

# Our performance Q1 2017

## CERMAQ CANADA January - March 2017

In Cermaq Canada we continued to deliver good results on social performance this quarter with no non-compliances, an absence rate of 1.4 percent and zero lost time injuries. Our environmental performance was good with no fish escapes, and the overall lice situation was positive with slightly higher sea lice counts compared to same quarter last year. Sea lice counts were kept below regulatory limits for the quarter.

The rolling 12 month fish survival rate was lower compared with the same period last year largely due to previous environmental challenges and mouth rot in some farms. Despite these issues, the use of antibiotics decreased compared with the same quarter last year and treatment was primarily for mouth rot. After a long period of elevated sea water temperatures, the temperatures are now back to normal level, which has led to a decrease in SRS presence in several sites.

Currently there are no commercially available mouth rot vaccines in Canada. Cermaq Canada is actively engaged in both the research community and with government to better understand the mouth rot and SRS situation and to expedite vaccine development and licensing.

**CERMAQ CANADA**

INDICATOR	Unit	Q1 2017	Q1 2016	Calendar year 2016
<b>FISH HEALTH</b>				
Survival rate in our fish farming (Atlantic salmon)	12 months rolling rate	92.0%	93.3%	92.0%
Use of antibiotics	gAPI/t harvested	12	34	217
Use of treatments against sea lice (in feed)	gAPI/t LWE produced	0.2	0.2	0.2
<b>ENVIRONMENT</b>				
Escapes	Number of fish escaped	0	0	1
Sea lice counts	Average adult female and mobile lice	1.11	1.08	0.87
<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	1.4%	2.0%	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	0	0	15
Lost time frequency rate (F-value)	Lost time from injuries per million working hours	0	337	159

## CERMAQ CHILE January – March 2017

Occupational health and safety performance was good this quarter in our Chilean operations, with low and stable trends for absence rate, injury frequency rate and lost time injury rate compared with the same quarter last year. Nine non-compliances were closed with a fine this quarter. The environmental performance was good, with no fish escapes and sea lice counts were lower than in the same period last year.

SRS is an industry wide threat and this burden is a constant challenge and the main cause of fish mortalities in Chile. Our fish survival rates were better this quarter for Coho salmon compared with the same period last year. However, our survival rate decreased for Trout mainly due to deformities, low performance fish and predator attacks. The 12 month rolling survival rate for Atlantic salmon remained on the same levels as in Q1 2016 with 92.9 percent. The Trout survival rate decreased significantly, from 97 percent in Q1 2016 to 81.6 percent this quarter. The main reason for this was an SRS outbreak in one farming site in the 11th region which occurred several months ago. The rolling survival rate for Coho salmon improved 7 percent compared to the same period last year, mainly due to good sanitary conditions.

Antibiotic use is reported at the end of the farming cycle when the site is fully harvested. This quarter we had a decrease in our measure of antibiotic use compared to Q1 2016 with a use of 513 grams active ingredient used per tonne harvested by closed cycle. The main reason for antibiotic use remains Piscirickettsiosis (SRS). 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 proper use of them. Together with seven other industry partners including fish feed and pharmaceutical companies, Cermaq launched the Pincoy program in 2016 which aims to reduce the antibiotics use in the Chilean industry by 50 percent the next two years through a holistic approach to combat SRS. Cermaq Chile will continue to work on initiatives to reduce SRS during the farming stage, by encouraging the development of new vaccines prototypes, development of novel vaccination strategies and the use of these vaccines in Cermaq Chile sites.

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

With regard to parasitic loads, summer season is typically the most challenging time of year. Despite this, Cermaq Chile achieved lower parasitic loads with slightly higher lice treatment use for this quarter. For the past 3 years, Cermaq Chile has worked on preventive and non-pharmaceutical tools to control sea lice on their own farming sites. The sea lice challenge is also being addressed by an industry initiative where Cermaq Chile is a member, with the aim to research and develop the use of the Chilean cleaner fish *Malapterus reticulatus*.

CERMAQ CHILE				
INDICATOR	Unit	Q1 2017	Q1 2016	Calendar year 2016
<b>FISH HEALTH</b>				
Survival rate in our fish farming (Atlantic salmon)	12 months rolling rate	92.9%	92.9%*	92.9%
Survival rate in our fish farming (Coho)	12 months rolling rate	97.0%	90%*	97.0%
Survival rate in our fish farming (Trout)	12 months rolling rate	81.6%	97%*	81.6%
Use of antibiotics	gAPI/t harvested	513	546	548
Use of treatments against sea lice (bath)	gAPI/t LWE produced	7.1	6.8	8.8
<b>ENVIRONMENT</b>				
Escapes	Number of fish escaped	0	0	0
Sea lice counts	Average adult female lice (Caligus)	1.01	2.47	0.98
<b>SOCIAL</b>				
Non-compliances	Number of non-compliances closed with a fine	9	0	19
Absence rate	Absentee days as a % of total work days	2.0%	2.3%	2.1%
Lost time injury rate (H1)	Lost time injuries per million working hours	6	7	6
Injury frequency rate (H2)	Injuries per million working hours	8	9	8

Lost time frequency rate (F-value)	Lost time from injuries per million working hours	108	142	170
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*\*Algae bloom mortalities not included.*

## CERMAQ NORWAY January – March 2017

The occupational health and safety performance in Cermaq Norway this quarter remain good, although with higher injury and absence rates compared with the same period last year. Lost time injuries were low on 4 lost time injuries, absence was 5.8 percent and the lost time frequency rate improved significantly from 485 in Q1 2016 to 4 this quarter. There were no non-compliances this quarter and no fish escapes.

In terms of environmental performance, sea lice counts were well below the regulatory limit of 0.5 average adult female lice per fish and counts were lower than the same period last year. Lice counts were lower this quarter largely due to the implementation of preventive measures such as lice skirts and several sites with cleaner fish. Only one in feed delousing treatment was performed in Cermaq's Norway farming sites. Development of preventive measures will be escalated further.

The rolling fish survival rate increased compared with the same period last year, with a rolling survival rate of 94.8 percent this quarter. The main reason was winter sores, parvicapsulosis and heart related disorders. There was no antibiotic use by closed cycle this quarter in Cermaq Norway.

CERMAQ NORWAY				
INDICATOR	Unit	Q1 2017	Q1 2016	Calendar year 2016
<b>FISH HEALTH</b>				
Survival rate in our fish farming (Atlantic Salmon)	12 months rolling rate	94.8%	92.4%	94.8%
Use of antibiotics	gAPI/t harvested	0	0	1.4
Use of treatments against sea lice (in bath)	gAPI/t LWE produced	0.0	1.1	0.5
<b>ENVIRONMENT</b>				
Escapes	Number of fish escaped	0	0	425
Sea lice counts	Average adult female lice	0.05	0.13	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	5.8%	5.1%	4.8%
Lost time injury rate (H1)	Lost time injuries per million working hours	4	0	5.3
Injury frequency rate (H2)	Injuries per million working hours	9	0	13.7
Lost time frequency rate (F-value)	Lost time from injuries per million working hours	4	485	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.