

Availability of Cage-Free Eggs in Vancouver, British Columbia

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Abstract:

The majority of consumers in Vancouver, British Columbia, Canada feel that cages used to house egg-laying hens (battery cages) should be banned. However, most eggs available to consumers are produced by hens in battery cages. There are alternatives, such as free-range, free-run and certified organic eggs available in most stores, however they represent a very small portion of the total available. Additionally, ambiguous labelling adds to the confusion of identifying eggs from caged hens. Therefore, grocery stores need to clearly identify eggs from caged hens and stock more cage-free eggs so that consumers can align their beliefs with their purchases.



Photo: Certified organic cage-free hens on Rabbit River Farm in Richmond, BC. These hens supply eggs to a variety of grocery retailers in the Lower Mainland.

Introduction:

Over the past few years, the standard production method for eggs (battery cages) and the living conditions of caged laying hens has garnered significant media attention in Vancouver, British Columbia, Canada¹. As a result, consumers have become more aware of the use of battery cages, and according to a 2004 poll commissioned by the Vancouver Humane Society (VHS)², the majority of citizens have concluded that battery cages should be banned. An examination of the egg shelves in local grocery stores indicates, however, that eggs from caged hens make up the majority of eggs available to consumers.

Battery cages are small wire cages measuring approximately 16" by 18" with sloping wire floors. Five to seven hens are confined to each cage leaving approximately 450cm² of space per bird (BC Egg Marketing Board Standing Order, 2002). These cages have been criticized by animal welfare organizations around the world because the hens can barely move, let alone flap their wings, build nests or dust-bathe (Taylor and Hurnick, 1996). Birds have an increased incidence of foot ailments (Appleby and Hughes, 1991), osteoporosis (Webster, 2004), feather pecking due to frustration (Huber-Eicher and Sebo, 2001) and chronic and acute stress (Baxter, 1994). Many countries, including the European Union, have banned the use of battery cages in favour of other systems because the cages do not meet the welfare needs of hens (Savory, 2004). Yet in Canada, 98 percent of eggs are produced using battery cages (http://www.agr.gc.ca/misb/aisd/poultry/gleg_e.htm).

Alternatives to battery cages are readily available in Vancouver. The three most common are free-range, free-run and certified organic. Generally, free-range means the hens are not in cages and have access to the outdoors. Free-run on the other hand, are also cage-free but do not have access to the outdoors. Neither free-range nor free-run are audited for animal welfare and the space allotted to each bird (beyond the 450cm² recommended for caged hens) is dependent on the producer. Certified organic eggs, however, are audited for welfare by an independent certifier and the birds are allocated the most space of any commercially available egg production system. The birds are also required to be free-range when possible, otherwise free-run, and are not permitted to be in cages (<http://www.chickenout.ca>).

Unless explicitly stated otherwise, all eggs in grocery stores are from caged hens. Many labels use bright or flashy pictures of hens in the sun even though the eggs inside are from caged hens - hens who have never seen the sun or breathed fresh air. As a result, it has become increasingly difficult for consumers to decipher labels and to align their purchasing decisions with their beliefs (Verbeke and Viaene, 2000).

The purpose of this study was to determine the availability of cage-free eggs in the city of Vancouver and compare it to the 2004 results of a Vancouver Humane Society (VHS) poll asking citizens of Vancouver if they feel battery cages should be banned. The goal was to identify whether or not the availability of cage-free alternatives matched the desire of the

¹ Based on the media coverage of battery hens between 2002 and 2006 in all Vancouver media as recorded by the Vancouver Humane Society.

² A 2004 Ipsos-Reid poll found that 56% of people in Vancouver (including Burnaby) felt that battery cages should be banned.

majority of citizens to see an end to the use of battery egg farming. Labelling and its effect on consumers' purchases was also examined to identify its effect on consumer decisions.

Methods:

All grocery stores in Vancouver were asked for their statistics on the types of eggs sold, but this information was deemed proprietary and no statistics were obtained. Therefore, in order to determine the percentage of cage-free eggs on shelves in Vancouver, the relative shelf space allocated to the various different types of eggs was measured. Distinctions were made between types of cage-free eggs, such as certified organic, free-range, free-run or other (which included cage-free liquid eggs), while eggs from caged hens were all classed together.

The data was taken over a one-week period during the summer of 2005, and all grocery store chains in the Vancouver area that had at least two outlets were included in the study.

Shelf space was measured by carton length, taken to the nearest $\frac{1}{3}$ (two eggs wide) or $\frac{1}{2}$ (three eggs wide), and stack height, measured in carton heights (one egg high). In order to estimate the original stocking density of the eggs, and exclude daily sales, the stack height of each type of egg per shelf was assumed to be the same regardless of type of egg. Therefore, the highest stack of any type of egg on a shelf was considered the standard for all eggs on the shelf.

Liquid egg boxes were counted as being $\frac{1}{3}$ carton length and 1 carton height.

Conversations with consumers were also recorded throughout the summer of 2005³. Consumers were asked about their purchasing decisions and which egg products they usually buy and why.

Results:

The data in this study can only be viewed as an estimate, as egg supplies fluctuate daily and seasonally. In order to lower the impact of daily sales however, the percentage of each type of egg was calculated as though the shelf was fully stocked. Despite this, the values obtained in this study are most likely an over-estimate of the true value. Further study, with the cooperation of grocery stores, is needed to gain the most accurate picture.

Using the data collected, the percentages of cage-free (total), free-range, free-run and other cage-free were calculated for each individual store, and then compounded for each company. The data was tabulated and stores were then ranked by percentages of cage-free eggs (Figure 1).

It was found that the retailer with the highest percentage of cage-free eggs was Capers Community Markets with 100 percent, followed by Choices Market with 62 percent. The total eggs sales of these two stores combined, however, only represented 5 percent of all eggs sold in the city. Safeway on the other hand, the largest egg retailer in Vancouver and representing

³During the summer of 2005, 100 randomly selected people were asked on the street which eggs they bought and why. No other data on the individuals were collected

almost 40 percent of all eggs, had the lowest percentage of cage-free eggs, with less than 9 percent.

Regarding certified organic eggs, Capers Community Markets had the highest percentage with 67.8 percent of store sales. IGA Market Place however, a store with 32 percent cage-free eggs, had no certified organic eggs.

The estimated total availability of cage-free eggs for the city of Vancouver was calculated by dividing the sum of the total carton lengths of cage-free eggs in all stores by the sum of the total carton lengths of all eggs in all stores. Using this calculation, the availability of cage-free eggs to consumers in Vancouver was estimated to be approximately 16 percent.

It should also be noted that in many stores, the spaces allocated to cage-free eggs were empty. This may have been due to a high volume of sales of this product or an absence in availability. Either way, the shelf was considered full for this study.

There was also great variation from region to region within the city. For the purposes of this study, the variation was removed, but this would be a valid topic for further research.

During discussions with consumers, it was found that most people used the information available, both on the shelf or the egg carton itself, to decide which product they would buy. These include words used to describe the eggs, general packaging images, logo design, and colour of eggs (brown indicating a more natural egg). Most people, however, did not have an accurate understanding of what the labels or words meant. Further study with a larger sample size is needed to fully understand the impact of current labelling on consumer choices, but the findings of this study do provide a useful look into the motivations behind consumers' purchases.

The findings of this study are specific to Vancouver, but it would be reasonable to assume that these results are typical of most larger urban centres in Canada.

Discussion:

Despite the majority of citizens in Vancouver being opposed to battery cages, only 16 percent of eggs on store shelves are from alternative systems. Stores such as Capers Community Markets and Choices Markets do provide consumers with a significant selection of cage-free options, however they only represent a small portion of the total market for the city. With only a few stores located in specific areas, they are unable to service the entire greater Vancouver area and the remainder of Vancouver citizens are left with limited options. For consumers who choose certified organic eggs, the only eggs with verifiable welfare standards, the options become even fewer.

In a 2005 Western Producer news story, Loblaw Companies Inc.⁴ stated that consumer demand dictates what products are supplied in stores (Raine, 2005). However, through speaking with consumers in Vancouver, it was found that in the absence of known cage-free eggs (free-range and free-run specifically), consumers often purchase eggs that appear to

⁴ Loblaw Companies Inc. is the parent company of Super Valu, Real Canadian Superstore and Extra Foods.

match their ethical criteria using unclear information found on carton labelling or on the shelves directly, or even simply by the colour of the eggs. The consumers believed the eggs were cage-free, and therefore didn't indicate to management that their needs were not being met. This is consistent with the findings of Frewer et al (2005) which show consumers generally trust product labelling since they have no other information available to them. It would seem, then, that consumers need to be educated on the various egg production methods in order to understand the current labelling system.

Labelling empowers consumers (Brom, 2000), yet there are often conflicting signals as to the origin of products (Verbeke and Viaene, 2000). Ambiguous words such as "farm fresh" or "humanely raised" or "vegetarian feed" give consumers a false sense that the eggs were produced on small, pastoral farms where the welfare and condition of the hens are the primary concern of the producer. On most modern egg farms, however, thousands of hens are crowded in cages in large barns, with the primary goal being production. The hens used have been genetically selected primarily for production, which has consequently also produced more excitable and easily stressed birds, even though calmer breeds have also been produced (Duncan, 2001). If consumers were aware of the production methods of the majority of eggs on shelves in local grocery stores, many would choose more humanly produced eggs that more accurately meet their selection criteria.

Vancouver is a diverse and growing city, and grocery stores need to supply the diverse products that consumers are looking for. Consumers need choices when they shop so that they can align their beliefs with their actions. Grocery stores need to provide more cage-free eggs for consumers, but also ensure that the packages or shelves are clearly labelled. To achieve this, grocery stores should provide more cage-free options and use in-store signage or labelling to ensure consumers are able to make educated choices when they purchase eggs.

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Name of Store	Total Carton Lengths (all eggs in store)	Total Certified Organic	Total Free Range	Total Free Run	Total Other	% Cage free	%	%	%	%
							Certified Organic	Free Range	Free Run	Other
1 Buy Low Foods	238	6	20	0	0	10.9	2.5	8.4	0.0	0.0
2 Capers Community Market	87	59	25	0	3	100.0	67.8	28.7	0.0	3.4
3 Choices Market	143	49	32	8	0	62.2	34.3	22.4	5.6	0.0
4 Extra Foods	95.5	13	0	5	0	18.8	13.6	0.0	5.2	0.0
5 IGA Market Place	280	0	89.5	0	0	32.0	0.0	32.0	0.0	0.0
6 Michaels Discount	68.5	6	0	6	0	17.5	8.8	0.0	8.8	0.0
7 Real Canadian Superstore	491	46	0	34	0	16.3	9.4	0.0	6.9	0.0
8 Safeway	1939	58	116	0	0	9.0	3.0	6.0	0.0	0.0
9 Save On Foods	1193	65	47	0	0	9.4	5.4	3.9	0.0	0.0
10 Super Valu	128	14	0	12	0	20.3	10.9	0.0	9.4	0.0
11 T&T	251	34	40	0	1	29.9	13.5	15.9	0.0	0.4
Total	4914	350	369.5	65	4	16.0	7.1	7.5	1.3	0.1

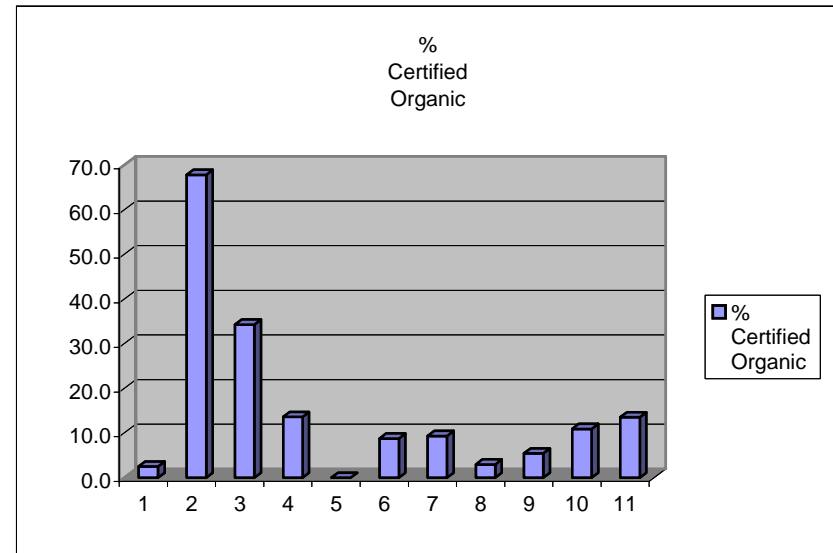
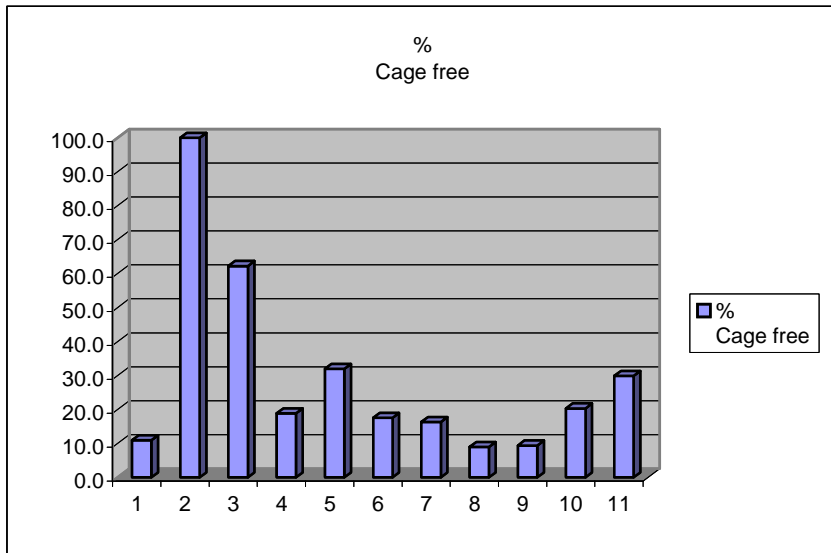


Figure 1: Percentage of cage-free and certified organic eggs tabulated by grocery store.