

Survey of Egg Products Processing Plants

November 2013

This survey applies only to the plant listed on this label.

Refer to this label as instructed in the survey.

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Instructions

The U.S. Department of Agriculture, Food Safety and Inspection Service (USDA, FSIS), has contracted with RTI International to conduct a survey of egg products processing plants. This survey, a follow-up to a survey that was conducted in 2003, collects information about industry's use of food safety technologies and practices. The purpose of this new survey is to understand changes in industry's use of food safety technologies and practices and to collect accurate, up-to-date information to guide policy making and help FSIS fulfill its regulatory responsibilities with the minimum burden possible to industry.

Participation in this survey is very important, and we thank you for your help. This survey research will benefit the egg products processing industry by improving the Agency's understanding of current industry practices. As a respondent to the survey, you will receive a summary report of the survey results.

Please answer all questions as they pertain to the specific plant named on the mailing label attached to the front of this survey booklet. By "plant" we mean all the buildings and facilities used for processing operations within the general area of the address shown on the mailing label.

Please consult with other members of your organization if you do not know the answer to a particular question. Please try to answer all of the questions. For questions that ask for numbers or percentages, **your best estimate is acceptable.** For purposes of this survey, certain words have particular meanings. For any word printed in **bold** type in a question, please read the definition provided in the margin near the question.

Participation in this survey is voluntary. **The data you provide will be kept secure to the extent permitted by law. Responses to the survey will not be used as the basis of enforcement action against this plant. We will report only unidentified data to FSIS. The study results will be reported to the public only in aggregated form so that individual plants or firms cannot be identified.**

Please return the completed survey within 10 business days in the enclosed postage-paid return envelope, or to RTI International at (address).

Questions?

Contact the Survey Helpline

If you have any questions as you complete the survey, please send an email to xxxx@rti.org or call toll-free at xxx-xxxx-xxxx. We operate the Helpline on weekdays from 9:00 a.m. to 5:00 p.m. EST.

1 Egg Products Processing Operations

By **egg inputs** we mean eggs that are received for further processing and /or repackaging.

1.1 Which statement below describes how this plant receives **egg inputs**?

1. This plant receives shell eggs only
2. This plant receives both shell eggs and liquid or dried eggs
3. This plant receives liquid eggs only
4. This plant receives dried eggs only

If this plant receives liquid or dried eggs only, go to Question 1.10 on page 4

1.2 What is the source of eggs processed by this plant?
Enter responses as a percentage of annual production between zero and 100 for each source of eggs listed below. Responses should add to 100%.

	Source of Eggs Processed by this Plant			
	Inline Layer Facilities	Offline Layer Facilities		Total
		Company-Owned or Contracted Layer Facilities	Open Market Purchases	
Percentage of annual production	%	%	%	100%

By **restricted eggs** we mean eggs that are dirt, checks, inedibles, or loss.

If this plant receives restricted eggs only, check (✓) the box and go to Question 1.4.

By **age** we mean number of days since eggs were collected from the layer facility.

1.3 What is the **age** of non-restricted eggs when they are received at this plant? **For each age category shown below, enter your responses as a percentage of annual production between zero and 100. Responses should add to 100%.**

	Age of Non-restricted Eggs When They Are Received							
	Less than 1 Day	1 to 3 Days	4 to 6 Days	7 to 10 Days	11 to 15 Days	16 to 20 Days	21 Days or Older	Total
Percentage of annual production using non-restricted eggs	%	%	%	%	%	%	%	100%

1.4 What percentage of eggs processed at this plant are restricted eggs?

1. None **Go to Question 1.6**
2. Less than 5 percent
3. 6 to 10 percent
4. 11 to 20 percent
5. 21 to 50 percent
6. 50 to 100 percent

1.5 What is the age of restricted eggs when they are received at this plant? **For each age category shown below, enter responses as a percentage of annual production between zero and 100. Responses should add to 100%.**

	Age of Restricted Eggs When They Are Received							
	Less than 36 Hours	36 Hours to 3 Days	4 to 6 Days	7 to 10 Days	11 to 15 Days	16 to 20 Days	21 Days or Older	Total
Percentage of annual production using restricted eggs	%	%	%	%	%	%	%	100%

If this plant receives eggs from an inline source only, check (✓) the box and go to Question 1.7.

1.6 Are eggs that are received by your plant within 36 hours of lay refrigerated during transportation to this plant?

1. This plant does not receive eggs within 36 hours of lay
2. Yes
3. No

1.7 Considering all sources of eggs processed by this plant, once eggs are received at this processing plant, how long are they stored before breaking? ***For each time category shown below, enter your responses as a percentage of annual production between zero and 100. Responses should add to 100%.***

	Number of Days Eggs Are Stored before Breaking							
	Less than 1 Day	1 to 3 Days	4 to 6 Days	7 to 10 Days	11 to 15 Days	16 to 20 Days	21 days or Longer	Total
Percentage of annual production	%	%	%	%	%	%	%	100%

1.8 At what temperature are eggs stored at this plant before breaking?

1. 45°F or below
2. 46°F to 59°F
3. 60°F or higher

1.9 To what temperature do you temper eggs before breaking?

1. This plant does not temper eggs before breaking
2. 45 to 60°F
3. 61 to 75°F
4. 76 to 90°F
5. 91°F or above

By **advanced pasteurization technology** we mean validated processing technologies that result in *Salmonella* negative product.

By **integrated, computerized processing system** we mean the use of computerized systems to manage and control part or all of a manufacturing process.

By **blended** we mean egg products that contain non-egg ingredients.

By **inedible** we mean egg products that are sold (not discarded) for pet food or other nonedible uses.

By **typical lot size** we mean an approximation of lot size for most production runs.

1.10 Which of the technologies, equipment, or practices listed below are currently used by this plant? **Circle all that apply.**

1. In-shell pasteurization process
2. **Advanced pasteurization technology**
3. Liquid egg concentrating technology (for example, reverse osmosis)
4. **Integrated, computerized processing system**
5. Environmentally controlled packaging system
6. Egg white drying process (with or without ingredients)
7. Egg yellow drying process (with or without ingredients)
8. Enzyme modified yellow process
9. Repackaging of dried egg whites product
10. Repackaging of dried yellow egg product
11. Other new technologies (specify: _____)
12. None of the above

All answers you give in this survey will be kept secure to the extent permitted by law. Your best estimates for product volumes are acceptable.

1.11 For each product form listed below, circle "Yes"

or "No" to indicate whether this plant produces the product form. If "Yes," provide an estimate of the total pounds produced by this plant during the past year and the **typical lot size**.

Product Form	Does Plant Produce this Product Form?		Annual Production (pounds)	Typical Lot Size (pounds)
a. Liquid	Yes	No		
b. Blended and liquid	Yes	No		
c. Frozen	Yes	No		
d. Blended and frozen	Yes	No		
e. Dried	Yes	No		
f. Blended and dried	Yes	No		
g. Extended shelf life liquid	Yes	No		
h. Inedible	Yes	No		

1.12 For each product type listed below, circle “Yes” or “No” to indicate whether this plant produces the product type. If “Yes,” provide the time and temperature for pasteurization.

Whole Egg Products	Does Plant Produce this Product Type?		Pasteurization Time (minutes)	Pasteurization Temperature (°F)
a. Plain whole eggs	Yes	No		
b. Whole egg blends (with less than 2% added non-egg ingredients)	Yes	No		
c. Fortified whole eggs and blends (24-38% egg solids, 2-12% added non-egg ingredients)	Yes	No		
d. Whole eggs with less than 2% added salt	Yes	No		
e. Whole eggs with 2-12% added sugar	Yes	No		

Yolk Products	Does Plant Produce this Product Type?		Pasteurization Time (minutes)	Pasteurization Temperature (°F)
a. Plain yolks	Yes	No		
b. Yolks with greater than 2% salt added	Yes	No		
c. Yolks with greater than 2% sugar added	Yes	No		
d. Yolks with less than 2% non-egg ingredients	Yes	No		
e. Yolks with greater than 2% non-egg ingredients	Yes	No		

Egg White Products	Does Plant Produce this Product Type?		Pasteurization Time (minutes)	Pasteurization Temperature (°F)
a. Plain egg whites (no chemicals)	Yes	No		
b. Egg whites with less than 2% non-egg ingredients	Yes	No		
c. Egg whites with greater than 2% non-egg ingredients	Yes	No		
d. Egg whites with processing aids	Yes	No		
e. Egg whites with processing aids and less than 2% non-egg ingredients	Yes	No		
f. Egg whites with processing aids and greater than 2% non-egg ingredients	Yes	No		
g. Egg substitutes	Yes	No		

By **processing aids** we mean egg white products that are made nutritionally equivalent to an egg product by the addition of vitamins and minerals. By **egg substitutes** we mean egg white products that require pasteurization at a lower temperature while achieving the same lethality and minimizing the impact on the functional properties of the product.

1.13 Does this plant use **processing aids** in producing egg

whites?

1. This plant does not produce egg whites
2. Yes
3. No

1.14 Which statement(s) below describes this plant's importing practices for egg inputs? **Circle all that apply**

1. This plant does not receive imported shell or liquid eggs
2. This plant receives imported shell eggs
3. This plant receives imported liquid eggs

2 Sanitation and Other Practices

2.1 What production steps are used by this plant, and if used, is the step addressed in a written plan? **Check (✓) only one response in each row of the table below.**

Production Step	Not Used by this Plant 1	Used but Not Addressed in a Written Plan 2	Used and Addressed in a Written HACCP Plan 3	Used and Addressed in Some Other Type of Written Plan (not HACCP) 4
a. Receiving shell eggs				
b. Receiving liquid eggs				
c. Receiving non-egg ingredients				
d. Receiving packaging materials				
e. Storing shell or liquid eggs				
f. Storing non-egg ingredients				
g. Storing packaging material				
h. In-shell pasteurization				
i. Handling of restricted eggs				
j. Breaking shell eggs				
k. Blending formulation				
l. Pasteurizing liquid eggs				
m. Drying egg products				
n. Pasteurizing dried egg whites				
o. Packaging finished products				
p. Storing finished products				

By **HACCP plan** we mean a set of written documents based on the seven principles of Hazard Analysis and Critical Control Points. A HACCP plan consists of (a) product description, (b) process flow diagram, (c) schedule of hazards identified by hazard analysis, (d) critical limits for critical control points (CCPs), (e) preventive measures and corrective actions, and (f) written records that verify monitoring and frequency of monitoring of CCPs and corrective actions.

At this time, HACCP is not required by FSIS for egg products processing plants.

By **records** we mean written or electronic logs or diaries used to document:

- (1) tasks completed,
- (2) observations made, and
- (3) any corrective actions taken.

2.2 Which of the following **records** that are not required by FSIS does this plant maintain? **Circle all that apply.**

- 1. Employee task performance log verification
- 2. Deviation and corrective action log
- 3. Other records not required by FSIS (specify)

2.3 How often are drains sanitized at this plant?

- 1. Drains are not sanitized
- 2. One or more times per shift
- 3. One or more times per day, but not every shift
- 4. One or more times per week, but not every day
- 5. Less than once per week
- 6. No specific or regular frequency

2.4 Does this plant rotate sanitizing chemicals used on food contact equipment on an annual or more frequent basis?

- 1. Yes
- 2. No

2.5 What sanitizing products are used at this plant? **Circle all that apply.**

- 1. Quaternary ammonia
- 2. Trisodium phosphate
- 3. Chlorine
- 4. Iodine
- 5. Phosphoric acid
- 6. Acid quaternary compound
- 7. Acetic acid based compound
- 8. Dishwashing detergent
- 9. Other (specify)

2.6 How frequently does this plant conduct sanitation inspections of product contact zones? **Circle only one response.**

1. More than once per shift
2. Once per shift before shift operations begin
3. Once per day before daily operations begin
4. Once per week
5. Once per month
6. Less than once per month
7. No specific or regular frequency
8. This plant does not conduct sanitation inspections of product contact zones

2.7 How frequently does this plant conduct sanitation inspections of non-product contact zones? **Circle only one response.**

1. More than once per shift
2. Once per shift before shift operations begin
3. Once per day before daily operations begin
4. Once per week
5. Once per month
6. Less than once per month
7. No specific or regular frequency
8. This plant does not conduct sanitation inspections of non-product contact zones

2.8 Which of the following traceability practices does this plant currently use in its operations? **Circle all that apply.**

1. Identifies and tracks its products using a traceable code, by production lot, backward to specific suppliers of egg inputs
2. Identifies and tracks its products using a traceable code, by production lot, forward to specific customers
3. None of the above

By **crisis management** we mean the process by which an organization deals with a major unpredictable event such as a voluntary food safety recall of products or a severe weather event.

2.9 Which of the following food recall and **crisis management** practices does this plant currently use in its operations? **Circle all that apply.**

1. Has written policies and procedures for recalling product
2. Conducts mock recalls of lot codes delivered to specific customers
3. Conducts mock recalls of lot codes backwards to raw material suppliers
4. Documents mock recall exercises and conducts a self assessment
5. Has a written crisis management program beyond the scope of product recalls
6. Conducts crisis management exercises
7. None of the above

3 Plant Microbial Testing Practices

Please answer the questions in this section for voluntary testing that is conducted by this

3.1 Does this plant conduct microbiological testing in addition to the mandatory testing for *Salmonella* required by FSIS regulation?

1. Yes, using a company owned lab
2. Yes, using an independent commercial lab
3. Yes, using both company and commercial labs
4. No **Go to Question 4.1 on page 17**

3.2 Does this plant use an FSIS-approved Pasteurized Egg Products Recognized Laboratory (PEPRLab) for testing not required by FSIS regulation?

1. Yes, using an onsite PEPRLab
2. Yes, using an offsite PEPRLab
3. No

3.3 During the past year, this plant tested which of the following? **Circle all that apply.**

1. Egg products before pasteurization
2. Egg products after pasteurization
3. Product contact surfaces
4. Non-product contact surfaces

3.4 During the past year, what microbial indicators and pathogens were tested for by this plant? **Circle all that apply.**

1. Aerobic plate count (APC)
2. Total plate count (TPC)
3. Total coliforms
4. Generic *E.coli*
5. *Enterobacteriaceae*
6. Yeasts and molds
7. *Bacillus cereus*
8. *Clostridium perfringens*
9. *Listeria* species
10. *Salmonella* species (presence or absence)
11. *Salmonella* species enumeration (cfu/g)
12. *Salmonella* serotype
13. *Staphylococcus aureus*
14. None of the above

Note: Generic *E. coli* testing is **not** the same as testing for general coliforms.

3.5 Where does this plant hold product while waiting for product microbiological test results? **Circle all that apply.**

1. This plant does not hold product while waiting for product test results
 2. Onsite (in house)
 3. Offsite warehouse
 4. Refrigerated truck (secured and stationary)
 5. Sealed in-transit in company-owned refrigerated truck
 6. Other (specify)
-

3.6 Does this plant hold product while waiting for environmental test results?

1. This plant does not conduct environmental tests
2. Yes
3. No

By **food safety training** we mean training to teach concepts and practices for handling food to control biological, chemical, and physical hazards.

By **newly hired permanent production employees** we mean any production employee who has worked at the plant less than 1 month.

By **formal food safety course** we mean a designed course of study that uses prepared materials and follows a specified outline of content.

By **temporary production employees** we mean those employees that are hired for temporary periods to work on the production floor, including seasonal employees.

By **continuing food safety training** we mean training provided periodically to employees that is designed to refresh or extend the initial food safety training the plant provides to new hires.

4 Employee Training

4.1 What **food safety training** is provided for **newly hired permanent production employees** of this plant? **Circle all that apply.**

1. Written food safety training materials are given to new hires
2. Informal, unscheduled on-the-job food safety training
3. Scheduled on-the-job food safety training conducted by plant personnel
4. **Formal food safety course** conducted by plant personnel
5. Formal food safety course conducted by professional trainers
6. None of the above

4.2 What food safety training is provided for **temporary production employees** of this plant? **Circle all that apply.**

1. Written food safety training materials are given to temporary hires
2. Informal, unscheduled on-the-job food safety training
3. Scheduled on-the-job food safety training conducted by plant personnel
4. Formal food safety course conducted by plant personnel
5. Formal food safety course conducted by professional trainers
6. None of the above

4.3 What **continuing food safety training** is provided for permanent production employees of this plant? **Circle all that apply.**

1. Written refresher materials are given to employees
2. Continuing informal on-the-job food safety training
3. Scheduled on-the-job refresher food safety training conducted by plant personnel
4. Formal, periodic refresher course work conducted by plant personnel
5. Formal, periodic refresher course work conducted by professional trainers
6. None of the above

By **HACCP** we mean Hazard Analysis and Critical Control Points. HACCP training teaches principles and practices of a formal seven-step method for promoting food safety in food manufacturing processes.

4.4 Approximately how many permanent production employees currently working at this plant have completed formal **HACCP** training (for example, an online or multi-day, in person course)? ***If none, write 0.***

|_|_|_| employees

4.5 During the past year, what types of food safety training did permanent employees of this plant receive? ***For each type of employee, check (✓) each type of training that was provided. Include informal and scheduled training.***

Type of Training	Type of Employee	
	Management Employees	Production Employees
a. HACCP		
b. Sanitation SOPs		
c. Recall procedures		
d. Quality control		
e. Records and documentation		
f. Lock out / tag out (LOTO)		
g. Food defense		

4.6 During the past year, what FSIS resources did this plant use for training?

1. None
2. FSIS Web site
3. CDs produced by FSIS
4. DVDs produced by FSIS
5. FSIS-sponsored Webinars
6. FSIS-sponsored Workshops
7. Other FSIS resources

5 Plant Characteristics

Your best estimates are acceptable.

- 5.1** What is the approximate percentage of the square footage of the production space of this plant that is under 5 years old, 5 years to just under 20 years old, or 20 years old or more? **Responses should sum to 100%.**

Age Category	Percentage of Production Space (%)
a. Under 5 years old	
b. 5 years to just under 20 years old	
c. 20 years old or more	
Total	100%

- 5.2** How many production shifts are operated each day at this plant?

1. One
2. Two
3. Three

- 5.3** Does this plant operate a separate clean up shift? **Circle all that apply.**

1. No
2. Yes, performed by plant personnel
3. Yes, performed by contractors

- 5.4** Approximately how many production employees are employed at this plant? **Provide an average number over the past year for each type of employee.**

- a. Full-time permanent employees
- b. **Part-time** permanent employees
- c. Temporary employees

By **part time** we mean working fewer than 30 hours per week.

- 5.5** Approximately how many employees at this plant work in a quality control/quality assurance (QC/QA) department, including food safety?

1. None **Go to Question 5.7**
2. 1 to 5
3. 6 to 10
4. 11 or more

By **audits** we mean review and verification of the plant's processes by independent, third-party auditors.

By **certification** we mean an accredited third party visits an organization, assesses its management and production system, and issues a certificate to show that the organization abides by the principles set out in the standard.

5.6 For the person who manages the QC/QA department, what percentage of their time is devoted to managing QC/QA activities?

1. 1 to 24 percent
2. 25 to 49 percent
3. 50 to 74 percent
4. 75 to 99 percent
5. 100 percent

5.7 Who conducts independent, third-party food safety **audits** of this plant's egg products processing operations? **Circle all that apply.**

1. This plant's egg products processing operations are not audited by independent, third-party auditors
2. Independent, third-party auditors that are hired by this plant or corporate headquarters
3. Independent, third-party auditors that are hired by customers of this plant
4. Customers of this plant (for example, food service, military)

5.8 What **certifications** are required by customers of this plant? **Circle all that apply.**

1. None
2. Global Food Safety Initiative (GFSI) benchmarked certifications (includes FSSC 22000, BRC, IFS, and SQF)
3. Organic certification
4. Other (specify)

5.9 What percentage of this plant's product is exported outside of the United States?

1. None
2. 1 to 24 percent
3. 25 to 49 percent
4. 50 to 74 percent
5. 75 to 100 percent

5.11 Calculated as a percentage of total production, how were this plant's products packaged and branded during the past year? **Responses should sum to 100 percent.**

Packaged Within Producing Plant	Type of Packaging and Branding	Percentage (%)
Consumer packaged	a. Generic consumer packaging and no brand labeling	
	b. Consumer packaging with plant's own company brand name	
	c. Consumer packaging with another company's brand name (for example, private label or store brand)	
Bulk packaged pasteurized product	d. Institutional size or bulk products with no brand name	
	e. Institutional size or bulk products with plant's company or brand name	
	f. Bulk products labeled as "Distributed By" or "Packed For" another company or brand name	
Unpasteurized bulk product	g. Unpasteurized bulk product sent to other egg plants that will pasteurize the product	
Other	h. Specify: _____	
Total		100%

5.15 What was the approximate value of egg product sales revenue during the past year?

1. Under \$249,999
2. \$250,000 to \$499,999
3. \$500,000 to \$1.49 million
4. \$1.5 million to \$2.49 million
5. \$2.5 million to \$24.9 million
6. \$25 million to \$49.9 million
7. \$50 million to \$99.9 million
8. \$100 million to \$249.9 million
9. \$250 million to \$499.9 million
10. \$500 million or more

All answers you give in this survey will be kept secure to the extent permitted by law. Your best estimates are acceptable.

5.16 What was the approximate value of total plant sales revenue during the past year?

1. Under \$249,999
2. \$250,000 to \$499,999
3. \$500,000 to \$1.49 million
4. \$1.5 million to \$2.49 million
5. \$2.5 million to \$24.9 million
6. \$25 million to \$49.9 million
7. \$50 million to \$99.9 million
8. \$100 million to \$249.9 million
9. \$250 million to \$499.9 million
10. \$500 million or more

Thank you for completing the survey.