

Voluntary Report – Voluntary - Public Distribution

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Report Name: Forage Market Update

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Report Highlights:

FAS/Tokyo projects Japan's forage demand to continue to be sluggish in MY2024/25 due to the slow recovery of cattle inventories. Even weaker demand for imported forage is anticipated as farmers shift to price-competitive domestic forage. Japan's Ministry of Agriculture increased support payments to expand its domestic forage production and improve supply chains for domestic forage.

Terminology and Abbreviations

FAS/Tokyo defines the terms as follows:

- Marketing Year (MY): May to April
- Japanese Fiscal Year (JFY): From April 1 to March 31
- Forage: Plants and plant-based products for feeding cattle, including fresh grass, hay, straw, and silage
- Imported Forage: HS1214 (breakdown below) and HS1213

HS Code	Description
HS1213	Cereal straw and husks, unprepared, whether or not chopped, ground, pressed or in the form of pellets.
HS121410	Alfalfa meal and pellets.
HS121490010	Swedes, mangolds, fodder roots, hay, clover, sainfoin, forage kale, lupines, vetches and similar forage products, in cube.
HS121490090	Swedes, mangolds, fodder roots, hay, clover, sainfoin, forage kale, lupines, vetches and similar forage products, excluding those in cube.

Source: Trade Data Monitor

Production

FAS/Tokyo estimates Japan's MY2024/25 total forage production to remain unchanged from the previous year as current total feed production levels remain stable. The Ministry of Agriculture, Forestry and Fisheries (MAFF) reports that total forage acreage has decreased slightly year-on-year, down about 1% over the past decade (Chart 1). Despite the long-term decline in total acreage, production for some types of forage, particularly whole crop silage (WCS) rice, is up. High import prices in recent years have spurred demand for some types of domestic forage, particularly forage made from rice. MAFF also incentivizes rice farmers to produce forage through long-term supply contracts with livestock farmers. As a result, in MY2023/24, the planted area of corn for whole crop silage (WCS) and WCS rice increased 1 percent and 10 percent, respectively, from the previous year. However, the increase could not offset the decreased acreage for forage grass and WCS sorghum resulting in a 0.1 percent overall decline in the total forage planted area.

Production data is not available for all types of forage, including data for WCS rice, however FAS/Tokyo estimates that production is similar to last year, as demand for domestic forage in recent years has increased slightly due to high prices for imports. Japan produced 24 million metric tons (MMT) of fresh forage grass, 4.9 MMT of WCS corn and 50,000 MT of WCS sorghum (Chart 2). In addition, MAFF estimates that Japan produced 9.4 MMT of rice straw as a byproduct of rice production in 2022/23,¹ of which 681,000 MT was used for forage.

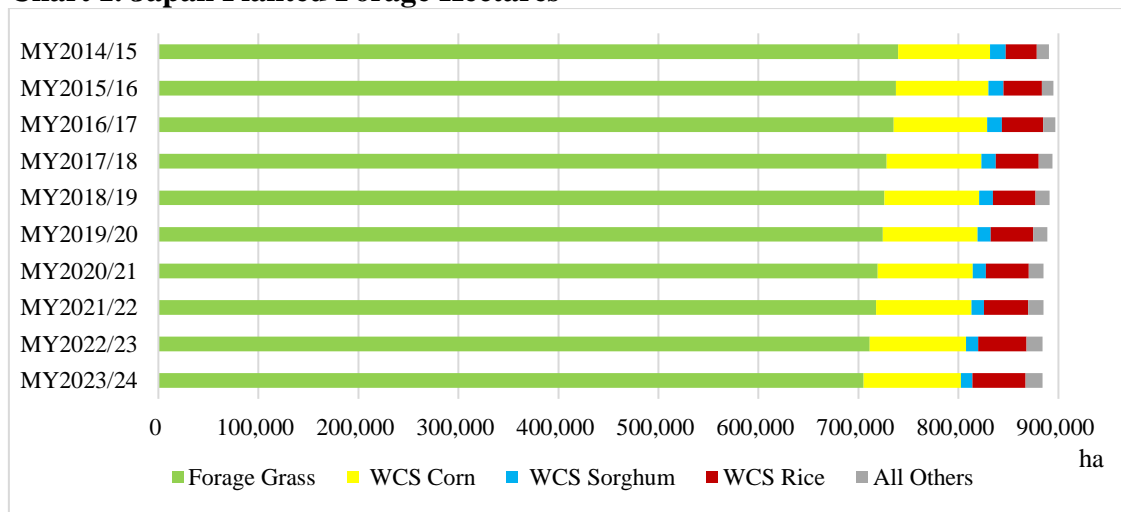
Historically, cattle farmers have been the primary producers of forage in Japan, however as farmers have expanded their herd size, they have not been able to expand forage

¹ MAFF defines the marketing year for rice straw as a year begins in October and ends in September.

production to supply their herds. This, in addition to labor shortages, have contributed to the long-term, but slow, decline in production. Cattle farmers mainly produce corn silage, sorghum, and hay. Additionally, some rice farmers produce whole crop silage rice and hay.

Domestic forage is typically distributed and consumed locally or within the region of production. Hokkaido produces roughly 60 percent of Japan’s forage. With less land suitable for forage production, cattle farmers outside of Hokkaido rely more on purchased forages, mainly imported. Forage producers mainly cultivate grasses from the poaceae family, such as ryegrass, timothy, and orchard grasses. Japan’s acidic soils limit production of legumes, including alfalfa.

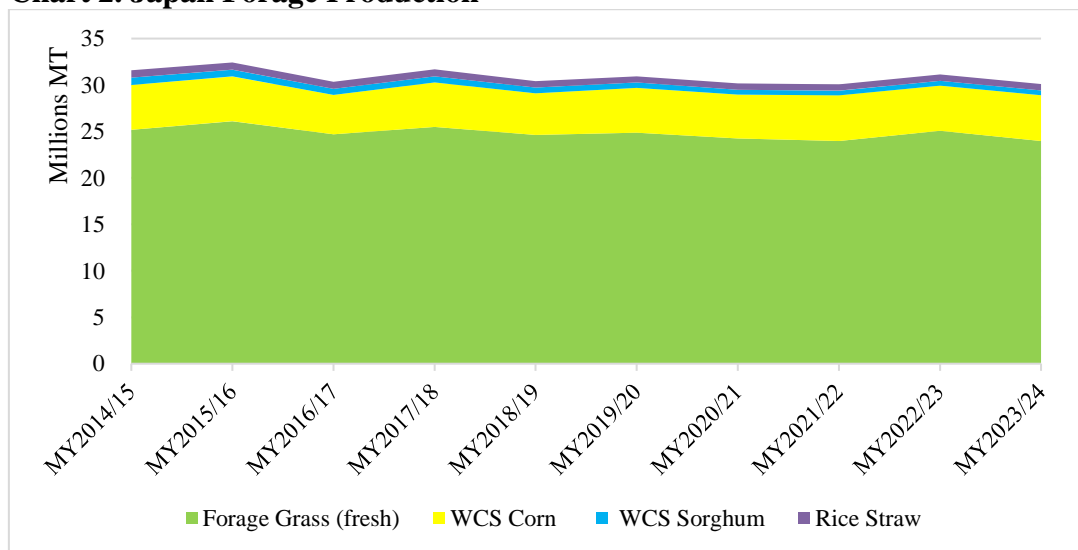
Chart 1. Japan Planted Forage Hectares



Source: MAFF

Note: No data is available for the planted area for rice straw for feed.

Chart 2. Japan Forage Production



Source: MAFF

Note: Production data for WCS rice is not available. The quantity of rice straw is the quantity consumed as feed.

Consumption

FAS/Tokyo forecasts a slightly lower forage demand in MY2024/25 as high feed prices and lower milk and beef consumption are projected to hinder recovery efforts in already low cattle inventories (Chart 3). MAFF reports that forage consumption decreased 4 percent to 4.8 million tons on a total digestible nutrients (TDN) basis in Japan Fiscal Year (JFY)² 2023 due to a decrease in cattle inventories. In February 2024, MAFF reported that dairy cattle inventories decreased 3 percent or 43,000 to 1.3 million from the previous year, the lowest inventories since 1966. MAFF also reported that beef cattle inventories also decreased 0.6 percent (Chart 4).

In 2023, in response to sluggish milk demand, dairy farmers reduced dairy cattle inventories to curb milk production by utilizing MAFF's one-off support payment program to ship low-performing cattle for slaughter ahead of schedule. While the number of cattle farms has been on a long-term decline in Japan, per farm herd expansion had contributed to an increase in total inventories. However, high feed costs and low beef carcass prices accelerated the exit of cattle farms from the market in recent years, leading to the current low inventories.

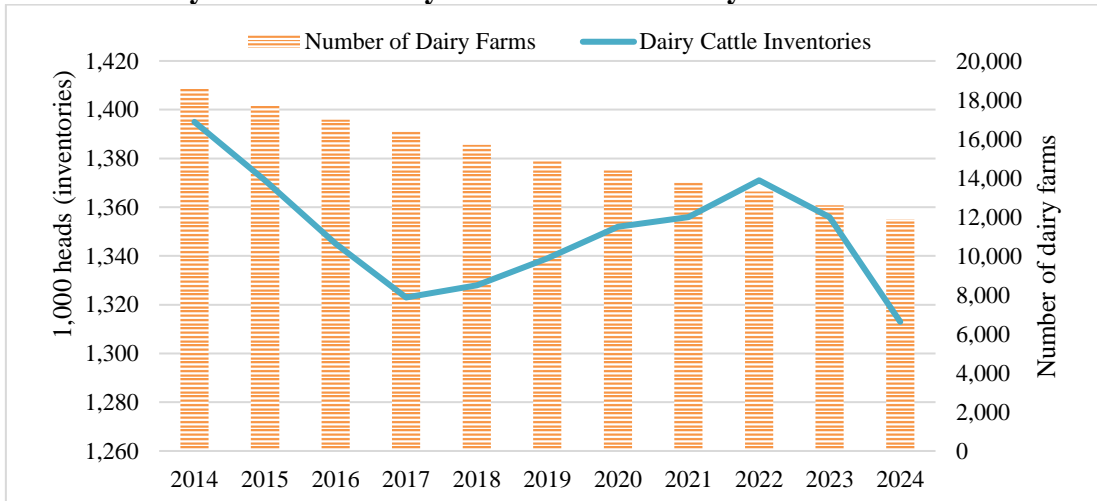
MAFF estimates that, of 4.8 TDN MMT of forage consumed in JFY2023, domestic product accounted for 80 percent, up two percent from the previous year while the share of imports decreased two percent, making up 20 percent market share. The decline in imported forage is in response to high prices. MAFF sets self-sufficiency goals for its agricultural production in an effort to increase food security and has set a target for 100 percent self-sufficiency in forage production by JFY2030 (Chart 6).

MAFF estimates that in 2022/23,³ cattle ranchers used 884,000 MT of rice straw for cattle feed, of which, 77 percent is domestic, and 23 percent is imported. Beef cattle consume almost all rice straw in Japan and rice straw demand tracks closely with beef cattle inventories. Imported rice straw is in constant demand as farmers find that imported forage in baled form is convenient for distribution. In addition, farmers can purchase it as an as-needed basis, which is helpful if there is limited storage capacity.

² Japan Fiscal Year (JFY) runs from April 1 to March 31. JFY2024 = April 2024 – March 2025

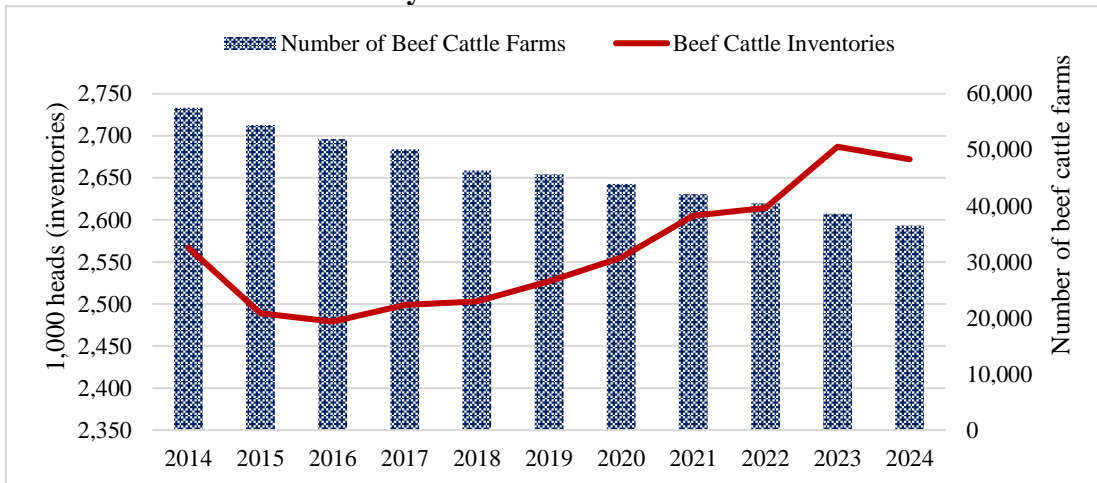
³ October 2022 – September 2023

Chart 3. Dairy Cattle Inventory and Number of Dairy Farms



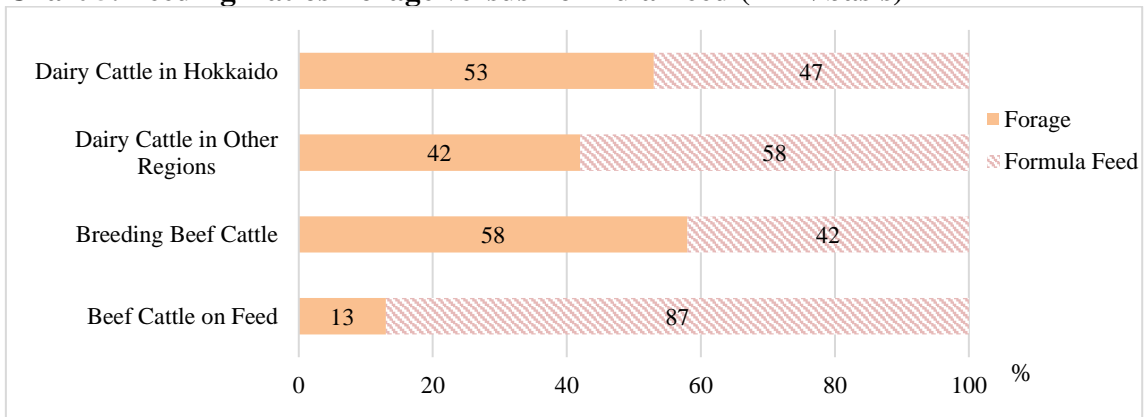
Source: MAFF, as of February 1 each year

Chart 4. Beef Cattle Inventory and Number of Beef Cattle Farms



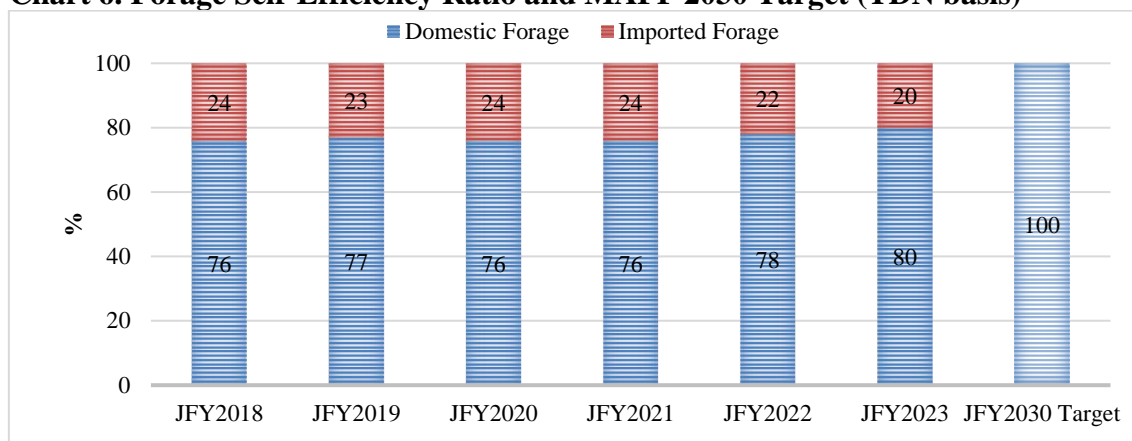
Source: MAFF, as of February 1 each year

Chart 5. Feeding Ratios Forage versus Formula Feed (TDN basis)



Source: MAFF

Chart 6. Forage Self-Efficiency Ratio and MAFF 2030 Target (TDN basis)



Source: MAFF

Trade

FAS/Tokyo forecasts forage imports to be down slightly in MY2024/25 from the previous year based on weak overall forage demand and a shift to domestic forage use. However, with softening imported forage prices, demand for some imported forage has improved in MY2024/25, such as alfalfa hay, which is mainly fed to dairy cows, and which is difficult to produce in Japan.

For the past several years, demand for imported forage has slumped, falling almost 9 percent to 2.4 MMT in MY2022/23, and decreasing an additional 9 percent to 2.2 MMT in MY2023/24 (Table 1). Industry sources attribute the sharp decline to historical high prices for international forage in MY2022/23, especially from the United States (Chart 7). Furthermore, industry noted importers carried over stocks from 2022/2023, further suppressing demand the following year. After several years of high prices for imports, industry sources noted that buyers sought price-competitive domestic alternatives. While the price advantage for Japanese forage has narrowed in recent months due to rising transportation costs within Japan, the availability of MAFF support payments for transportation costs for domestic forage continues to make domestic forage a good option for buyers (see Policy section).

Table 1. Japan Forage Imports (MT)

	Hay	Hay Cube	Alfalfa Meal and Pellets	Cereal Straw and Husks	Total
	HS121490090	HS121490010	HS121410	HS1213	
MY2014/15	1,865,601	179,399	87,269	270,896	2,403,165
MY2015/16	1,781,872	158,185	75,300	271,040	2,286,397
MY2016/17	1,881,859	152,990	70,563	294,477	2,399,889
MY2017/18	1,946,535	155,079	81,016	332,770	2,515,400
MY2018/19	2,032,787	147,435	84,381	348,533	2,613,136
MY2019/20	2,065,310	145,932	75,828	344,710	2,631,780
MY2020/21	2,044,462	135,008	80,313	373,311	2,633,094
MY2021/22	2,061,825	132,196	78,101	354,599	2,626,721
MY2022/23	1,856,741	105,502	80,214	360,602	2,403,059
MY2023/24	1,701,669	92,432	56,062	329,327	2,179,490

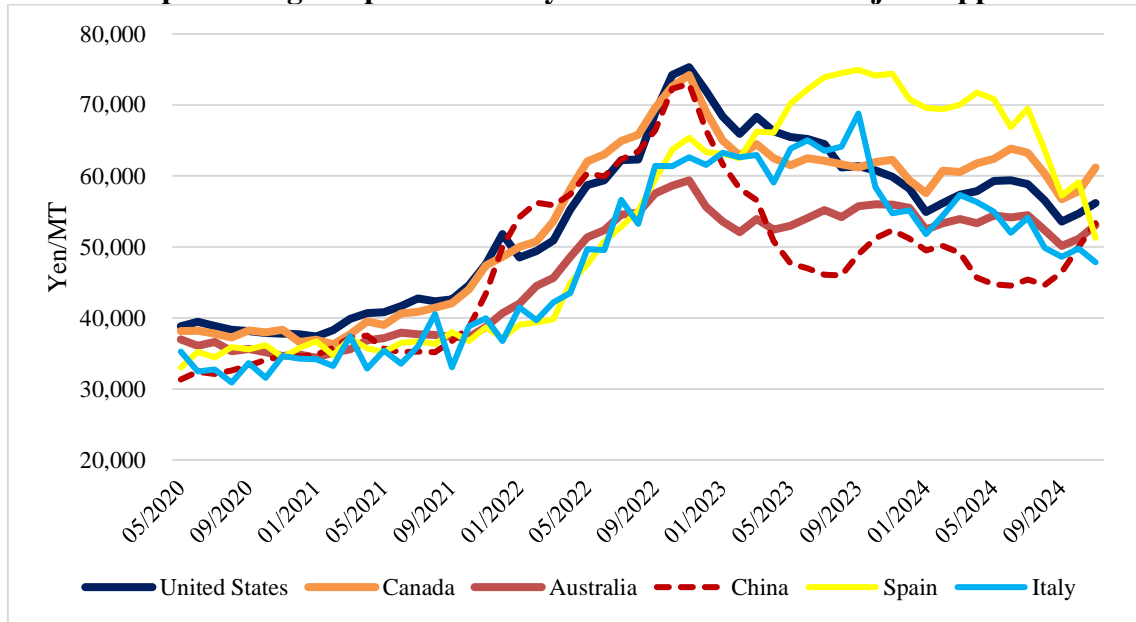
Source: Trade Data Monitor

The United States, Australia, China, and Canada are the primary forage suppliers to Japan, accounting for 95 percent of imports in MY2023/24 (Chart 8). As prices for U.S. forage have steadily increased from 2020, the U.S. market share, subsequently, has declined from 60 percent to 52 percent from MY2020/21 to MY2023/24, respectively. During the same time period, Australia's market share is up five percent, reaching 26 percent, as Japan increased oat hay imports from Australia due to its price competitiveness amid abundant exportable supplies.⁴ While Italy and Spain have steadily increased their alfalfa hay and ryegrass exports to Japan over the past decade due to price competitiveness of these products, their exports to Japan diminished in MY2023/24 due to rising prices (Chart 9).

The United States is the dominant supplier of klein grass, sudangrass, and bermudagrass, and the leading supplier of alfalfa hay, ryegrass and fescue straw. Australia is the primary supplier of oat hay and wheat straw. China is the sole supplier of rice straw. The United States and Canada are leading suppliers of timothy hay (Chart 10, Annex Table 1).

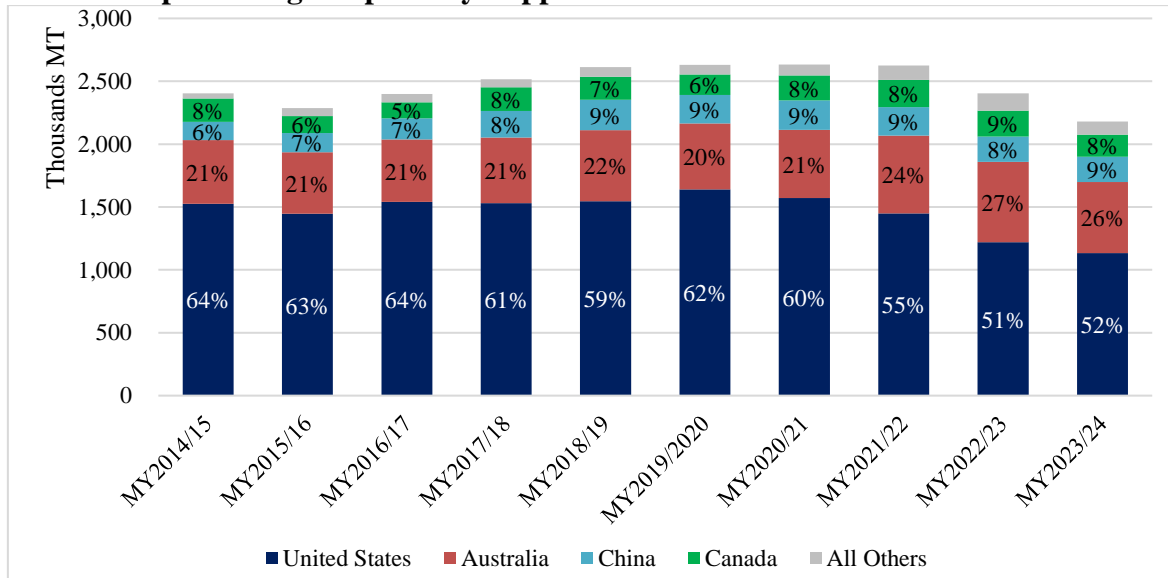
⁴ China did not renew the export authorization for 25 out of 28 Australian hay processing plants in February 2021. In September 2023, China authorized exports for 23 out of 25 Australian hay processing plants.

Chart 7. Japan Forage Imports Monthly CIF Unit Prices of Major Suppliers



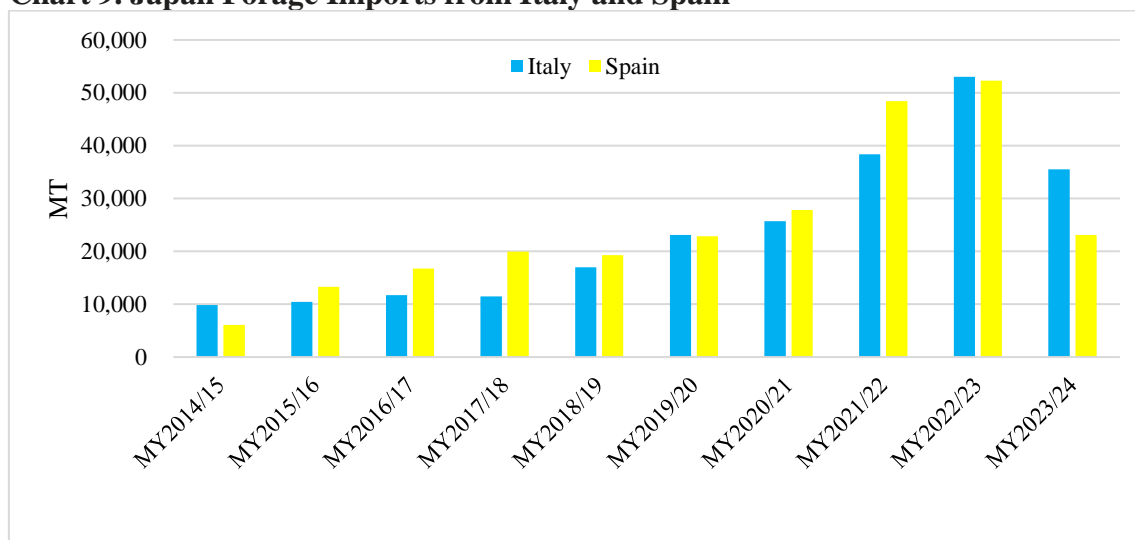
Source: Trade Data Monitor

Chart 8. Japan Forage Imports by Suppliers and Market Share



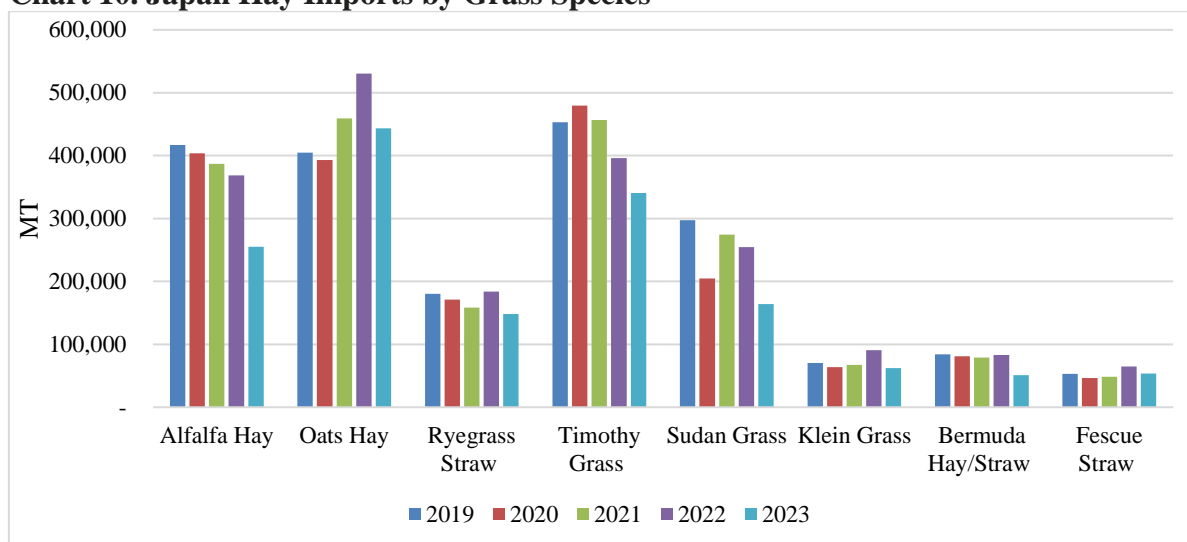
Source: Trade Data Monitor

Chart 9. Japan Forage Imports from Italy and Spain



Source: Trade Data Monitor

Chart 10. Japan Hay Imports by Grass Species



Source: MAFF

Policy

In response to high prices for imported forage and as part of the Government of Japan's policy to improve food security, MAFF increased its domestic support for forage production and supply chain capacity for domestic forages. MAFF's domestic support programs bolster domestic feed crop production by facilitating long-term supply contracts between crop farmers, feed production organizations, and livestock farmers. MAFF also extends support payments to feed production organizations to invest in infrastructure, such as machinery and storage facilities. In addition, MAFF provides support payments to distributors to cover partial transportation costs for domestic feed (Table 2).

MAFF provides support payments to farmers under its program titled, “Direct Payments for Rice Paddy Utilization” ([JA2021-0031](#)) which incentivizes farmers to shift production from table rice to other crops, including forage such as forage grass, WCS corn, WCS sorghum, and WCS rice. In JFY2024, MAFF pays 800,000 yen per hectare for the planted area of WCS rice and 350,000 yen per hectare for the planted area of other forage in paddy fields.

Table 2. MAFF Support Payments for Feed Production Expansion and Supply Chain Improvement

Eligible Participants	Payment	Requirements
Direct Payment for Rice Paddy Utilization		
Crop farmers	800,000 yen/ha for WCS rice 350,000 yen/ha for other forage	Production of designated feed crops in paddy fields
Domestic Feed Use Expansion		
Crop farmers, cattle, swine and poultry farmers, domestic feed manufacturers	7,800 yen/MT for WCS corn, WCS sorghum and forage grass, and 12,000 yen/MT for grain corn for the actual weight of use or sales which are expanded from the previous year	Supply and use contract for at least 3 years between crop farmers and cattle, swine and poultry farmers or between crop farmers and domestic feed manufacturers. Domestic feed manufacturers provide feed analysis and feeding information to crop farmers
Feed production organizations	50% of costs for purchase of machinery for forage production and compost spreaders, and construction of warehouses	Increase feed crop production and participate in the above program
Wide-area Supply of Domestic Feed		
Crop farmers, farmers' groups	8,300 yen/MT for WCS corn, WCS sorghum and forage grass, and 12,200 yen/MT for grain corn for the actual weight of sales which are expanded from the previous year	The quality labels indicating TDN, moisture, crude protein, crude fat, crude fiber, crude ash, and soluble non-nitrogenous matter must be attached for sales. Sales volume or value must be increased by at least 5% from the previous
Domestic feed distributors	Based on transportation distance 2,000 yen/MT for 50km~ 5,000 yen/MT for 100 km~ 10,000 yen/MT for 500 km~ 15,000 yen/MT for 1,000 km~ 20,000 yen/MT for 1,500 km~	Multi-year sales contracts with livestock farmers. Payments are only for expanded sales volume.
Production Expansion Support for Feed Production Organizations		
Agriculture corporations, agricultural cooperatives, agriculture-related companies etc.	50% of costs for purchase of machinery for forage production, rice straw collection and compost spreaders, and construction of warehouses 120,000 yen/ha (1st year) and 50,000 yen/ha (2nd year) for expanded production area for forage, corn, barley and soybeans for feed	Increase in total sales of feed production, sales, or contract production by at least 5%. At least 5% reduction in labor input (labor hours) or at least 5% increase in labor productivity Supply contracts with cattle, swine and poultry farmers for at least 5 years and areas of expansion must be at least 10%

Source: MAFF

Annex Table 1. Japan Hay and Straw Imports (MT)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Alfalfa Hay										
United States	391,003	372,972	378,435	399,307	394,864	413,840	398,477	378,609	344,365	247,759
Canada	5,084	6,349	4,028	3,824	5,316	2,238	3,935	5,132	4,780	2,903
Spain	319	2,512	878	616	316	645	1,246	2,529	14,676	3,829
All others	900	2,656	981	437	478	337	249	663	4,526	826
Total	397,306	384,488	384,322	404,184	400,974	417,060	403,907	386,933	368,348	255,317
Oats Hay										
Australia	399,937	393,307	385,414	428,173	458,921	403,198	390,833	457,050	528,914	442,090
All others	4,130	1,840	1,388	2,557	1,811	1,484	2,178	1,965	1,546	1,100
Total	404,067	395,147	386,802	430,730	460,732	404,682	393,011	459,015	530,460	443,190
Timothy Hay										
United States	282,715	279,524	328,708	336,183	297,794	349,543	372,395	327,529	276,876	245,583
Canada	96,477	92,378	78,525	101,618	116,229	103,389	107,010	128,947	118,891	94,496
All others	0	0	0	0	0	0	63	42	317	279
Total	379,192	371,902	407,232	437,800	414,022	452,932	479,405	456,476	396,084	340,358
Sudan Grass										
United States	300,134	282,782	256,672	263,222	269,499	297,322	294,510	274,206	253,999	163,686
All others	1,309	1,491	510	604	46	0	0	0	580	289
Total	301,443	284,273	257,183	263,826	269,545	297,322	294,510	274,206	254,579	163,975
Ryegrass Straw										
United States	166,320	169,083	182,409	161,908	165,092	177,679	163,305	150,253	163,545	139,643
Spain	20	119	218	403	1,111	1,416	2,833	5,182	10,274	4,671
All Others	22	43	20	44	381	955	4,828	2,826	9,843	3,671
Total	166,362	169,245	182,647	162,355	166,584	180,050	170,966	158,261	183,663	147,985
Bermuda Hay/Straw										
United States	70,431	66,272	71,495	88,538	85,937	83,988	80,913	79,163	82,841	51,073
Klein Grass										
United States	73,823	73,751	67,603	73,467	71,942	70,303	63,734	67,263	90,795	61,989
Fescue Straw										
United States	58,843	52,046	48,059	59,895	54,847	52,890	45,902	47,118	58,273	50,545
All others	113	42	0	21	0	0	644	1,437	6,488	3,029
Total	58,956	52,088	48,059	59,916	54,847	52,890	46,546	48,555	64,761	53,574
Rice Straw										
China	150,992	144,165	155,776	204,537	235,708	224,354	217,920	233,655	214,449	197,083

Source: MAFF, Trade Data Monitor

Attachments:

No Attachments.