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To: Lead Food Officers
Cc: SFELC/REHIS

Date: 29/07/2021

Dear Colleague

Update of FSS advice on the consumption of raw / lightly cooked eggs

Summary: Vulnerable consumers can now consume raw / lightly cooked hen shell eggs produced under the Laid in Britain assurance scheme in addition to Lion Code eggs.

Food Standards Scotland (FSS) and Food Standards Agency (FSA) have amended [consumer advice](#) on egg consumption by vulnerable consumers to include the safe consumption of raw/lightly cooked hen shell eggs produced under the Laid in Britain assurance scheme.

The Laid in Britain (LiB) Code of Practice has been assessed and concluded to produce eggs that are considered 'very low' risk of salmonella by the FSA/FSS. An independent panel of expert veterinarians was appointed to identify a matrix of measures required to be met to produce eggs considered very low risk. The panel carried out the evaluation of Laid in Britain's code of practice against the matrix. Further details can be found in Annex A.

The updated consumer advice on egg consumption is:

- eggs which are thoroughly cooked and handled hygienically should not present a food safety risk
- consumers who are in good health (meaning those who are not vulnerable to infection) can continue to eat raw UK hen eggs or foods containing lightly cooked UK hen eggs
- consumers who may be more vulnerable to infection (pregnant women, infants, children and elderly people) can eat raw hen eggs or foods containing lightly cooked hen eggs, provided that they are produced under the Lion Code or Laid in Britain schemes¹ (Revised advice Annex B)
- people who have a severely weakened immune system and who are on a medically supervised diet prescribed by health professionals should cook all eggs thoroughly

¹ or any other scheme successfully assessed against the matrix resulting in a change of the FSA/FSS advice

- non-hen eggs such as duck, goose and quail eggs carry a higher risk of salmonella and should not be used to prepare raw or lightly cooked egg dishes. Eggs from species other than chickens should always be cooked thoroughly

The following table summarises the advice on the consumption of eggs:

Group	Type of food made with hen shell eggs	Recommendation - hen eggs that can be consumed
People in good health (not vulnerable to infection)	Thoroughly cooked	All UK ² eggs
People in good health (not vulnerable to infection)	Soft-boiled eggs	All UK ² eggs
People in good health (not vulnerable to infection)	Dishes or food made with raw/ lightly cooked eggs i.e. mayonnaise, soufflé, tiramisu, etc	All UK ² eggs
Vulnerable consumers: pregnant women, infants, children and elderly people³	Thoroughly cooked eggs	All UK ² eggs
Vulnerable consumers: pregnant women, infants, children and elderly people³	Soft-boiled eggs	Lion Code or Laid in Britain eggs ⁴
Vulnerable consumers: pregnant women, infants, children and elderly people³	Dishes or food made with raw/ lightly cooked eggs i.e. mayonnaise, soufflé, tiramisu, etc	Lion Code or Laid in Britain eggs ⁴

You can access the advice on our [website](#).

We would therefore like Local Authorities (LAs) to ensure that:

- Authorised Officers (AOs) know how to interpret the updated advice

² UK – UK-produced hen shell eggs;

³ This recommendation does not extend to individuals who are severely immunocompromised and require medically supervised diets prescribed by health professionals.

⁴ or any other scheme successfully assessed against the matrix resulting in a change of the FSA/FSS advice

- Food Business Operators (FBOs) who use eggs are aware of the updated advice to consumers on raw and lightly cooked eggs
- FBOs are reminded of the advice on the safe handling of eggs (see Annex C)

You should take the opportunity to discuss this with FBOs in your area at the next scheduled intervention.

Please contact the enforcement team if you have any questions enforcement@fss.scot.

Yours sincerely,

Raymond Pang
Senior Enforcement Manager
Food Standards Scotland

Annex A

Background

Historically FSS and FSA's advice concerning the risk associated with eating raw and lightly cooked eggs was developed when reported human Salmonella Enteritidis infections were significantly higher than they are now.

As the number of outbreaks reduced considerably over the years we considered it timely to review our advice to determine whether or not it remained applicable and proportionate and asked the Advisory Committee on the Microbiological Safety of Food (ACMSF) for its advice on the issue.

The ACMSF report concluded (in June 2016) that there had been a significant reduction in the risk from salmonella in UK-produced hen shell eggs, particularly for eggs which are produced under the Lion Code scheme (or a demonstrably equivalent comprehensive quality assurance scheme).

Therefore, the expert opinion concluded it would be possible to serve raw or lightly cooked eggs to individuals who may be more vulnerable to infection⁵, including pregnant women, infants, children and elderly people if the eggs are produced under the Lion Code (or a demonstrably equivalent) Scheme.

This represented a change to previous advice which recommended that these groups should not consume any eggs raw or lightly cooked. In October 2017, we changed our advice on the consumption of eggs which are served raw or lightly cooked.

Following this, we were approached by the Laid in Britain (LiB) egg assurance scheme, who applied to be considered as an equivalent scheme to the Lion Code and subsequently be considered as producing eggs that are a 'very low' risk and therefore suitable to be consumed raw/lightly cooked by vulnerable groups.

We appointed veterinarians to consider what criteria a scheme would need to meet to be considered 'very low' risk and a matrix of measures that a scheme would need to comply with, to produce eggs that are considered 'very low' risk by the FSA was drafted and agreed with a cross Government Working Group.

Laid in Britain applied to be assessed against the matrix in early 2020 and provided their finalised Code of Practice in November 2020. An independent panel of experts has carried out this assessment and confirmed that the LiB Code of Practice fulfilled all the requirements of the matrix. This assessment was accepted on a four-country basis by the FSA, FSS and a cross-government steering group including Public Health England, the Department for Environment, Food and Rural Affairs, the Animal and Plant Health Agency and the Department of Health & Social Care.

⁵ This does not include severely immunocompromised individuals such as those undergoing transplant surgery etc. who will have a highly specialised and restricted diet that will not include foods such as eggs but is intended to include vulnerable groups in general including pregnant women, elderly people, infants and children.

In light of this decision we have updated the FSS's advice on the consumption of raw/lightly cooked eggs by vulnerable consumers to include eggs produced under the Laid in Britain egg assurance scheme.

Annex B

Updated advice to consumers (including vulnerable groups) on eating lightly cooked or raw UK hen shell eggs and their products in the home

The presence of salmonella in UK hen shell eggs has reduced greatly in recent years. In 2017 we amended our advice on the consumption of eggs by vulnerable consumers which are served raw or lightly cooked.

We have now updated our advice on egg consumption to include eggs produced under the Laid in Britain assurance scheme as safe to consume raw/lightly cooked by vulnerable consumers.

People who are in good health

People who are in good health (i.e. who are not vulnerable to infection) are unlikely to experience food poisoning through the consumption of raw or lightly cooked UK hen eggs which are produced from salmonella-vaccinated flocks. Healthy individuals should therefore continue to enjoy dishes such as soft boiled eggs, mousses, soufflés and fresh mayonnaise which are prepared using UK produced hen shell eggs which are sourced from vaccinated flocks via reputable suppliers.

Vulnerable Groups⁶

People who are more vulnerable to infection or who are likely to suffer more serious symptoms from food poisoning such as infants, children, pregnant women, and elderly people can eat raw hen eggs or foods containing lightly cooked hen eggs (such as soft boiled eggs, mousses, soufflés and fresh mayonnaise), provided that the eggs are produced under the Lion Code or Laid in Britain egg assurance scheme⁷. If the eggs are not Lion Code or Laid in Britain or if in doubt, people who may be more vulnerable to infection are advised to eat thoroughly cooked eggs.

General Advice

There can be bacteria on the shell as well as inside eggs, which can spread very easily to other foods, as well as to hands, utensils and worktops. These tips can help avoid the spread of bacteria.

When cooking and handling eggs, remember to:

- store eggs safely in the refrigerator until use and clean the storage area regularly
- follow good hygiene practices in the kitchen and avoid cross contamination
- keep eggs away from other foods – both when they are in the shell and after you have cracked them
- be careful not to splash egg onto other foods, worktops or dishes
- do not use eggs with damaged shells, because dirt or bacteria might have got inside them
- clean all work surfaces, dishes and utensils thoroughly using warm soapy water after handling eggs, eggshells and egg packaging
- always wash your hands thoroughly with warm water and soap and then dry them, before and after handling eggs, eggshells and egg packaging
- observe date marking

Cooking eggs thoroughly is the safest option if you are still concerned about food poisoning.

⁶ This recommendation does not extend to individuals who are severely immunocompromised and require medically supervised diets prescribed by health professionals.

⁷ or any other scheme successfully assessed against the matrix resulting in a change of the FSA/FSS advice

Non-hen eggs

Non-hen eggs such as duck, goose and quail eggs carry a higher risk of salmonella and should not be used to prepare raw or lightly cooked egg dishes. Eggs from species other than chickens should always be cooked thoroughly.

Further information on the microbiological risk from shell eggs and their products can be found at: <https://acmsf.food.gov.uk/sites/default/files/acmsf-egg-reportv1.pdf>

The FSS and FSA does not recommend Lion Code eggs or Laid in Britain eggs over any other quality assurance scheme and recommends that it is always better to buy eggs from a reputable supplier.

UK-produced hen shell eggs which are thoroughly cooked and handled hygienically should not present a risk of foodborne illness and consumers who are in good health (i.e. those who are not vulnerable to infection) can safely eat raw or lightly cooked UK-produced hen eggs
We therefore recommend that officers inspecting catering establishments focus attention on higher risk operations involving the serving of raw or lightly cooked eggs to vulnerable groups and those using non-UK produced eggs.

Annex C

Advice to catering establishments on good egg handling and hygiene practices

Some eggs can contain salmonella bacteria inside or on their shells, so it's important to be careful how you handle them and how you use them. This is because salmonella can cause very serious illness, especially among people who are vulnerable to infection (such as pregnant women, infants, children and elderly people). In severe cases, salmonella food poisoning can cause death.

Sourcing eggs

Caterers should always buy eggs from reputable suppliers which are able to demonstrate the traceability and provenance of their supply.

Due to the risk of salmonella, it is best practice to purchase UK eggs and source them from a reputable supplier which uses eggs from flocks that are part of a scheme which vaccinates chickens with an effective anti-salmonella vaccination programme. This reduces the chance that eggs will have salmonella inside or on the shells.

If you are going to prepare foods that contain raw or lightly cooked eggs (such as soft-boiled eggs, mousses, soufflés and fresh mayonnaise), and are likely to be serving individuals who may be vulnerable to infection, you should use eggs that have been produced under the Lion Code or Laid in Britain egg assurance scheme⁸.

If you are unable to verify that your egg supply is sourced from the Lion Code or Laid in Britain, you should ensure all of your egg dishes are thoroughly cooked or produced using pasteurised egg.

The FSA does not recommend Lion Code eggs or Laid in Britain eggs over any other quality assurance scheme and recommends that it is always better to buy eggs from a reputable supplier.

Can I be sure that an egg is salmonella-free?

Eggs produced under Lion Code and Laid in Britain are considered by FSS and FSA as 'very low risk' which means that they are safe to eat raw/lightly cooked by vulnerable consumers. The risk of their contamination is very rare but cannot be excluded. This is different to the risk being 'negligible' meaning so rare that it does not merit to be considered.

Although eggs produced under Lion Code and Laid in Britain are considered by the FSS as very low risk, it is not possible to guarantee that any egg will be free from salmonella, whatever the source or brand. So you still need to be careful how you handle all eggs. Remember it's always better to source your eggs from a reputable supplier.

FSS is reminding caterers of the following good egg hygiene and handling practices:

- store eggs in a cool, dry place, ideally in the refrigerator until use, and clean the storage area regularly;
- to prevent cross contamination, keep eggs away from other foods, both when they are still in the shell and when you have cracked them open;
- observe date marking;

⁸ or any other scheme successfully assessed against the matrix resulting in a change of the FSA/FSS advice

- don't use damaged or dirty eggs because dirt or bacteria might have got inside them;
- be careful not to splash raw egg onto other foods, surfaces or dishes;
- if you are breaking eggs to use later (sometimes called 'pooling') keep the liquid egg in the fridge and take out small amounts as needed;
- use all 'pooled' liquid egg on the same day and don't add new eggs to top it up;
- use Lion Code eggs or Laid in Britain eggs or pasteurised eggs for dishes where eggs are served raw or lightly cooked
- clean all work surfaces and food areas, dishes and utensils thoroughly and regularly, after handling eggs, using warm soapy water (detergent diluted according to manufacturer's instructions)
- serve egg dishes straight away, or cool them quickly and keep chilled
- ideally, you should do all your work with raw eggs at one time. Remember that drips of egg and broken shells could spread bacteria. So you should dispose of the shells carefully, and thoroughly clean surfaces, sinks, dishes and utensils before starting a different type of work.
- all staff should wash their hands thoroughly with warm water and soap and then dry them, before and after handling eggs, eggshells and egg packaging

Duck/Goose/Quail eggs

Non-hen eggs carry a higher risk of salmonella and should not be used to prepare raw or lightly cooked egg dishes. Eggs from species other than chickens should always be cooked thoroughly.

Raw and lightly cooked hen eggs

Caterers should always consider the potential health status of the individuals they will be preparing egg dishes for. Caterers need to take extra care when preparing and serving raw eggs, soft boiled eggs and any foods that are prepared using raw or lightly cooked eggs such as soft boiled eggs, mousses, soufflés and fresh mayonnaise. This is particularly important for those who are catering specifically for individuals who may be more vulnerable to infection (such as infants, children, pregnant women, elderly people and those who are unwell).

If you are a caterer which is likely to be serving raw eggs, eggs with runny yolks or any food that contains raw or less than thoroughly cooked eggs to people who might be more vulnerable to infection you should use eggs produced under the Lion Code or Laid in Britain schemes. If you are unable to verify that your egg supply is sourced from the Lion Code or Laid in Britain⁹, you should ensure all of your egg dishes are thoroughly cooked or prepared using pasteurised egg.

It is important to note that the advice does not apply to meals intended for individuals who are severely immunocompromised and require medically supervised diets. Medical advice should always be sought when preparing food for these individuals.

⁹ or any other scheme successfully assessed against the matrix resulting in a change of the FSA/FSS advice