

Our performance Q3 2016

CERMAQ CANADA July-September 2016

In Cermaq Canada we continued to deliver good results on social performance this quarter with no non-compliances, an absence rate of 1.8 percent and zero lost time injuries. Our environmental performance was good with no fish escapes, and the overall lice situation was positive with successful treatments and counts within regulated levels and less parasitic load than in same quarter last year.

The rolling 12 month fish survival rate was however lower compared with the same period last year largely due to summer related environmental concerns (e.g. gill and liver damage from plankton) and SRS in some farms. This quarter the use of antibiotics increased compared with the same quarter last year and treatment was primarily for SRS. Currently there are no commercially available SRS vaccines in Canada. Cermaq Canada is actively engaged with both researchers and government to better understand the Canadian SRS situation and to expedite vaccine development and licensing.

CERMAQ CANADA

INDICATOR	Unit	Q3 2016	Q3 2015	Calendar year 2015
FISH HEALTH				
Survival rate in our fish farming (Atlantic salmon)	12 months rolling rate	90.6%	92.8%	92.8%
Use of antibiotics	gAPI/tonnes harvested	598	7	17
Use of treatments against sea lice (in feed)	gAPI/t LWE produced	0.0	0.3	0.3
ENVIRONMENT				
Escapes	Number of fish escapes	0	0	2
Sea lice counts	Average adult female and mobile lice	0.58	3.11	1.70
SOCIAL				
Non-compliances	Number of non-compliances closed with a fine	0	0	0
Absence rate	Absentee days as a % of total work days	1.8%	2.8%	2.1%
Lost time injury rate (H1)	Lost time injuries per million working hours	0.0	0.0	4.3
Injury frequency rate (H2)	Injuries per million working hours	7.6	0.0	6
Lost time frequency rate (F-value)	Lost time from injuries per million working hours	274	191	189

CERMAQ CHILE July – September 2016

Occupational health and safety performance was good this quarter in our Chilean operations, with low and stable trends for absence rate, lost time injury rate and injury frequency rate. One minor

administrative non-compliance was recorded and closed during this quarter. The environmental performance was good, with no fish escapes and sea lice counts were lower than in the same period last year.

In Cermaq, we work continuously to deliver sustainable results on fish health and welfare, environmental issues and social impacts of our operations to achieve long term value creation. Regarding fish health, there are some sustainability challenges that are prevailing and that Cermaq and the industry is working to solve, including concrete challenges associated with *Piscirickettsia salmonis* the agent that causes *Piscirickettsiosis* (SRS) in Chile.

The main cause of mortality remains SRS and challenging environmental conditions this quarter. SRS is an industry wide threat and this burden is a constant challenge and the main cause of fish mortalities and antibiotic use in Chile. The 12 month rolling survival rate for Atlantic salmon decreased from 94.2 percent in Q3 2015 to 92.1 percent this quarter. The rolling survival rate for Coho salmon decreased from 95.8 percent in Q3 2015 to 93.3 percent this quarter, and the Trout survival rate decreased from 95.3 percent in Q3 2015 to 86.8 percent. 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.

Cermaq has a strong commitment to finding a sustainable solution for SRS, which currently can be partially managed by traditional vaccination and controlled 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. Last quarter, Cermaq, together with seven other industry partners including fish feed and pharmaceutical companies, launched the Pincoy program 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.

Use of sea lice treatments increased significantly this quarter mainly due to an industry wide coordinated bath treatment performed with Chilean companies to manage the parasites before spring and summer season, when the lice is a bigger challenge. 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 were Cermaq Chile is a member, with the aim to research and develop the use of a Chilean cleaner fish.

CERMAQ CHILE				
INDICATOR	Unit	Q3 2016	Q3 2015	Calendar year 2015
FISH HEALTH				
CERMAQ CHILE				
Survival rate in our fish 12 months rolling rate		92.1%	94.2%	94.0%

farming (Atlantic salmon)				
Survival rate in our fish farming (Coho)	12 months rolling rate	93.3%	95.8%	91.5%
Survival rate in our fish farming (Trout)	12 months rolling rate	86.8%	95.3%	97.5%
Use of antibiotics	gAPI/tonnes harvested	556	284	376.0
Use of treatments against sea lice (bath)	gAPI/t LWE produced	11.9	3.0	4.46
ENVIRONMENT				
Escapes	Number of fish escapes	0	0	6844
Sea lice counts	Average adult female lice (Caligus)	0.60	1.34	1.41
SOCIAL				
Non-compliances	Number of non-compliances closed with a fine	1	2	9
Absence rate	Absentee days as a % of total work days	2.4%	2.2%	2.2%
Lost time injury rate (H1)	Lost time injuries per million working hours	4	4	5
Injury frequency rate (H2)	Injuries per million working hours	6	6	9
Lost time frequency rate (F-value)	Lost time from injuries per million working hours	259	58	89

In Cermaq it is important that antibiotic treatments are held to a minimum, only when strictly needed. 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

For comparison, the amount of antibiotics used in Cermaq’s operations the past three years can be found [here](#).

CERMAQ NORWAY July– September 2016

The occupational health and safety performance was good this quarter in Cermaq Norway. Absence was 3.7 percent, which is a decrease from 4.3 percent in the same period last year. The lost time injury rate was zero, and there were no non-compliances this quarter.

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 low this quarter due to the implementation of preventive measures such as lice skirts and several sites with cleaner fish. Delousing treatments were also performed in farming sites. Eight bath treatments with hydrogen peroxide were conducted in Finnmark and Nordland this quarter. Development of preventive measures will be escalated further. There was one fish escape incident in August leading to 15 lost fish during a delousing treatment. The net was assessed with ROV and restored 10 minutes after the rupture detection.

The fish survival was somewhat lower than in the same period last year, with a rolling survival rate of 94.2 percent this quarter. The decrease is mainly due to common heart related disorders like HSMI and CMS in several farms in Finnmark. Cermaq Norway performed voluntary culling this quarter in sites most affected by the disease. Besides this event, the sanitary condition was good.

There has been no antibiotic use on the fish that was harvested this quarter. There are some challenges with mouth rot (*Tenacibaculum finnmarkense*), however no treatments were performed during this quarter. Following the identification of this bacteria, Cermaq’s R&D team is working on new solutions to control this disease.

CERMAQ NORWAY				
INDICATOR	Unit	Q3 2016	Q3 2015	Calendar year 2015
FISH HEALTH				
Survival rate in our fish farming (Atlantic Salmon)	12 months rolling rate	94.2%	95.0%	93.8%
Use of antibiotics	gAPI/tonnes harvested	0.0	0.0	4.6
Use of treatments	gAPI/t LWE produced	0.05	1.8	2.7

against sea lice (in bath)

		ENVIRONMENT		
Escapes	Number of fish escapes	15	500	500
Sea lice counts	Average adult female lice	0.06	0.08	0.07
		SOCIAL		
Non-compliances	Number of non-compliances closed with a fine	0	0	2
Absence rate	Absentee days as a % of total work days	3.7%	4.3%	5.4%
Lost time injury rate (H1)	Lost time injuries per million working hours	0.0	4	11
Injury frequency rate (H2)	Injuries per million working hours	25	8	22
Lost time frequency rate (F-value)	Lost time from injuries per million working hours	0.0	335	521

*The calculation of F value has been changed for Cermaq Norway from this quarter, and do no longer include lost time injuries resulting in return to limited duty /part time absence

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.