



NATIONAL BUREAU OF STATISTICS



# COST OF A HEALTHY DIET

(SEPTEMBER 2024)



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Data Sources: National Bureau of Statistics (NBS)

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# INTRODUCTION

## HIGHLIGHTS

- ◆ The Cost of a Healthy Diet (CoHD) is the least expensive combination of locally available items that meets globally consistent food-based dietary guidelines. It is used as a measure of physical and economic access to healthy diets. This is a lower bound (or floor) of the cost per adult per day excluding the cost of transportation and meal preparation.
- ◆ The National average Cost of a Healthy Diet was N1,346 in September 2024. This shows an increase of 7.3% when compared to the amount recorded in the previous month (August 2024, was N1,255).
- ◆ In September 2024, the average CoHD was highest in the South West at N1,598 per adult per day, compared to N1,144 per adult per day in North West.
- ◆ In recent months, the CoHD has risen faster than general inflation and food inflation. However, the CoHD and the food CPI are not directly comparable; the CoHD includes fewer items and is measured in Naira per day, while the food CPI is a weighted index.

Food environments determine a household's physical and economic access to sufficient, safe, and nutritious food for an active and healthy life. A suite of indicators known as the Cost and Affordability of a Healthy Diet (CoAHD) have been developed to improve the measurement of food access and are now monitored globally by the United Nations and the World Bank as a metric of food security. The Cost of a Healthy Diet (CoHD) metric uses the availability, price, and nutritional composition of retail food items to identify the **least expensive** combination of items that meet requirements for a healthy diet. To compute the Cost of a Healthy Diet indicator, the following data are required: (a) Retail Food Prices, (b) Food Composition Data, and (c) Healthy Diet Standard.

### Retail Food Prices

The retail food price data used in this analysis is collected by the National Bureau of Statistics (NBS) monthly from 10,534 informants spread across the country, from urban and rural outlets in each State and FCT. NBS collects these prices routinely for monitoring inflation, including prices of over 200 retail food items. Nearly 150 of these food items are potentially included in a healthy diet and the price data for these items are used for the computation of the CoHD.

### Healthy Diet Standard

In Nigeria, CoHD is the minimum cost of foods needed to meet international recommendations defined in the Healthy Diet Basket (HDB), a globally relevant set of criteria that captures similarities across most national Food-Based Dietary Guidelines (FBDG) (Table 1). The HDB was created as a comparable standard to calculate and compare the cost and affordability of healthy diets across countries; the HDB is most relevant for countries where there is not yet a quantified national FBDG, like Nigeria.

**Table 1. Description of the Healthy Diet Basket (HDB)**

Food Group	Number of food items selected	Energy content (kilocalories)	Share of total calories (%)	Typical weights of example foods (g)
Starchy Staples	2	1,160	50	322 g dry rice
Oils and Fats	1	300	13	34 g oil
Fruits	2	160	7	230-300 g
Vegetables	3	110	5	270-400 g
Legumes Nuts and Seeds	1	300	13	85 g dry bean
Animal Source Foods	2	300	13	210 g egg
<b>Total</b>	<b>11</b>	<b>2,330</b>	<b>100</b>	

## Average Cost of a Healthy Diet (National, State & Zonal Levels)

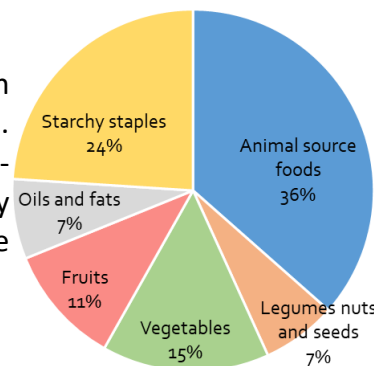
The National average Cost of a Healthy Diet was N1,346 per adult per day in September 2024. At the State level Osun, Ogun and Lagos States recorded the highest cost with N1,661, N1,650, and N1,639 respectively. Katsina, Jigawa and Kebbi accounted for the lowest costs with N1,043, N1,087 and N1,118 respectively.

At the Zonal level, the average CoHD was highest in the South West Zone at N1,598 per day, followed by South-South Zone with N1,462 per day. The lowest average Cost of a Healthy diet was recorded in North West Zone with N1,144 per day. *(Please see Appendix for full graphic representation)*

## Cost Share by Food Group

Animal Source foods were the most expensive food group recommendation to meet in September, accounting for 36% of the total CoHD to provide 13% of the total calories. Fruits and vegetables were the most expensive food groups in terms of price per calorie; they accounted for 11% and 15%, respectively, of total CoHD while providing only 7% and 5% of total calories in the Healthy Diet Basket. Legumes, Nuts and Seeds were the least-expensive food group on average, at 7% of the total cost.

Figure 3 - Cost Share by Food Group



## Trends in the Cost of a Healthy Diet

The Cost of Healthy Diet (CoHD) has been steadily rising over the past six (6) months, since April 2024. In September 2024, the CoHD was 30% higher than it was in April 2024 (N1,035). The main drivers of this increase in CoHD are Legumes, Nuts and Seeds, Starchy Staples and Animal source foods. On a month-month basis, it increased by 7.3% compared to the cost in August 2024 (N1,255). Legumes, Nuts and Seeds recorded the smallest increase price by 3.8% on monthly basis.

Table 2. Changes in the Cost of Healthy Diet Over Time

Food Group	Percent Change in Price (April 2024 – September 2024)	Percent Change in Price (August 2024 – September 2024)
Animal source foods	33%	6.3%
Legumes nuts and seeds	36%	3.8%
Vegetables	21%	10.0%
Fruits	24%	6.8%
Oils and fats	23%	7.7%
Starchy staples	36%	8.2%
<b>Total</b>	<b>30%</b>	<b>7.3%</b>

## General and Food Inflation Relative to the Cost of a Healthy Diet

The Consumer Price Index (CPI) is a measure of inflation, the average change over time in the prices of goods and services consumed by people for day-to-day living, while the Food index is a subset of the CPI which reflects changes in prices that households pay for food. CPI records the development of market prices of agricultural commodities and foodstuffs. Figure 4a *(Please see Appendix)* compares the general CPI and the Food CPI (indices with 2009 as the base year) with the nominal Naira value of the Cost of a Healthy Diet, to understand whether the least-cost items needed for a healthy diet are rising in cost at a rate like that of the rest of the goods and services in Nigeria. Food prices and the Cost of a Healthy Diet are both expected to rise over time; here we focus on the relative rate of that inflation.

The Food CPI includes a larger number of items, and more packaged and value-added items than the Cost of a Healthy Diet, as least-cost items are often unprocessed. In the past year, the CoHD and the cost of all other goods and services increased at roughly the same rate, until July 2023, when CoHD increased at a faster rate than all goods and services (general CPI) and more than all foods for which retail prices are collected.

## Least-Cost Diets and Frequently Selected Least-Cost Items

Table 3, (*Please see Appendix*) showcases the most and least expensive places to find a healthy diet in September 2024. Ogun (Urban) topped the chart with the highest Cost of a Healthy (CoHD) at N1,691 per adult per day. Conversely, Katsina (Rural) offered most affordable option at N1,018 for CoHD. Interestingly, some of the least-cost food items remained consistent across both locations. These included Maize Grain yellow, Date Palm fruit (Debenu), and bitter leaf. However, price variations between these locations resulted in different costs per item. Also, some unique least-cost options emerged. For instance, Ogun (Urban) favoured Garri White as the most affordable Starchy Staples, whereas Katsina (Rural) opted for Maize Grain yellow.

Finally, Table 4 (*Please see Appendix*) shows frequently selected least-cost items in each food group across all State-sector combinations. This table demonstrates that some items are commonly the least-cost across different locations. For example, in the Oils and Fats Food group, Palm Oil was the least expensive item in 81% of State-Sectors, and Groundnuts (shelled) was the least-expensive item in the Legumes, Nuts and Seeds Food Group in 69% of all the State-Sectors. Coconuts were selected as a least-cost item for the Fruits Food Group in 42% of State-Sectors.

## National Versus Global Monitoring of Cost of a Healthy Diet

There is also global monitoring of the Cost of a Healthy Diet across countries. Since 2020, the State of Food Insecurity and Nutrition in the World (SOFI) report, has reported on the Cost of a Healthy Diet for many countries, including Nigeria. SOFI is jointly published by the Food and Agriculture Organization of the United Nations, International Fund for Agricultural Development, United Nations Children’s Fund, World Food Program and World Health Organization. The Cost of a Healthy Diet reported by NBS and that reported by SOFI use the same methods, but there are three main differences – ***the food price data used, conversion rates, and reporting period.***

NBS uses monthly food prices collected from over 10,000 outlets, across urban and rural areas in each state and the FCT, to calculate an average national Cost of a Healthy Diet. Food prices collected include the prices of many locally consumed food items that are not common internationally. NBS reports the findings with only one month lag (i.e. the September 2024 Cost of Health Diet report uses August 2024 data). The NBS Cost of a Healthy Diet is reported in Naira and no currency conversion is done.

For the global monitoring of the Cost of a Healthy Diet published in SOFI, retail food prices from the World Bank’s International Comparison Program (ICP) dataset, which is the only global dataset of retail prices, are used. The ICP dataset is compiled every five years, and it includes one national average price for each food item. The ICP food list is designed for comparability across countries and so includes foods that are available across many countries. This means that many low-cost food items that are commonly consumed in Nigeria are not included in the ICP food list and can therefore not be considered in the calculation of Cost of a Healthy Diet for SOFI.

The food list in the ICP is collected for several reasons, including to calculate Purchasing Power Parity (PPP), which is used to compare the relative value of global currencies based on the cost of a standard set of goods and services. The Cost of a Healthy Diet in the SOFI report is thus reported using PPP dollars. Regarding the reporting period, the 2024 SOFI used 2021 ICP retail food prices and a standard adjustment for inflation was applied to estimate the price in 2022 as reported in the SOFI report.

# POLICY IMPLICATIONS

The Cost of a Healthy Diet provides important information about food access, a key aspect of food security, which is useful for government, civil society and development partners, private sector, and researchers.

For instance, where the Cost of a Healthy Diet is high, it is possible to identify which least-cost items and food groups are driving the high cost. Stakeholders can identify supply challenges in specific foods or food groups to be addressed, for example with improved production, distribution, or market access.

The Cost of a Healthy Diet can also inform:

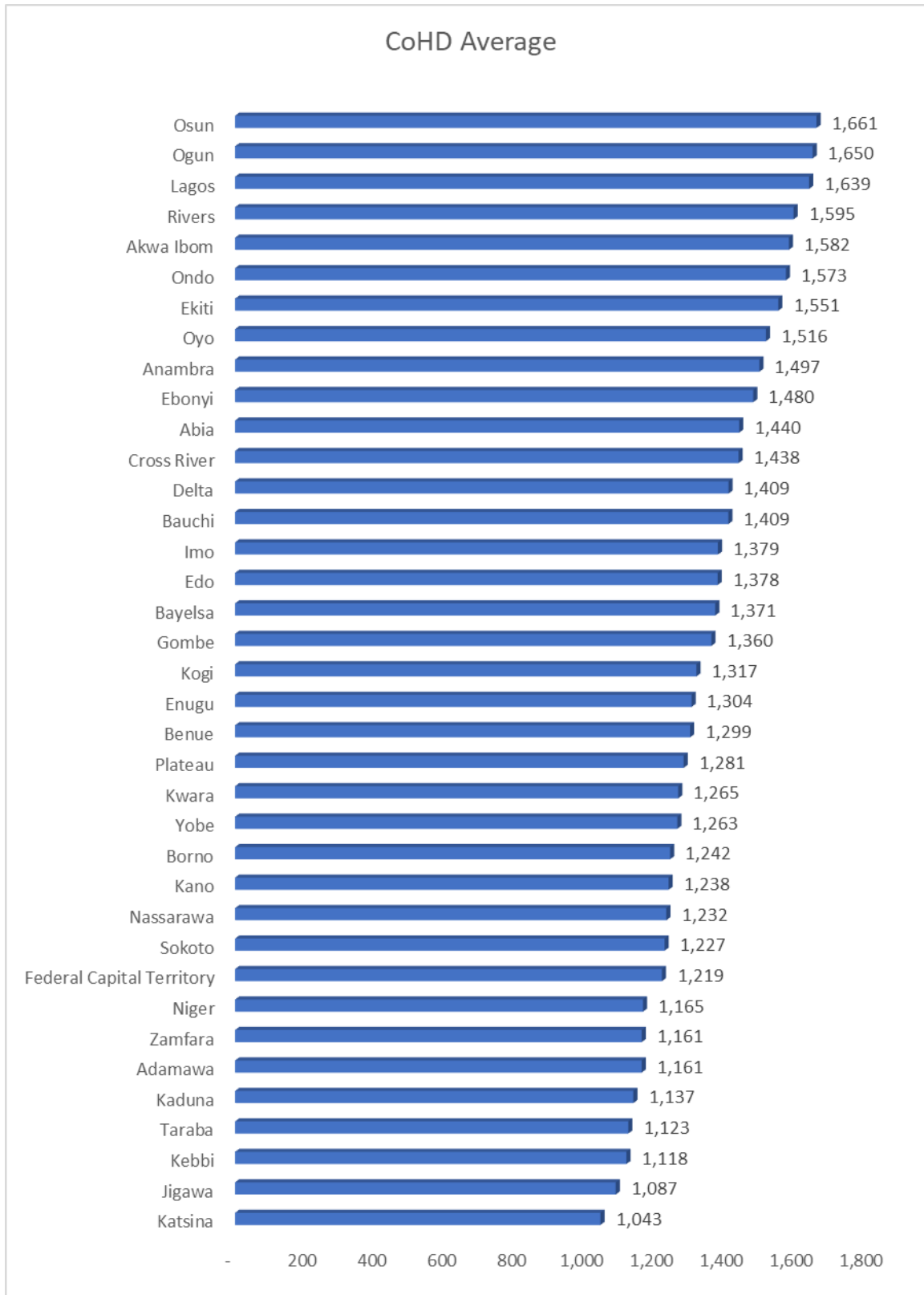
- ◆ The minimum income needed by households to access a healthy diet, and social protection and transfer amounts for vulnerable populations.
- ◆ Prioritization of commodities for agricultural production and trade policy interventions.
- ◆ Targeting interventions, including nutrition education, to populations with the most potential to benefit; nutrition education is only effective when people can afford to comply with the recommendations.
- ◆ Research on the relationship between food access and other food system factors and outcomes.

These results can also foster collaboration among a wide range of stakeholders, such as policymakers, researchers and civil society actors that focus on food security, to devise strategies that tackle access, availability, and affordability of healthy diet effectively. Future research incorporating income can also be used to determine the proportion and number of the population that are unable to afford a healthy diet.

*This bulletin was produced by the National Bureau of Statistics (NBS), Nigeria in collaboration with Global Alliance for Improved Nutrition (GAIN) and technically supported by the Food Prices for Nutrition project, led by the Friedman School of Nutrition Science and Policy at Tufts University, in partnership with International Food Policy Research Institute (IFPRI) and the World Bank. This bulletin aims to inform decision-makers from government agencies, UN agencies and NGOs to improve access to healthy diets. The bulletin is available online at <https://nigerianstat.gov.ng/elibrary>. Answers to frequently asked questions about the Cost of a Healthy Diet are also available online <https://nigerianstat.gov.ng/elibrary/read/1241452>.*

# APPENDIX

Figure 1. Average Cost of a Healthy Diet by State



# APPENDIX

Figure 2. Zonal Average CoHD

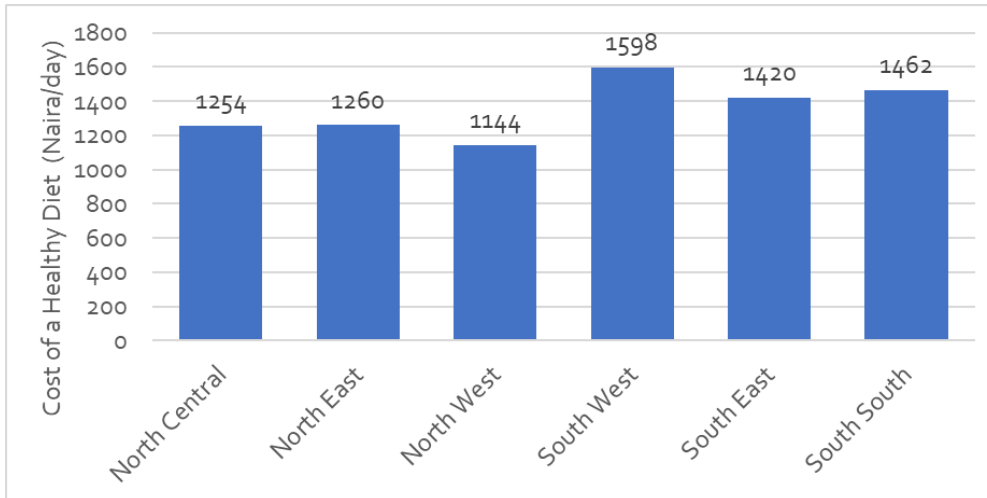


Figure 4a. National Average CoHD (Naira/day) and Consumer Price Indexes (2009=100)

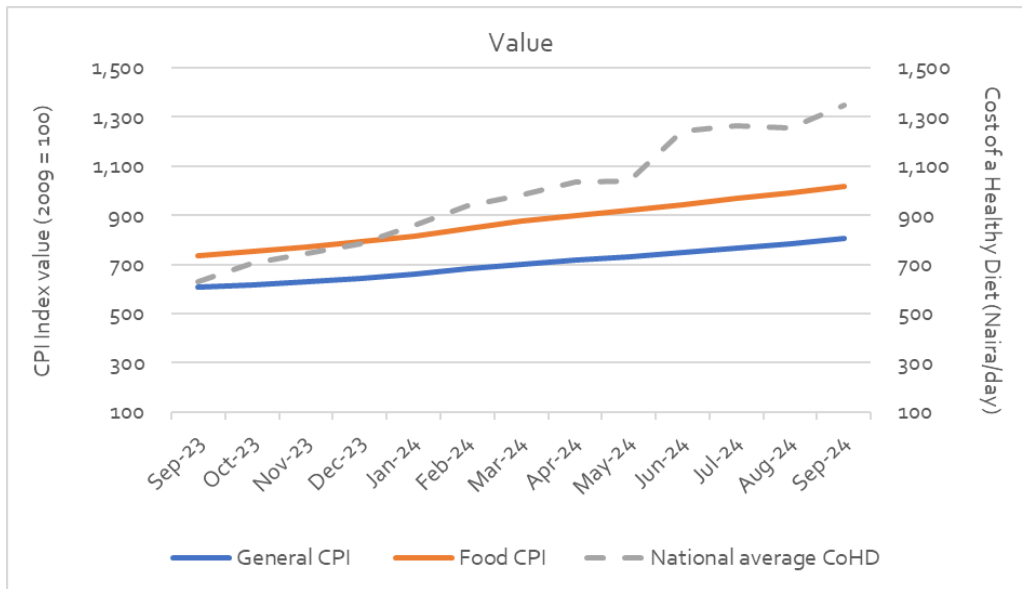
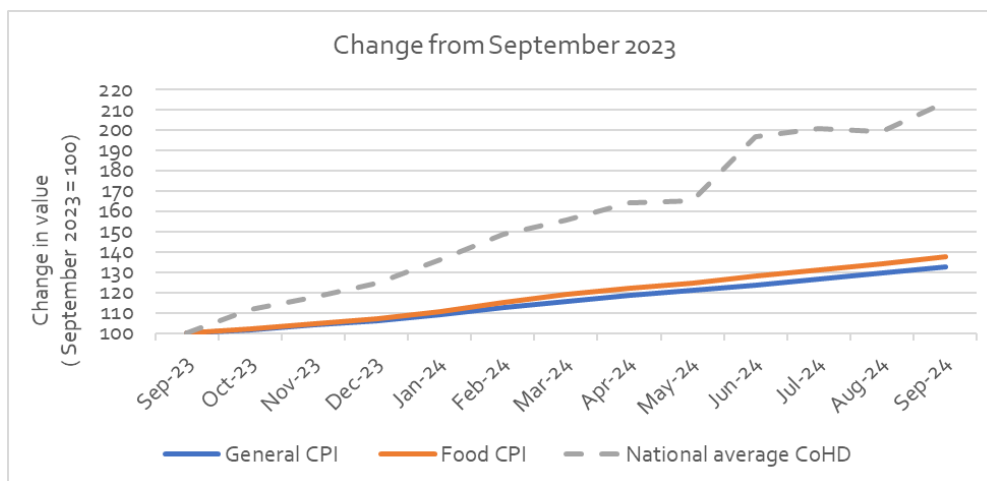


Figure 4b. National Average CoHD and Consumer Price Indexes (September 2023= 100)





# APPENDIX

**Table 3. States with Least and Most expensive cost of items**

	Most expensive:		Least expensive:	
September 2024	Ogun (Urban)		Katsina (Rural)	
	Least-cost item	Cost (N)	Least-cost item	Cost (N)
Starchy staples	Garri White	187	Maize Grain Yellow	136
	Maize Grains Yellow	180	Millet Whole Grain	123
Oils and fats	Palm Oil	105	Vegetable Oil	104
Fruits	Date Palm fruit (Debenu)	84	Date Palm fruit (Debenu)	76
	Coconut	61	Avocado Pear	57
Vegetables	Cabbage	116	Kuka Dried	34
	Cucumber	126	Bitter Leaf	56
	Bitter Leaf	101	Dried Okra	15
Legumes Nuts seeds	Groundnut (Shelled)	101	Melon(Shelled)	85
Animal source foods	Mudfish Dried	323	Crayfish (Small white)	144
	Shrimps white dried	307	Shrimps Red-dried	186
<b>Total (CoHD)</b>		<b>1,691</b>		<b>1,018</b>

**Table 4. Top 3 most frequently selected least-cost items by Food Group**

Food Group	Item Name	Selected as least-cost % of possible selection
Starchy staples	Millet Whole grain	30%
	Maize Grain Yellow	20%
	Maize Grains White	13%
Oils and fats	Palm Oil	81%
	Vegetable Oil	18%
Fruits	Coconut	42%
	Date Palm fruit (Debenu)	30%
	Avocado Pear	22%
Vegetables	Dried Okra	26%
	Bitter Leaf	22%
	Kuka Dried	18%
Legumes nuts and seeds	Groundnut (Shelled)	69%
	Soya Beans	16%
	Melon (Shelled)	14%
Animal source foods	Crayfish (small white)	31%
	Fresh Milk (Nono)	11%
	Shrimps Red-dried	11%

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