FOOD AND NUTRITIONAL

Supply Chain Outlook 2025

JULY - ISSUE 43





ECONOMY

- FED HOLDS RATES; JOB MARKET STEADY
- EUROZONE MANUFACTURING SHOWS STRONG REBOUND

TABLE OF CONTENTS

Economic Update	2
Current Events	4
Vitamins	5
Minerals	7
Premixes	9
Microencapsulation	10
Granulations	11
Message from TWG Health + Nutrition	12

Pricing Trends Key

Price Increase ///



Price Increase Due to Current Events



Price Stable ///



Price Decrease ///



Economic Outlook

United States -The US Federal Reserve is confident in its decision to leave monetary policy unchanged this month amid further economic uncertainty. The US economy is positioned to pursue a cautious and deliberate approach, enabling the Fed to make effective policy decisions.

Recession concerns have eased as China and the US continue to build a trade agreement. Economic uncertainty has depleted consumer confidence and increased investor hesitation. If the economy continues to stagnate, the Fed will ease the monetary policy. Economists predict two or three cuts this year, as economic slowing is expected through the rest of 2025. The US dollar is lowering compared to other global currencies as investor confidence lowers. President Trump reported that current negotiations are underway for substantial trade agreements with at least 15 countries. Inflation is likely to increase due to the spike in oil prices but is expected to level off as the conflict in the Middle East dissipates.

In May, core prices rose 2.8%, while core commodity prices increased 0.3%.

However, service prices continued to decline. Household consumption contributed to economic growth in May. Consistent decreases in immigration can prompt labor shortages and wage growth. The tightening labor market is another incentive for the Fed to adjust the monetary policy.

China

China's economy is showing signs of improvement as efforts to promote consumer spending prompted an increase in sales this month. On the other hand, the real estate sector has not recovered, and inflation still lingers near zero.

The Bank of China will continue to gradually ease the monetary policy to maintain the growing consumer confidence. Manufacturing, investments, and the export

market took a direct hit from the US tariffs. The struggling property sector adds to lowered investor interest. Exports with other countries, excluding the US and its trade partner, Southeast Asia, grew this month. Following the revised trade agreement with the US, exports of rare minerals are expected to grow.

Despite further economic slowing, the newly revised fiscal policy is expected to drive growth through increased infrastructure investments, stimulus programs, and civilian protection benefits. Employment growth is becoming a concern as the population ages and digitalization is prioritized. Opportunities in the labor market have changed with technological advances, as AI automation reduces low-skill job positions but creates demand for high-skill workers.

Market movement YTD as of 5/21/25:

- · DJIA: 1.03%
- · S&P 500: 3.58%
- · NASDAQ: 3.43%

Eurozone

May data indicates strong manufacturing growth in the Eurozone economies. Inflation has lowered monthly since January, allowing the European Central Bank to cut rates further at the beginning of June. The value of the euro is increasing as the US dollar declines due to low global investor confidence. Energy prices have decreased amidst ongoing trade and foreign conflicts.

The US imposed immediate tariffs on steel, automobiles, aluminum, and several other products in the Eurozone at the beginning of 2025, resulting in the critical need for a revised trade agreement. The outstanding formal trade agreement with the US is causing economic uncertainty for the economies of the Eurozone. Any retaliation from the Eurozone could hinder progress with the US, potentially leading to an inflationary spike in the recovering economy. Economic data for June will largely reflect the impact of the US-Eurozone trade negotiations, as well as tax increases and government spending.

ECONOMY cont.

- MIDDLE EAST CONFLICT DRIVES OIL PRICES
- JAPAN STABILIZES AFTER DEFLATION PERIOD

Consumer prices rose modestly to 1.9% in May, with core prices increasing to 2.3%, services up 3.2%, and non-energy industrial goods up 0.6%. Germany continues to use defense spending as a driver for economic growth and recovery despite being the weakest economy in the Eurozone.

The Eurozone economies are expected to strengthen in 2025 as the easing of monetary policy promotes credit market activity, fiscal budgets allow for investments in defense spending, which boosts the economy, and lower energy prices encourage consumer confidence. The largest potential obstacle to economic growth is conflict arising from foreign trade negotiations.

Japan

The Bank of Japan is struggling to combat the inflationary pressures of the food crisis and a weakened economy resulting from the trade war. In May, core inflation reached a 2-year high, breaching the Central Bank's 2% target. Core prices rose 3.7%, food and energy rose 3.3%, goods rose 5.3%, and services rose 1.4% in May. Food prices, excluding fresh food, increased dramatically by 7.7% in May, exerting inflationary pressure on households. The cost of rice has doubled since last year as the shortage persists. Food prices are expected to increase consistently throughout 2025. The yen is projected to appreciate this year, which will lower import costs, a key factor in the rise of food prices last year.

become an area of concern for the government. The population rate is the lowest since 1899, the year population growth measurement began. Japan experienced an increase in marriages last year but is now seeing a devastating decline in population growth. Low population growth can lead to declines in the labor market, accompanied by absent productivity growth and an increase in retirees. Government finances will be challenged to foster recovery in the labor market. While Japan's labor market has not yet been affected by the population decline, likely due to an increase in labor participation from women and the elderly, the government is preparing solutions to combat the associated risks. Looking forward, Japan will

Japan's birth rate from 2024 into today has

consider innovative solutions, including technological investments in the workforce, as well as sizable increases in immigration opportunities. Regarding the current economic state, the Bank of Japan will remain cautious in making changes to its monetary policy to avoid instability in the weakening economy.

Middle East

Increases in global oil prices have created new inflationary trends. High oil prices increased production costs in the petrochemical, plastics, and agriculture industries, leading to spikes in consumer goods prices. Growing tensions across the Middle East seem to be the driver of economic turmoil.

The Iran-Israel war prompted the immediate closure of the gas fields, leaving Israel dependent on more expensive alternatives like coal & fuel oil. Exports to Egypt and Jordan were interrupted by the war, resulting in a decline in Israel's currency earnings. Maritime insurance prices rose after the Houth's attacks in the Red Sea. Economists disclosed data showing the current war is costing Israel hundreds of millions of dollars daily, and involvement threatening the loss of 20% of Israel's real GDP should the dispute continue. Before the recent conflict, the Middle Eastern economies were in positions of promising growth for 2025. The majority of growth in the Middle East is coming from the UAE and Saudi Arabia, driven by advanced circular retail systems. Market expansion is progressing through tech platforms, retailers, and government initiatives that create structured retail models for electronics and high fashion. The ongoing geopolitical crisis, trade war, and rising prices threaten economic growth and create extreme risks.



CURRENT EVENTS

- ECONOMIC UNCERTAINTY MEETS MILITARY UNREST
- VITAMIN PRICING OUTLOOK REMAINS STEADY

US-China Trade Agreement Update

 The United States and China have announced updates to the new trade agreement. Entering negotiations, the US sought lower tariffs, set non-tariff barriers, increased Chinese purchases of US goods, and the removal of rare mineral export restrictions. China demanded lower US tariffs and fewer export limits on minerals like graphite, copper, cobalt, and lithium.

Brokered in London in early June, the agreement permits the US to impose tariffs of 55% and China 10%. US tariffs will include a 10% baseline, a continued 20% on fentanyl-related goods, and a 25% tariff on products from Trump's first term. The US will ease most restrictions, excluding high-tech items—still under review for a July 31 appeal. President Trump also signaled willingness to extend the tariff pause beyond July 9.

Iran-Israel Ceasefire

 On June 23, President Trump announced a brokered ceasefire agreement between Iran and Israel, preventing further escalation that could have drawn in global alliances. While no formal contract was signed, both sides reached a verbal agreement: Iran would halt hostilities immediately, and Israel would follow 12 hours later.

Iran's nuclear facilities were destroyed, though its stockpile of highly enriched uranium is believed to have survived. Israel expressed confidence in dismantling Iran's nuclear capabilities but warned of future action if those efforts are reversed.

Shortly after the announcement, Israel accused Iran of violating the agreement by launching new missiles, a claim Iran denied. Iranian officials also rejected the notion of a formal ceasefire, stating future responses would be determined as needed. President Trump warned the U.S. would respond with "precision, speed, and kill" if either nation defies current peace efforts.

Russia-Ukraine War Update

 President Zelensky is calling for global assistance as Russia escalates attacks on Ukraine. While earlier strikes targeted military-industrial sites, recent assaults have hit residential areas, hospitals, sports facilities, and schools. In early June, Russia launched 352 drones in an overnight attack—an act described as mass terrorism. Ukraine's Air Force intercepted 339 drones and 15 missiles before the remaining projectiles reached their targets.

Reports indicate Russia is using North Korean missiles in some of these attacks. Just days before the NATO summit, Zelensky urged allies to intervene after multiple failed efforts to curb Russia's aggression. Ukraine fears global desensitization, especially with international focus shifting to the Middle East. Meanwhile, Russia maintains that attacks will continue until it gains full control of Ukraine.

Vitamins:

 The past few months have seen volatility regarding tariffs. Hopefully, for the near future, the tariffs will remain consistent and the effects on raw material costs will stay minimal. With several major trade negotiations now settled, markets may find short-term stability but continued monitoring is essential as geopolitical tensions persist.

Global trade, diplomacy, and military conflicts continue to shape the world stage.



Vitamin A: Vitamin A pricing has stabilized. Market demands have been weak.



Vitamin D: Vitamin D has stabilized, but prices remain high. There have been indications that prices may strengthen even more in the coming months.



Vitamin E: Pricing for Vitamin E has stabilized but remains high.



Vitamin K: Current pricing for vitamin K1 has stabilized.











Price Increase Due to Current Events





Price Decrease 777



Price Stable to Rising



Key Vitamin Supply Conditions Remain Stable Across Markets



Vitamin C: Pricing has stabilized.



Vitamin B1 (Thiamine):

Pricing has been stable lately.



Vitamin B2 (Riboflavin):

Riboflavin USP and food grade pricing have stabilized. Supplies are adequate. Several new entrants have begun manufacturing and potential capacity increases can be expected by the majors.



Vitamin B3 (Niacin/ Niacinamide): Niacin/

Niacinamide pricing is currently stable.



Vitamin B5 (Calcium Pantothenate): B5 pricing

has stabilized but remains low. There have been new producers entering the market, creating an oversupply of material.



Vitamin B6 (Pyridoxine):

B6 pricing has stabilized but remains on the high end.



Vitamin B7 (Biotin):

Production of B7 has stabilized and pricing has followed. Because pricing is on the lower level, there may be some increase in pricing coming.



Vitamin B9 (Folic Acid):

Pricing of B9 has stabilized from the recent increases and remains a little elevated.



Vitamin B12 (Cyanocobalamin)

The B12 market price has stabilized. There is an ample supply of inventory which should keep pricing stable.



Pricing Trends Key

Price Increase ///



Price Increase Due to Current Events





Price Decrease ///



Price Stable to Rising



Price Decrease to Stable





MINERALS

- CERTAIN MINERALS SHOW RISING COSTS
- STABLE PRICING, BUT SLOWER AVAILABILITY

Trending Minerals

- Chelates
- Zinc Gluconate
- Magnesium Citrate
- Zinc Citrate

Calcium Carbonate: Visit the Granulations section on page 10 for more information about our directly compressible version of SuperTab® oyster shell calcium carbonate.

- SuperTab® Oyster Shell Granulation (OSG) 2000 AM
- SuperTab® Oyster Shell Granulation 2100 Malto
- SuperTab® Oyster Shell Granulation 2300 Acacia

Copper: Prices have stabilized but demand remains high.



Iron: Iron prices have stabilized, and supply is available.



Electrolytes

Calcium: Calcium prices have stabilized.



Magnesium: Magnesium market price and supply are stable.



Potassium: Potassium prices and availability are stable.



Phosphorus: Pricing has become relatively stable.



Sodium: Sodium prices have stabilized.



Zinc

Zinc prices and availability have stabilized. There have been new manufacturers that have entered the market which will keep the pricing stable.



Zinc Gluconate: The price of Zinc Gluconate is stable however, lead times are increasing.



Zinc Oxide: Prices for Zinc Oxide had started to see some strengthening but have now stabilized.



Zinc Sulfate: Zinc Sulfate prices remain stable however, lead times are increasing.



Zinc Ascorbate: The price of Zinc Ascorbate is stable; however, lead times are longer than average.



Zinc Citrate: Prices are showing an increase with longer lead times continuing.



Pricing Trends Key

Price Increase ///



Price Increase Due to Current Events

Price Stable 🕖



Price Decrease 🕖



Price Stable to Rising





Chelates

Zinc Amino Acid Chelate: Prices and lead times for zinc amino acid are increasing.



Zinc Bisglycinate Chelate: Prices have stabilized. There have been additional manufacturers that have entered the market which should keep pricing from increasing as well.



Zinc Glycinate Chelate: Zinc Glycinate is experiencing longer than average lead times, but prices remain stable.



Copper Glycinate Chelate: Prices are stable and expected to remain so. There have been additional manufacturers that have entered the market which should keep pricing from increasing as well.



Manganese Amino Acid Chelate: Manganese Amino Acid has stabilized.



Trace Minerals

Chromium: Chromium prices remain stable but can be difficult to source due to long lead times.



Molybdenum: The Molybdenum market is experiencing longer than normal lead times, but prices are remaining stable.



Selenium: The selenium lead times have increased; however, prices are stable.



Pricing Trends Key Price Increase Price Increase Due to Current Events Price Stable Price Decrease Price Stable



PREMIXES

- MANUFACTURERS ARE SWITCHING TO PREMIXES
- CUSTOM PREMIXES SIMPLIFY NUTRIENT PROCUREMENT

Custom Nutrient Premixes

More and more manufacturers are switching to vitamin and mineral premixes. Premixes consolidate multiple nutrients into a quality-assured, single-step ingredient and deliver economies of scale by simplifying ingredient procurement from a single source.



TWG SuperBlend®

Our value-added SuperBlend® custom nutrient premixes deliver performance and stability in high temperature and shear processes in a variety of food and beverage products, including: Extruded bars Gummy supplements Breakfast cereals Ready to drink beverages Beverage mixes

MICROENCAPSULATION

- AN EFFECTIVE METHOD OF MASKING UNWANTED FEATURES
- DELIVER A WIDE-RANGE OF FUNCTIONAL INGREDIENTS

Microencapsulation Technology

Vitamins, minerals, and other nutrients possess unique characteristics that can affect the appearance, color, and odor of the final product. Microencapsulation is an effective method of masking unwanted sensory characteristics while maximizing nutrient function.

SuperCoat®, our most recent innovation using our proprietary SMART™ process, envelops particles at the microscopic level in a protective shell. This value-added coating technology delivers superior performance and stability of essential nutrients for a wide range of multifunctional ingredients.

Trending Microencapsulated Nutrients:

- Vitamin C
- Vitamin B5 (Calcium Pantothenate)
- Vitamin B9 (Folic Acid)

With a diverse portfolio of products, **TWG Health + Nutrition** is one of only a select group of manufacturers with the technology and resources to deliver independent manufacturing of custom premixes, microencapsulated nutrients, and granulations.

Our comprehensive supply chain and extensive list of prequalified ingredients allows us to react quickly to changing market trends and help you keep up with consumer demand. We also understand that superior service is just as important as technology and expertise. That's why we provide you with prompt quotations, technical assistance, and support documentation to help you efficiently deliver your products on time. Contact us today to talk to one of our experts about your project needs or ask about any ingredients not listed here.



GRANULATIONS

- DELIVER ESSENTIAL NUTRIENTS IN GRANULAR POWDERS IDEAL FOR HIGH SPEED TABLETING
- CAN BE INCORPORATED INTO DRUM-TO-HOPPER TABLET BLENDS



Granulations

Rather than outsource granulations from a third-party manufacturer, TWG Health + Nutrition has committed to developing technologies and processes in-house to effectively and efficiently manufacture **SuperTab® direct compressible granulations**.

SuperTab® granulations deliver essential nutrients in uniform, free-flowing, granular powders ideal for high speed tableting processes. As usual TWG Health + Nutrition combines quality, innovation and superior knowledge to make sure your product is the best it can be. Ask about our granulation capabilities today!

Trending Granulations:

- Glucosamine
- Chondroitin
- Vitamin C

Oyster Shell Granulation

SuperTab® Oyster Shell calcium carbonate is sourced from an above sea level deposit, characterized as fossilized oyster shell beds. These oyster shell beds have been thoroughly vetted over the past ten years with testing of the material both analytically and physically to insure consistency and purity. TWG Health + Nutrition sources the high purity genuine shells exclusively from a domestic supplier.

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Contact us today to get started on your next dietary supplement product containing calcium carbonate granulations. Insist on SuperTab® Oyster Shell authenticity in your formulation.





Custom protein formulations

to address your specific functional needs.

POWERING YOUR NEXT FORMULATION





