

# Our performance Q4 2017

## CERMAQ CANADA October - December 2017

Cermaq Canada continued to deliver good overall results on social performance this quarter, with an absence rate of 2.5 percent and no lost time injuries. The environmental performance was good with no fish escapes for 2017 and no non-compliances. Sea lice levels and sea lice treatment use increased somewhat compared with the same quarter last year but were kept below regulatory limits for the quarter.

The rolling 12 month fish survival rate improved compared with the same period last year, with a rolling survival rate of 94.3 percent; however, the use of antibiotics by closed cycle was relatively high this quarter. We describe our guidelines for antibiotic use at the end of this report below.

CERMAQ CANADA				
INDICATOR	Unit	Q4 2017	Q4 2016	Calendar year 2016
<b>FISH HEALTH</b>				
Survival rate in our fish farming (Atlantic salmon)	12 months rolling rate	94.3%	91.7%	92.0%
Use of antibiotics	gAPI/t harvested	134	187	217
Use of treatments against sea lice (in feed)	gAPI/t LWE produced	0.3	0.0	0.2
<b>ENVIRONMENT</b>				
Escapes	Number of fish escaped	0	0	1
Sea lice counts	Average adult female and mobile lice	1.90	0.93	0.9
<b>SOCIAL</b>				
Non-compliances	Number of non-compliances closed with a fine	0	0	0
Absence rate	Absentee days as a % of total work days	2.5%	1.9%	1.7%
Lost time injury rate (H1)	Lost time injuries per million working hours	0	0	2
Injury frequency rate (H2)	Injuries per million working hours	9	28	15
Lost time frequency rate (F-value)	Lost time from injuries per million working hours	0	0	159

# CERMAQ CHILE October - December 2017

Occupational health and safety performance continued to be good in our Chilean operations this quarter. The absence rate of 1.8 percent was unchanged compared with the same quarter last year while the lost time injury rate, injury frequency rate, and lost time frequency all decreased significantly. Two non-compliances were closed with a fine this quarter. Sea lice counts were unchanged compared with the same period last year and antibiotics use by closed cycle decreased; however, sea lice treatment use increased by 1.7 grams active ingredient per ton produced. There were no fish escapes in Cermaq Chile this quarter.

The survival rate for Atlantic Salmon and Rainbow Trout improved this quarter compared to the same period last year, with rolling survival rate of 93.8 percent for Atlantic Salmon and 96.6 percent for Trout. The survival rate for Coho Salmon decreased to 94.7 percent compared to 95.5 percent during the same period in the previous year. This quarter we had a decrease in our measure of antibiotic use compared to the same quarter last year, with a use of 304 grams active ingredient used per ton harvested compared with 554 grams per ton during Q4 2016. The main reasons for antibiotic use continues to be Piscirickettsiosis (SRS) and Bacterial Kidney Disease (BKD). We describe our guidelines for antibiotic use at the end of this report below.

Cermaq has a strong commitment to finding a sustainable solution for SRS, which currently can be partially controlled by traditional vaccination and managed by the use of antibiotics. For the last five years Cermaq's R&D team has worked actively with industry and academic partners to develop new and effective vaccines to fight SRS, promote vaccine innovation and their proper use. Cermaq Chile will continue to work on initiatives to reduce SRS during the farming stage, by encouraging the development of new vaccine prototypes, development of novel vaccination strategies and the use of these vaccines in Cermaq Chile sites.

**CERMAQ CHILE**

INDICATOR	Unit	Q4 2017	Q4 2016	Calendar year 2016
<b>FISH HEALTH</b>				
Survival rate in our fish farming (Atlantic salmon)	12 months rolling rate	93.8%	91.3%	92.9%
Survival rate in our fish farming (Coho)	12 months rolling rate	94.7%	95.5%	97.0%
Survival rate in our fish farming (Trout)	12 months rolling rate	96.6%	84.7%	81.6%
Use of antibiotics	gAPI/t harvested	304	554	548
Use of treatments against sea lice (bath)	gAPI/t LWE produced	5.5	3.8	8.8
<b>ENVIRONMENT</b>				
Escapes	Number of fish escaped	0	0	0
Sea lice counts	Average adult female lice (Caligus)	0.77	0.77	1.0
<b>SOCIAL</b>				
Non-compliances	Number of non-compliances closed with a fine	2	2	19
Absence rate	Absentee days as a % of total work days	1.8%	1.8%	2.1%
Lost time injury rate (H1)	Lost time injuries per million working hours	4.6	9.2	6
Injury frequency rate (H2)	Injuries per million working hours	6	10	8
Lost time frequency rate (F-value)	Lost time from injuries per million working hours	34	201	170

# CERMAQ NORWAY October - December 2017 Cermaq | Performance

The absence rate was 4.9 percent this quarter and all injury frequency rates increased compared with the same period in 2016. There were no non-compliances this quarter and no fish escapes for the entire year of 2017.

In terms of environmental performance, sea lice counts and sea lice bath treatment were lower compared to the same period last year. The majority of farms have very good sanitary conditions. Overall lice counts are maintained well below the regulatory limit of 0.5 average adult female lice per fish.

The rolling fish survival rate improved compared with the same period last year, with a rolling survival rate of 95.7 percent this quarter. There was no use of antibiotics by closed cycle for salmon harvested this quarter in Cermaq Norway.

CERMAQ NORWAY				
INDICATOR	Unit	Q4 2017	Q4 2016	Calendar year 2016
<b>FISH HEALTH</b>				
Survival rate in our fish farming (Atlantic Salmon)	12 months rolling rate	95.7%	94.5%	94.8%
Use of antibiotics	gAPI/t harvested	0	0.4	1.4
Use of treatments against sea lice (in bath)	gAPI/t LWE produced	0.11	1.0	0.5
<b>ENVIRONMENT</b>				
Escapes	Number of fish escaped	0	400	425
Sea lice counts	Average adult female lice	0.07	0.09	0.07
<b>SOCIAL</b>				
Non-compliances	Number of non-compliances closed with a fine	0	0	0
Absence rate	Absentee days as a % of total work days	4.9%	4.9%	4.8%
Lost time injury rate (H1)	Lost time injuries per million working hours	11	4	5.3
Injury frequency rate (H2)	Injuries per million working hours	11	4	13.7
Lost time frequency rate (F-value)	Lost time from injuries per million working hours	221	8	49

# How each indicator is measured

## Fish health

**Fish survival:** The welfare status of farmed fish is of interest to a range of industry stakeholders. In Cermaq, we continuously strive to improve fish welfare through a range of measures and initiatives.

Survival can be used as one simple measure to gain an overview of the fish health situation. The indicator is a rolling 12 month measure which calculates survival number for the last 12 months as a proportion of the estimated number of fish in the sea in the last 12 month of the year (adjusted for harvest and mortalities). This is to adjust for short term variations and to enable to show longer term trends.

**Antibiotic use:** Medicines is a necessary tool in all kinds of animal farming to ensure animal welfare. In salmon farming, some geographical regions or companies have been able to significantly reduce their use of antibiotics over time, whilst others are relatively high users. This measure is useful to gain an overview and control of the antibiotics use in the operations, and ensure that our antibiotic policy is adhered to. We measure the total use of antibiotics divided on the biomass harvested within a quarter. We have chosen this measure as we consider that it gives the best indication of the sustainability of our production and product safety. Also this measure gives a good relation between antibiotic use and stock treated by period and provides better association between treatments and final products.

In Cermaq it is important that antibiotic treatments are held to a minimum, only when strictly needed to restore fish health and welfare. Our policy for the use of antibiotics is to limit the use to cases where:

- Animal welfare is threatened by a bacterial disease
- A diagnosis of disease exist with a prescription of antibiotic by an authorized person
- The antibiotic has a proven therapeutic effect against the disease, and
- The antibiotic is approved for use in fish farming

**Sea lice treatment:** This indicator seeks to quantify the amount of different types of sea lice treatment used by Cermaq. Bath treatments and in-feed treatments are included in the indicator,

where the most significant by region is published. Preventive methods are not included in the reporting; only treatments to ensure that sea lice levels are in compliance with regulatory set limits. A summary of non-pharmaceutical and preventive measures used in Cermaq, can be seen [here](#). In Canada, only treatment in feed is used, while in Norway and Chile, bath treatments are most common are hence reported here. Treatments with hydrogen peroxide is not included in this figure.

**Escapes:** Our goal in Cermaq is zero escapes. Escapes may pose negative effects through possible interaction between the escaped salmon and wild salmon including the risk of compromising genetic integrity and increase competition in the freshwater environment. For fish farmers, escapes also represent a loss of valuable assets. Preventing escapes is a high priority and in the case of any incidents of escape, we work intensively to recapture as many fish as possible. This indicator aims to quantify the number and extent of fish escape incidents and what action has been taken to prevent recurrence, to minimize the risk of similar incidents in the future.

## **Environment**

**Sea lice counts:** Sea lice represent a continuing challenge across operations in many regions. Control of sea lice in a sustainable way is critical to the future sustainability and growth of the salmon farming industry. We are therefore closely monitoring the sea lice counts in each region to gain an overview of the lice situation in Cermaq. Counts are made for each site, and the number reported here represents an average of each Cermaq operating company. The lice counting for each country is linked to the sea lice levels triggering treatment in the different salmon farming areas.

**Non-compliances:** Our clear goal is to comply with all applicable laws and regulations in our countries of operation. The level of any non-compliances within our operating companies also helps indicate our ability to ensure that operations conform to expected performance parameters. From an economic perspective, ensuring compliance helps to reduce financial risks that occur either directly through fines or indirectly through impacts on reputation. This indicator seeks to measure the compliance with environmental, social, and product regulations in our operations. It refers to final non-compliances closed with a fine.

## **OHS**

Cermaq employees shall be safe and secure at work. Occupational health and safety initiatives are integral parts of the Group's risk management. The OHS challenges are differing between the operating companies. Each operating company identifies its own relevant and suited initiatives to reduce the level of injuries and absence due to illness. Operating companies also engage regularly in the sharing of best practices to manage and mitigate common challenges, including the definition and measurement of a set of common OHS indicators reported monthly to the management.

**Absence rate:** This indicator measures absence related to employees' health including sickness, lost time from injuries (at work or outside work), or occupational disease.

**Lost time injury rate (H1):** This indicator measures injuries among our employees that lead to lost time direct per million working hours.

**Injury frequency rate (H2):** This indicator measures the total number of injuries among our employees per million working hours.

**Lost time frequency rate (F-value):** This indicators measures lost time from injuries among our employees per million working hours.

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