MILK MATTERS
Driving sustainability through insight, innovation and impact
Olam Food Ingredients (OFI) brings naturally good ingredients to customers worldwide, including a wide range of dairy products for food and beverage application. Our products and ingredients are produced to the highest standards to deliver the right functionality and quality to our customers. With passion and a sense of responsibility, we also search for breakthroughs that have a positive impact on the planet and on everyone involved in producing what we want to eat and drink, today and tomorrow.

OFI’s dairy business comprises large-scale milking and feed farms in Russia, a global ingredients supply chain business, and our own processing facility in Malaysia. A second facility is being established in New Zealand. Quality and sustainability are at the heart of our business, but we know there is more to do on climate change. That is why we are taking further steps to reduce the carbon footprint of our dairy operations, starting by setting goals and targets for Rusmolco, our dairy farming business in Russia.

Situated in the Central Black Earth Region in Russia, Rusmolco (‘The Russian Dairy Company’) is an integrated agri-dairy operation. OFI first acquired the business as a joint venture in 2012, before taking on full ownership in 2019. Rusmolco has a total of 156,000 hectares of farmland and manages about 35,000 heads of livestock for milk production and heifer raising across the Penza Oblast.

Thanks to a focus on animal health and welfare, good husbandry, and state-of-the-art facilities, Rusmolco produces approximately 200 million litres of premium raw milk annually, which equates to around 11,000 litres of milk per cow. It also has over 40,000 hectares of farmland to support the production of feed crops for Rusmolco, using the principles of regenerative agriculture. This gives the business full-cycle control – from heifer reproduction and raising, through to milk and feed production.

Penza Oblast, Russia: Rusmolco’s operations stretch across nine rural communities
OUR ROADMAP TO CREATE A HEALTHIER, MORE SUSTAINABLE SUPPLY CHAIN

Sandeep Jain
CEO, OFI Dairy Business

Q. What has been your sustainability strategy to date?
A. Rich in protein and nutrients, milk and other dairy products are enjoyed by millions of people all over the world. But dairy farming can be associated with environmental problems like greenhouse gas emissions, as well as issues like animal welfare. That’s why we’re on a mission to feed Russia’s growing population in a way that is good for people, animals and planet.

As one of Russia’s largest producers of fresh milk, we work hard to produce the freshest, highest quality milk with the lowest carbon footprint. We take a holistic view by tackling both our feed and dairy footprint. We focus on the fundamentals like keeping our herd healthy while also improving productivity to drive down emissions of milk. We always strive for circularity in our operations.

We’ve been taking action on sustainability for many years. Our carbon footprint per kg of milk produced is 1.48kg CO₂e per litre FPCM (Fat and Protein Corrected Milk*), significantly lower than the Food and Agriculture Organization of the United Nations (FAO)** global average of 2.4kg CO₂e per kg FPCM.

Q. What further steps will you take?
A. We know there is more to do, which is why we’re announcing our first publicly stated sustainability commitments for our operations. We will reduce our carbon footprint per litre of milk by a further 50% by 2030 (against a 2018 baseline) and achieve carbon net zero dairy by 2050.

Aligned with the UN Sustainable Development Goals – especially SDG12, which is focused on sustainable consumption and production – these targets will increase the scale and impact of our sustainability efforts. We will focus on the areas where we can make the greatest difference: Climate Action, Animal Welfare, Livelihoods and Social Inclusion.

Q. And how will you track your progress?
A. Our approach to sustainability will always be grounded in insight. Our sustainability insights platform, AtSource, allows our customers to transparently access our progress. With three years of data, the AtSource Plus tier also helps our teams collect data and insights across more than 18 social metrics and 35 environmental metrics (footprint), which include workplace safety, labour rights, diversity and community investment, allowing us to constantly learn and drive improvement.

We are committed to being one of the most responsible and responsive dairy businesses in the industry and will continue to do what is right for both people and planet.

* Fat and Protein Corrected Milk (FPCM) is milk that has fat levels of 4% and protein levels of 3.3%.
** Source: FAO’s Greenhouse Gas Emissions from the Dairy Sector – a life cycle assessment. 1L of milk is the equivalent of 1kg of milk.
RUSMOLCO'S THREE PRIORITY AREAS FOR DAIRY SUSTAINABILITY

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OUR IMPACT SO FAR

We’ve been taking action on sustainability for many years. Since 2018, we have made a significant reduction in our carbon footprint per litre of milk produced. However, we know there is still more to do.

Reduction difference year-on-year compared to 2018 baseline

-7.5%  
Kg CO₂e per litre of FPCM* 2019

-14.5%  
Kg CO₂e per litre of FPCM 2020

1.73  
1.62  
2018

1.60  
1.47  
2019

1.48  
1.39  
2020

source: Olam Corporate Responsibility & Sustainability / South Pole 2021

*Fat and Protein Corrected Milk (FPCM) is milk that has fat levels of 4% and protein levels of 3.3%
Climate change poses a major threat to our planet and to the livelihoods of farmers around the world. In the dairy industry, the majority of greenhouse gas emissions are generated at farm level through methane emissions from cows and the mishandling of manure and fertilisers. Unsustainable feed production can also lead to the loss of prairies, wetlands, and forests, which are so important for biodiversity. In total, enteric emissions and feed production contribute 58% and 28% of emissions, respectively, to the overall carbon footprint for our milk. To halve our carbon intensity by 2030, we will need to apply new insight and innovation to improve efficiency and create circularity.
**OUR GOAL**

**REDUCE OUR CARBON FOOTPRINT PER KG OF FPCM** *PRODUCED BY 50% BY 2030*** AND ACHIEVE CARBON NET ZERO DAIRY BY 2050

We will achieve this by implementing four key interventions:

1. Improve milk yield quality and quantity sustainably

2. Reduce enteric emissions by introducing natural feed supplements

3. Protect surrounding forests and grasslands

4. Drive regenerative agriculture practices and nutrient recycling in animal feed production
IMPROVING YIELD AND QUALITY SUSTAINABLY

We are taking action to reduce carbon emissions per litre of milk we produce, in line with SDG 12 (Sustainable Consumption and Production) and SDG 13 (Climate Action). One of the single most effective things we can do is keep our herd healthy and productive, because healthy cows produce more milk for less carbon. We also run our operations as efficiently as possible. We measure our footprint using a revolutionary sustainability insights platform, AtSource Plus, which tracks emissions across every part of our operation – from the electricity, feed and fertiliser we use to the carbon naturally emitted by our cows. This data provides actionable insight about where the majority of carbon emissions occur, how we can reduce them, and the impact our actions are having.

CUTTING METHANE THROUGH FEED ADDITIVES

Enteric emissions – where cows release methane from gut fermentation – are responsible for 39%* of greenhouse gas emissions in the global livestock industry. That is why we are trialling a natural feed supplement that has the potential to reduce on-farm enteric emissions by as much as 22%. While this kind of innovation will take time to scale up, we hope it will drive significant progress in years to come.

PROTECTING FORESTS AND GRASSLANDS

Forests are the lungs of the planet and home to all sorts of wildlife, but all too often they are cleared to make way for grazing. We own 40,000 hectares of forest and grasslands in Penza, which support a variety of wildlife. We are looking at ways to enhance the capacity of these ecosystems to sequester carbon and further reduce our footprint, in line with SDG 15 (Life on Land). We also own agricultural land to grow most of the feed for our herd. We practice regenerative agriculture, using organic fertiliser and good farming practices, like crop rotation, to protect the soil quality.

CLOSING THE LOOP – BETTER SLURRY MANAGEMENT

Fertiliser use is a major part of the GHG footprint of animal feed. Cows produce twice as much manure as milk every day, which releases gases into the atmosphere and can run off into rivers and water sources. We run our operations on a circular system where liquid waste is repurposed as non-chemical fertiliser for feed production. Dry waste is specially treated in a bio-reactor before being turned into sterile bedding for the cows. The resulting compost is more healthy, sustainable and comfortable than alternatives like rubber mats.

To drive even greater change, we are exploring ways of processing manure to make a more effective, nitrogen-rich organic fertiliser. This will further reduce on-farm emissions by around 6%.

*Source: Olam Corporate Responsibility & Sustainability / South Pole 2021
PUTTING ANIMAL HEALTH AND WELFARE FIRST

We care deeply about the welfare of our Holstein herd. We fully support the five globally recognised Freedoms of Animal Welfare (freedom from hunger and thirst; freedom from discomfort; freedom from pain, injury and disease; freedom to express normal behaviour and freedom from fear and distress). That means we are committed not only to the physical health of our cows by providing everything from regular veterinary care to milking parlours specially designed for comfort, but also their mental wellbeing and ability to exhibit natural behaviours. We never use antibiotics as a preventive measure and only allow these to be used by vets to treat cows that really need them.
OUR GOAL

MAINTAIN AND IMPROVE THE WELFARE OF OUR HERD, EXCEEDING EUROPEAN STANDARDS

We will achieve this by implementing five key interventions:

1. Mastitis control through milking protocols, clean environment and quality nutrition

2. Lameness control through regular hoof health tracking and improvement

3. Ensure our somatic cell count target is always below 250,000. The EU import/export standard is 400,000 cells/ml

4. Ensure our bacteria count target is always below 100,000, which is the EU standard

5. Provide access to food and water 24 hours a day, seven days a week, in a calm and stress-free environment
Harnessing technology

Putting animal welfare first is non-negotiable. It not only means we produce better quality milk; it is the right thing to do for the health of our animals and the planet. Through our digital sustainability platform, AtSource Plus, we can measure and share data with our customers across a number of important welfare metrics. For example, we report the average somatic cell count and bacteria count of the herd, as well as if there are any cases of mastitis.

We also use smart technology to help us take better care of our cows. For example, our cow barns are fully ventilated and fitted with micro-climatic controls to protect our herd from the extremes of Russian weather. Even in the height of winter, when outdoor temperatures can hit -40°C, we can make sure the herd is comfortable. We have automated robots to push nutritionally balanced feed towards our cows, so it is never out of reach, and ensure water is accessible 24 hours a day through heated water troughs so it does not freeze in winter temperatures. And we also use technology to collect data and monitor health, enabling us to provide the right nutrition and care.
CREATING STRONG AND THRIVING COMMUNITIES

In the 1980s, many Russians moved to the cities for work and rural communities were left behind. Those rural communities are at the heart of our operations, which is why we are committed to making them prosperous places where people want to live and work. We do that by creating jobs for local people, paying a fair wage and bringing investment to the area. We also support vital community infrastructure projects to bring city-level facilities to rural villages. That includes building much-needed libraries, kindergartens, roads and housing.

Healthy communities
OUR GOAL

SUPPORT THE WELFARE OF OUR COMMUNITIES BY INVESTING IN LOCAL INFRASTRUCTURE

We will achieve this by implementing four key interventions:

1. Provide decent work and economic growth opportunities in surrounding communities, as well as ensure employee average pay remains higher than twice the regulatory minimum wage for the region.

2. Champion agriculture as a fulfilling career for men and women by promoting equal opportunities and gender equality without discrimination or harassment.

3. Invest in vital local infrastructure and services to create environments where people want to live and work.

4. Provide a safe work environment where the wellbeing of employees is a priority by striving for a total recordable injury frequency rate (TRIFR) per million work hours of less than five and ensuring zero fatalities.
INSIGHT. INNOVATION. IMPACT.

Building community infrastructure

We are committed to supporting the communities we serve and preserving local cultures and traditions in line with UN SDG 11, Sustainable Cities & Communities. We are continually looking for opportunities to support local government authorities in building and repairing critical infrastructure such as roads and energy supply networks, through to restoring historical monuments and museums.

In areas close to our milking farms in Arshinovka, Narovchat and Serdobsk, we have and will continue to partner with local authorities in building new homes for our employees. We have already helped to construct over 50 homes for our employees, who will eventually become owners under the government housing scheme.

We support a variety of community engagement programmes in the Penza region too. For example, we provide ongoing support to local orphanages across the region by sharing New Year gifts, helping to organise excursions for the children and donating computers to support their education.

Empowering women in agriculture

Agriculture has historically been male-dominated. We are encouraging more women to enter the sector and giving them the support they need to progress to leadership positions, in line with UN SDG 5 (Gender Equality).

30% of Rusmolco’s workforce is female, including 31% of middle managers and 28% of skilled positions. That includes women like our Head of HR, Julia Brykina and our Head of Treasury, Irina Volkova, who have spent ten years and nine years with the business respectively. Both have developed their careers at Rusmolco, taking on new challenges and responsibilities. In doing so they have helped themselves to grow and our business to succeed.
SUMMARY

HEALTHY PLANET

- Improve milk yield quality and quantity sustainably
- Reduce enteric emissions by introducing natural feed supplements
- Protect surrounding forests and grasslands
- Drive regenerative agriculture practices and nutrient recycling in animal feed production

HEALTHY ANIMALS

- Mastitis control through milking protocols, clean environment and quality nutrition
- Lameness control through regular hoof health tracking and improvement
- Ensure our somatic cell count target is always below 250,000. The EU import/export standard is 400,000 cells/ml
- Ensure our bacteria count target is always below 100,000, which is the EU standard
- Provide access to food and water 24 hours a day, seven days a week, in a calm and stress-free environment

HEALTHY COMMUNITIES

- Provide decent work and economic growth opportunities in surrounding communities, as well as ensure employee average pay remains higher than twice the regulatory minimum wage for the region
- Champion agriculture as a fulfilling career for men and women by promoting equal opportunities and gender equality without discrimination or harassment
- Invest in vital local infrastructure and services to create environments where people want to live and work
- Provide a safe work environment where the wellbeing of employees is a priority by striving for a total recordable injury frequency rate (TRIFR) per million work hours of less than five and ensuring zero fatalities
JOIN US ON OUR DAIRY SUSTAINABILITY JOURNEY

We are looking for dynamic alliances to gain greater insights and deliver even more impact. This will help us achieve a sustainable dairy farming future.

Three ways to engage:

1. By directly collaborating with us on existing or new initiatives that improve our local communities.
2. Through the AtSource Plus programme: this provides customers with engagement options tailored to individual sustainability ambitions, with clear structures and accountabilities, and a predetermined monitoring and evaluation mechanism.
3. As a strategic partner, to support with technical expertise and resources for new and existing activities on our farms.
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