



# WHOLE GRAIN CONSUMPTION FOR A HEALTHY DIET IN VIETNAM: AWARENESS AND PRACTICE

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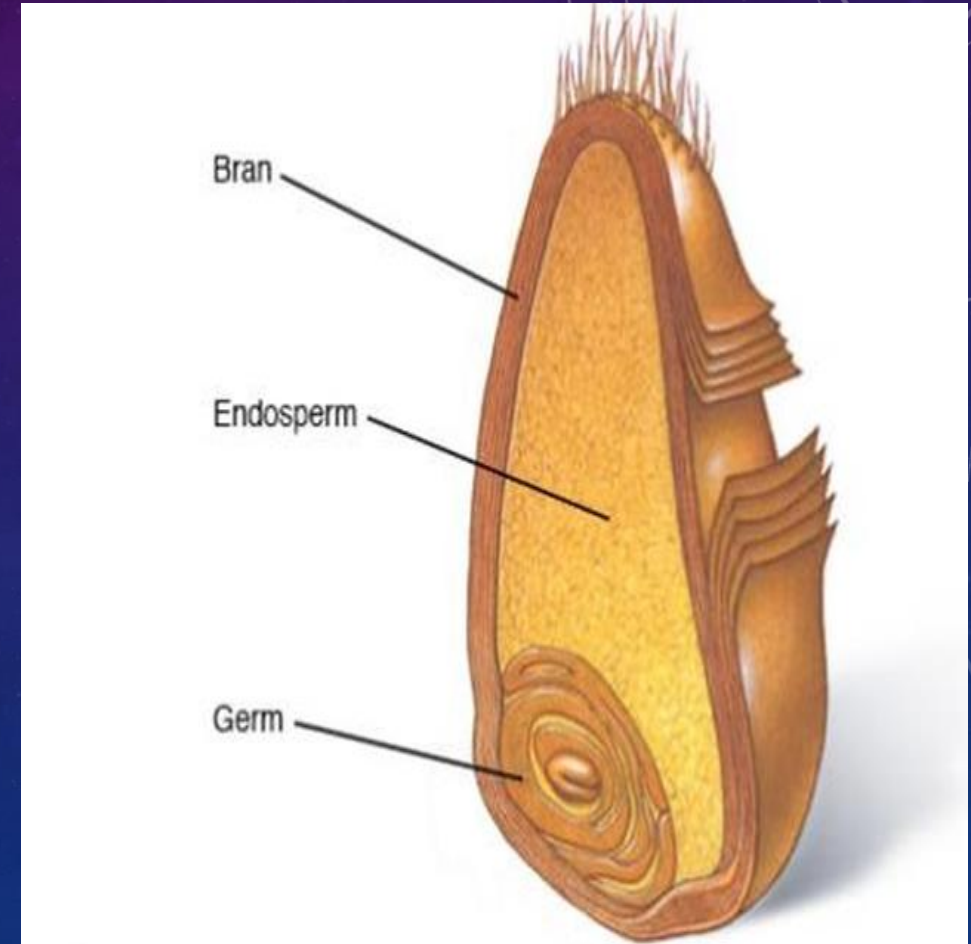
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# INTRODUCTION

- **Grains are the seeds of grasses grown for food. These plants also are called cereals. Each grain is made of three parts:**
  - **Bran: the hard outer coating of a kernel. It has most of the kernel's fiber. It also has vitamins and minerals.**
  - **Germ: the part that sprouts into a new plant. It has many vitamins, healthy fats and other natural plant nutrients.**
  - **Endosperm: the energy supply for the seed. It mostly contains starches. It has small amounts of proteins and vitamins. The endosperm has very little fiber.**



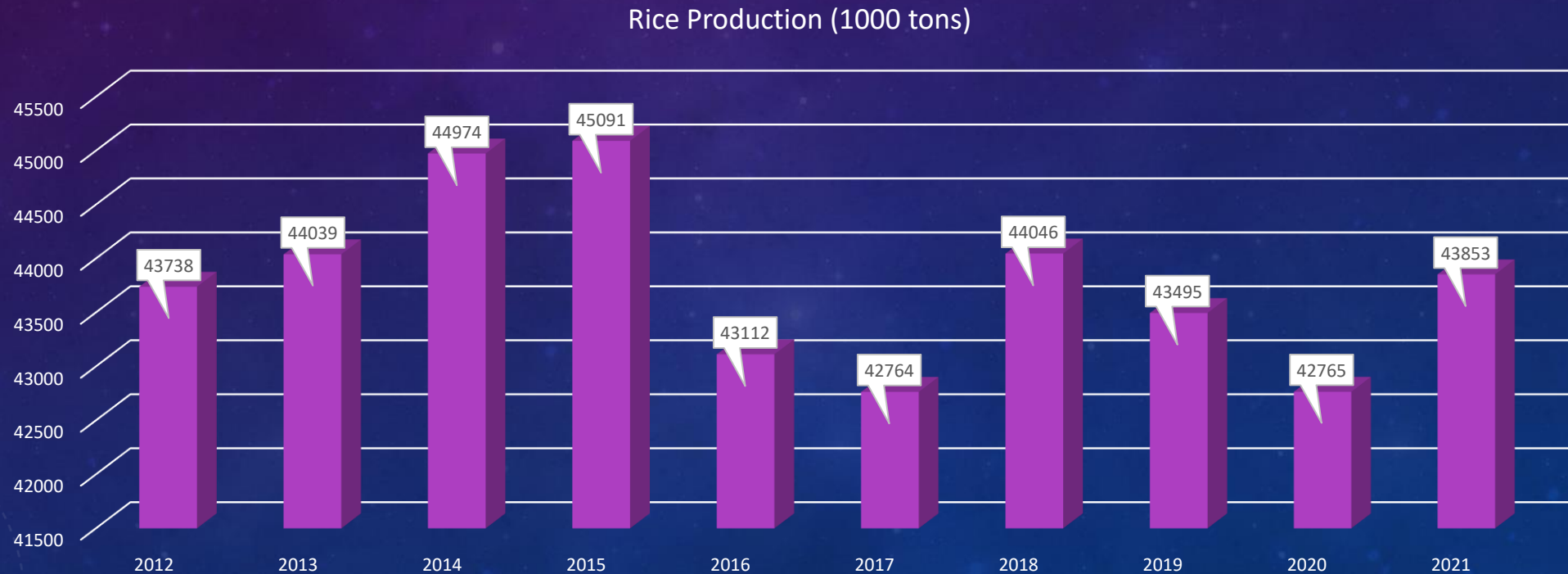
# INTRODUCTION

- Whole grains have all parts of the grain
- Examples of whole grains include wheat, barley, oats, brown rice and millet...



# WHOLE GRAIN PRODUCTION

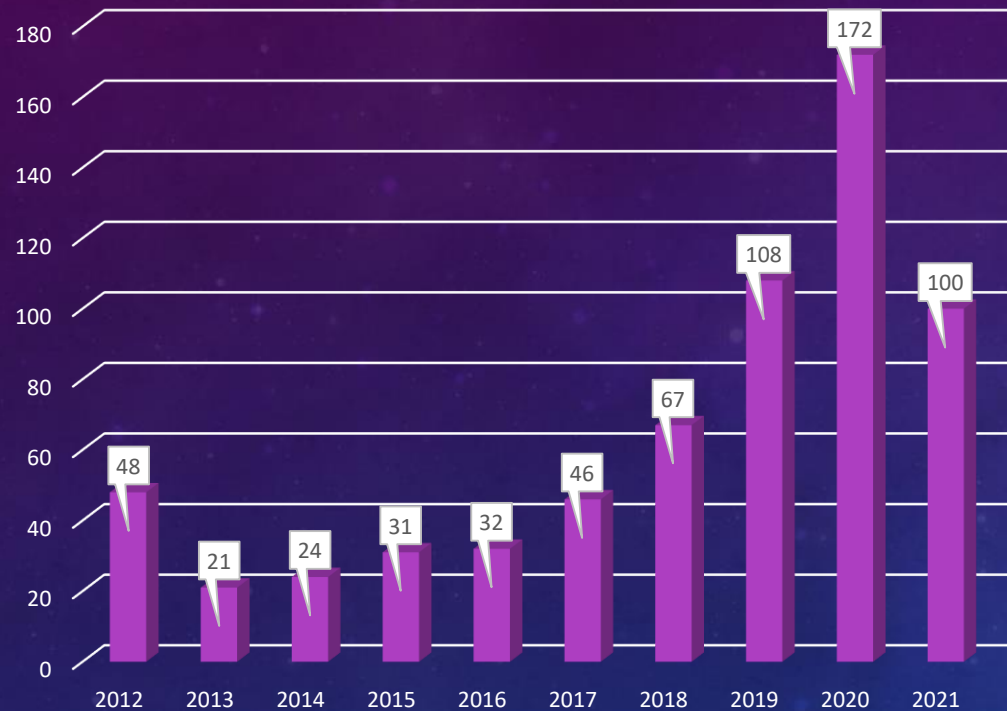
- According to the latest Summary Report of FAO, world whole grain production is expected to reach a record high in the 2023/24 crop year with 2,819 million tons, an increase of 1.1% compared to last year.
- Vietnam is known as a country with the strongest and oldest agricultural tradition. With the second position in rice exports after Thailand, rice is the main grain used in meals in Vietnam. Vietnam's rice output has remained stable over the past 10 years with 45,000 tons per year, and productivity is 60 tons/hectare.



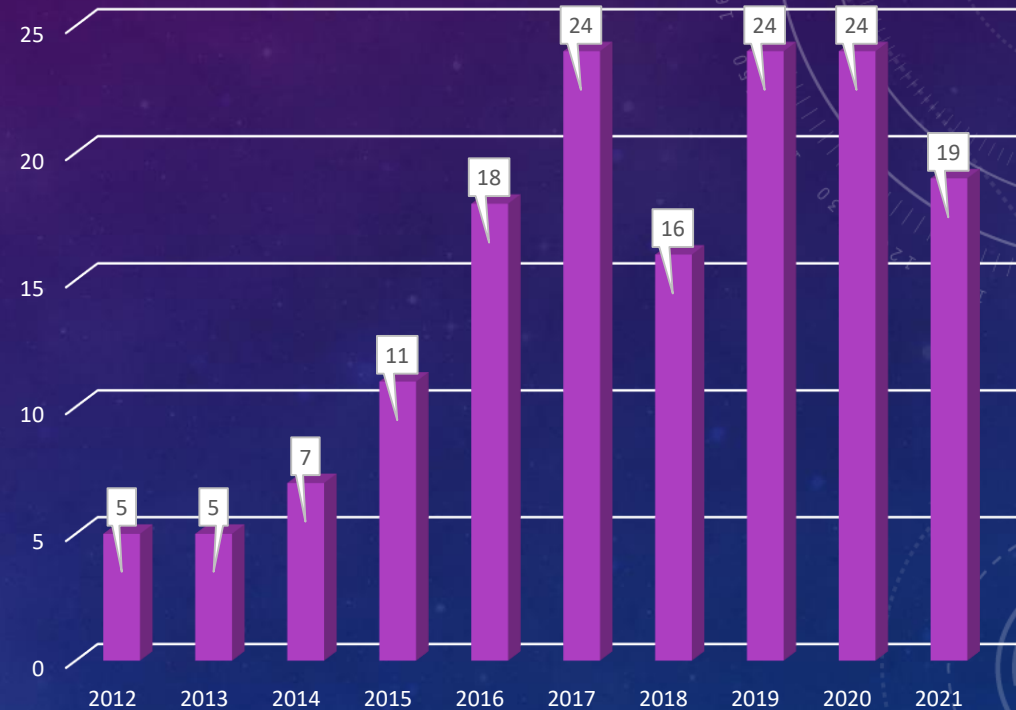
Source: General Statistic Office of Vietnam

# WHOLE GRAIN PRODUCTION

## Barley Production (1000 tons)



## Wheat Production (1000 tons)

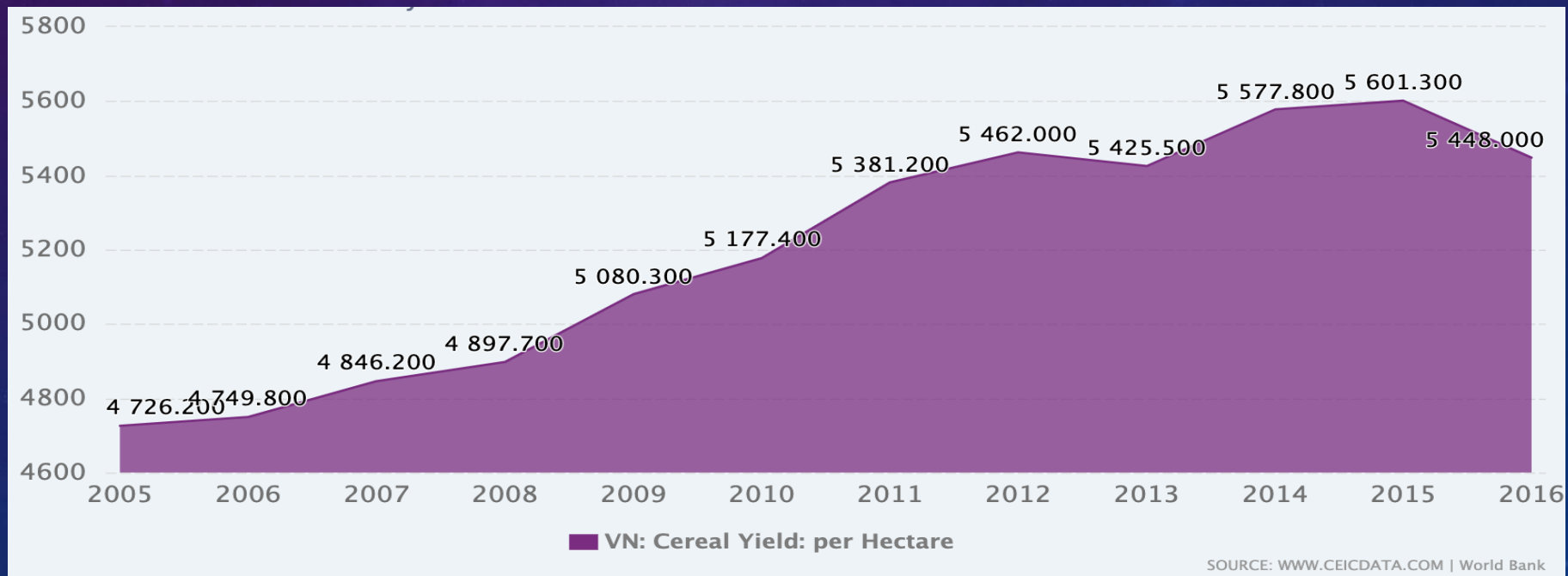


Source: FAOSTAT, Food and Agriculture Organization of the United Nations (FAO)

After realizing the abundant and safe source of nutrition from other grains such as beans, bird's nest, black sesame,... the grain market in Vietnam began to change strongly. Since then, Vietnam's grain market has begun to promote the production and import of grains. Wheat and barley production has tended to increase gradually over the years

# WHOLE GRAIN PRODUCTION

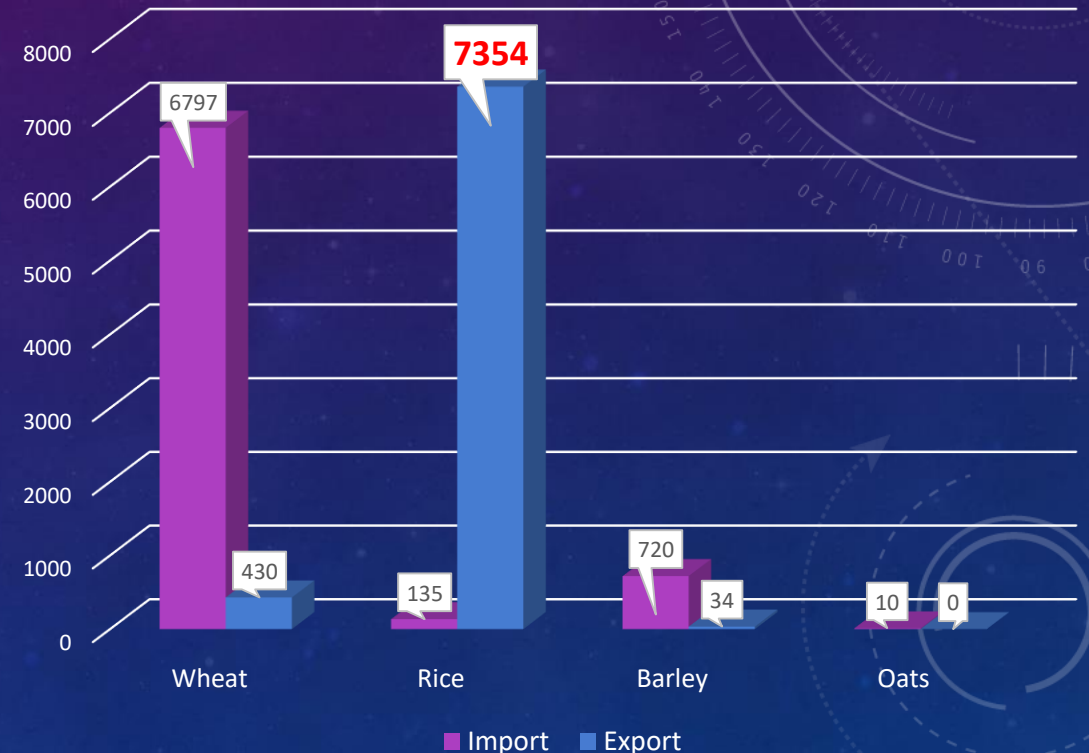
- Whole grain yield per hectare data was reported at 5,448 kg/ha in 2016. This records a decrease from the previous number of 5,601 kg/ha for 2015. Whole grain yield per hectare data is updated yearly, averaging 2,928.100 kg/ha from Dec 1961 to 2016.
- The data reached an all-time high of 5,601 kg/ha in 2015 and a record low of 1,681 kg/ha in 1968.
- Whole grain yield, measured as kilograms per hectare of harvested land, includes wheat, rice, maize, barley, oats, rye, millet, sorghum, buckwheat, and mixed grains.



# WHOLE GRAIN IMPORTS AND EXPORTS

- Domestic whole grain production is not enough to supply the Vietnamese market, so imports account for the majority. Vietnam's grain market imports from many different countries such as Russia, Australia, Taiwan, Korea,... bringing diverse choices to consumers.
- Whole grain exports in Vietnam are mainly focused on rice. Brown rice and other whole-grain rice varieties could be exported, especially if there is increased demand for whole-grain products.
- Vietnam can export barley and wheat, but the scale may not be large compared to processed products from these types.
- Oats is not one of Vietnam's main export products, but global demand is growing due to the grain's nutritional properties.

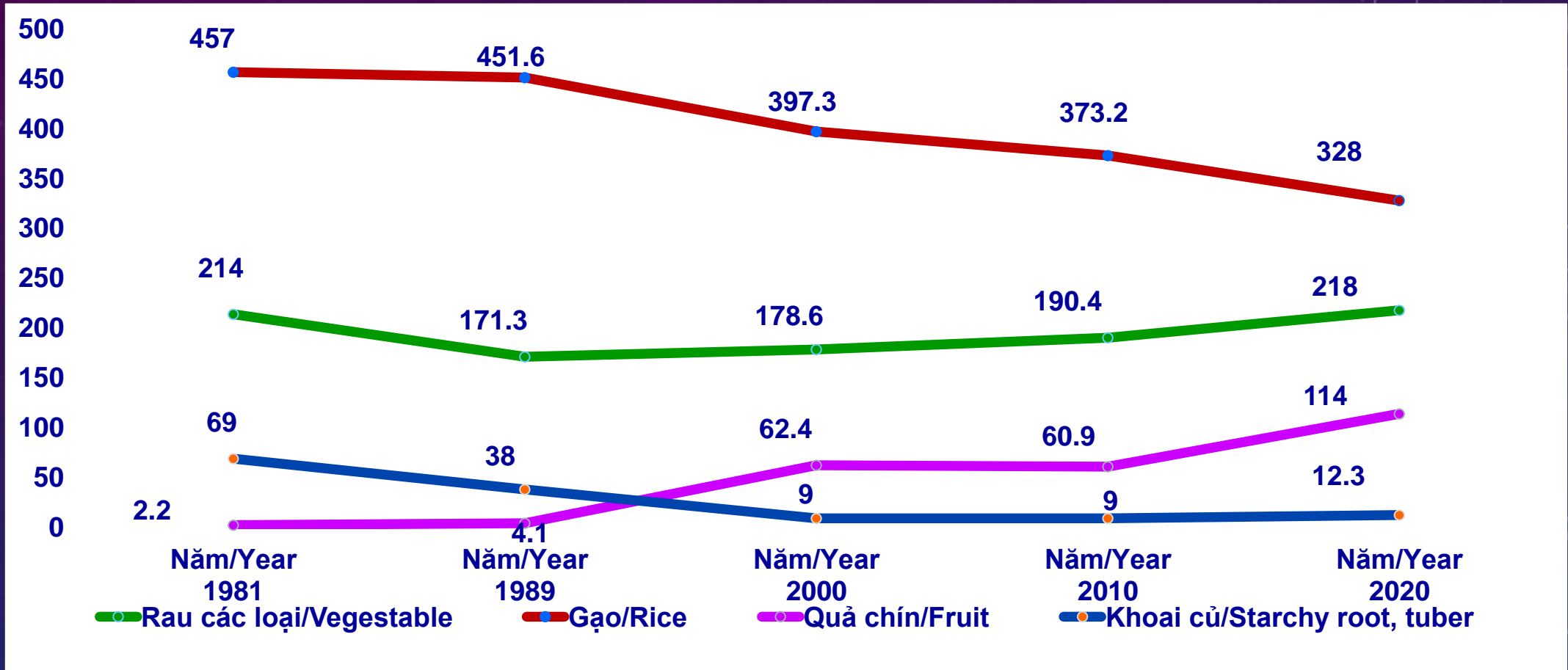
Whole grain imports and exports in Vietnam in 2021 (1000 tons)



Source: FAOSTAT, Food and Agriculture Organization of the United Nations (FAO)



# Trend in the food consumption (g/capital/day)

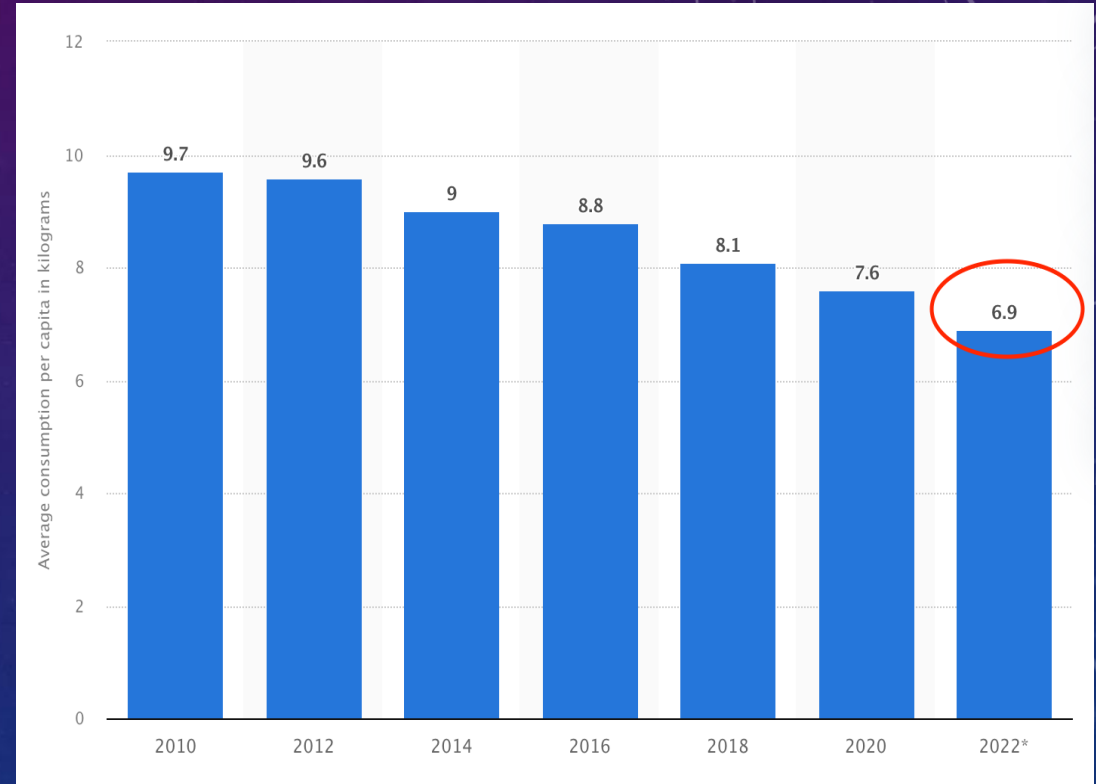


Source: General nutrition survey (1981; 1989; 2000; 2010; 2020) – NIN, Viet nam

# WHOLE GRAIN CONSUMPTION

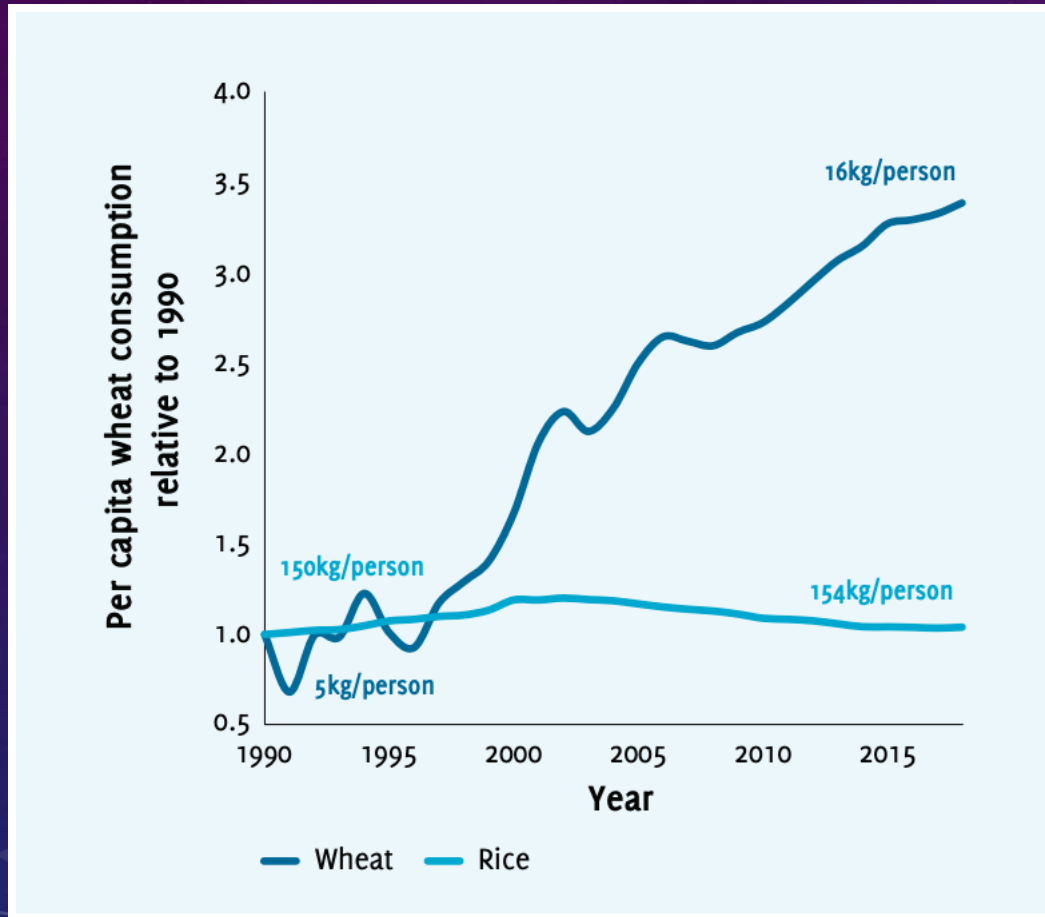
- Rice plays a crucial role in Viet Nam's food security and overall political, economic, and social stability.
- According to MARD, the current average per capita rice consumption is about **136.8 kg/person/year**. In 2022, the average monthly consumption of rice per capita in Vietnam reached **6.9 kilograms**. In recent years, the volume of rice consumed per person in the country had been decreasing gradually year on year because of the availability of many other food sources.
- The average per capita rice consumption per month in urban areas is lower than that in the rural areas. Rice consumption also registered a faster decline in urban areas.

Monthly average rice consumption per capita Vietnam 2010-2022



Source: Statista

# WHOLE GRAIN CONSUMPTION



- Wheat is the second staple food, after rice, in Vietnam, according to an annual report on the grains sector. In large cities, people consume many wheat-based foods like bread/baguette, and in recent years the demand for wheat-based foods, barley and oats has risen.
- Consumption of wheat as food has increased steadily from 1990 to 2018, the compound annual growth rate in per capita wheat consumption for food in Vietnam averaged about 5.6 per cent each year, rising from about 5kg per capita in 1990 to more than **16kg per capita** in 2018.

# WHOLE GRAIN CONSUMPTION

- Vietnam remains one of the highest per capita consumers of rice and the lowest per capita consumers of wheat for food in Asia.
- In general, wheat-based foods are a relatively minor part of household expenditure in Vietnam. The Vietnam urban food consumption and expenditure study at the University of Adelaide (Umberger et al. 2018) showed that the average urban household spends only between 2 and 3 per cent of their budget. This was about one-third of household expenditure on rice.
- Interestingly, in this study, as incomes increased, the proportion of the household budget spent on cereals increased marginally and that on rice decreased — but only in Ho Chi Minh City. The effect of income on rice and processed cereal expenditure was not clear in Hanoi.

Country	Wheat	Rice
Indonesia	26.58	135.87
<b>Vietnam</b>	<b>16.38</b>	<b>154.82</b>
Korea, Republic	47.77	61.21
China	62.64	77.21
Japan	40.47	53.41
Malaysia	31.62	82.93
Philippines	23.29	115.7
Thailand	18.66	99.32
India	59.99	69.97

Source: Peter White, Chris Carter, et al. AEGIC Report of Wheat and barley markets in Vietnam

# KNOWLEDGE, ATTITUDES AND PRACTICES OF WHOLE GRAIN CONSUMPTION

- There has been a growing awareness globally, including in Vietnam, about the health benefits associated with consuming whole grains.
- Nutrients in whole grains vary. They may include the following nutrients and others: Vitamin A, vitamin B1, vitamin B2, vitamin B6, vitamin E, iron, magnesium, phosphorus,... The vitamins and minerals in whole grains are important for overall health. Also, the high fiber content of whole grains may help with:
  - Lowering bad cholesterol levels and blood pressure, lowering insulin levels
  - Creating a feeling of fullness that can help with weight loss or control
  - Lowering the risk of: Heart and blood vessel diseases, stroke, diabetes type 2
- According to a survey in Hanoi, nearly half of participants know the benefits of using whole grains in daily meals, and most of the information comes from social networking sites.



# KNOWLEDGE, ATTITUDES AND PRACTICES OF WHOLE GRAIN CONSUMPTION

- Vietnam has a rich culinary tradition with a diet heavily based on rice. The attitude toward incorporating whole grains into the diet might depend on the region and cultural practices. Some may view whole grains as a staple, while others might be more resistant to changes in dietary habits.
- With an increasing emphasis on health and wellness, there has likely been a positive shift in attitudes toward whole grain consumption. Individuals who are health-conscious may be more open to including whole grains in their diets.
- Rice is a staple in Vietnamese cuisine, but there are various whole grains like brown rice, whole wheat, and others such as bread, sandwiches,... are consumed more and more. The extent to which whole grains are incorporated into daily meals may vary based on factors such as urbanization, socioeconomic status, and education.



# KNOWLEDGE, ATTITUDES AND PRACTICES OF WHOLE GRAIN CONSUMPTION

- Not much research has been done to explore knowledge and attitudes of Vietnamese people about consuming whole grains. However, when looking at the pattern of whole grain consumption in Vietnam in recent years, we can easily see that people have become aware of the benefits of this kind of food and increased their consumption in daily meals.
- While awareness of the benefits of whole grain consumption is on the rise in Vietnam, there remains a need to bridge the gap between knowledge and practice. Consumer attitudes towards whole grains are generally positive, with an understanding of their nutritional value. However, cultural preferences, lack of information, and ingrained dietary habits act as barriers to widespread adoption.
- Educational initiatives and targeted campaigns can play a pivotal role in dispelling myths and encouraging a more informed and positive approach towards integrating whole grains into daily diets.

# ORIENTATION A HEALTHY DIET WITH WHOLE GRAINS

- To orient a healthy diet with whole grains in Vietnam, it is essential to align these nutritional powerhouses with existing dietary guidelines.
- Emphasizing the public health impact of a diet rich in whole grains can serve as a catalyst for change.
- Collaboration between government bodies (MoH, MARD,...), NGOs, and the private sector is crucial to ensuring a comprehensive approach that addresses not only individual choices but also systemic factors influencing whole grain consumption.

## NATIONAL NUTRITION STRATEGY


FOR 2011-2020, WITH A VISION TOWARD 2030



MEDICAL PUBLISHING HOUSE




# ORIENTATION A HEALTHY DIET WITH WHOLE GRAINS



To improve awareness, educational campaigns, focusing on the knowledge of benefits and practical aspects of incorporating whole grains, can effectively bridge the gap between awareness and implementation.



Support sustainable agriculture and production to produce quality, responsibly sourced whole grains. Diversify whole grain products to suit consumer preferences and needs.



To obtain the more current and specific information regarding the knowledge, attitudes, and practices of whole grain consumption in Vietnam, it would be beneficial to carry out studies, surveys, or reports from health organizations, government agencies, or academic institutions.

# Proper nutrition advices

## 10 lời khuyên dinh dưỡng hợp lý

Nhằm thực hiện Chiến lược quốc gia về dinh dưỡng giai đoạn 2011-2020, tầm nhìn đến năm 2030, Bộ Y tế đã ban hành 10 lời khuyên dinh dưỡng hợp lý đến năm 2020.

- 1. An đa dạng nhiều loại thực phẩm**  
Đảm bảo đủ 4 nhóm: Tinh bột + Vitamin, muối khoáng + Chất đạm + Chất béo
- 2. Phối hợp thức ăn nguồn đạm động vật và thực vật**  
Nên ăn: Tôm, cua, cá + Các loại đậu đỗ
- 3. Ăn phối hợp dầu thực vật và mỡ động vật hợp lý**  
Nên ăn vừng lạc
- 4. Không ăn mặn**  
Nên ăn: [Icon]
- 5. Ăn rau quả hàng ngày**
- 6. Đảm bảo an toàn vệ sinh trong lựa chọn, chế biến và bảo quản thực phẩm**
- 7. Uống đủ nước sạch hàng ngày**
- 8. Cho trẻ bú mẹ ngay sau khi sinh, bú mẹ hoàn toàn trong 6 tháng đầu, ăn bổ sung hợp lý và tiếp tục cho bú mẹ đến 24 tháng**
- 9. Sử dụng sữa và các sản phẩm của sữa phù hợp với từng lứa tuổi**
- 10. Tăng cường hoạt động thể lực, duy trì cân nặng hợp lý**  
Không hút thuốc  
Hạn chế uống rượu bia, nước có ga và ăn, uống đồ ngọt.

Nguồn: Bộ Y tế  
<http://chitogonhock.vn>

# Proper nutrition pyramid

## THÁP DINH DƯỠNG HỢP LÝ

Cho trẻ em 3-5 tuổi (giai đoạn 2016-2020) - Mức tiêu thụ trung bình cho một trẻ trong một ngày

World Health Organization

HÀNG NGÀY	Đơn vị
ĐƯỜNG: < 3 đơn vị	1 đơn vị = [Icon]
MUỐI: < 3g	3g = [Icon]
DẦU MỠ: 5 đơn vị	1 đơn vị = [Icon]
SỮA: 4 đơn vị	1 đơn vị = [Icon]
THỊ THỰC SẢN TRÙNG ĐỒU ĐỒ: 3-5 đơn vị	1 đơn vị = [Icon]
RAU: 2 đơn vị	1 đơn vị = [Icon]
QUẢ: 2 đơn vị	1 đơn vị = [Icon]
NGŨ CỐC: 5-6 đơn vị	1 đơn vị = [Icon]
NƯỚC: 1,3 Lit (6 cốc)	1 đơn vị = [Icon]

Tăng cường hoạt động thể lực mỗi ngày

BỘ Y TẾ  
VIỆN DINH DƯỠNG

## NHU CẦU DINH DƯỠNG KHUYẾN NGHỊ CHO NGƯỜI VIỆT NAM

RDA for  
Vietnamese

### Thông tin Dinh dưỡng

Kích cỡ khẩu phần: 114 g  
Khẩu phần/gói: 4

Hàm lượng trong mỗi gói  
Calo: 90    Calo trong chất béo: 30

% Giá trị Dinh dưỡng Hàng ngày

Chất béo	3g	5%
Chất béo bão hòa	0g	0%
Chất béo chuyển hóa	0g	0%
Cholesterol	0mg	0%
Natri	300mg	13%
Cacbonhydrat	11g	4%
Chất xơ	3g	12%
Đường	3g	
Protein	3g	
Vitamin A		80%
Vitamin C		60%
Canxi		4%
Sắt		4%

Nutrition  
Labelling

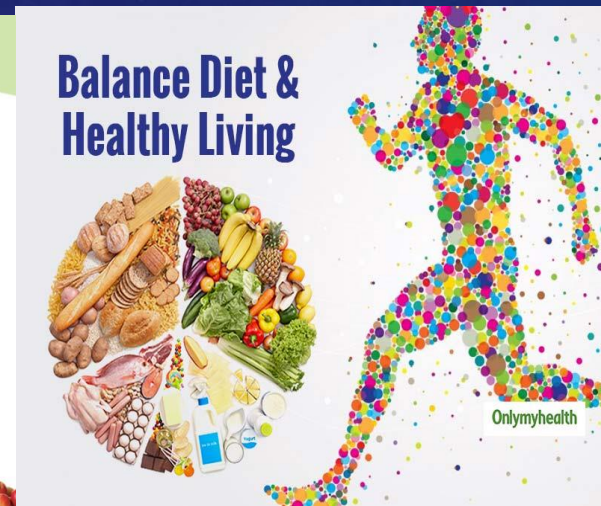
**Produce/Provide healthy food**

**Accessibility healthy food**

**Affordability healthy food**

**Usability healthy food**

- **Communication** (KAP on healthy diet/reasonable nutrition, controlling the media about unhealthy food)
- **Education from school**
- **Change in behavior**
- **Healthy life style**



# National Action Plan on Food System Transformation in Viet Nam towards Transparency, Responsibility, and Sustainability by 2030 (No 300/QD-TTg, 28/3/2023)

*There are five potential Action Tracks for transforming to responsible, sustainable and transparent food systems. These also contribute to the 17 SDGs and the 2030 Agenda*



- Ensuring access to safe and nutritious food for all
- Shifting to sustainable consumption patterns
- Promoting sustainable food production at scale
- Develop competitive, inclusive and equitable food value chains
- Build resilience to vulnerabilities, shocks and stress



*What are some levers for change? - collective action and multi-stakeholder partnerships; innovation, science and technology; finance and insurance; gender equality and social inclusion; and governance, policies and institutions*

Source: Scientific Group for the UN Food Systems Summit

## What are the opportunities and critical areas for food system action?

# ORIENTATION A HEALTHY DIET WITH WHOLE GRAINS

- In conclusion, while Vietnam stands as a key player in whole grain production, there is a need for concerted efforts to enhance awareness and promote healthier dietary practices. The journey towards a nation with a robust whole grain consumption culture requires a multifaceted approach that addresses knowledge gaps, encourages positive attitudes, and provides practical guidance for incorporating these nutritional powerhouses into everyday meals.



# THANK YOU FOR LISTENING



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