The Lafayette Homestead

Lafayette County Cooperative Extension Office, 7 Agriplex Drive, Lewisville, AR (870) 921-4744

DIVISION OF AGRICULTURE
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Welcome to Issue 2

The Lafayette Homestead newsletter will strive to provide a variety of information relevant to the small holder. Some of the articles may be stand alone, while some may be part of a larger series. If there are any particular topics anyone would like addressed in the future, feel free to contact our office and we will try to work them in. I am excited to begin this endeavor. Thank you for your support!

Amanda Greer

Cooperative Extension Agent – Agriculture

Quail – Alternative Poultry for the Homestead – Part 1

Start with either eggs or day-old chicks from reputable dealers. Before obtaining eggs or stock, make sure that the breeders are free of diseases, including Salmonella pullorum, Salmonella typhoid, and Mycoplasma.

If you purchase eggs, keep them in a clean environment at an ambient temperature between 55 and 65°F, before setting. Eggs can only be held for about 7 to 10 days before hatchability is decreased, but it is best to set them within 3 to 7 days after they are laid. Whether you purchase or build an incubator, it should be well ventilated, able to turn the eggs easily, and made of an insulated material that is easy to clean and disinfect. The incubator also should maintain a temperature to within .25°F and should easily supply 60 percent relative humidity. Set only clean eggs at a temperature of 99.5 to 100°F for 24 days. Turn the eggs at least three times each day. Many producers mark small groups of eggs on one side to indicate that they have been turned. For larger numbers of eggs, you will need an automatic or manual turner. After hatching, remove the chicks and the hatch residue. Thoroughly clean and disinfect the incubator. Whether you hatch your own chicks or purchase day-old chicks, planning is very important. Make sure all water troughs, feeders, and heat sources are working before the chicks arrive. Young quail can fit through very small spaces and have a tendency to drown in shallow water. Make sure all openings in the brooding area are closed tightly. Also, use appropriate watering equipment or use screening over waterers. Small producers will actually place marbles or clean gravel in the water trays for the first week or two to help prevent drowning.

The first weeks are critical for helping chicks to get a good start. Place the chicks in a warm environment that has readily available feed and water. Since they are unable to regulate their body temperature for the first 10 days, a properly managed heat source is necessary, such as electrical lights, heat lamps, propane heaters, or kerosene heaters. The most efficient heat source will depend on your particular housing situation. Set the

room temperature at approximately 88°F with a temperature of around 95°F right under the heat source. Round all corners of the initial brooding area with cardboard or wire to prevent birds from smothering. Chicks are very active and tend to crowd on top of one another when frightened, which can be fatal in commercial confinement situations. Chick guards are also used for the first week or two to help keep the chicks near the heat source and prevent piling. However, once the chicks begin to fly, remove the guard so chicks do not get stranded on the wrong side of the guard. Carefully observe the birds' behavior and increase the temperature if you observe huddling, or decrease the temperature if birds seem to be driven away from the heat source. Gradually decrease the room temperature each day (5° per week) until it reaches 70°F.

Producers can effectively brood quail in colony cages,but do not leave birds in the cages too long or the quality of their feathering can be affected. Use colony cages with 1/4 -inch mesh wire for the floor to prevent leg and foot damage to the young quail. Maintain a density of four birds per square foot for the first week. Decrease the density to three birds per square foot when they are 2 to 6 weeks old.

Space Requirements

	LINEAR INCHES/BIRD		FLOOR SPACE	
AGE	FEEDER SPACE	WATERER SPACE	(SQ.FT./BIRD)	%PROTEIN
0–8 wks	.6"	.25"	.3	28%
6–14 wks	1"	.3"	.2	20%
Over 14 wks	1"	.3"	2 *	13–14%
Breeder	1"	.3"	1 sq ft in floor pens	18–20%
			.5 sq ft in cages	

*including flight pen for flight birds. If raising for meat, can drop to 1.5 sq. ft./bird until birds are marketed.

Birds used for meat or egg production should be raised in a confined facility with controlled temperatures and less light. This practice will reduce bird activity and cannibalistic tendencies, as well as improve feed conversion. Some producers market bobwhite quail for meat as a secondary market. Provide adequate ventilation and sufficient feed and water since any damage to carcass quality will lower meat yield and the price received. For best meat production, larger breeds of Coturnix (Japanese) quail are usually raised since they grow more efficiently and produce larger, meatier carcasses.

It is important that you use a sound feeding program since gamebirds require higher levels of protein than most fowl. Many high-quality commercial gamebird feeds are available through local feed companies. Commercial turkey diets can also be used and will provide a well-balanced diet for gamebirds. During the first 6 to 8 weeks of age, feed quail a 28% protein starter feed in crumble or mash form. From 8 to 14 weeks, feed a 20% protein grower feed, pelleted or crumbled and can be mixed with whole grain feeds. When feeding whole grain feeds, be sure to mix them with the pelleted feeds at the proper ratio to assure proper balance of nutrients. You can begin feeding a maintenance diet at 14 weeks since most of the birds' growth is complete. Maintenance diets of 13–14% protein are recommended until the birds are released or before breeding season. Most maintenance diets are high in whole grains. If you plan to use your birds as breeders, you will need to change over to a high-quality 18–20% protein breeder ration at least 4 to 6 weeks before desired breeding season. For best results, change over from maintenance feed to breeder diet gradually over a week. Mix the two feeds evenly for the first 2 days. Then remove 25% of the maintenance feed incrementally until it is 100% breeder feed.

Courtesy Penn State College of Agricultural Sciences

Apples: When choosing an apple cultivar in South Arkansas, one should pay attention to its disease resistance. Choosing apples that are susceptible to disease can lead to failure and be difficult to maintain. Common diseases include Fire Blight, Scab, and Cedar Apple Rust. Below I have included a table of susceptibility ratings for some cultivars to the Fire Blight Bacterium. This list does not include all cultivars available for purchase.

Table of Apple Cultivar Susceptibility to the Fire Blight Bacterium
Erwinia amylovora
Table of apple cultivar susceptibility to the fire blight bacterium, *Erwinia amylovora*

Apple cultivar	**Fire blight resistance rating[z]**	**Apple cultivar**	**Fire blight resistance rating[z]**
Arkansas Black	MR	Mollies Delicious	S
Baldwin	S	Monroe	S
Barry	HS	Mutsu (Crispin)	HS
Beacon	S	Niagara	HS
Ben Davis	HS	Nittany	HS
Braeburn	HS	Northern Spy	S
Britemac	MR	Northwestern Greening	MR
Burgundy	HS	Paulared	HS
Carroll	MR	Priscilla	MR
Cortland	S	Puritan	S
Delicious	MR	Quinte	S
Earligold	S	Raritan	HS
Early McIntosh	MR	Redfree	S
Empire	MR	Red Yorking	HS
Fuji	HS	Rhode Island Greening	HS
Gala	HS	Rome Beauty	HS
Ginger Gold	HS	Scotia	S
Gloster	S	Spartan	S
Golden Delicious	S	Spigold	HS
Granny Smith	HS	Spijon	S
Grimes Golden	S	Stark Bounty	MR
Gravenstein Holly	S	Stark Splendor	MR
Idared	HS	Starkspur Earliblaze	S
Jamba	MR	Starr	HS

Jerseymac	S	Stayman	S
Jonagold	HS	Summer Rambo	S
Jonamac	S	Summerred	S
Jonathan	HS	Turley	MR
Julyred	S	Twenty Ounce	HS
Liberty	MR	Viking	MR
Lodi	HS	Wayne	S
Macoun	S	Wealthy	S
Maiden Blush	S	Wellington	MR
McIntosh	S	Winesap	S
Melba	MR	Yellow Transparent	HS
Milton	S	York Imperial	HS

[z]MR = Moderately resistant. Control only needed with fire blight susceptible rootstocks or under high disease pressure.
S = susceptible. Control usually needed when conditions are favorable for infection.
HS = highly susceptible. Control always needed when conditions are favorable for infection. These cultivars should receive first priority when control is called for.

Data compiled by K. S. Yoder and A. R. Biggs from personal observations and the following sources:

van der Zwet, T., and S. V. Beer. 1995. Fire blight - Its nature, prevention, and control. USDA Agriculture Information Bulletin Number 631.

Management Guide for Low-Input Sustainable Apple Production, A publication of the USDA Northeast LISA Apple Production Project and Cornell University, Rodale Research Center, Rutgers University, University of Massachusetts, and University of Vermont. 1990. (Apple disease managment section by D. A. Rosenberger, Cornell University).

A Grower's Guide to Apple Insects and Diseases in the Southeast. 1993. Alabama Cooperative Extension Service, Auburn University, Circular ANR-838. Ed. J. R. McVay, J. F. Walgenbach, E. J. Sikora, and T. B. Sutton.

Upcoming events/notifications:

South Arkansas Homestead Conference
Pioneer Village Rison AR. Sat. April 9, 2016

Farmer's Market Vendor Meeting for the Lafayette County Farmers Market @ Lewisville
May 10, 2016 at the Agriplex at 6 p.m.

Lafayette County Farmers Market @ Lewisville will open May 14 at 7 a.m. – 12 p.m. at the Courthouse in Lewisville. Contact our office for details.

For Youth: Junior Canning Workshop
June 1st and 2nd, 2016 at the Agriplex

Horticulture Field Day
SWREC at Hope on June 16, 2016.

Food Planning

Establishing a food reserve may only involve making sure regular food supplies are large enough to supply needs during the disaster. You might prefer to set up a separate emergency supply in a place specifically selected for easy access in times of emergency.

Select foods for this reserve that keep well without special handling, such as refrigeration, and that can be eaten with minimum preparation. When possible, choose can sizes that will supply one meal, since storage of leftovers may be difficult.

In setting up a reserve, include foods your family likes. During a disaster, family members have enough to cope with without having to accept unfamiliar foods. If canned and dried products are not part of your regular meals, you may want to introduce them into some meals. This will help family members accept them more readily when it is necessary to eat emergency supplies. Special treats, like candy and cookies, should also be included as morale boosters and for quick energy.

If there is a baby or other family member who requires special food, be sure an adequate supply of foods for their needs is included in the reserve. Reconstituted dry milk or canned milk may be used for short-term feeding of infants. These products do not satisfy nutritional needs of infants, so long-term feeding of only these products is not recommended.

If family members need special medication, include these products in the reserve. Be sure to check with your physician or pharmacist about how long these medications can be stored and still remain effective.

Guide for Reserve Food Supply

Kind of Food	Amount Per Person for One Day	Suggested Food
Milk	3 cups	Powdered nonfat dry milk Evaporated canned milk Each of the following is equivalent to 1 quart of fluid milk: Evaporated 3 (6 ounce) cans 1 (14 1/2 ounce) can Nonfat dry milk 3 to 3 1/2 ounces
Canned meat, poultry, fish, cooked dry beans and peas	5 1/2 ounces	Canned meat, poultry, fish Canned meat mixtures Canned dry beans Canned spaghetti and rice products Condensed soups containing meat or dry beans Peanut butter
Fruits and vegetables	5 cups	All types of canned vegetables and fruit Dry fruit, canned fruit juice
Grain foods	6 ounces	Ready-to-eat cereal (1 ounce serving) Instant hot cereals
Spreads for bread and crackers	According to family practices	
Miscellaneous	According to family practices and extent of cooking possible	Coffee, tea, cocoa, powdered or canned beverage products, soda, baking powder, flavorings, soft drinks

Ways to Save at Home

Use the following ideas to minimize waste and to help save money:

- Use batch-cooking. Cook a large amount of food, divide it into family-size portions, and freeze them for meals later in the month.

- Make your own healthy snacks at home and put them in small plastic bags or reusable containers. Mixing whole-grain cereals with nuts and seeds makes a quick and easy, nutritious snack. Other options include cut-up fruits or vegetables, or whole-grain crackers with low-fat cheese. This can be healthier and more cost-effective than buying prepackaged and processed snacks.

- Freeze or refrigerate leftover foods or ingredients to use later. Leftover vegetables, meat, rice, and noodles can be used in other dishes such as stews or soups, or as toppings on a pizza or casserole.

- Organize your cupboard and refrigerator. Bring the older items and/or ingredients to the front and place the new items in the back.

- Grow your own vegetables and herbs. A small family greenhouse or garden is a great way to enjoy fresh vegetables. If you don't have time or room for a garden, consider growing small vegetable plants and herbs in indoor pots

- Save money by eating at home rather than at restaurants.

- Plan, organize, and be prepared to shop in a smart and frugal manner. This can help families maintain a healthy diet and manage their time while watching their wallets.