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# “Natto” Unlocking the Potential of “Fermented Soy Foods” for Global Markets

Shinsuke Yamada  
President,  
Yamada Foods Co., Ltd.



## Today's Index

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1. Do you know Natto?
2. Introduction of Yamada Foods
3. Why does fermentation matter?
4. Importance of Identity Preserved (IP) soybeans
5. Potentials of Fermented Soy Foods



# Do you know NATTO?

Traditional Food  
In Japan

Fermented  
Soybeans

Very Sticky  
texture

Socks by ASICS 2,200JPY

Strong **Aroma**  
& Unique **Flavor**

Beneficial  
Nutrition





# Introduction of Yamada Foods

Founded in Akita, Japan in 1954

**“Ohayo Natto”**



Varieties of Natto Bacteria

Superior Tech on **Hikiwari Natto**  
(Natto with Grind Soybeans)

**No.1** in **B-to-B** Natto market

**Non-GMO** Soybeans Only

New Challenge

**With Freeze Dried Natto**

New Challenge

**Baby Food and Elderly Care**



# B to C Products : Refrigerated ( Frozen for Export )

おはよう  
日本子育て支援大賞  
2023  
超・細か〜い  
まざまみ納豆  
40g×3  
たれ・からし付

おはよう  
低温  
熟成  
発酵  
旨みと香りの  
合わせだしたれ  
和からし付  
納豆の中粒  
40g×3

おはよう  
低温  
熟成発酵  
納豆  
大好き!  
やわらか  
極小粒  
40g×4  
鯉と昆布の合わせだしたれ  
和からし付

おはよう  
国産大豆100%  
白神納豆菌使用  
本醸造醤油たれ  
からし付  
大粒  
40g×2

おはよう  
ただ  
たっぷり納豆  
たれ  
たっぷり  
極小粒  
40g×3

おはよう  
ただ  
たっぷり納豆  
たれ  
たっぷり  
ひきわり  
40g×3

おはよう  
食べ方いろいろ!  
たれ・からしは  
付いておりません  
納豆  
名人  
極小粒  
40g×3



# B to B Products : Frozen





# For Baby & For Elderly Care

Our Regional Cuisines  
“Natto Soup”



Processing

Natto into a paste



- Baby Food
- Elderly Care meals



Paste Natto For Baby Food



Natto for Elderly Care



# Freeze Dried Natto? Why?

	Regregirated Natto	Frozen Natto	Freeze-Dried Natto
Good Points	<ul style="list-style-type: none"><li>▪ Tastes Good</li></ul>	<ul style="list-style-type: none"><li>▪ Long Shelf Life (1year)</li><li>▪ Preserves heat-sensitive nutrition</li><li>▪ Expand the market Geographically</li></ul>	<ul style="list-style-type: none"><li>▪ Long Shelf Life(Max. 5 yrs)</li><li>▪ Preserves heat-sensitive nutrition</li><li>▪ <b>Not Sticky</b> ▪ <b>Not Stinky</b> → <b>Good for First Trial</b></li><li>▪ <b>Can be sold at Room temp.</b></li><li>▪ <b>Expand the Natto market</b></li></ul>
Weak Points	<ul style="list-style-type: none"><li>▪ Short Shelf Life (2weeks)</li><li>▪ Sticky ▪ Stinky</li></ul>	<ul style="list-style-type: none"><li>▪ Cold-chain Logistics</li><li>▪ High Logistics Cost</li><li>▪ Slightly changes texture</li></ul>	<ul style="list-style-type: none"><li>▪ High Manufacturing Cost</li></ul>



## B to C Products: Freeze-Dry Natto



Natto Snack  
with soy sauce flavor



Natto Powder for Baby



Natto Powder for Instant Soup



# IP Logo on our Products



<b>要冷蔵</b>	栄養成分表示 1パック (49g)
	当たり ( )内納豆40gのみ
	エネルギー 82kcal (74kcal)
	たんぱく質 6.4g ( 6.2g)
	脂質 3.9g ( 3.9g)
	炭水化物 7.0g ( 5.2g)
	食塩相当量 0.6g ( 0.0g)



この表示値は、目安です。

●名称 納豆 ●原材料名 [納豆]大豆(アメリカ又はカナダ)(遺伝子組換え混入防止管理済)、納豆菌 [添付たれ]果糖ぶどう糖液糖、しょうゆ(小麦・大豆を含む)、食塩、砂糖、かつおエキス調味料、こんぶ調味エキス、かつお節エキス、醸造酢、ホタテエキス、焼アゴエキス、ちりめんエキス、真鯛エキスパウダー、しいたけエキスパウダー/調味料(アミノ酸等)、酸味料 ●内容量(納豆40g、たれ9g)×3パック ●賞味期限 天面右下部に記載 ●保存方法 要冷蔵(10℃以下) ●製造者 株式会社ヤマダフーズ 秋田県仙北郡美郷町野荒町字街道の上279

製造所 株式会社ヤマダフーズ 茨城工場 茨城県牛久市奥原町字塙台1753  
納豆の主原料である大豆の産地は、一昨年の使用実績順に記載。

【使用上の注意】 ●開封後は冷蔵保管の上、当日中にお召し上がりください。 ●納豆の表面に白い斑点が現れることがありますが、ロシンというアミノ酸の結晶ですので、お召し上がりになってもお体に害はございません。

お客様相談室 **0120-465180**  
(平日9時~17時)  
ホームページ <https://www.yamadafoods.co.jp>

外装フィルム、容器、※ゴミに出すときは自治体のたれ袋、被膜 区分にしたがってください。



TM



# Identity Preserved (IP) and Consumer Trust

- Consumers need to trust the safety and traceability of raw materials.
- IP systems ensure traceability
- IP logo helps communicate Safety and Quality
- Useful for overseas market expansion





# Why Fermentation Matters?

- Good for Gut Health
- Improves Digestibility
- Fermentation can create and increase certain nutrients, such as Vitamin K2, B2 and Natto-kinase





# Fermented Soy Foods in Asia : Tempeh : Indonesia



Tempeh Manis



# Fermented Soy Foods in Asia : Cheonggukjang : Korea



Cheonggukjang Jjigae



# Fermented Soy Foods in Asia: Thua nao : Thailand/Laos



Thua nao

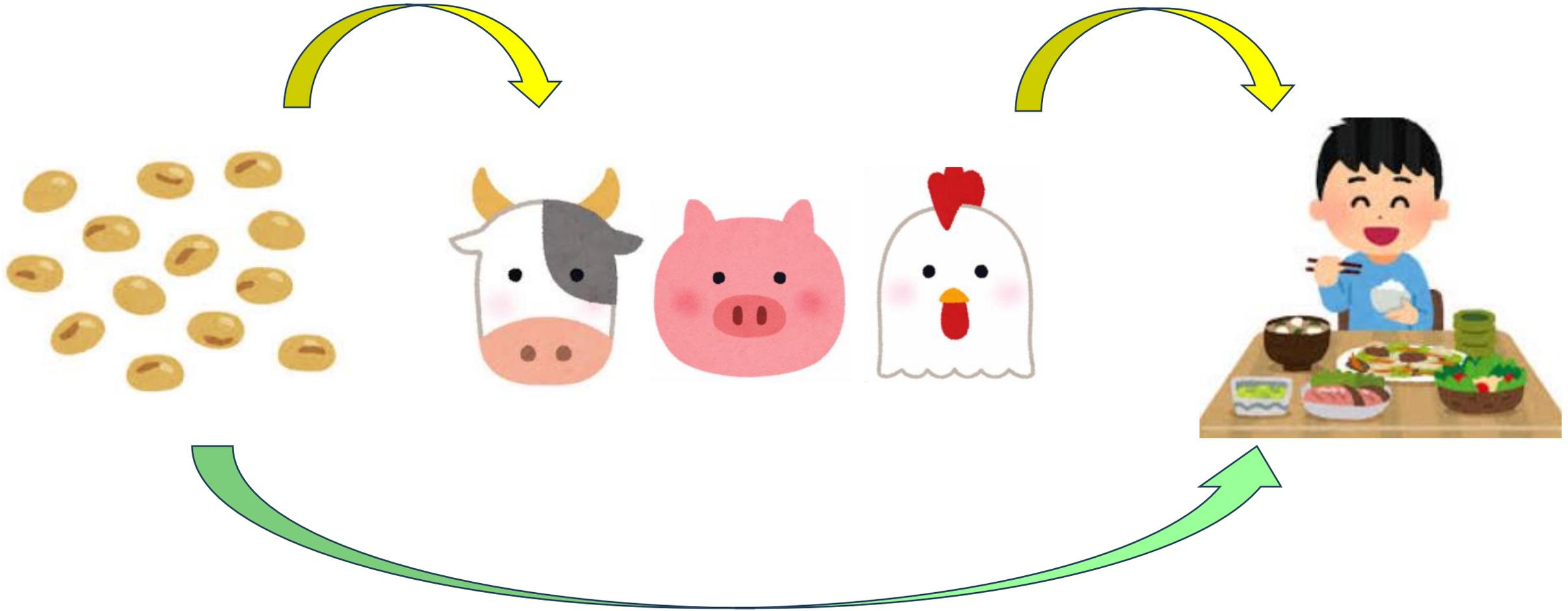


Khao soi nam na (in Chiang Rai province)

Takeaway, CC BY-SA 3.0 via Wikimedia Commons



# Eating Soy Food V.S. Livestock Feed





## Key Takeaways

- Fermentation increases the value of soybeans.
- Frozen and Freeze-Dried Products enables us to expand our business to new category and abroad.
- Safety and Traceability of ingredients is critical for consumers.
- IP Logo helps building Consumer Trust.





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# Appendix



## ■ Expand the Product Portfolio to new Categories

Ex. Refrigerated, Frozen and Dry

Ex. Snacks, Pet Food, Protein for athletes

## ■ Expand the Target Consumers

Ex. Baby food, Elderly care meals

## ■ Challenge to international markets

with IP logo program



# How was Natto born in Japan?

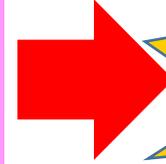
Boiled  
Soybean



Natto Bacteria  
in a Straw bag



Body Heat  
of Horse



Natto



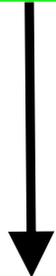


# Manufacturing Process of Natto

1. Screening



2. Water absorption



3. Steaming



No Horse



7. Refrigerating and Aging



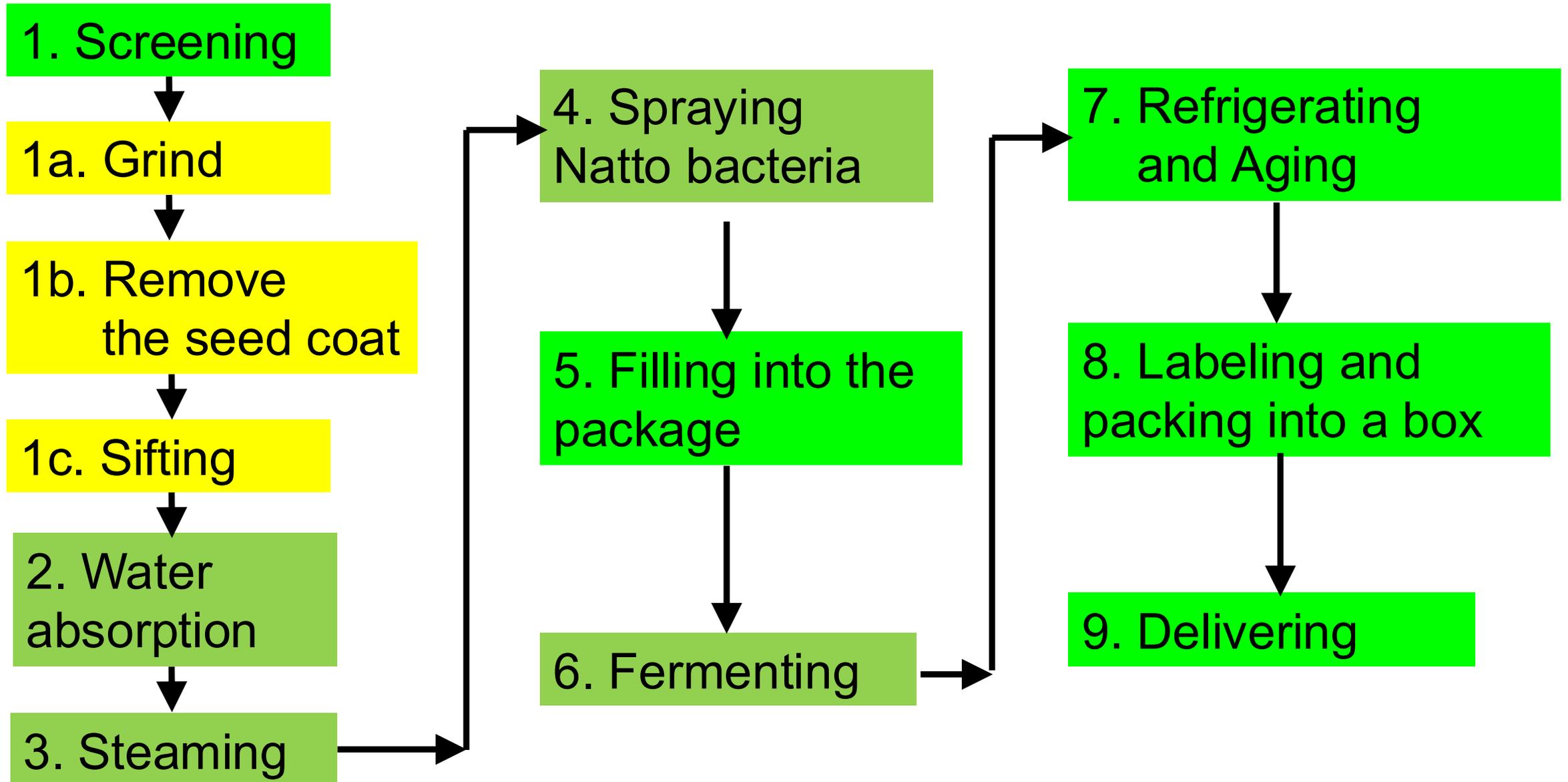
8. Labeling and packing into a box



9. Delivering



# Manufacturing Process of Hikiwari Natto



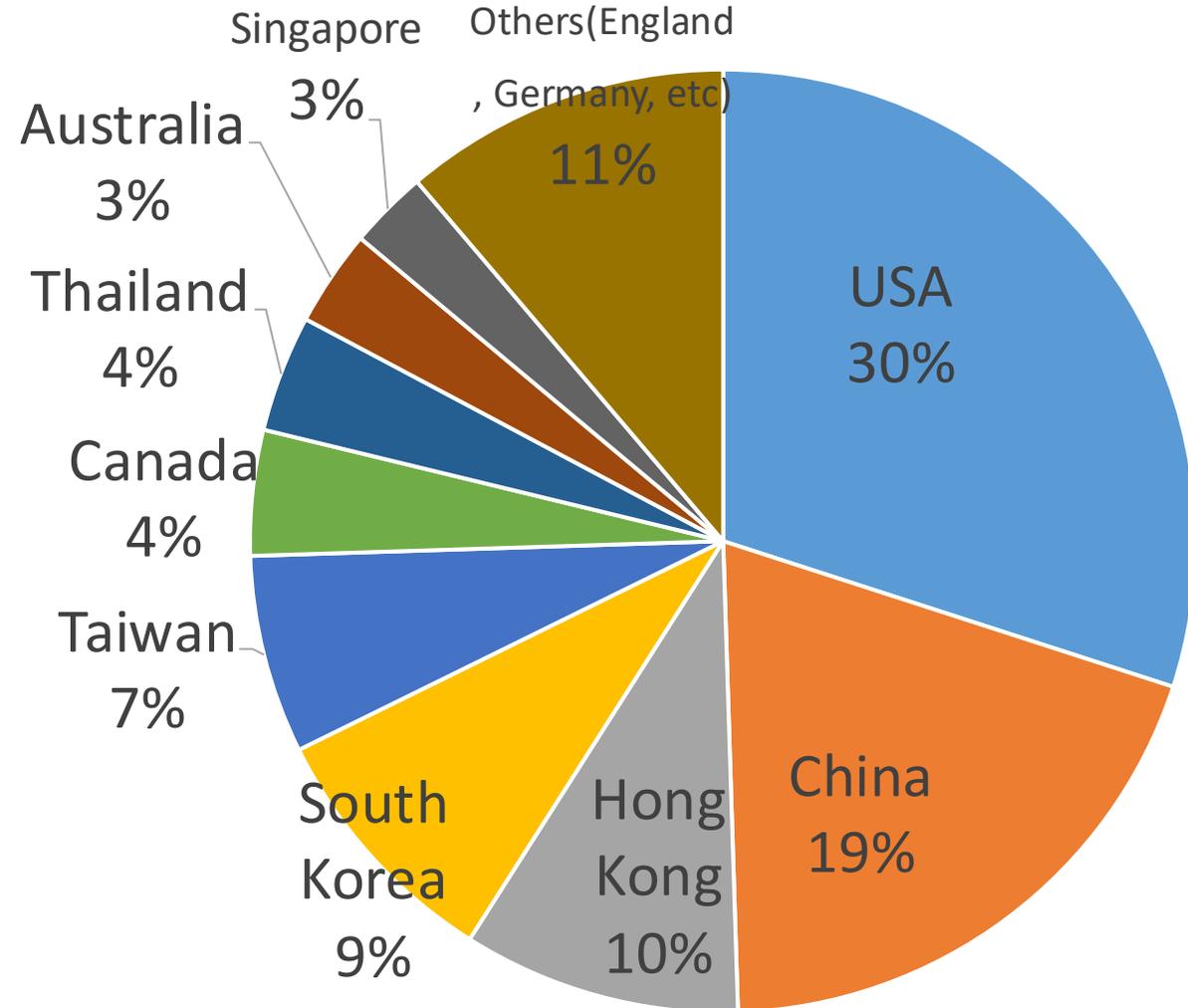


# Exporting Natto from Japan

## ■ Export Amount of Natto

Year 2024	2.16 Billion JPY
Year 2023	1.90 Billion JPY
Year 2022	1.77 Billion JPY
Year 2021	1.69 Billion JPY
Year 2020	1.37 Billion JPY
Year 2019	1.11 Billion JPY

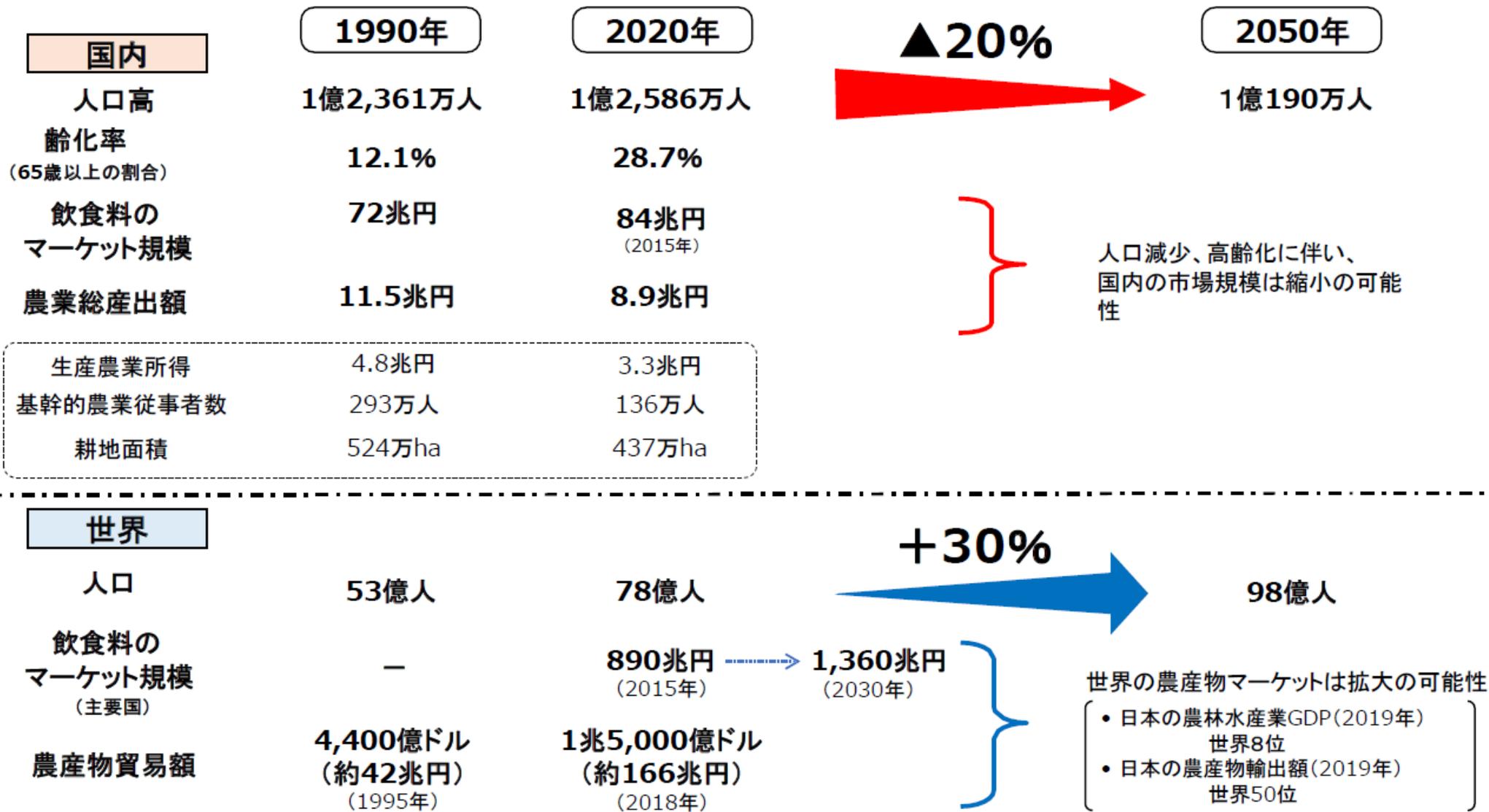
Share of Exporting Natto in Year 2024



# 国内外のマーケットの変化

出典：農林水産省 関東農政局経営・事業支援部「農林水産物・食品の輸出促進の取組について」

- 国内の市場規模は、人口減少や高齢化に伴い、縮小の可能性。一方、世界の農産物マーケットは、人口の増加に伴い、拡大する可能性。
- 国内外のマーケットの変化に鑑みれば、農林水産業の生産基盤を強化し、農林水産物・食品の輸出促進により世界の食市場を獲得していくことが重要。





# Natto Manufacturers in the World

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- U.S.A: Nyrture Food (Brooklyn, NY)  
Aya's Culture Kitchen (Boston)
- Canada: Natto King Products Inc.
- France: L'atelier Natto (Paris)
- Germany: Hirsch Natto (Munich)
- Australia: Natto Co. (Victoria State)
- S. Korea: Pulmuone (started in 2005. Market share 89.3%)
- Thailand: Daikyo Kenko Foods (Bangkok)
- China: 青島旭松康大食品有限公司 (Parent Company: Asahi-Matsu)



# Store Shelf of Refrigerated Natto in Japan





# Store Shelf of Frozen Natto in US





# Beneficial Nutritions of Natto

Beneficial Nutrition	Benefit
<b>Natto Kinase</b>	Prevention of Blood Clot
<b>Polyamine</b> , Protein, Isoflavones, Lecithin, Saponin	Prevention of Arteriosclerosis
Dietary fiber, Isoflavones, Lecithin, Saponin	Control of Cholesterol
<b>Bacillus Subtilis Natto</b> , Dietary fiber, Oligo saccharide	Improvement of Intestinal Regulation
Dietary fiber	Lower risk of colon cancer
<b>Vitamin K2</b> , Isoflavones, Calcium	Helps improve healthy bones
Dietary fiber (Soluble dietary fiber)	Slower absorption of sugar and helps Diabete
<b>Peptide</b>	Slower the blood pressure elevation
<b>Polyamine</b>	Contributes to anti-aging
Isoflavones	Lower risk of breast cancer
Dietary fiber, Protein, Vitamin B2	Help losing weight
<b>Polyamine</b> , Vitamin E, Lecithin, Vitamin B2	Contributes to beautiful skin
Lecithin, Isoflavones	Contributes to revitalization of brain Contributes to prevention of dementia

	Per 100g of Boiled Japanese Soybeans	Per 100g of Natto	Per 100g of Hikiwari Natto
Energy	163kcal	184kcal	185kcal
Water	65.4g	59.5g	60.0g
Protein	14.8g	16.5g	16.6g
Fat	9.8g	10.0g	10.0g
Carbohydrate	8.4g	12.1g	10.5g
Potassium	530mg	690mg	700mg
Calcium	79mg	91mg	59mg
Magnesium	100mg	100mg	88mg
Iron	2.2mg	3.3mg	2.6mg
Zinc	1.9mg	1.9mg	1.3mg
<b>Vitamin B2</b>	0.08mg	<b>0.30mg</b>	<b>0.36mg</b>
Vitamin B6	0.10mg	0.24mg	0.29mg
<b>Vitamin K</b>	7µg	<b>870µg</b>	<b>930µg</b>
Folic Acid	41µg	130µg	110µg



# References and Copyrights

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## References

1. Hannah Ritchie (2021) - “If the world adopted a plant-based diet, we would reduce global agricultural land use from 4 to 1 billion hectares” Published online at OurWorldinData.org. Retrieved from: '<https://archive.ourworldindata.org/20260305-101825/land-use-diets.html>' [Online Resource] (archived on March 5, 2026).
2. Wilkinson JM. Re-defining efficiency of feed use by livestock. *animal*. 2011;5(7):1014-1022. doi:10.1017/S175173111100005X
3. Standard Tables of Food Composition in Japan. (Issued 2023)

## Photographs

1. “Our Regional Cuisines”, Ministry of Agriculture, Forestry and Fisheries
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3. Tempeh, Cheonggukjang, Thua nao from iStock by Getty Images