

# Delivering protein while caring for the environment

The NH Foods Group's business involves nurturing life, including the lives of cattle, pigs, and chickens, and benefitting from its bounty. The natural environment is the foundation for life so we think it is important to conserve it by using resources efficiently and working to reduce our environmental footprint. Here we introduce the environmental issues we are addressing to enable us to deliver stable supplies of protein into the future.



## \ Initiatives /

### 01 Reducing CO<sub>2</sub> emissions ... P12

We are incorporating various methods for reducing CO<sub>2</sub> emissions generated by product manufacturing processes into our factories.

### 02 Using resources effectively ... P14

We are practicing environmentally friendly livestock rearing by effectively using the byproducts generated during rearing and production.

### 03 Reducing plastic waste ... P16

We are working to reduce plastic waste by revising the packaging for our products, including *SCHAU ESSEN*.

# 01

## Reducing CO<sub>2</sub> emissions Initiatives at factories

We are working to reduce the CO<sub>2</sub> emissions generated by product manufacturing processes at Group factories through a wide range of energy saving initiatives. Let's have a look at a factory to see what kinds of ideas are being applied throughout the production process.

Note: The illustrations on pages 12 and 13 are examples that combine initiatives from various Group factories.

### Upgrading refrigeration equipment

We are upgrading our refrigeration equipment to the latest energy efficient models to reduce power consumption.

### LED lighting

In all buildings owned by the Group in Japan, we have switched the light fittings to LED lighting, which uses less energy and has a longer service life.

### Reducing the energy consumption of equipment

We are working to reduce energy consumption through initiatives such as installing highly productive equipment to raise production capacity and optimizing temperatures within freezer and refrigerated storage units.

### Identifying air leaks

At our factories, we use compressed air to power the equipment used in product manufacturing and packaging processes. As air leaks can lead to energy loss, we are using detectors to identify places that air is leaking from, so we can carry out the appropriate repairs.

### Interview with an employee

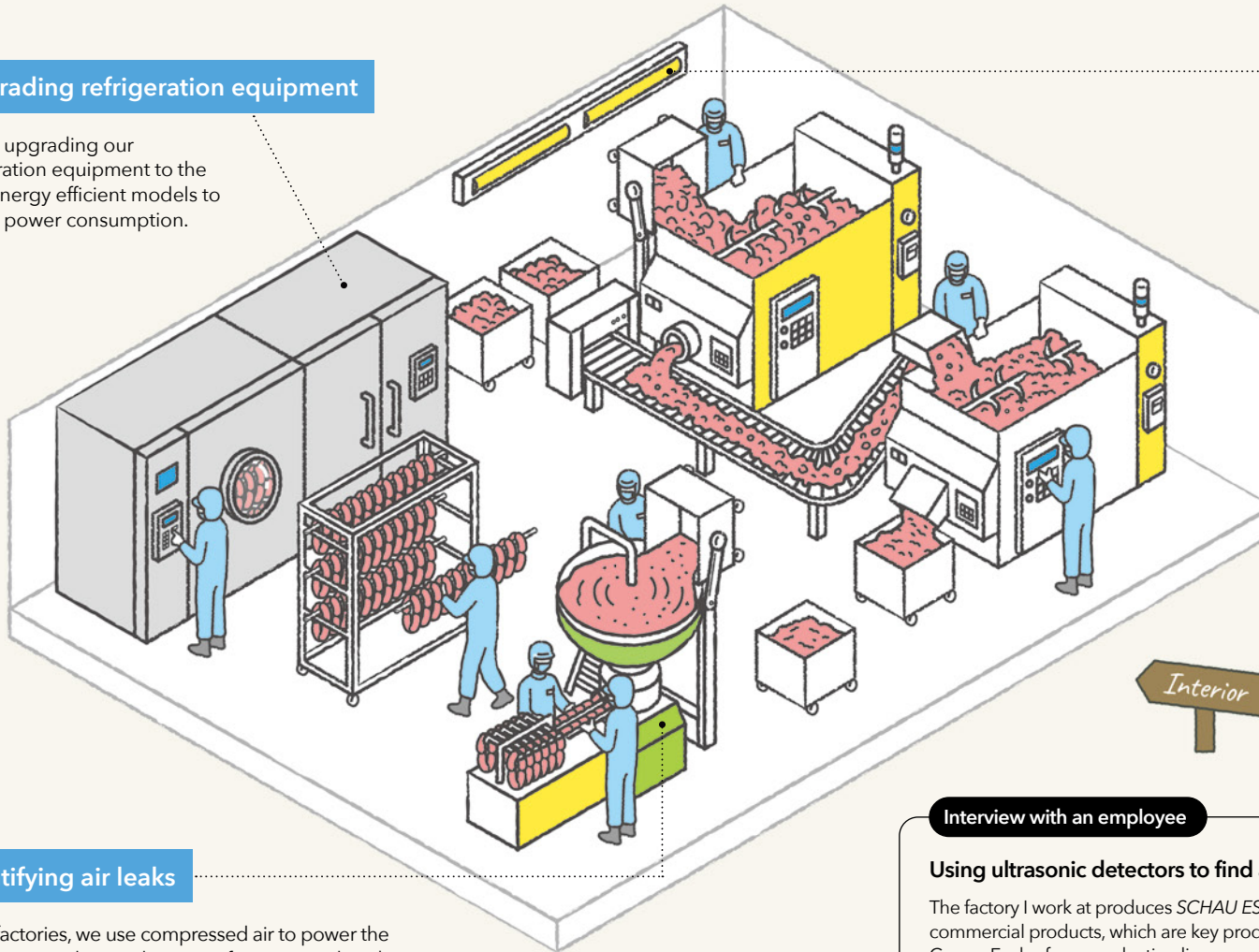
#### Using ultrasonic detectors to find air leaks

The factory I work at produces *SCHAU ESSEN* and commercial products, which are key products for the Group. Each of our production lines comprise a mix of large and small machinery, which use a lot of energy. Within this environment, detectors that can identify air leaks, which are invisible to the naked eye, are invaluable. They are proving extremely useful in terms of operational efficiency.



**Toshiaki Ueki**

Engineering Administration Division  
Nippon Ham Factory Co., Ltd. Ibaraki Plant



# 01 Reducing CO<sub>2</sub> emissions Initiatives at factories

## Switching to fuels with lower CO<sub>2</sub> emissions

We are switching the fuel used for boilers at our factories from heavy fuel oil to gas fuels, which emit less CO<sub>2</sub>. We are also installing boilers that use waste oil generated during the manufacturing of processed foods as fuel.

## Solar power generation

We are using available space and rooftops at our business sites to install solar panels. As of March 2023, we are operating power generation equipment at 24 locations and we are planning further installations going forward, including at offsite locations.

## Electrifying our fleet

We are gradually changing the cars we use for sales activities from gas-powered to hybrid cars. Furthermore, in addition to trialing a switch to electric vehicles, we have also started introducing hybrid trucks.

## Making transport more efficient

At our logistics facilities, we are working to reduce transportation-related CO<sub>2</sub> emissions by improving cargo loading efficiency and revising distribution routes to make transportation more efficient.

## Modal shift

We are implementing a modal shift by changing the way we transport freight from trucks to rail and sea transportation. In addition to being beneficial to the environment, this will also help address Japan's 2024 logistics problem.

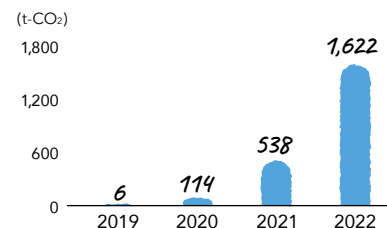
## Utilizing waste heat generated by air compressors

Previously, heat generated when compressing air was allowed to dissipate without use. We are installing heat recovery compressors that use this heat to create hot water. This water is then directed into our boilers, reducing boiler fuel consumption.

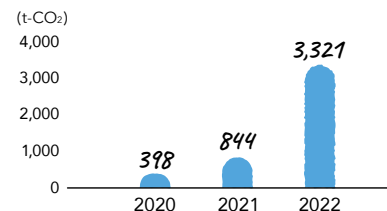
## Our energy saving initiatives visualized through data

### Reduction in CO<sub>2</sub> emissions through solar power generation

\*Calculated using the emission factors of the power companies serving each location that solar power has been introduced

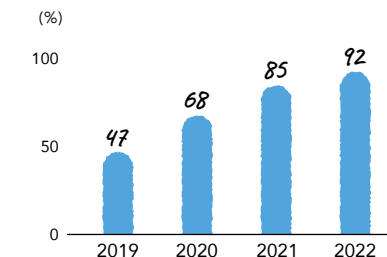


### Reduction in CO<sub>2</sub> emissions through changing from heavy fuel oil to gas fuels



### Rate of conversion to hybrid vehicles

\*Gasoline-powered cars used for sales activities





# Resources utilization initiatives in fresh meat production

## Using the earth's great natural bounty with respect

The fresh meats business accounts for 62.9% of the Group's total net sales. This includes a share of about 20% of the fresh meat market in Japan in terms of sales volumes.

This business is dependent on the earth's great natural bounty and the various blessings of life. Therefore, we strive to use these blessings without waste by protecting the abundant and enriching natural environment, utilizing limited resources with respect, and working to realize a sustainable society.

We are turning the byproducts generated in cattle, pork and chicken manufacturing processes, including bones and skin, into products such as extract seasonings, including ramen soup stock and sauces, as well as extracting functional ingredients from them, like collagen. In this way, we are using the bounty of nature respectfully and without waste.

We are also effectively using livestock manure as a resource, including as fuel and fertilizer.

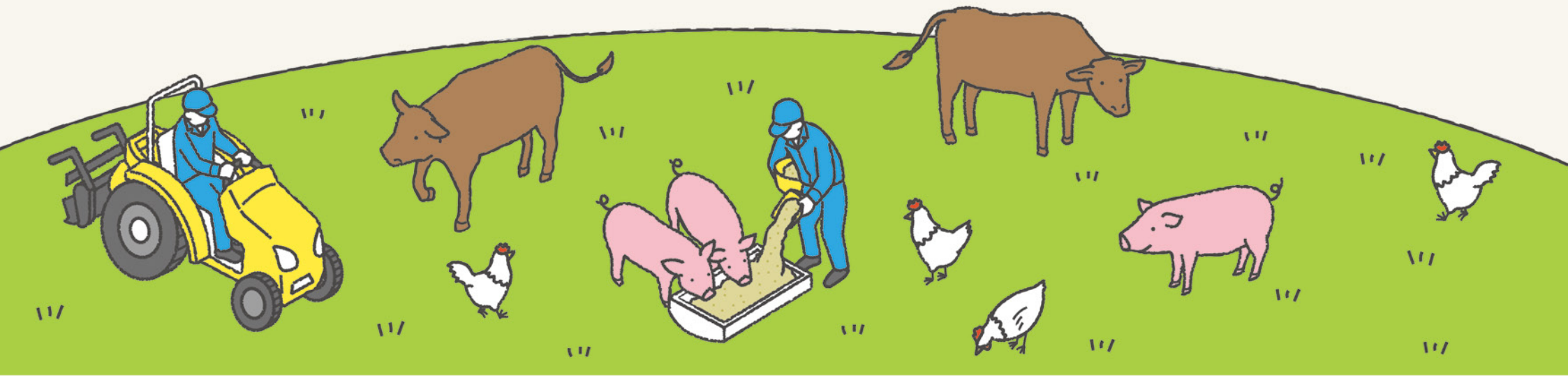


Share of the Japanese  
fresh meat market  
by volume

Approx.  
**20%**

Fresh meat sales out of  
overall Group sales  
(as of March 2023)

**62.9%**



# Resources utilization initiatives in fresh meat production

We are collaborating with local feed producers and vegetable farmers on initiatives to increase the ratio of feed produced in Japan and to reduce the environmental impact of the livestock industry.

## Kitanokomekokko

Brand of chicken produced in Hokkaido

We use brown rice produced in Hokkaido as part of our feed formulas.

Manure from our chicken farms is supplied to vegetable farmers in Hokkaido and used to fertilize crops.

Through this local production for local consumption, we are reducing the environmental footprint of transportation activities and contributing to the region.



Hokkaido brown rice as a feed component



Manure for fertilizer

Supplied to Hokkaido farmers



### Interview with an employee

Taiki Otaguro

Sapporo Office Sales Dept.  
Hokkaido Division  
Higashi Nippon Food, Inc.



We want to further promote *Kitanokomekokko* by communicating its unique characteristics

*Kitanokomekokko* is being well received by customers as a new NH Foods brand of chicken raised on carefully selected feed. Going forward, we also want to communicate its value as a new initiative for the NH Foods Group co-creation network that includes feed producers and vegetable farmers based in Hokkaido. As Japan's leading company for fresh meat, we feel a strong sense of responsibility and we will work to realize a sustainable fresh meats business.

Creating a resource cycle for

*Mugikomachi*  
domestically produced pork

We are working with feed producers to turn the wheat grown in fields in Hokkaido owned by a Group company into feed for pigs. We then process the manure from our pig farms into fertilizer to be spread on these fields, realizing a resource cycle.

Note: This initiative is only being implemented at certain farms.



# 03

Reducing plastic waste

## Changing packaging to reduce plastic use



SCHAU ESSEN  
シャウエッセン®

### SCHAU ESSEN had its topknot cut!

The amount of plastic waste this has prevented  
per one year of sales is...

# 248 tons!

In 2022, we switched the packaging for *SCHAU ESSEN* from a drawstring-style bag to the newly developed eco-friendly pillow-type packaging. By cutting the "topknot haircut" section of the previous packaging, we have reduced the amount of plastic used by 28%\*1, saving 248 tons\*2 of plastic waste per year.

\*1. Compared to the previous *SCHAU ESSEN* 127g double pack

\*2. Calculated based on sales data from February 1 to  
December 10, 2022



#### The plastic waste problem

It is estimated that globally, around eight million tons of plastic waste finds its way into the sea each year\*. Plastic waste that drifts into the ocean has a considerable impact on marine life. There is also concern about the impact of plastic throughout food chains, as plastic that has been broken into tiny pieces by waves and UV rays is eaten by marine creatures, which are then eaten by birds and other animals.

\*Source: World Economic Forum (2016)

#### We also shrank the tape!

In order to further reduce plastic use, we have also reduced the width of the tape used to attach double packs our mainstay sausage products *SCHAU ESSEN*, *Hojun*, *Winnie*®, and *Mori-no-Kaori* for sale from 18 mm to 15 mm.





# 03 Reducing plastic waste Changing packaging to reduce plastic use

The Chuka Meisai series

## Reducing plastic waste by removing trays

For some of our products in the *Chuka Meisai* series, we have removed the tray that was previously placed under the product, reducing the amount of plastic in the packaging by 19.3%, which amounts to about 111 tons\* over a six-month period. (Compared to previous packaging)

\*Calculated based on sales data for four products (Subuta, Happosai, Chinjao Rosu, Hoikoro) from October 1, 2022, to March 31, 2023



111-ton reduction!  
by removing the tray



### TOPICS

#### Working to reduce paper packaging

For our *Utsukushi-no-Kuni* ham gift products we have changed the packaging from the previous layout, which had all the products separated within the box, to one where they are lined up together. This has reduced the amount of paper used for the decorative box by about 40% (compared to the previous packaging).



Chilled drinks

## Switching to straws containing biomass polyethylene

For all chilled drink products produced at our factories, such as *Vanilla Yogurt Drink*, *Torokeru Lassi Mango*, and *Nyusankin Green Smoothie*, we have switched the straws attached to containers from regular plastic ones to straws containing 5% environmentally friendly biomass polyethylene. Biomass polyethylene is a plant-derived plastic made from sugarcane. Sugarcane absorbs CO<sub>2</sub> during photosynthesis which is thought to negate the CO<sub>2</sub> emissions generated when biomass polyethylene is burned.



Isey SKYR

## Switching from plastic to paper

In March 2022, we switched the containers for *Isey SKYR* series from plastic to paper, reducing plastic used in its packaging by about 94% (compared to the previous packaging).

