For Earth, For Life



Kubota Business Report

Interim Period of 134th Term 2023.1.1-2023.6.30

Special Feature P.4-5

Niigata Prefecture is one of the leading rice production areas in Japan. You can see the shining of paddy fields in spring, green carpets in summer, and beautiful landscapes with rice spikes in autumn. How can Kubota Group succeed abundance lands which have responsibility for stable food production and the original landscape of Japan so-called "the Land of Mizuho"?



KUBOTA Corporation



Continuing to Take on Challenges of Business Growth and Resolving Social Issues, We Aim to Be "Essentials Innovator for Supporting Life"

I would like to express my sincere gratitude to our shareholders for their exceptional support. I am happy on the release of Kubota Business Report of the 134th interim period. Consolidated financial results for the first half of the current fiscal year (January 1, 2023 to June 30, 2023) are as follows. We decided to pay ¥24 per common share as the interim dividend of this fiscal year.

We expect our shareholders for their continuous support.

Yuichi Kitao

President and Representative Director of Kubota Corporation



Business Overview







We would like to introduce the Company's activities for the fiscal year ending December 31, 2023. For details on each topic, please access the URL or scan the 2D code below.

Machinery

First time in the world! Launched autonomous vehicle combine

Click below for details https://www.kubota.co.jp/news/2023/newproduct-20230614.html

The Company will launch the world's first combain "AgriRobo combine DRH1200A-A" which is capable of unmanned, automatic operation in order to realize higher efficiency and further laborsaving that management problems facing farmers. With the launch of this product, all three of the Company's main models (Tractor, rice transplanter, combine harvester) will include a lineup of autonomous driving machinery.



*As of June 14, 2023, according to Kubota

Harvesting operation by unmanned autonomous

Machinery

Click below for details https://www.kubota.com/news/2022/20221003.html

Unveiling CO₂-free industrial hydrogen engine for the first time in Japan

As part of its efforts to achieve carbon neutrality through engines, the Company is promoting research on the application of decarbonized fuels, such as hydrogen, biofuels, and synthetic fuels, in addition to reducing the fuel consumption of engines for industrial machinery. In May 2023, we unveiled an industrial hydrogen engine for the first time in Japan. We aim to bring it to market and put it into practical use as soon as possible.



Industrial hydrogen engine unveiled for the first time in Japan

Water & Environment

Operates efficient sewer system based on concession system in Miura City, Kanagawa Prefecture

Click below for details https://www.kubota.co.jp/news/2023/management-20230111.html

Miura City and the Company in Kanagawa Prefecture have signed an implementation contract for a public sewer operation project. This agreement is the first in Japan to operate, maintain, and renew all public sewer facilities, including pipelines, in a single treatment area under a concession system in which a private company has the right to operate the facilities while the municipality has the ownership of the facilities.

The Company will continue to contribute to the realization of stable and efficient operation over a long period of time in sewerage businesses throughout Japan, which face challenges such as aging facilities, a shortage of employees, and a decline in sewerage service revenue due to a declining population.

Water & Environment

Entering the battery materials market

Click below for details https://www.kubota-spears.com/



Click below for details https://www.kubota.co.jp/news/2023/management-20230425.html

The Company will enter the battery materials market by starting mass production of titanium niobium complex oxide used as a negative electrode material for lithium-ion secondary batteries at the end of 2024. Amid rising expectations for improved performance of lithium-ion rechargeable batteries due to the trend toward electrification, including automobiles, we will contribute to the realization of a carbon-neutral society through the production of nextgeneration battery materials.

Image of titanium niobium complex oxide (right

side) and battery

"Kubota Spears Funabashi TOKYO-BAY" Rugby Union Team, first ever victory!





The Company manages the Kubota Spears Funabashi TOKYO-BAY rugby union team, which competes in the Japan Rugby League One competition. In this year's NTT League One 2022-23, we won the coveted first championship since the team was established in 1978. We look forward to your continued support this season. For more information on the game schedule, please visit the above website.



Creating Future through Agricultural Innovation

Japanese agriculture industry faces a variety of challenges including an aging population, a shortage of successors and the impact of climate change on yields and quality; however, its potential is high and new trends are beginning to emerge that are different from those of conventional agriculture.

In order to make agriculture "Sustainable", Kubota, Niigata Kubota and Niigata Prefecture signed a partnership agreement in April 2022 to promote smart agriculture and export of Niigata rice to advance "Green Food System Strategy" proposed by the Ministry of Agriculture, Forestry and Fisheries. The following is an introduction to the efforts of farmers who are realizing new ways of farming and the thoughts of the young who will be responsible for farming in the future.

> For details of the Partnership Agreement, please access the URL below or scan this 2D code. https://www.kubota.co.jp/news/2022/management-20220408.html



KUBOTA promotes smart agriculture

Kubota is now advancing initiatives toward the realization of smart agriculture, focusing on ultra-labor saving based on automation and precision farming based on the use of data with KSAS (Kubota Smart Agri System).

Read more about Kubota's Smart Agriculture



https://www.kubota.com/innovation/smartagri/index.html

[KSAS enables unique PDCA cycle]

Mr. Yanaqisawa of Agricultural producers' cooperative corporations "Circle Shibabashi", in which all four employees in charge of the actual work are in their 30s, proudly said "We believe that the Smart Agriculture can narrow the gap between our skills and experience and those of veteran farmers, and we have continued to transform the ways of farming from those of our parents. Drones and rice transplanters with a straight-ahead assist function were introduced at an early stage so that people with no agricultural experience or less-experience could work immediately. We are now able to achieve more accuracy than experienced farmers." There is no uniform sample or correct answer for agriculture due to differences in soil and climate. However, analyzing the data of past work and fertilizer management which accumulated in KSAS and applying it to the next year's work, it has become possible to manage large fields more efficiently.

"My goal is "cool" agriculture. I hope that agriculture will rank among the jobs that children choose in the future. More than anything, I want my daughter to say "My father is cool,"" He said with a fresh smile.

[KSAS enables anyone easily farm]

Mr. Honma, who runs Agricultural producers' cooperative corporations "Advanfarm Shibata", has a motto of never turning down a farm field he is asked to take care of as a receptacle for local agriculture. "If there is someone who relies on me, I will do my best to respond to them. If there are a lot of abandoned lands, not only will the surrounding fields be affected by pests, but the beautiful countryside will not be protected," he said.

"We hired international students from Mongolia, and with the introduction of KSAS, even people with little experience or unfamiliar with Japanese can easily see where their farmland is and where they are now by looking at their smartphones. Recently, they have been making a breeding map at KSAS using sensing drones, and also been taking on the challenge of variable fertilization using drones. They have been forces for our company," Mr. Honma said. Mr. Kishige from Mongolia replied with a smile, "Farming is not popular in Mongolia, which is why I was attracted.

I feel Japanese technology is very advanced and especially enjoy flying drones. I want to gain the skills and experience, and introduce Japanese agriculture to Mongolia."



Mr. Kishige and Mr. Watanabe of Kubota use KSAS remote sensing

KSAS (Kubota Smart Agri System)

KSAS is the cloud-based agricultural management support service that integrates Kubota's tractors, rice transplanters and combine harvesters with ICT. The system uses smartphones, PCs and other devices to visualize farm management by collecting and utilizing data from supported machinery. This leads to improvement in work efficiency, reduction in cost for fertilizer and other supplies, and production of safer and healthier crops. It has already shown its capabilities as an evidence-based solution for more profitable PDCA-type agriculture, which had not existed in Japan, and has raised expectations.

Number of KSAS members



Toward Realizing Sustainable Agriculture

Kubota promotes exports of Japanese rice

Kubota started rice export business in 2012.

Demand for Japanese food is expanding, particularly in Southeast Asia, due to an increase in the number of foreign visitors to Japan and the spread of Japanese food culture through the overseas expansion of restaurant and retail businesses. The company is promoting to expand sales channels for Japanese rice through the export of brown rice and local milling in Hong Kong, Singapore and Mongolia.

[Japanese rice appreciated around the world]

In July 2023, Mr. Wong, who runs a "soup restaurant" in Singapore, visited Niigata Prefecture to see Japanese agriculture.

"Singapore is a multi-ethnic country and requires a diverse cuisine. Japanese rice is of good quality, and customers say it tastes smooth and delicious. Thanks to contribution of Kubota, I have been deepening the relationship with Niigata Prefecture, one of Japanese most famous rice destinations, and I have realized once again that high-quality Japanese food comes from the rich experience and knowledge of farmers. Singapore's food self-sufficiency is less than 10%, and most people don't know how crops are made. I want to convey the difficulty of making food and the excellence of the people who support agriculture in my own country," he said, looking impressed by Japanese agriculture.

In addition to rice, he sampled edamame (green soybeans), watermelon, and corn. He also said he may consider importing them into Singapore.

"Although demand for Japanese rice is expanding overseas, there is a cost gap from that of foreign rice generally distributed. We will contribute to the further development of Japanese agriculture by utilizing the strengths of the Kubota Group and promoting initiatives in cooperation with end customers and producing area." said Mr. Suminaka of Kubota who is promoting the rice exporting business.



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Toward realization of sustainable agriculture

In order to realize sustainable agriculture, we must continue to pass Japanese agriculture to the next generation. Kubota promotes smart agriculture and environmentally friendly agriculture, while also actively working to educate the younger generation and develop infrastructure.

[Changing consciousness of the young]

Recently, there are the young who come to study agriculture from cities even if their parents are not farmers. "Agriculture is closely related to the environment, for example, if droughts occur due to climate change, yields will decrease, so I feel that agriculture must take the lead in efforts to reduce climate change. I expect Kubota to take the leadership for reducing greenhouse gas emissions by electrifying agricultural machinery and decarbonizing agriculture," said Mr. Mitsui, the student of Niigata prefectural Agricultural College.





Mr. Hanazumi of the Governor of Niigata Prefecture (left side) and Mr. Wong (right side) deepen their relationship.

[Exporting Rice Contributing to Stabilization of Business] On the other hand, the production of exporting rice also has advantages for producers. Mr. Yanagisawa of "Circle Shibabashi", who started producing rice for export after rice prices fell due to the impact of COVID-19, said, "The rice for export will be purchased as much as the contract, so the business will be stable. In addition, when domestic demand falls, we can secure the volume of shipments, thereby diversifying our risk. I am proud to say that the rice I worked hard to make is highly appreciated overseas."

[Hoping to become bridge between Japanese agriculture and overseas] Ms. Sato, who is studying and demonstrating cultivation of export rice at Niigata prefectural Agricultural College, is cultivating "Yukinkomai" which is inexpensive and can be produced in large quantities. "I want to encourage a variety of people to eat Japanese rice, not just to the rich," she said. "It is currently difficult for individuals to secure sales channels

and export procedures. It is necessary for Niigata Nosho. which is the subsidiary of Niigata Kubota, to undertake such activities. In the future. when I go back to my hometown, I would like to be a person who contributes to connect farmers with overseas customers." she said with a sparkling expression.

[Changing Japanese Agriculture from Niigata Prefecture]

Niigata Kubota Co., Ltd., has been supporting the training on drones operation and the installation of them. In addition, promoting to install RTK base stations in order to develop remote sensing environments such as autonomous driving. With the establishment of the RTK base, data received from GPS can be transmitted more accurately to agricultural machines and drones, which implements to enhance the sophistication of smart agriculture.

At NK Farm Murakami, which is a demonstration test site, the group is conducting experiments on labor-saving automatic operation and cultivation methods that reduce greenhouse gases. In the future, the company will be pursuing plans to realize further large-scale farms through smart agriculture and to achieve sustainable agriculture.

New innovations have been emerging in agriculture.

- Their speed is accelerating every year, and they are spreading all over the country. Is agriculture a declining industry? That's the wrong perception.
- Because the grower the world's population continues, the higher the demand of foods.
- Moreover, Japanese agricultural products are highly valued around the world, not just rice, and agriculture has the potential to become Japanese leading export industry as well as automobiles and machinery.
- The Kubota Group works closely with farmers in the spirit of "On Your Side",
- contributing to the development of agriculture and providing various solutions for creating a new era of agriculture.



The Company actively disseminates information through various social media channels. Please take a look at following channels as well as Kubota Business Report and the Company's website.

You can also view the Company's social media policies below. https://www.kubota.com/socialmedia.html



YouTube

https://www.youtube.com/@KubotaBrandChannel





Facebook https://www.facebook.com/KubotaGlobal/





LinkedIn https://www.linkedin.com/company/kubota/

