



OLR RESEARCH REPORT

October 14, 2011

2011-R-0352

FREE-RANGE EGGS

By: Janet L. Kaminski Leduc, Senior Legislative Attorney

You asked if only two entities in Connecticut (UConn and Gresczyk Farms) can sell free-range eggs to food service establishments and what statute or regulation permits this. You also asked how many times in the past 10 years have factory (non-free-range) eggs been associated with a foodborne illness outbreak (e.g., *Salmonella*) and if there has been any instance of foodborne illness tied to free-range eggs.

SUMMARY

In order to sell eggs, whether free-range or non-free-range, to food service establishments in Connecticut, an entity must undergo federal or state inspection and become an “approved food source” under the Public Health Code (Conn. Agencies Regs. § 19-13-B42(n)). According to the Connecticut Department of Agriculture (DoAg), three entities are currently approved to sell eggs to food service establishments: (1) Kofkoff Egg Farm, (2) UConn, and (3) Gresczyk Farms.

Free-range eggs are eggs produced using birds that are permitted continuous access to the outside for more than 51% of their lives through a normal growing cycle, according to the U.S. Department of Agriculture (USDA). Factory eggs are from birds typically raised in battery cages. (The Connecticut Department of Public Health (DPH) notes that “free range” refers to the chicken, not the egg.) All eggs, whether from a free-range or housed chicken are subject to current state and federal regulations.

According to DPH, based on information from the Centers for Disease Control and Prevention (CDC), there were 93 outbreaks of illness either confirmed or suspected to be associated with eggs from 1998 to 2009, the most recent data available. CDC does not track the source of the eggs, so we cannot identify which outbreaks were tied to free-range or factory eggs. For the 93 outbreaks, there were 2,548 illnesses, 225 hospitalizations, and two deaths reported.

SELLING EGGS TO FOOD SERVICE ESTABLISHMENTS

In Connecticut, there are two ways to sell eggs to the public: (1) direct to the consumer (e.g., from farm stands) and (2) in retail or food service establishments (e.g., restaurants). Direct to consumer sales are largely unregulated, according to DoAg. But the Public Health Code governs the selling of eggs in retail and food service establishments. The code does not distinguish between free-range and factory eggs.

Since 1963, the Public Health Code has required all food in food service establishments to be from “sources approved or considered satisfactory by the director of health.” Effective July 6, 2001, the public health director approves a food source in “conformity with principles, practices, and generally recognized standards that protect public health.” And eggs must be “from commercial, regulated sources inspected according to law ... received clean and sound, and ... graded as required by law” (Conn. Agencies Regs. § 19-13-B42(n)).

In practice, an entity can become an approved food source for eggs by being inspected by the (1) USDA if the operation has 3,000 or more birds or (2) DoAg if the operation has between 200 to 3,000 birds. Under DoAg administrative policy, operations with 200 or fewer birds cannot sell eggs to food service establishments in Connecticut.

DoAg previously maintained a minimum threshold of 500 birds for inspection purposes, but lowered the threshold to 200 birds in November 2010 in response to farmers’ requests. The minimum threshold is meant to be a reasonable size requirement to identify a commercial operation.

According to DoAg, three entities have gone through the required inspection process to sell eggs to food service establishments: (1) Kofkoff Egg Farm (USDA inspected), (2) UConn (DoAg inspected), and (3) Gresczyk Farms (DoAg inspected).

For more information, see DoAg's Small Egg Processing Plant Inspection Program Compliance Guide at http://www.ct.gov/doag/lib/doag/inspection_regulation/shell_egg_processing_inspection_program_v2.pdf.

FOODBORNE ILLNESS ASSOCIATED WITH EGGS

Salmonella Enteritidis

The most prevalent foodborne illness associated with eggs is *Salmonella* Enteritidis (SE). A person infected with SE usually has fever, abdominal cramps, and diarrhea beginning 12 to 72 hours after eating a contaminated food. Illness usually lasts four to seven days and most people recover without antibiotic treatment. However, the illness can be severe and hospitalization may be required. The elderly, infants, and those with impaired immune systems may experience a more serious illness. In such patients, the infection can spread to the blood stream and other body sites and can be fatal unless treated promptly with antibiotics, according to the CDC. For more information about SE, see http://www.cdc.gov/nczved/divisions/dfbmd/diseases/salmonella_enteritidis/.

National Reports of SE

DPH provided data from the CDC's National Outbreak Reporting System (NORS), which tracks outbreaks of foodborne illness. Table 1 (attached below) identifies all incidences of SE illness where eggs were either confirmed or suspected as the source of contamination from 1998 to 2009, the most recent data available. (NORS does not track data related to the source of the eggs, so we cannot separate the incidences between free-range or factory eggs.)

In addition, the CDC reports that from May 1 to November 20, 2010, approximately 1,939 illnesses were likely associated with an outbreak of SE tracked to eggs (<http://www.cdc.gov/salmonella/enteritidis/>). In August 2010, Wright County Egg and Hillandale Farms, both in Iowa, conducted a nationwide voluntary recall of eggs as a result of the SE outbreak. According to DPH, there were no reports of SE in Connecticut tied to that outbreak (<http://www.newstimes.com/news/article/Connecticut-official-No-egg-illness-in-623484.php>).

FEDERAL REGULATION

The U.S. Food and Drug Administration (FDA) issued a regulation effective September 8, 2009 that requires large egg producers (3,000 or more birds) to take preventive measures during the production of eggs in poultry houses and refrigerate eggs during storage and transportation. The FDA believes the regulation will prevent approximately 79,000 cases of foodborne illness each year related to SE.

Producers with at least 3,000 but fewer than 50,000 laying hens must comply with the rule within 36 months of its publication. Producers with 50,000 or more laying hens must comply within 12 months. A copy of the final rule is available at

<http://www.fda.gov/Food/FoodSafety/Product-SpecificInformation/EggSafety/EggSafetyActionPlan/ucm170746.htm>.

Under the regulation, producers must:

1. buy chicks and young hens only from suppliers who monitor for *Salmonella* bacteria;
2. establish rodent, pest control, and biosecurity measures to prevent the spread of bacteria throughout the farm by people and equipment;
3. conduct testing in the poultry house for SE;
4. clean and disinfect poultry houses that have tested positive for SE; and
5. refrigerate eggs at 45 degrees Fahrenheit during storage and transportation within 36 hours after the eggs are laid.

Producers must (1) maintain a written SE prevention plan and records documenting their compliance and (2) register with the FDA.

TABLE 1: SALMONELLA OUTBREAKS ASSOCIATED WITH EGGS (1998-2009)

<i>Month</i>	<i>Year</i>	<i>State</i>	<i>Location Of Consumption</i>	<i>Total Illnesses</i>	<i>Total Hospitalizations</i>	<i>Total Deaths</i>	<i>Food Vehicle</i>
January	1998	Washington	Private home	4	0	0	eggnog, homemade
January	1998	California	Private home	26	3	0	eggs, other; lasagna, unspecified
March	1998	California	Private home	6	1	0	eggs, other; ice cream, unspecified
March	1998	Virginia	Restaurant - other or unknown type	23	5	0	eggs, other; pie, unspecified
April	1998	Utah	Restaurant - other or unknown type	22	2	0	egg rolls; Fried Rice; soup, egg drop
June	1998	Pennsylvania	Private home	6	1	0	eggs, other; ice cream, unspecified
July	1998	Ohio	Private home	4	0	0	eggs, unspecified
August	1998	Hawaii		38	3	0	eggs, other
September	1998	Wisconsin	Restaurant - other or unknown type	3	0	0	eggs, unspecified
October	1998	Florida	Restaurant - other or unknown type	2	2	0	eggs, unspecified
October	1998	California	Nursing home, assisted living facility, home care	4	4	1	eggs, unspecified
December	1998	Pennsylvania	Private home	7	0	0	eggs, other; oysters, unspecified
December	1998	Pennsylvania	Private home	21	7	0	eggs, unspecified; potato stuffings
January	1999	California	Restaurant - other or unknown type	3	0	0	eggs benedict
January	1999	Colorado	Restaurant - other or unknown type	3			eggs, over-easy
April	1999	Pennsylvania	Other	18	1	0	eggs, scrambled
July	1999	Washington	Workplace, not cafeteria	2			eggs, unspecified
July	1999	California	Nursing home, assisted living facility, home care	3	0	0	eggs, other
July	1999	Washington		3			eggs, unspecified
July	1999	California	School	29			eggs, unspecified
July	1999	Wisconsin	Nursing home, assisted living facility, home care	4	0	0	eggs, unspecified
July	1999	Wisconsin	Nursing home, assisted living facility, home care	5	3	0	eggs, unspecified

Table 1: -Continued-

<i>Month</i>	<i>Year</i>	<i>State</i>	<i>Location Of Consumption</i>	<i>Total Illnesses</i>	<i>Total Hospitalizations</i>	<i>Total Deaths</i>	<i>Food Vehicle</i>
July	1999	California		33	0	0	eggs, unspecified
August	1999	North Carolina	Restaurant - other or unknown type	14	4	0	eggs, other; lasagna
August	1999	New Jersey	Camp	60	1		eggs, unspecified
September	1999	Connecticut	Restaurant - other or unknown type	4	1	0	eggs, unspecified
October	1999	California	Private home	6			eggs, unspecified
November	1999	Wisconsin	Restaurant - other or unknown type	33	0	0	eggs, other; lasagna, unspecified; ravioli, unspecified
December	1999	South Carolina	School	18	0	0	eggs, quiche
December	1999	California	Private home; Workplace, not cafeteria	10	0	0	eggs, unspecified; lasagna, beef
March	2000	Michigan	Restaurant - other or unknown type	11	0	0	eggs, unspecified
May	2000	Maine	Restaurant - other or unknown type	2	1	0	eggs, unspecified
June	2000	New Jersey	Nursing home, assisted living facility, home care	41	8	0	eggs, unspecified
June	2000	Maine	Restaurant - other or unknown type	2	0	0	eggs, unspecified
July	2000	Virginia	Nursing home, assisted living facility, home care	27			eggs, unspecified
August	2000	Nevada	Other	50	5	0	egg-containing food, other
September	2000	Utah	Restaurant - other or unknown type	12	0		egg-based sauce, other; taco, fish
September	2000	Minnesota	Restaurant - other or unknown type	16	1	0	egg-containing food, other; multiple foods
September	2000	New Jersey	Nursing home, assisted living facility, home care	18	2	0	eggs, unspecified
October	2000	New York	Nursing home, assisted living facility, home care	4	0		eggs, other
December	2000	New York	Private home	12	6		eggnog, unspecified
February	2001	Colorado	Restaurant - other or unknown type	6	1	0	eggs, unspecified
March	2001	Ohio	Restaurant - other or unknown type	92	7	0	eggs, unspecified

Table 1: -Continued-

<i>Month</i>	<i>Year</i>	<i>State</i>	<i>Location Of Consumption</i>	<i>Total Illnesses</i>	<i>Total Hospitalizations</i>	<i>Total Deaths</i>	<i>Food Vehicle</i>
April	2001	Virginia	Restaurant - other or unknown type	231	34	0	egg-based sauce, other
April	2001	Massachusetts	Other	29	3	0	egg-containing food, other
April	2001	Maine	Private home	12	0	0	egg-containing food, other
April	2001	Maine	Restaurant - other or unknown type	42	5	0	egg-containing food, other; eggs benedict; hollandaise sauce
May	2001	Nevada	Prison, jail	317	0	0	eggs, unspecified; raw egg milkshake
May	2001	Minnesota	Restaurant - other or unknown type	54	2	0	eggs benedict
June	2001	Pennsylvania	Church, temple, etc; Restaurant - other or unknown type	12	3	0	eggs, other; pie, merengue
June	2001	Minnesota	Restaurant - other or unknown type	16	4	0	eggs, unspecified
June	2001	North Carolina	Unknown or undetermined	113	0	0	eggs, unspecified
July	2001	Michigan	Restaurant - other or unknown type; Workplace, not cafeteria	34	2	0	egg salad/egg salad sandwich; tuna salad
July	2001	Michigan	Restaurant - other or unknown type	5	0	0	eggs, unspecified
March	2002	Tennessee	School	18	0	0	egg-containing food, other
June	2002	Florida	Restaurant - other or unknown type	2	0	0	eggs, over-easy
December	2002	Washington	Private home; Restaurant - other or unknown type	40	2	0	eggs, unspecified
March	2003	California	Restaurant - other or unknown type	7	0	0	eggs benedict; eggs, other; omelet
March	2003	Washington	Restaurant - other or unknown type	47	1	0	eggs, other; ice cream, fried
April	2003	Pennsylvania	Other	67	2	0	eggs, unspecified; soup, chicken; soup, mushroom
May	2003	Wisconsin	Prison, jail	3			eggs, unspecified
June	2003	California	Private home; Restaurant - other or unknown type	9	3	0	eggs, unspecified; refried beans, unspecified

Table 1: -Continued-

<i>Month</i>	<i>Year</i>	<i>State</i>	<i>Location Of Consumption</i>	<i>Total Illnesses</i>	<i>Total Hospitalizations</i>	<i>Total Deaths</i>	<i>Food Vehicle</i>
July	2003	Georgia	Hospital	38			eggs, scrambled
September	2003	Multistate outbreak reported by CDC	Unknown or undetermined	22	2	0	egg salad/egg salad sandwich
September	2003	Minnesota	Restaurant - other or unknown type	57	7	0	eggs, unspecified; pancakes, unspecified
October	2003	Florida	Other	58			egg salad/egg salad sandwich
October	2003	Virginia	Private home	6	1	0	eggs, other; potato, mashed
May	2004	Wisconsin	Private home	6	1	0	egg-containing food, other
May	2004	Minnesota	Restaurant - other or unknown type	4	2	0	eggs, unspecified
June	2004	Multistate outbreak reported by CDC	Private home; Restaurant - other or unknown type	155	16		eggs, unspecified; onion, unspecified; taco, beef
June	2004	Wisconsin	Restaurant - other or unknown type	19	5	0	eggs, unspecified; seabass, unspecified
August	2004	Minnesota	Private home	5	1	0	egg baked/casserole
August	2004	Pennsylvania	Restaurant - other or unknown type	2	0	0	eggs, over-easy
August	2004	Pennsylvania	Picnic; Private home	16	1	1	eggs, unspecified; potato salad
September	2004	Michigan	Restaurant - other or unknown type	16	1	0	egg-containing food, other
October	2004	Mississippi	Unknown or undetermined	20	12	0	egg-containing food, other
November	2004	Illinois	Restaurant - other or unknown type	5	2	0	eggs, other
January	2005	Florida	Restaurant - other or unknown type	7	1	0	eggs, unspecified; french-toast, unspecified
March	2005	Virginia	Prison, jail	27	1	0	eggs, other
March	2005	Pennsylvania	Private home	3	3	0	eggs, raw
June	2005	California	Restaurant - other or unknown type	3			eggs benedict

Table 1: -Continued-

<i>Month</i>	<i>Year</i>	<i>State</i>	<i>Location Of Consumption</i>	<i>Total Illnesses</i>	<i>Total Hospitalizations</i>	<i>Total Deaths</i>	<i>Food Vehicle</i>
June	2005	Wyoming	Private home; Restaurant - other or unknown type	20	4	0	eggs, unspecified; tomato, unspecified
October	2005	California	Restaurant - other or unknown type	6	0	0	eggs, unspecified
February	2006	North Carolina	Restaurant - other or unknown type	9	2	0	eggs benedict
November	2006	Arizona	Private home; Restaurant - other or unknown type	13	5	0	eggs, over-easy
December	2006	Pennsylvania	Private home	10	2	0	egg baked/casserole
January	2007	Multistate outbreak reported by CDC	Private home	81	9	0	eggs, scrambled
February	2007	Indiana	Restaurant - other or unknown type	15	6	0	eggs, scrambled
June	2008	Virginia	Private home	6	0	0	eggs, scrambled
November	2008	Pennsylvania	Private home	15	1	0	egg-containing food, other
December	2008	Massachusetts	Private home	18	10	0	eggnog, homemade
July	2009	Oregon	Camp	59	0	0	eggs, scrambled
July	2009	Washington	Private Home; Restaurant - "Fast-food"(drive up service or pay at counter)	62	0	0	eggs, scrambled
TOTAL				2,548	225	2	

Source: Centers for Disease Control and Prevention National Outbreak Reporting System (accessed October 4, 2011 by the Connecticut Department of Public Health).

JKL:ts