed would cost him 18 cents per lb., while his local feed mill would prepare a custom ration for 12 cents per lb.

ALL POULTRY DIETS REQUIRE A SOURCE OF:

- ENERGY (GRAINS—E.G., CORN)
 - PROTEIN (E.G., SOYBEAN MEAL OR ROASTED SOYBEANS)
 - CALCIUM (E.G., OYSTERSHELL OR LIMESTONE)
 - PHOSPHATE (E.G., DICALCIUM PHOSPHATE)
 - SALT
 - TRACE MINERALS AND VITAMINS (I.E. A PREMIX).
-

Some producers grow their own corn and wanted to use it for the chickens. Albert and Sheila’s feed ration was 85% corn on the cob with 10% soybean meal (44% protein), and 5% poultry commercial supplemental crumbs. If home-mixing rations, producers need to follow proven recipes such as Joel Salatin’s or obtain proper advice from a nutritionist (many feed mills provide this service). Salatin currently uses corn, roasted soybeans, crimped oats, limestone, Fertrell Nutribalancer™ (a vitamin and mineral premix), fish meal, and kelp meal. He also adds a probiotic. However, some of Salatin’s ingredients are not readily available in some areas.

By the second year of the project, all HPI field representatives supporting these farmers had access to a feed formulation program.

FOR INFORMATION ABOUT ORGANIC FEED SUPPLIERS OR HOME-MIXED DIETS, SEE RESOURCES SECTION OR CALL ATTRA AT 1-800-346-9140

Foraging chickens

Many producers steer clear of animal proteins such as meat and bone meal due to consumer concerns. Producers also depend on forage to supplement the concentrate feed. Salatin estimates that the forage can provide up to 30% of the nutrient needs of pastured poultry. Trenton supplemented a commercial ration with garden greens, fresh alfalfa, and cracked corn. In the future he plans to use more alfalfa and clover cuttings.

MORTALITY

As described in *Pastured Poultry Profits*, Joel Salatin experiences no more than 10% mortality. Only 2-3% is due to sickness—the rest is due to predators and weather. In his book, he describes many of the things that can go wrong, especially for novices.

Mortality was quite high for the first batches of the grantee farmers. The average number lost during production was 31% (see Appendices 2, 3, 4, and 5 for averages and exact numbers). Mortality was caused by damage to chicks during shipping, brooding problems, weather and temperature problems on pasture, crushing birds when moving the pens, and sometimes predation.

MAJOR REASONS FOR LOSING BIRDS:

- SHIPPING PROBLEMS FROM HATCHERY
 - BROODING MISTAKES & MISHAPS
 - INCLEMENT WEATHER
 - PASTURE PROBLEMS
 - TEMPERATURES: TOO HOT OR TOO COLD
 - CRUSHING BIRDS WHEN MOVING THE PENS
 - PREDATION FROM FOXES, OPOSSUMS, SKUNKS, ETC.
-

Temperature regulation

According to Salatin, it is important for day-old chicks to have access to 90°F temperature in the brooder. After 48 hours, the temperature can be reduced by several degrees each day until chicks are feathered at 3 weeks. It is important to avoid drafts.

The grantees experienced mortality from brooding usually due to poor temperature regulation. In addition to the stress caused by cold temperatures, chicks may pile up and smother each other trying to warm themselves.

‘Curly toe’ woes

One participant commented on the importance of regularly checking new chicks. “Curly toe” was a complaint especially during brooding—it is due to an unbalanced diet (the B vitamin riboflavin is deficient).

Lee believes he lost 25 chicks during brooding from curly toe before he added a vitamin/mineral supplement to the water.

Sometimes shipping the chicks through the mail was a major cause of mortality. Chicks may be injured during shipping or the shipping process may take too long.

Shipping Problems

Trenton had problems with the hatchery where he purchased the chicks. They would not replace the chicks lost in shipping—27 were dead on arrival and 25 more died that first day. He plans on using a different hatchery in the future—one that is closer. Betty lost all of the 50 chicks within a few days due to being mashed during shipping and to being sent to the wrong address initially. The hatchery replaced all 50. Some pastured poultry producers are interested in hatching their own stock—“pastured peepers” which come from broiler breeders raised on pasture.

Moving Pens & Predators

Producers must learn how to move the pasture pens without injuring the birds. Lee found the chickens would run out from under the pen when he picked it up. Don sprained his ankle and several friends and his adult children helped him move the pens—they all had to learn ways to move pens without running over chicks.



Eleven of the 19 participants who reported back reported no loss from predators at all from their first batch. However, Betty lost all but 4 chickens out of 50 to a weasel who took 8-12 nightly. Norma reported that a fox killed 18 chickens. One Alabama producer used dogs for protection since there are many predators in his area (foxes, racoons, coyotes, opossums, skunks, etc.).

Disease

Disease was very rarely reported in this project. However, other pastured poultry producers at times have reported a high loss of birds after getting wet in rainstorms. Parasitism is unlikely to be a problem since the pens are moved daily to fresh pasture. Producers in this study generally did not report parasite problems.

PROCESSING

A legal summary was prepared by the National Center for Agricultural Law Research and Information concerning the regulations for on-farm processing (see Appendix 7: Resource Section for ordering information).

There are federal exemptions provided in the Poultry Products Inspection Act that can allow farmers to process and sell a limited number of birds from their farms. The exact number, depending on the state, is never more than 20,000 birds per year; many states only allow 1000 birds per year.

In addition to USDA and state agricultural department regulations, the state and local health departments may also have regulations. After the first year of the project, the State Health Department in Kentucky indicated that processed chickens could not be sold at all in the state without USDA inspection.

IN ADDITION TO FEDERAL GUIDELINES, IT IS CRUCIAL TO CHECK REGULATIONS IN YOUR STATE DEALING WITH POULTRY PROCESSING.

HPI was concerned about food safety and committed to helping farmers process in as sanitary a fashion as possible. A food pathologist at Tuskegee University developed processing guidelines for the farmers for fly control, chilling, drainage, disinfection, hand washing, water use, etc.

HPI provided a plucker, scalding, killing cones, and delunger for processing as well as training in food safety. In the last 2 years of the project, HPI also made funds available for buying stainless steel tables.



Water Issues

Participants were not entirely happy with the scalding, which sometimes had trouble keeping the water hot enough, and supplemental hot water had to be added. Also processing one bird at a time is slow. Processing equipment that can handle 4 birds at a time would speed things up. Water availability is an issue. Lee can't process with rural water. Steve and Kim are on a cistern and have to haul water in for processing.

Birds are generally processed according to available labor, time, and the ability of the customer to pick up their birds. Processing also depends on the weight of birds the customer desires—from cornish hens to roasters. Butchering was often spread throughout several different days.



Pricing the Birds

Price was generally on a per bird basis since most participants did not weigh the birds at processing. Some participants decided on a price that would provide them with a profit, but most charged according to what they believed their clientele would pay—generally about \$6 per bird (see Appendices 2, 3, 4, and 5 for prices per bird).

Sometimes customers actually helped with the processing. Many participants bagged their chickens for the customer. Most asked customers to pick up birds on processing days, but sometimes would freeze the meat for later pick-up—sometimes it was not by choice.

Some chickens were sold live. According to one Alabama producer, “In this area, people would rather have live chickens than butchered, and they don't have to freeze them thereby losing some taste.”

Processing Set-up

Most participants set up processing equipment under trees or a shed. Some use a permanent building. So the processors are not standing in water, Rosa and Alvin used pallets on the floor, and water was drained out.



Salatin set-up

Trenton set up under a large tree using branches to support loops of water hose. The set-up included killing cones and a feather picker. The scalding blew the fuses in his house so he used a small, portable burner and a large canning pot of water. A large work area (12 feet long and 2 feet wide) was divided into three equal sections. The first (with a marble counter and sink) was the location for eviscerating carcasses and removing heads and feet. The second countertop was stainless steel and held a bucket of ice water for necks, livers, and hearts, and a bucket for gizzards. The third section (a kitchen countertop) was the final quality control area.

Don's Operation

Don describes his processing set-up:

- “Killing: With V-bolts I clamped a board to 2 steel T-posts I had driven into the ground. We hung the kill cones on the board with nails.
- Scalding: We heated water with propane.

We had previously witnessed the inability of a 110 volt water heater to keep up with processing.

- **Picking:** We used the HPI-provided table-top type. It worked well, after a good scald, but required some skill to avoid tearing the skin, bruising, etc.

- **Eviscerating:** We used a discarded triple-tub affair as a table by laying a wide board across the top, lengthwise, and covering it with 6 mil plastic.

Water was delivered through an arrangement in which three drop hoses (with cut-off at the lower end) were spaced along the table, with water running through a hose fastened to a board overhead. This board, too, was v-bolted to 2 steel T-posts driven into the ground, one at each end of the table.

- **Chill tanks:** We used new plastic garbage cans. Two liter soda-pop bottles were filled with water and frozen overnight, and this provided the chill effect.”

- **“Problems:** We found ourselves standing in water. Having water running constantly may not be a good idea. I would like to tray a trigger-activated water-squirting arrangement for the eviscerating table. We found we needed to tie the chickens’ feet together, in the cone, before killing to prevent their kicking themselves out of the cones. Scalding and picking seemed to be the usual bottleneck in the sequence. Mechanizing those would free up another person to eviscerate—which was the next most likely bottleneck.”

MAIN PROCESSING ISSUES

THAT PARTICIPATING FARMERS FACED:

- **FOOD SAFETY**
 - **FLY CONTROL**
 - **DISINFECTION**
 - **WORKER HYGIENE**
 - **AMPLE HOT WATER**
 - **CHILLING PROCEDURES**
 - **DRAINAGE IN WORK AREA**
 - **MODERN SCALDING, EVisCERATING & PLUCKING EQUIPMENT**
-

Albert & Sheila’s Set-up

Albert and Sheila nailed a killing cone to a tree. They eviscerated on a 6-foot table with a plastic covering and a water hose with double connec-

tion—one was connected to the lung puller and the other was plain water. Three iced bowls were used for parts and two iced coolers for the dressed chicken. Three 5-gallon buckets were used for the guts, head, legs, and blood. Since they were new to processing, it took a long time to get started and they worried they weren’t doing it well; however, their confidence improved with practice.

MARKETING

The Salatin family has developed a loyal customer base of 400 people who come directly to the farm and pick up their chicken and other products.

They send out newsletters to keep customers informed about the farm and provide order forms. Customers are reminded of pick-up times to which they have committed.



Teresa Salatin waits on customers who line up to buy some freshly processed pastured poultry.

Publicity Efforts

Most grantees marketed by word of mouth and reported about 4 hours on marketing for their first batch of 100 birds; however, on-going work is always needed to maintain a customer base. Most sold to family, neighbors, friends, and co-workers. Usually there was a higher demand than supply. (See Appendices 2, 3, 4, and 5 for averages and numbers of birds kept for home-use, sold, or given away, along with number of customers and recipients.)

Some participants prepared flyers or advertised by radio. Free samples were used a lot. One producer gave 3 chickens as free samples to local newspaper food editors. Trenton held a potluck for 30 friends and family to sample the chicken.

Flavor Sells the Birds

Participants universally agreed that their chicken had a good taste, texture, and quality. John and Angela and their customers found that

the chicken was very lean yet juicy. “They were very good and took less time to cook.”

Andrew commented: “Most of the people in the community were familiar with the old yard chicken taste. After they tasted these, they had a positive response.”

Albert and Sheila commented: “Any of the ways I cooked it from baked to boiled I was very happy with our chickens.

Most (customers) wanted more and asked if we will raise next year.”

Keeping Customers Happy

Don commented: “Nice comments about the chicken pot-pie at church social—provided by one of our customers. No negative comments so far. We’ve cooked four ourselves. I’m very pleased with the taste. I remember chicken tasted like this in the 40’s—richer, deeper, than the bland supermarket fare. I urge folks to cook one at least without a lot of high seasoning—so as to taste the meat, not just the barbecue sauce. The meat is more dense; it takes less to fill me up! We noticed there was little fat under the skin, so skinning to avoid fat was unnecessary. The broth was not greasy.”

SUGGESTIONS FOR PUBLICIZING (& CROWING ABOUT) YOUR PASTURED POULTRY BUSINESS:

- **WORD OF MOUTH (BASED ON GOOD CLIENT RELATIONSHIPS)**
 - **BROCHURES, FLIERS & OTHER PRINTED MATERIALS**
 - **NEWSLETTERS (PRINTED & ELECTRONIC) TO YOUR CLIENT BASE**
 - **YOUR OWN HOMEPAGE ON WORLD WIDE WEB**
 - **CREATE EMAIL CHAT GROUPS WITH YOUR CLIENTS**
 - **LOCAL RADIO & TV TALK SHOWS**
 - **NEWSPAPER FEATURE ARTICLES**
 - **FREE & PAID ADVERTISING (BULLETIN BOARDS, NEWSPAPER CLASSIFIEDS, AND RADIO SPOTS).**
 - **ROADSIDE SIGNS**
-

LABOR & EARNINGS

Earnings per hour for farm families participating in the initial batch of 100 broilers were not very high.

However, many participants seemed to be happy just to have access to the home-raised chicken.

As farmers raise and process more and more

batches, profits and hourly earnings can be improved by economies of scale. It takes only a little more time to service several pens than one pen. More inputs can be purchased in bulk (such as feed). Also, as poultry growers learn about the enterprise, the job gets easier. They will require less time to perform activities and have more knowledge which they can leverage.

It seemed difficult for the participants to maintain records of their efforts, although record-keeping is an important part of evaluating an enterprise. About one-half of the grantees did not turn in their record books. Some participants, however, have continued to use the HPI record book as a tool in their enterprises. (Please see the Resources section to order a record book.)

Economic Summaries

For a summary of all the actual income and expenses, labor budgets, and hourly earnings from each participant who turned in a record book, please see the charts in the Appendices 3, 4, and 5 (also called “Summaries of Production Figures for 1996, 1997, and 1998”). Appendix 2 provides averages. Please note in these Appendices that the production numbers do not always add up—the only information available was that provided by the farmers themselves.

For a more general estimate of income, expenses and labor in the Pastured Poultry Project, see “An Estimated Income/Expense Analysis per Batch of 100 Broilers” in Appendix 1. This analysis was created by HPI’s Appalachia Program Manager Steve Muntz who has much experience in training producers and raises pastured poultry himself.

The analysis includes the actual cost of processing equipment (subsidized for the grantee farmers by HPI in the other economic analyses). It shows that it is possible to make a small profit on a batch of 100 broilers even when paying for processing equipment, if conditions described in the analysis are met.

Major Costs

Major costs include fixed costs: pen construction, brooder construction, heat lamps, feeders, waterers, and processing equipment. These costs could vary greatly.

For example, some participants used scrap material from their farm to build the pen; others bought new material. Processing equipment in this project was provided by HPI, but most other

pastured poultry producers must expect an investment of about \$1000 in equipment. Fixed costs can be amortized over their expected lifetime.

Direct costs are incurred with every batch of chickens. These include feed, the cost of chicks, shavings for the brooder, ice for processing, bags, ties, utilities (water, electrical, telephone), and postage. Marketing costs also include the chickens given away as free samples, although this cost is not included in the appendix charts.

Labor Per 100 Birds

Total labor hours to build one pen, brood chicks, raise chickens on pasture, slaughter, and market range from a low of 45 to a high of 132 hours (average was 87 hours). Labor was generally provided by the participant plus family—children were usually involved. Processing usually brings in extra help such as friends, neighbors, and sometimes customers. At times prior grant recipients helped, along with HPI Field Representatives or Extension agents. Sometimes participants paired up.

Labor considerations include initial work such as learning, training, gathering information on feed supply, hatcheries, processing equipment, building the pen and brooder, and building a customer base.

Work that is needed with each batch is brooding, servicing pens, reminding customers of pick-up days, processing, and clean-up. Please see Appendix 1: An Estimated Income/Expense Analysis per Batch of 100 Broilers for detailed labor considerations.

QUALITY OF LIFE

Participants listed a number of benefits from raising pastured poultry. This alternative enterprise fits with their desire to live on the farm and be self-sufficient and self-directed, to raise their own good quality food including vegetables, and know the inputs used. Some participants wanted an “organic” product for health reasons.

Albert and Sheila value “caring for livestock and watching it renew itself”. Gregory values “eating good quality food—‘chemical-free’ means a long and healthy life.”

Some participants value the control over food products. Steve and Kim value the “ability to control or help change my life and family future.” Betty commented: “It is so good when you can

raise your own chicken. Then you know what you are eating.” Abdul and Hafeeza value “being able to grow our own food and animals. By doing so, we make our quality of life better because we know exactly what we are eating. It gives us a sense of well-being.”

Don commented: “We value a self-directed way to life, with free time to develop ourselves physically, educationally, socially, and spiritually. We expect to derive profit from livestock and crops. Pastured poultry gives one more—apparently profitable!—use of the grassland. The labor was gentle and not exhausting. Tending the birds did not take an excessive amount of time. The only problems were those confronted by anyone who raises animals of any sort. Yes, we were ‘tied down’ to the farm somewhat, but we discovered that our sons were taking an interest in the project—also my brother-in-law who presently lives on the place—and moving and feeding were simple enough and quick enough that when we were away someone or a combination of these people could handle it for us over a long weekend with no problem.”

What John and Angela value most about farm life is “being out in the country air, watching the crops and animals grow, being in good health, and able to live and grow my own food on the farm.

Opportunity for Youth

Roosevelt says that pastured poultry has potential to provide a diversion to troubled youth who are tempted into drug and alcohol use in a community with few jobs or activities for youth, as well as a source of income. “There is a real pleasure in knowing I am eating something that I have raised and there is the assurance that I am providing quality products in the community. I have some young family members 9-14 years of age that are learning how to raise some of their food and finding it better than fast food. It has taught the young ones the value of having chores to do and prepares them for other things in life.

It starts a work ethic.” Pastured poultry will be used in Roosevelt’s local Community Summer Enrichment Program, a program which provides activities to children during summer.

Strengthening Communities

Don believes that community life in his area could be improved by pastured poultry production. “What would otherwise simply be ‘con-

sumers' become 'customers'—people you know—and those become friends. Knowing more people in this way engenders a sense of wider community. Coming to the farm also provides an opportunity to talk about mutual concerns: you get started on food concerns and branch out from there.”

Many thought that pastured poultry enterprises could improve community life. Family and community members help by moving pens, processing, and word of mouth marketing.

According to Trenton, “This was definitely a community project with neighbors and family checking the growth of the chickens. Nobody believed they would grow so fast!”

Most participants plan to raise more birds in the future for home use and outside sales. Some added egg production to their marketing plans.

Follow-Up

Fifteen of the 19 grantees who reported back continue to raise pastured poultry. There are also 11 more families who were grantees who did not file reports who continue to raise pastured poultry. Eight of the 35 producers who received grants from HPI to try pastured poultry have not continued with the enterprise.

Norma commented: “It was a big job to move the pens every day—they were very heavy, but I do think this is a good way to raise chickens. I don’t know if I will try it again next year. I’ll have to think on this.”

Albert and Sheila plan on raising more in the future. “This year we plan on at least 200 chickens. Because most people, once they tasted our chicken, placed orders for more.”

Ben planned to mentor a youth in pastured poultry.

Roosevelt hopes the community effort will eventually combine well with a greenhouse program to result in a Farmers Market. He will help fund the community project and help the youth.

According to Don, “The project has been *almost fun* the whole way along—one of the few agricultural enterprises I’ve tried that I can say that of. Yes, we’ll try it again next year. I think we’ll make the big jump and try 3 sets of 100 each.”

-
- BUTCHERING AGE AVERAGED 9 WEEKS AND VARIED FROM 8 WEEKS TO 14 WEEKS.
 - BIRDS GENERALLY WEIGHED 4-5 LBS.
 - PROCESSING TIME AVERAGED 36 WORK HOURS FOR 73 BIRDS.
-

APPENDICES

An estimate is 80 hours to build one pen, brood chicks, raise chickens on pasture, slaughter, and market.

APPENDIX 1 ESTIMATED INCOME/EXPENSE ANALYSIS PER BATCH OF 100 BROILERS: (Created by Steve Muntz, HPI's Appalachia Program Manager)

Income

Sell 80 birds @ \$7.00 each	\$560.00
Eat 10 birds @ \$7.00	\$ 70.00
Assume 10% death loss	
Fertilizer and compost value	\$ 30.00

Total Income	\$660.00
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Expenses

	Cost before Amortization	Amortization factor	Cost after amortization
Fixed:			
Brooder	\$50.00	10 batches	\$5.00
Brooder waterer/feeder	\$17.00	10 batches	\$1.70
Pen/feeder/waterer (lumber, hardware, chicken wire, roofing)	\$180.00	10 batches	\$ 18.00
Heat lamp	\$10.00	10 batches	\$ 1.00
Processing equipment	\$1000.00	50 batches	\$ 20.00
Direct:			
Feed 1500 lb. @ .12/lb			\$180.00
100 chicks @ \$.77 (incl. Freight)			\$ 77.00
Wood shavings for brooder			\$ 10.00
Bags and ties @ \$.08			\$ 7.20
Marketing/postage			\$ 15.00
Utilities/misc. supplies			\$ 10.00
Total Expenses			\$344.90
Net			\$315.10

LABOR CONSIDERATIONS

INITIAL LABOR:

- BRAIN WORK
- TRAINING/READING, GATHER INFORMATION ON FEED SUPPLY, HATCHERIES, PROCESSING EQUIPMENT, MAKE PURCHASES OR BORROW, ORDER CHICKS
- BUILD PEN
- BUILD BROODER
- START BUILDING CUSTOMER BASE (ADVERTISE, TALKS, TELEPHONE)

ON-GOING LABOR:

- SET UP BROODER
- BROOD CHICKS FOR 2 WEEKS
- MOW PASTURE
- MOVE CHICKS TO PASTURED PENS

- MOVE PENS DAILY, FEED, AND WATER (1/2 HOUR PER DAY)
- SEND OUT REMINDER CARDS OR CALL CUSTOMERS A FEW DAYS BEFORE PROCESSING
- PREPARATION FOR PROCESSING
(SETTING UP TABLES, KILLING CONES, WATER/ELECTRICAL SUPPLY, PLUCKER, SCALDER, CHILL TANKS, ICE, BAGS, TIES, GIBLET BAGS, BUCKETS FOR GUTS AND BLOOD, COMPOST PREPARATION, DISINFECTING SURFACES)
- GATHER CHICKENS FROM PENS
- PROCESS (AT LEAST 8-10 HOURS FOR 3-4 WORKERS PROCESSING ONE BIRD AT A TIME)
- SALES
- CLEAN UP

APPENDIX 2
HPI PASTURED POULTRY PRODUCERS
AVERAGE PRODUCTION FIGURES¹

AGE ONTO PASTURE (WEEKS)	3
AGE AT SLAUGHTER (WEEKS)	9
NUMBER SLAUGHTERED	73
NUMBER SOLD	44
NUMBER KEPT FOR FREEZER	20
NUMBER GIVEN AWAY	7
NUMBER OF CUSTOMERS/RECIPIENTS	15
NUMBER LOST DURING PRODUCTION	31
PRICE PER BIRD (4-5 LBS.)	\$5.06
TOTAL FEED (LBS.)	1056
FEED/CHICKEN (LBS.)	13
FEED COST PER LB.	15 CENTS
PEN COSTS ²	\$14.52
FEED COSTS	\$147.14
CHICK COSTS	\$69.42
OTHER	\$26.77
TOTAL COSTS	\$254.92
INCOME/VALUE ³	\$317.97
NET	\$58.19
HOURS OF LABOR	87
HOURLY EARNINGS	\$1.26

¹AVERAGES ARE BASED ONLY ON PRODUCERS RAISING BATCHES OF 100 BROILERS FOR EASE OF COMPARISON.

²PEN COSTS WERE AMORTIZED FOR 10 BATCHES.

³THE VALUE OF BIRDS KEPT FOR HOME CONSUMPTION IS INCLUDED WITH THE INCOME. ANY BIRDS GIVEN AWAY AS FREE SAMPLES ARE NOT INCLUDED AS INCOME—THEY ARE A MARKETING COSTS ALTHOUGH NOT COUNTED AS SUCH IN THIS CHART.

APPENDIX 3
HPI PASTURED POULTRY PRODUCERS
SUMMARY OF 1996 PRODUCTION FIGURES

Producer code	1M	2M	3M	4M	5M	1P	2P ¹	1B	3B
No. of chickens in batch	100	100	100	100	50	100	200	100	100
Age onto pasture (weeks)	3, 4½	3	3	3½	2	2½	4	3	3
Age at slaughter (weeks)	9,10	8	9, 10	10, 10½	8	9	10	8	8
Number slaughtered	69	75	88	83	50	61	140	94	85
Number sold	52	35	25	50	35 ⁵	47	146	64	0
Number kept for freezer	17	40	42	15	9	14	25 ²	16	3
Number given away	0	0	21	16	8	0	0	10	0
Number of customers / recipients	13	2	31	Unk.	15	25	16	21	0
Number lost during production	36	25	17	17	0	33	5	6	15
Price per bird (4-5 lbs.)	\$5.50	\$6.00	\$6.00	\$5.00	\$5.00	\$4.50	\$4.25	\$4.47	\$5.00
Total feed (lbs.)	1087	790	1244	1230	650	888	1550	900	1050
Feed (pounds per bird)	16	10	14	15	13	15	8	10	12
Feed cost (cents per pound)	12¢	15¢	13¢	10¢	16¢	15¢	13¢	18¢	16¢
Pen costs ³	\$10.57	\$26.32	\$13.61	\$8.35	Unk.	\$20.00	\$7.40	\$12.18	\$15.00
Feed costs	\$134.47	\$129.46	\$166.58	\$128.70	102.24	\$133.25	\$200.44	\$161.90	\$167.25
Chick costs	\$83.00	\$73.00	\$53.00	\$72.00	32.50	\$74.00	\$141.50	\$48.00	\$48.00
Other	\$22.05	\$50.49	\$27.30	\$7.12	Unk.	0	0	\$47.67	\$35.88
Total costs	\$250.09	\$279.27	\$260.49	\$216.17	Unk.	\$227.25	\$349.34	\$269.75	\$266.13
Income / value ⁴	\$379.50	\$450.00	\$414.00	\$325.00	\$216.00	\$396.00	\$834.00	\$314.11	\$15.00
Net	\$129.42	\$170.73	\$153.51	\$108.83	Unk.	\$168.75	\$484.66	\$44.36	-\$251.13
Hours of labor	65½	126½	84½	57	55	45	65	115.50	131.75
Hourly earnings	\$1.98	\$1.35	\$1.82	\$1.91	Unk.	\$3.75	\$7.46	\$0.38	Negative

¹Two farmers pooled to raised their batches together.

²50 additional birds were kept for layers

³Pen costs were amortized for 10 batches

⁴"Value" refers to the value of birds kept for home use. The value of the free samples is not included.

⁵Two birds were sold live

APPENDIX 4
HPI PASTURED POULTRY PRODUCERS
SUMMARY OF 1997 PRODUCTION FIGURES

Producer code	6M	7M	8M	9M	10M
Number of chickens in batch	300	100	100	100	100
Age onto pasture (weeks)	5	2 ½	2	3	2 ½
Age at slaughter (weeks)	12	14	8	8 ½	7 ½ -9 ½
Number slaughtered	190	Unknown	36	50	75
Number sold	190 ¹	50	0	60	60
Number kept for freezer	20	30	27	20	15
Number given away	10	0	9	0	0
Number of customers / recipients	Unknown	22	Unknown	20	8
Number lost during production	57	20	65 (in shipping)	25	25
Price per bird (4-5 lbs)	\$6.25 / \$4.50	\$3-3.50	\$5.00	\$5.00	\$5.00
Total feed (lbs.)	3050	1000	400	900	2000
Feed / chicken (lbs.)	14	12.5	11	11	27
Feed cost per lb.	15 cents	9 cents	20 cents	21 cents	8 cents
Pen costs ²	\$35.00	\$11.50	Unknown	\$9.89	\$4.00
Feed costs	\$448.00	\$99.69	\$81.75	\$188.07	\$169.50
Chick costs	\$245.29	\$87.00	\$52.65	\$56.00	\$65.00
Other	\$50.00	\$25.00	\$9.20	\$4.50	\$4.20
Total costs	\$778.29	\$223.19	Unknown	\$258.46	\$242.70
Income / value ³	\$1225.00	\$255.00	\$135.00	\$400.00	\$300
Net	\$446.71	\$31.81	Unknown	\$141.54	\$57.30
Hours of labor	Unknown	70.5	86.75	95.25	79.50
Hourly earnings	Unknown	\$0.45	Unknown	\$1.49	\$0.72

¹30 birds were sold live.

²Pen costs were amortized for 10 batches

³"Value" refers to the value of birds kept for home use. The value of the free samples is not included.

APPENDIX 5
HPI PASTURED POULTRY PRODUCERS
SUMMARY OF 1998 PRODUCTION FIGURES

Producer code	1K	2K	11M	12M	13M
No. of chickens in batch	50	29	100	100	50
Age onto pasture (weeks)	1	2	3	Unknown	Unknown
Age at slaughter (weeks)	8	Sold live at 6, 7, 8, 11 weeks		N/A	Unknown
Number slaughtered	50	0	86	N/A	4
Number sold	43	22 live	43	N/A	0
Number kept for freezer	2	4	4	N/A	4
Number given away	5	0	25	N/A	0
Number of customers/recipients	9	11	9	N/A	0
Number lost during production	2	3	15	100	46
Price per bird (4-5 lbs.)	\$5.00	\$3-4.00	\$6.00	N/A	N/A
Total feed (lbs.)	Unknown	250	1183	N/A	Unknown
Feed/chicken (lbs.)	Unknown	9.6	13	N/A	Unknown
Feed cost per lb.	Unknown	14 cents	17 cents	Unknown	Unknown
Pen costs ¹	Unknown	\$7.60	\$34.30	\$8.48	Unknown
Feed costs	\$127.80	\$34.92	\$205.05	Unknown	Unknown
Chick costs	Unknown	Unknown	\$94.85	\$95.95	Unknown
Other	Unknown	Unknown	\$87.79	Unknown	Unknown
Total costs	Unknown	Unknown	\$421.99	Unknown	Unknown
Income/value ²	\$250.00	\$110.50	\$432.00	N/A	\$20.00
Net	Unknown	Unknown	\$10.01	N/A	Unknown
Hours of labor	Unknown	Unknown	Unknown	N/A	Unknown
Hourly earnings	Unknown	Unknown	Unknown	N/A	Unknown

¹Pen costs were amortized for 10 batches

²"Value" refers to the value of birds kept for home use. The value of the free samples is not included.

APPENDIX 6

RESOURCES

Salatin, Joel. 1999. Pastured Poultry Profits: Net \$25,000 in 6 Months on 20 Acres. Polyface, Inc., Swoope, VA. Order from:

Stockman Grass Farmer
P.O. Box 2300
Ridgeland, MS 39158
1-800-748-9808
Book (\$30 plus shipping & handling)
Video (\$50)

American Pastured Poultry Producers Association (APPPA)

5207 70th Street

Chippewa Falls, WI 54729

715-723-2293

APPPA_Grit@yahoo.com

Contact: Diane Kaufmann

Membership: \$20 per year

ATTRA materials...Dial 1-800-346-9140:

- *Sustainable Chicken Production Overview*
- *Range Poultry Housing*
- *Organic Livestock Feed Suppliers Resource List*
- *Legal Issues for Small Farm Pastured Poultry Producers*
- *Pastured Poultry Experiences: The Results of a Survey*
- *HPI Pastured Poultry Record Book (also includes the two preceding materials)*

Internet resources:

<http://ftp.metalab.unc.edu/farming-connection/grazing/pastpoul/resource.htm>

PasturePoultry listserver at www.onelist.com

Dom_Bird listserver at www.eGroups.com

Final Project Report from HPI for SARE grant #LS96-76. Order from:

Heifer Project International
USA/Canada Program
1015 Louisiana Street
Little Rock, AR 72202-3815
501-907-2600

APPENDIX 7

LIST OF PROJECT COORDINATORS:

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Involved Extension agents:

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Edoe Agbodjan P.O. Box 246 Greenwood, SC 29648 864-229-668 Edoea@hotmail.com	James Hill Program Coordinator / Agriculture and Natural Resources 1890 Cooperative Extension P.O. Box 7336 Orangeburg, SC 29117 803-536-8941 HHill@scsu.edu	
Ishmel Washington 1890 Extension Hampton Office P.O. Box 536 Hampton, SC 29924 803-943-3538	Anthony Parsons 108 Academy St. Kingstree, SC 29556 843-354-3289	

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Diane Kaufman APPPA 5207 70 th St. Chippewa Falls, WI 54729 715-723-2293 APPPA_Grit@yahoo.com		



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The Electronic version of Pastured Poultry is available at:

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<http://www.attra.ncat.org/attra-pub/pasturedpoultry.html>

PDF

<http://www.attra.ncat.org/attra-pub/PDF/pasturedpoultry.pdf>



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This study is sponsored by Southern Region USDA Sustainable Agriculture Research & Education (SARE) and is a Heifer Project International case study booklet. This study is compiled and distributed by the National Center for Appropriate Technology (NCAT).

