

FOOD AND NUTRITIONAL

Supply Chain Outlook 2025

OCTOBER - ISSUE 45



ECONOMY

- FED CUTS RATES 25 BPS
- U.S. CONSUMER SPENDING RISES 0.6%, DRIVEN BY SERVICES

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 

United States

United States economic growth in the second quarter was steady, driven by strong consumer spending and business investments, but is slowing in the third quarter due to tariffs and policy uncertainty. The Central Bank applied a 25-basis-point rate cut this month as a risk management strategy and signaled at least one more cut before year-end. Growth is slowing rather than worsening, influenced by rising tariffs, persistent inflation, reduced consumer spending, lower immigration, and tighter federal budgeting.

Import rates in August fell sharply, while output continues to grow moderately. Business spending is projected to hold through the end of the year as demand for equipment and AI investments increase. Technology industry output is up 14% from last year as manufacturers turn to automation to offset labor shortages. However, an influx of orders, limited output capacity, and higher costs have slowed manufacturing, especially for firms reliant on imported intermediate goods. Cost pressures are expected to persist through 2026 as trade negotiations continue.

Consumer spending is rising at a 0.6% rate, primarily in services, finance, insurance, and transportation. Non-defense federal spending declined in the first half of the year after new budget legislation. GDP grew 3.8% in Q1 and 3.3% in Q2. Economists expect goods inflation to lift overall inflation slightly above 3% by late 2026. The goods sector has seen four consecutive months of job cuts, with slow hiring and minimal growth. Tightened immigration policies are constraining employment in farming, construction, food processing, and packaging. Bargaining power has shifted from workers to employers, contributing to slower hiring. The tight labor market remains a key factor behind the Fed's decision to cut rates.

China

Data for August and September show continued decelerated economic growth in China, driven by manufacturing overcapacity, weak retail markets, and low consumer spending. Retail sales rose 3.4%, the slowest pace since November 2024, while industrial output grew 5.2%, the lowest since August 2024. Manufacturers are scaling back operations to control output and remain cautious until a firm U.S.–China trade deal is finalized. Officials are urging investment in alternative markets with greater trade clarity, and some factories have rerouted U.S.-bound shipments to Southeast Asia, Africa, and Latin America.

Consumer spending remains weak following the initial government stimulus, increasing pressure for a new round to restore confidence. Exports are rising, but domestic demand remains stagnant. Unemployment climbed to a six-month high of 5.3% in August. Harsh weather—including record heat, extended rains, and flooding—continues to hinder growth. Senior strategists for the central bank are planning recovery measures such as a possible fourth-quarter stimulus, further monetary easing, front-loaded debt distributions, and fiscal expansion. Officials have confirmed rate cuts before year-end and are moving to lift restrictions on consumer consumption.

Market movement YTD as of 10/17/25:

- DJIA: 8.57%
- S&P 500: 13.30%
- NASDAQ: 17.45%

Eurozone

Economic growth in the Eurozone remains stagnant at around 1%, largely due to weak domestic demand and tariffs reducing foreign demand. In August, headline inflation reached 2%; goods and energy prices are easing, while services and food remain elevated. Service inflation continues to rise from a strong labor market and wage growth. New forecasts project inflation at 1.8% in 2026 and 1.9% in 2027. The ECB has paused quantitative tightening to ensure a softer landing through year-end.

ECONOMY cont.

- CHINA MANUFACTURING OUTPUT SLOWS
- EUROZONE GROWTH STAGNANT NEAR 1%

Ongoing uncertainty stems from inflation above target, geopolitical tensions, trade reforms, and falling consumer confidence in parts of the EU. Spending in France is down amid a fragile labor market, while Spain's remains strong due to structural reforms. Germany sits between the two, with recent income gains. Economists recommend lower policy rates and stronger fiscal and structural policies to support long-term recovery.

The EU-U.S. trade deal has not caused the slowdown; lingering policy gaps from late 2024 led to early 2025 pressures. The Euro is unexpectedly appreciating amid concerns over U.S. monetary policy. The finalized EU-U.S. trade agreement is expected to stabilize trade and drive structural investment.

The labor market remains solid, with over 219 million employed midyear. Participation has grown among women and seniors due to labor reforms, while AI-driven job creation in information and communications is offsetting manufacturing losses. Improved labor policies can withstand potential job hoarding if it resurfaces. As long as unemployment stays below 6%, GDP is expected to grow.

Japan

In August, consumer price inflation eased to 2.7%, the lowest since October 2024, driven by government-subsidized energy price declines. Excluding energy and food, core inflation was 3.3%, slightly down from July but still above the Bank of Japan's target. The BOJ kept rates unchanged this month amid uncertainty over U.S. trade policy. At its next meeting on October 29–30, officials will review the recovery strategy and consider rate adjustments while addressing slow growth, rising living costs, and fiscal constraints.

Government spending on defense and education has risen under reform efforts, but pressure is mounting to prioritize household support. Economists expect one more 25-point cut before year-end or early 2026. With rates steady, the yen has appreciated as the U.S. begins monetary easing, narrowing short-term rate gaps and strengthening the yen against the dollar.

Japan's 15% U.S. import tariff continues to strain trade. Exports have fallen for four consecutive months, and imports are down 5.2% year-over-year.

Automakers have reduced export prices to offset tariff costs, risking thinner margins, while relocating production to the U.S. remains unviable due to higher tariffs on steel, aluminum, copper, and semiconductors. Political instability deepened as Prime Minister Shigeru Ishiba resigned after losing two major elections, leaving Japan facing slower growth, U.S. trade disputes, and rising tensions with China.



Global growth remains uneven as major economies navigate slowing demand, inflationary pressures, and shifting trade dynamics.

CURRENT EVENTS

- RUSSIA LAUNCHES RECORD DRONE AND MISSILE ASSAULT
- CHINA TRADE TENSIONS ESCALATE OVER TECH AND MINERALS

Russia-Ukraine War

- **Russia has continued conducting air strikes on Ukraine and surrounding territories** but set a record for attacks in September. The recent overnight attack was “vile and brutal,” according to Ukraine’s President Zelenskyy. A Russian planned strike involving 595 drones and 48 missiles was dropped in the middle of the night in Ukraine. Ukrainian defense teams were able to shoot down many of the drones and missiles deployed, but the remaining few caused mass destruction. Poland was forced to close its airspace and join Ukraine in defense efforts.
- As the war has reached a new high, NATO and the European Union have informed Russia of plans to wage war to protect their allies. This comes after Russia twice intruded into NATO territory last month during attacks. Western support in defense and financial investments has been assumed as aggression towards Russia. Russian officials have also declared that support for Ukraine will be seen as an attack on Russia.

Ceasefire Negotiations for Gaza

- **President Trump and Israeli Prime Minister Benjamin Netanyahu have met several times over the past month** to review a plethora of versions of a **ceasefire agreement on the war in Gaza**. Allegedly, there has been little to no progress in reaching an agreement, as Israel appears to have issues with several key points covered in the full 21-point contract, which was drafted and revised by the heads of the US foreign relations and defense teams. President Trump presented the agreement that states orders for Hamas to release at least 20 of the remaining living hostages, then demand the group to surrender their arms and immediately leave Gaza, Israeli troops peacefully retreat to Israel simultaneously, structural breakdowns for a transitional governing body, and a detailed Arab-led stabilization program.
- At the same time, no final draft has been written. President Trump and the US believe the terms of the agreement are necessary and imperative, although Israel’s representatives are firm in their insistence on making amendments to the contract. **Hamas has not agreed to any contracts and has not been given access to any of the working ceasefire contracts.** Further meetings will take place as the US encourages Israel to accept a compromise.

US-China Trade Deal Update

- **During the final weeks of September, the US tightened control on the distribution of semiconductors** and chipmaking equipment to certain Chinese companies. China responded by enacting unreasonably strict guidelines for the distribution of its rare-earth minerals. China also claimed its ability and intention to “forbid any country on Earth from participating in the modern economy,” which President Trump calls a “moral disgrace”.
- **Trump explains that should China disrupt major strategic industries by withholding access** to rare minerals, the US will implement new heavy tariffs and restrictions on China. If either side takes action on their claims, it will recreate a trade embargo between the US and China. The original summit between the US, China, and South Korea was set for the end of October but has been rescheduled in the midst of swaying trade deal negotiations. Both sides are working to meet and create a mutually beneficial and fairer trade agreement.

Vitamins:

- **BASF announced on August 7, 2025, that their Force Majeure from one year ago, has been lifted** on certain vitamin and carotenoids products in animal and human nutrition. More to be seen on how this will affect pricing and availability.
- **The tariff landscape is still changing daily.** Currently, the US and China are in a pause until November 9, 2025 on the reciprocal duties that were previously imposed. This has given the countries time to negotiate new trade deals. While an extension is likely, if common ground is not found, the previous percentages will again take effect. The US has also targeted countries with tariffs that are known for transshipments of material originating in China shipping to the US. Full impacts of tariffs have yet to be seen because of the inconsistency of the rates.

**Conflict and
Diplomacy Shape
Global Landscape**

FAT SOLUBLE

VITAMINS

Trending Vitamins:

- VITAMIN K
- VITAMIN D
- VITAMIN B
- VITAMIN C

Vitamin A: Vitamin A pricing remains stable.



Vitamin D: Pricing starting to soften on weak demand.



Vitamin E: Pricing for Natural Vitamin E remains stable. Synthetic versions have seen some weakness in the market.



Vitamin K: Current pricing for vitamin K1 is stable.



Pricing Trends Key

Price Increase

Price Increase Due to Current Events

Price Stable

Price Decrease

Price Stable to Rising

Price Stable to Decrease

**Key Vitamin
Supply Conditions
Remain Stable
or Decreasing
Across Markets**



VITAMINS^{CONT.}

Trending Vitamins:

- VITAMIN K
- VITAMIN D
- VITAMIN B
- VITAMIN C

Vitamin C: Pricing remains stable in the short term with a large amounts of inventory being held in the US, brought in ahead of tariffs but is expected to start increasing towards the end of 2025 and into 2026.



Vitamin B1 (Thiamine):

Pricing has been stable and expected to remain stable through end of 2025.



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 have started to decrease slightly. There have been new producers entering the market, creating an oversupply of material.



Vitamin B6 (Pyridoxine): B6 pricing has continued to soften with suppliers holding inflated inventories.



Vitamin B7 (Biotin):

Production of B7 has stabilized and started to decrease.



Vitamin B9 (Folic Acid):

Pricing of Folic has stabilized from the early 2025 increases and remains elevated but are starting to see some softening.



Vitamin B12 (Cyanocobalamin)

The B12 market price has stabilized. There is an ample supply of inventory which should keep pricing stable and might even show some softening.



Pricing Trends Key

Price Increase

Price Increase Due to Current Events

Price Stable

Price Decrease

Price Stable to Rising

Price Decrease to Stable



MINERALS

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

Trending Minerals

- Chelates
- Magnesium Citrate
- Zinc Gluconate
- 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 remain long.



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 remain long.



Zinc Ascorbate: The price of Zinc Ascorbate is stable; however, lead times remain long.



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

MINERALS^{CONT.}

- MOST MINERAL PRICES REMAIN STABLE
- HIGH DEMAND AND LEAD TIMES AFFECTING AVAILABILITY

Chelates

Zinc Amino Acid Chelate: Prices and lead times have stabilized.



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 to Rising



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 multi-functional 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 pre-qualified 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.

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.



POWERED BY PROTEIN, PROVEN BY SCIENCE™

Custom protein formulations
to address specific
functional needs.

POWERING YOUR NEXT
FORMULATION



WRIGHTPRO®

Custom Protein Blends



Call 1.800.201.3096
Visit twghealthandnutrition.com

