

Laying Hen Production and Egg Handling: Food Safety / Organic Compliance Checklist

With the goal of selling eggs that are “wholesome and safe to eat”, this checklist is intended to help farmers assess and minimize risks of food contamination by pathogens. It was developed to complement other NCAT/ATTRA materials in supporting the development of a community-based farm business, raising laying hens on an integrated farm with crops, and legally selling pastured or organic eggs.

By Ann Baier, National Center for Appropriate Technology, May 18, 2013

Poultry Production	Yes	No	N/A	Practice Description; Documentation
Origin: Are chicks sourced from a reliable hatchery that participates in the National Poultry Improvement Plan (NPIP) “U.S. <i>Salmonella enteritidis</i> Monitored Program”?				Receipts showing number and breed(s) of birds.
Preventative Health: Are breeds selected for adaptation and resistance? Vaccinated against endemic diseases? (e.g., Marek’s)				Purchase order/receipts with vaccinations listed.
Nutrition: Do feed & supplements (e.g., oyster shell) provide for good health & production?				Purchase receipts, feed tags.
Housing: Does housing afford adequate shelter/protection (elements & predators)?				Description of brooder and layer housing
Clean water: Are water sources fresh, cool and clean? (promote drinking*; < <i>Coccidiosis</i> ?)				Describe waterers cleaning method & frequency.
Management: Are flocks observed twice daily (to see and address any emerging problems)?				Log illness, mortalities, etc.
Sanitation: Is housing cleaned thoroughly between flocks? bedding renewed frequently?				Log cleaning methods and materials, if any.

* Chickens need to drink twice as much as they eat.

Organic Production – Certified to USDA’s National Organic Program (NOP) standards	Yes	No	N/A	Practice Description; Documentation
Origin: Are chicks managed organically since day 2 of life?				Purchase receipts, Management log
Feed: Is feed 100% certified organic? Feed: Are all feed supplements allowed by NOP regulations (e.g., oyster shell)?				Receipts and weigh tags showing feed type and quantity.
Health Care: Appropriate species selected? Birds vaccinated? Adequate rations? Sanitation? Move freely? Stress reduction?				Flock purchase order/receipts, and Management records
Living Conditions: Do birds have outdoor access, sunlight, shade, shelter, fresh air?				Log observations
Do living conditions accommodate health, natural maintenance & comfort behaviors (e.g., Can hens dust bathe, thus preventing ectoparasites: lice and mites? Is there				Log observations Receipt for bedding (if an agricultural product, not wood, it must be organic if certified).

appropriate, clean, dry bedding?)				
Egg Handling	Yes	No	N/A	Practice Description; Documentation
Does the outside environment promote cleanliness; minimize mud on hens' feet?				
Are nest boxes aptly designed to keep eggs clean, using appropriate, clean, dry bedding?				Keep receipts for bedding
Are clean containers used to gather eggs? <i>Describe containers (baskets, crates, flats, etc.); cleaning methods and materials used.</i>				Daily Egg Collection Record + Handling + Sales Records = Audit trail
Are the eggs gathered frequently; stored in a cool shaded place; and packed promptly?				Egg Handling flow chart with timeline
Is the egg room facility free of pests (and pesticides)? Are all contact surfaces clean of dirt and germs (& sanitation materials)?				Describe egg handling facilities, equipment, and egg contact surfaces.
Only clean eggs may be sold per EPIA 1033(g)(8) & 1037(a)(1). Are eggs free of dirt, stains, defects, blemishes? <i>Describe procedures for egg cleaning; disposition of dirties and checks.</i>				Egg cleaning procedures; Packout report & Disposition log
If eggs are washed in water:				
Is wash water temperature >90° F? <i>Describe.</i>				SOP, Temperature log
Is the water <20° F warmer than the eggs? (T° differential reduces absorption of water & surface bacteria through the egg membrane to egg)				SOP describing heating, temperature monitoring, records.
Is water potable, with iron content <2 ppm? (lower Fe reduces <i>Pseudomonas</i> bacterial growth)				Water test results (municipal?)
Are materials used for egg washing, sanitizing and coating approved for use (by USDA's EPIA, and if certified organic, by NOP)?				Labels or MSDS
Are eggs graded by external shell appearance (clean, unbroken, practically free of defects), per USDA grading requirements?				SOP
How are eggs are graded by size (weight) per USDA guidelines (Jumbo, Extra Large, Large, Medium, Small)?				Describe equipment used.
How are eggs are graded for internal quality? (Hand candling determine Grade AA: air cell < 1/8 " or A <3/16"; size increases with age)				Describe equipment and procedures.
Are eggs are packed pointy end down? (air cell up/intact, yolk centered; eggs keep better)				SOP
Are eggs are stored at <45° F until sold? (as required by USDA & CDFA; exception in the California Retail Food Code §114373)				Describe equipment.

Egg Package Labeling and Sales <i>Federal, State and Local laws apply; please verify your own understanding and compliance.</i>	Yes	No	N/A	Description of Practices; Documentation
Are eggs packed in clean, new cartons? (If re-used, is all identifying info. obliterated?)				SOP
Does packaging include the following required information?				Carton labels
Farm Name and Address (city, state, zip code)				
California State Handler Code *				
Product & quantity: e.g., "12 eggs" or "one dozen eggs"				
Size (small, med. large, extra large, jumbo)				
Grade (AA or A)*				
"Sell by... [30 days from pack date]"				
Julian date				
"Keep Refrigerated"				
"SAFE HANDLING INSTRUCTIONS: To prevent illness from bacteria: keep eggs refrigerated, cook eggs until yolks are firm, and cook foods containing eggs thoroughly."				
Do all unregulated claims (e.g., cage free; free range; pasture raised) fulfill truth in labeling?				Describe production system design, housing
Has certification been obtained for any label claims or seals used (e.g., Organic--accredited certifier); Certified Humane--Human Farm Animal Care); American Humane--American Humane Association; Animal Welfare Approved--Animal Welfare Institute)?				Certificate(s)
If eggs are sold in flats or other containers, is there a conspicuous sign or placard posted at the point of sale that includes the same labeling information described above?				Sign or placard

Please verify that your production, handling, labeling, and marketing practices comply with all federal (USDA, FSIS, EPIA, FDA), state (CDFA, ESQM, Retail Food Code), & local (County Environmental Health, Farmers Market) regulations, as applicable.

* Registration is required to sell eggs in California, FAC 27541.

Mill Fee Assessment Program FAC 27551, 0.045 cents per case (30-doz.). Eggs sold to household consumers on the premises where produced, from a flock of <500 hens are exempt from Mill fees.

Flocks with >3000 birds must register with USDA, and obtain a USDA Plant of Origin Code / Shell Egg Surveillance Number, per 7 CFR 57.690

** Grading for size and quality is required per USDA and California's FAC 27651.

*** Julian date is the number representing the consecutive day of the year; Jan 1 is 001; Dec 31 is 365.

References, Further Reading:

ATTRA Publications

- Small Scale Egg Handling <https://attra.ncat.org/attra-pub/poultry/processing.html>

Other Resources

- Egg Products Inspection Act
<http://www.fda.gov/RegulatoryInformation/Legislation/ucm148752.htm>
- USDA Factsheet:
http://www.fsis.usda.gov/Factsheets/Focus_On_Shell_Eggs/index.asp#16
- California (CDFA) Egg Safety and Quality Management Program
<http://www.cdфа.ca.gov/ahfss/mpes/esqm.html>
- California Egg Quality Assurance Plan (from PEPA – Pacific Egg and Poultry Association) website
<http://www.pacificegg.org/cegap.html> Many more links within this site!
- CALIFORNIA RETAIL FOOD CODE Excerpt From CALIFORNIA HEALTH AND SAFETY CODE PART 7. CALIFORNIA RETAIL FOOD CODE Effective January 1, 2012
www.cdph.ca.gov/services/Documents/fdbRFC.pdf
- Egg Grading Manual, United States Department of Agriculture, Agricultural Marketing Service, Agricultural Handbook, Number 75
<http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELDEV3004502> see Shell Egg Processing Plant checklist on pages 48-50.
- NOP <http://www.ams.usda.gov/AMSV1.0/nop>
- Organic Crop and Livestock Production Standards: <http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=2f0c49550f0b8ccd3a1a70bda5975b84&rgn=div6&view=text&node=7:3.1.1.9.32.3&idno=7>
- GAP <http://www.globalanimalpartnership.org/>
- *Poult Sci.* 2013 Feb;92(2):468-73. doi: 10.3382/ps.2012-02811.
Colonization of internal organs by *Salmonella Enteritidis* in experimentally infected laying hens housed in conventional or enriched cages. [Gast RK](#), [Guraya R](#), [Jones DR](#), [Anderson KE](#). Source USDA, Agricultural Research Service, Egg Safety and Quality Research Unit, Athens, GA 30605, USA. Richard.Gast@ars.usda.gov
<http://www.ncbi.nlm.nih.gov/pubmed/23300315>
- April 25, 2013 **Federal Bills Introduced to Improve Housing for Egg-Laying Hens and Provide Stable Future for Egg Farmers**, Egg Industry and Animal Welfare Groups Enthusiastically Support Legislation
http://www.humanesociety.org/news/press_releases/2013/04/egg-products-inspection-act-2013-042513.html
- **Should eggs be stored pointed end down?** Joseph Parker, Chichester
Yes. The blunt end of an egg has an air pocket between the inner and outer shell membranes. This gradually enlarges as the egg loses moisture during storage. Keeping the air pocket at the top helps to keep the yolk centred within the egg and prevents the air pocket from rupturing, which reduces the risk of the egg spoiling.
<http://sciencefocus.com/qa/should-eggs-be-stored-pointed-en>