



Today's webinar will start at
11am Pacific / 12pm Mountain



Food Systems

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Backyard Poultry Production

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Today's Presenter



Kate Painter, presenter

Extension Educator- Agriculture
University of Idaho Extension, Boundary County



Colette DePhelps, facilitator

Area Educator, Community Food Systems
University of Idaho Extension, Northern District



Webinar Tips



**Close all other programs
running on your computer**



**Check your sound – problems
with clarity, speed, etc. switch
to the phone**

Call-in number provided in the welcome
email

Mute computer sound when using phone



**Type in questions for speakers
(or for help with viewing &
sound) into question box**



**Handouts are available to
download on your computer**



Joel Salatin: Large-scale pastured poultry



Joel Salatin



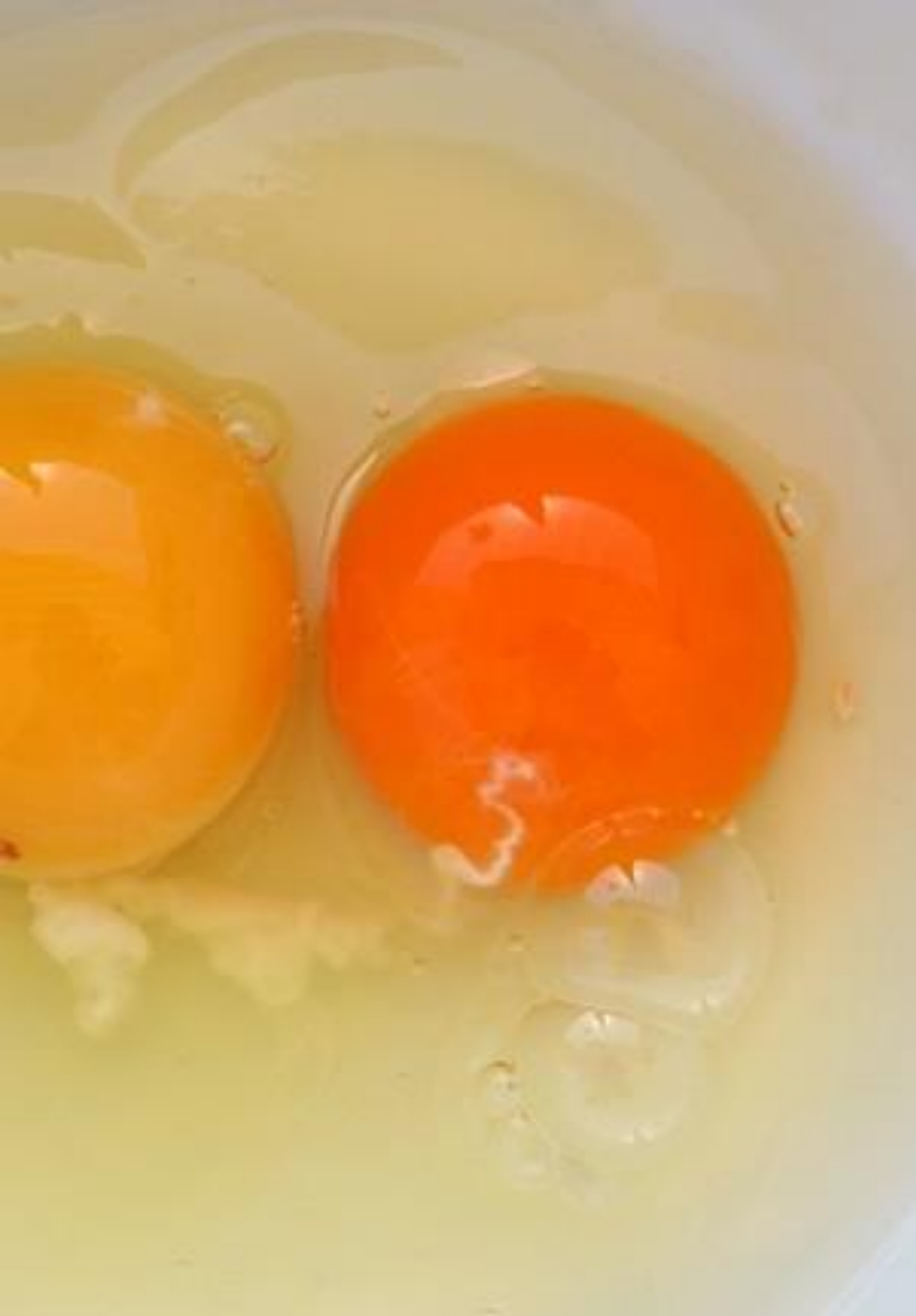
Backyard Poultry Production: Introduction to the Basics





Why keep backyard chickens?

- They produce wonderful eggs!
 - Bright orange yolks, full of vitamin A
 - High quality protein from your own back yard
- They are great at recycling food scraps and leftovers
- They generate rich **manure** for your garden
- They will till your garden for you, eating bugs and plants



Nutritional comparison

- Free range, grass-pastured eggs tend to have
 - 1/3 less cholesterol
 - 1/4 less saturated fat
 - 2/3 more Vitamin A
 - 3 times more Vitamin E
 - 7 times more beta-carotene
 - 2 times as much omega-3 fatty acids



Reasons you may **NOT** want to keep chickens

- Legal—check your local ordinances
 - Roosters in particular can be annoying in town
- You will need to care for them on a regular basis
 - Water must be available
 - Some type of heater or other arrangement for winter
 - Good quality feed is not cheap
 - A mix for layers costs around \$15 for 50 lb
 - They need to be protected from predators
 - Fencing must be sufficient for all kinds of predators
 - They need housing
 - Housing will need to be cleaned on a regular basis

Today's Topics

- Basics for a small backyard flock
 - Chicken behavior
 - Chicken health
- Housing
 - Fencing
 - Light
- Protection from predators
- Economics of backyard egg production





Chicken behavior

- Habituate chicks to sights and sounds
 - They can be good pets if you socialize them to you
- Social creatures; don't have just one!
- Harem structure
 - Roosters can be rough on the hens, particularly if you have too many
- Pecking order
 - Introduction of new hens merits watching
 - Try sneaking them in at night!



Foraging behavior

- Foraging is a big part of their daily “work”
 - Looking for food
 - Peck and scratching
- If they can’t peck and scratch the ground, they may start picking on each other!



Preening, dustbathing, oiling

- Keeps plumage clean, water-proof, and insulative
 - Uropygial gland is above their tail
- They remove mites with their beak



Uropygial gland



Brooding hens

- Broody hens stay on eggs or chicks
- They are not laying eggs for you!
- Some breeds are much more broody than others
 - Banties tend to be broody
- Prolactin hormone is responsible for this behavior
- You can “fix” broody hens by putting them in a wire cage with a suspended wire floor for several days
 - You have to keep their butt cool!



Roosting behavior

- They use perches at night, and for daytime naps
 - They learn to use these when they are young
 - Use of perches increases adult use of nests for laying
 - Place the perches higher than the level of the nest boxes
- Heavy strains of birds are less likely to use perches
 - Straw bales may be a good substitute
 - Avoid wire floors



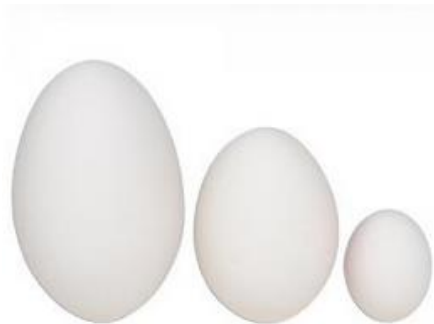
Molting

- Prompted by declining daylength: fall
- Causes them to lose their flight feathers
- They are less interested in food
 - Affects laying



How to avoid egg cannibalism

- Use “decoy” wooden or plastic eggs or a golf ball in nests
- Encourage use of nest boxes
 - You don’t want them laying eggs on the ground
 - Some nest boxes allow the eggs to roll out
- Isolate suspects
- Cull hens that eat your eggs!
- <https://youtu.be/YuqJOQ2r9Os>



premier1supplies ©

White Ceramic Nest Eggs

\$1.99 - \$1.45



premier1supplies ©

Wooden Nest Egg

\$1.95



Questions?



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Common health problems

- Diarrhea with blood
 - Could be coccidiosis or cannibalism
 - Green pasture can cause diarrhea
- Lameness
 - Could be bumble foot (swollen hocks)
- Central nervous system problems
 - Could just be age, particularly if it's just one hen
 - If it's more than one, or they are young, it could be Vitamin E or Selenium deficiency



Early signs of illness

- Change in eating habits
- Dull feathers or color changes in feathers
- Stained feathers around vent, shoulders, eyes
 - Chickens typically wipe their nasal discharge on their shoulders!
- Swelling, redness, or feather loss around eyes
- Crusty material in nostrils
- Favoring or lameness in a limb



Signs of serious illness

- Fluffed or huddled posture
- Decreased appetite or thirst
- Abnormal, labored, or noisy respiration
- Weight loss
- Discharge from eyes, nostrils, or mouth
- Injury or swelling on body
- Bleeding
- Major change in personality or behavior





Avian Influenza

- Infectious viral disease of birds that doesn't typically infect people WITH SOME IMPORTANT EXCEPTIONS
- Occurs naturally among wild aquatic birds worldwide
- Can infect domestic poultry if they have contact with wild birds
- Several cases of highly pathogenic avian influenza (HPAI) H5 have been confirmed in the Pacific, Central, and Mississippi flyways since Dec. 2015
- Most cases are in domestic flocks worldwide
- For more information, see www.cdc.gov/flu/avianflu



Avian Influenza Symptoms

- Coughing, sneezing, respiratory distress
- Decreased egg production
- Swelling of the head, comb and wattles
- Sudden death
- Contact ISDA State Veterinarian's office 208-332-8540 or USDA-APHIS at 1-866-536-7593 toll-free
- Sick or dead wild birds should be reported to the Idaho Department of Fish & Game at 208-454-7638
- There have been cases in Canyon County, ID, in both a backyard chicken flock and in three domestic falcons



Avian Influenza viruses rarely infect humans – but can be deadly

- Infected birds shed avian influenza virus in their saliva, mucous, and feces
- Human infections occur when enough virus gets into a person's eyes, nose, or mouth, or is inhaled
- Can occur when virus is in the air (droplets or dust), when it is breathed in, or when a person touches a contaminated surface then touches their mouth, eyes, or nose
- Illness can be severe, even fatal
- Not typically spread from person to person



Disease Resources:

<http://www.thepoultrysite.com/diseaseinfo/>

ThePoultrySite Quick Disease Guide

Search:

Section:

Poultry Diseases



Show results in:

Any time



Search

ThePoultrySite Quick Disease Guide

This area of ThePoultrySite.com lists over 140 poultry diseases / conditions in alphabetical order. Simply select the disease of choice from the list below or the drop down menu above. Diseases listed in alphabetical order

Choose a Disease:

Amyloidosis

GO

Or... Select a Disease from the links below:

Amyloidosis	Infectious Bronchitis, IB - 793b Variant Sudden Death Syndrome in Broiler Parents
Anatipestifer Disease, New Duck Syndrome, Duck Septicaemia	Infectious Bronchitis, IB Egg-layers
Arizona infection, Arizonosis	Infectious Bursal Disease, IBD, Gumboro
Ascites	Infectious Coryza
Aspergillosis	Infectious Laryngotracheitis, ILT
Avian Encephalomyelitis Egg Drop	Intussusception
Avian Encephalomyelitis, Epidemic Tremors	Leukocytozoonosis
Avian Influenza-Highly Pathogenic (HPAI), Fowl Plague	Lymphoproliferative Disease (LPD)
Avian Leukosis (Serotype J), Myelocytomatosis	Malabsorption Syndrome, Runting/Stunting



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Feeding

- Starter feed for chicks should be 18% protein
 - Give for about 4-5 months
- Laying hens need 3% calcium in their feed
- Kitchen leftovers: Feed right away (same day)
 - Botulism or other toxins can build up in spoiled food
- Laying hens need poultry feed designed for them!
 - Good feed is critical to egg production
 - Don't dilute their ration with too much other material



Hanging feeders, \$19



Chickens need grit for proper digestion and good egg production



premier1supplies ©

Chick Grit

\$7.30

★★★★★



premier1supplies ©

Chick Stick

\$6.40

★★★★★



premier1supplies ©

Grit Station, 6 lb

\$15.00

★★★★★



premier1supplies ©

Oyster Shell

\$7.30



premier1supplies ©

Poultry Grit

\$7.30



Wonderful Extension resource:

A Pacific Northwest Extension Publication

Oregon State University • University of Idaho • Washington State University

PNW 477 • September 2016

How to Feed Your Laying Hens

James Hermes

There is no magic to feeding chickens. Small-flock producers can choose from many brands of feed from several manufacturers. These manufactured feeds are computer formulated by company nutritionists to provide optimal nutrition for each particular type and age of chicken. The formulation of these feeds is similar to commercial feeds and is based on years of research on commercial chickens. Manufactured feeds are considered a complete diet, providing all of the nutrients required by chickens. In most cases, small-flock producers will not need to add supplemental nutrients if they exclusively use these feeds.



hum, © Oregon State University.



Water arrangements are myriad...



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Duo Waterer/Feeder

\$14.00



premier1supplies ©

Heated Poultry Waterer

\$54.00



premier1supplies ©

QuickClean Waterer

\$4.80 - \$26.00



premier1supplies ©

Pop Bottle Waterer Bases

\$1.30 - \$2.70

Photo: The-chicken-chick.com

Housing

- Small flocks: allow 3 square feet per bird
- Add more room for feeder, waterer, nest box
 - Waterer needs to be on a platform in a covered area
 - Nipple drinkers stay clean
 - Rabbit type waterers work well
 - In freezing weather a water heater is nice
- Provide a roost of some sort
- Curtains for nest boxes
 - Black plastic stapled at top with strips cut to allow entrance
 - Discourages using nest boxes for sleeping, pooping, etc.
- Additional protected run space for daytime

<https://youtu.be/xARNapqjWvg?t=4m30s>





premier1supplies ©

**Nest-O-Matic Galvanized
Nest Box (with Roll Out
Tray)**

\$39.00

Nesting box with a roll-out egg holder and a curtain



Manure control in chicken house

- Deep litter is probably the best choice
 - 6" to 8" of shavings
 - Birds enjoy scratching
 - Moisture gets absorbed
 - Healthy foot pad for the bird
 - Add more shavings as needed
 - Clean out completely when it's too wet or soiled



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Egg storage and cleaning

- Store at 55 degrees or refrigerate
- Use fine sandpaper to clean floor eggs
- Wash with a food grade disinfectant
 - Wash water should be the same temperature as the egg



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Light requirements for egg production

- Laying hens need 14-16 hours of light per day
 - 6am to 9pm
 - An appliance timer works well
- Without supplemental light, production is typically only for 5 months in northern climates
- Light can be very minimal
 - One foot candle
 - Barely able to read the newspaper



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Protection from Predators

- A solid chicken house that is closed at night and opened in the morning if you have predator issues

<https://youtu.be/xARNapqjWvg?t=4m30s>



Protection from Predators

- Fencing that is tight to the ground or extends underground
- Overhead protection for young birds
 - Particularly if your pen is large





<https://youtu.be/3xBiSp6rQM0>

- So many great designs! Here's a YouTube link to a beautiful design built by a woman and her daughter. \$20 for the plans.





Chickens and Dogs

- Dogs will naturally chase and/or eat chickens
- Herding dogs will herd chickens
- You will need to watch them carefully
- They can be trained to NOT bother your hens!



Chickens and Dogs

- Guardian dogs can be used for protecting poultry





Poultry fencing

- Electric poultry fencing is my favorite
 - High initial cost, ~ \$200 for 43" x 165'
- Keeps chickens in and discourages all kinds of predators
- Easy to move
- Long-lasting
- Provides about 1600 square feet (40 feet per side)
- Allows you to move chickens around to different areas to forage/destroy
- There is a great article on this topic

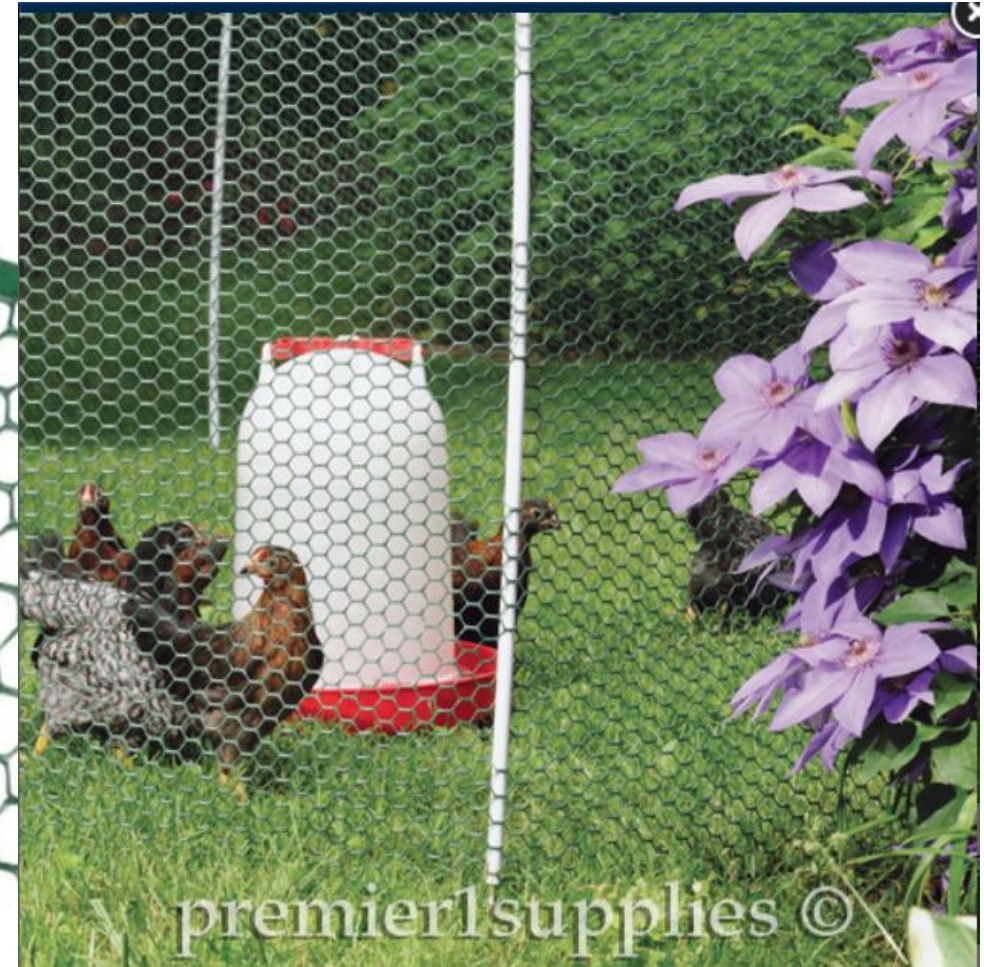
<http://www.themodernhomestead.us/article/Electronet-1.html>

Electronet chicken fencing is a very effective solution to predator protection and managing grazing.





Plastic chicken wire offers an alternative to standard wire





Using electronet with a mobile chicken house



Photo: Lauren Ware

Source:

<http://smallfarm.about.com/od/farmanimals/ss/electricfence.htm#step1>



Attach the net to a fencepost



Photo: Lauren Ware



Carry the fencing bundle by the posts, walk backward and drop one post at a time.



Photo: Lauren Ware



Walk around the perimeter and drop the posts



Photo: Lauren Ware



Before you start putting the fence posts into the ground, tie the last fence post to the first one and to the your support post.

You'll need a fence charger of some sort. She uses an expensive energizer that can be plugged in directly or used a battery. She uses a deep-cycle marine battery to energize it. Every few days, she takes the battery to the shop to re-charge it.

Photo: Lauren Ware





**Add a post
wherever it sags.
You can use a zip-
tie to attach the
fiberglass pole to
the step-in post.**

Photo: Lauren Ware





From Premier1

Patriot P5 (AC/DC) Energizer

★★★★★ Read reviews »

Our most economical line of energizers, which makes them very popular with our customers. Advanced low impedance electric fence energizer. Dual purpose: can be plugged in or used with a 12v battery. We like them for their combination of versatility, portability and value. Very popular for using with poultry operations, but is also used for many other applications

Batteries are sold separately.

NOTE: For easily attaching to fence and ground rod when energizer is close to fence, you will also need a Wiring Harness (see accessories tab below). Don't forget to order!

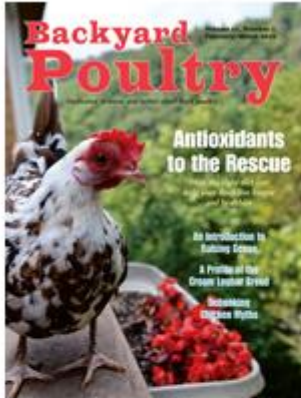


Source: <https://www.premier1supplies.com/>





Resources: Backyard Poultry Production



Backyard Poultry Magazine

Backyard Poultry Magazine is dedicated to helping the small-scale poultry enthusiast raise healthy, happy, productive flocks for eggs, meat or fun -- from the countryside to the urban homestead.

https://youtu.be/dx_CSSl2SR8





Extension.org is a wonderful resource on backyard poultry production from land grant universities

Deciding what type of poultry to raise in small or backyard flocks

[Small and Backyard Flocks](#) [May 05, 2015](#) [Print](#)

[Like](#) [Tweet](#) [Pin it](#) [G+](#)

Written by: Dr. Jacquie Jacob, University of Kentucky



Once you have decided you want to raise poultry, you need to decide which species of poultry you are interested in. This is primarily based on what you want to do with your birds and the resources you have available. Of course, you should always check with your local city, municipality, or subdivision ordinances to see what you are permitted to keep. Some urban and suburban areas prohibit the keeping of any poultry, while others stipulate which birds you may or may not keep.

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Upcoming Webinars

March 2

Everything about geese for the beginner - benefits and challenges



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Backyard Poultry Resources:

UC Davis Backyard Poultry Website

<https://ucanr.edu/sites/poultry/Resources/type/backyard/>

Ussery, Harvey. *The Small-Scale Poultry Flock: An all-natural approach to raising chickens and other fowl for home and market growers.* Chelsea-Green Publishing, White River Junction, VT.

Mercia, Leonard. *Storey's Guide to Raising Poultry: Breeds, Care, Health.* Storey Publishing, www.storey.com.





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sustainable small farms education

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Increasing the number and success of small farmers and ranchers in Idaho.



The vision of the Cultivating Success™ program is to increase producer and consumer understanding, value, and support of sustainable local farming systems in Idaho through educational and experiential opportunities. Partners in this program strive to create strong communities with infrastructures that provide the resources and skills needed to produce local and sustainable food and agricultural products for the residents of the Inland Northwest.

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Mondays and Tuesdays at 11 am PST / 12 pm MST



Upcoming
Webinars

- Tuesday, May 5th – Local Food System Businesses: Beyond COVID-19
- Monday, May 11th – Selling Your Products on Etsy
- Tuesday, May 19th – Fundamentals of Produce Safety: Part 1
- Tuesday, May 26th – Fundamentals of Produce Safety: Part 2
- Tuesday, June 2nd – Taking Eggs to Market: Safe Egg Handling & Delivery

<https://www.cultivatingsuccess.org/webinar-series>



We need your feedback!

Please complete the post-webinar evaluation!

Our post-webinar evaluation is short and quick! And, your feedback is important!

Click on the link below or type it into your browser to complete the evaluation:

https://www.surveymonkey.com/r/Backyard_Poultry

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