

FOOD AND NUTRITIONAL

Supply Chain Outlook 2024

OCTOBER - ISSUE 38



ECONOMY

- US INFLATION NEARS 2%
- CHINA EXITS DEFLATION PERIOD

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Pricing Trends Key

- Price Increase 
- Price Increase Due to Current Events 
- Price Stable 
- Price Decrease 

Economic Outlook

United States - The Fed cut interest rates in mid-September, and inflation is moving towards the 2% goal. However, the Fed is predicted to proceed with caution regarding further changes in the policy. Core inflation is slightly higher than total inflation but is expected to level. Energy prices are lower, likely a result of lowering global demand. Core prices are up, with non-durables and services rising; however, durable goods are down from last year. Over 200,000 jobs were added to the job market in September, and the unemployment rate fell slightly. Hourly wages have increased significantly at 4% since May, but overall wage growth is narrowing. Consumer spending is up slightly from the previous month, mainly from the rise in service prices. Consumer spending is expected to fall as wage growth is balanced and households remain cautious about the risks of a recession. The value of the US dollar has grown compared to other global currencies. Although there is increasing confidence in the US economy making a soft landing, the main factors that influence the Fed's decision for the policy are inflation rates, the stability of the labor market, and sustainable economic growth. Market movement YTD as of 10/11/24:

- DJIA: + 13.73%
- S&P 500: + 21.91%
- NASDAQ: + 22.19%

Eurozone

European Union (EU): Inflation rates in the Eurozone have surpassed the 2% target, and the European Central Bank has already started cutting rates. The ECB is proceeding modestly to avoid the risk of fighting inflation again. However, the ECB is projected to cut rates again this month as bond yields fall in many countries. Core prices have risen to 2.7%, and food, industrial, and service prices have increased also. Energy prices are down, but service prices have spiked by 4%. Wage growth remains a problem for the Eurozone

and the unemployment rate is at a record low. Consumer spending is at its lowest in years, but the ECB predicts the perception of lowering inflation rates will motivate spending. Ongoing geopolitical conflict is raising concerns about risks in the supply chain. The value of the Euro has depreciated over the last month.

East Asian Nations

Japan - The Bank of Japan has eased its monetary policy for the past few months but is starting to restrict it as inflation rises. The BOJ is cautiously making changes to the monetary policy to avoid destabilizing the economy. Japan is experiencing differences in opinions with regard to changing interest rates. The BOJ expects slightly higher interest rates to help avoid another economic downturn. At the same time, the Prime Minister of Japan finds raising interest rates to be a risk in a semi-stable economy. In one month, the yen's value has risen and fallen significantly, affecting import prices. Currently, wage growth is still high, and consumer spending is picking up. With the expected rise in interest rates before the end of the year, Japan seems to be on track with reaching the BOJ's 2% goal for inflation during 2025.

China - China's deflationary period has ended as prices rise due to severe weather disrupting food production. Consumer and core prices are climbing, while production prices continue to fall, marking their lowest point since April. Declines in material and energy costs, alongside supply-demand imbalances, are blamed. Despite government stimulus and monetary policy adjustments, citizens are calling for stronger measures and larger payments to promote sustainable recovery. However, the central bank is cautious, fearing increased debt, which complicates efforts to restore economic stability amid weak growth and low inflation.

CURRENT EVENTS

- MANUFACTURING IS STRUGGLING
- CONFLICT UPDATES

Global Manufacturing:

- Global manufacturing is struggling as the purchasing managers' indices (PMIs) indicate further declines in every industry. Considering geopolitical conflict, supply chain interruptions, severe weather events and economic recovery, the manufacturing industry was expected to experience issues. However, the PMIs are showing further monthly declines in almost every country. From August to September of this year, the global PMI dropped from 49.6 to 48.8, with 50 being the benchmark for growth. The countries with the most significant manufacturing decline were China, the Eurozone, Japan and the United States. While India, Southeast Asia and the United Kingdom are the only countries with manufacturing growth. Each country is experiencing its obstacles with manufacturing. However, a global decline in every activity is raising concerns economically.

Russia-Ukraine War Update:

- Following Ukraine's attacks on Russian borders, Russia has carried out several attacks and is planning to carry out more on Ukraine. Missile and drone strikes, bombings and attacks on defense systems have all occurred from Russia on Ukrainian territory recently. Europe and the United States have continued to provide monetary and non-monetary aid to Ukraine. Russia is now resorting to stealing several thousand tons of grain, agriculture and resources from Ukrainian territory. Russia's current strategy is to use economic aggression in tandem with physical military attacks. Ukraine is facing a standstill as its allies are struggling to provide adequate support in the fight against Russia.

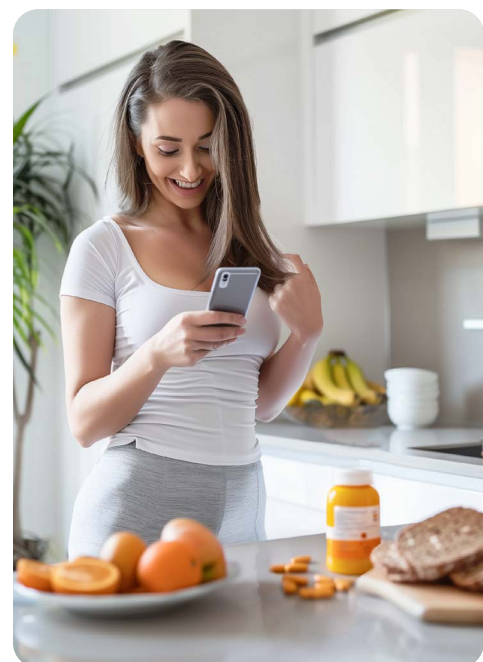
Israel-Lebanon War Update:

- Hezbollah, the Lebanese military group, has attacked an Israeli base, posing a threat to Israel's air defense systems. Numerous attacks from Hezbollah militia have left Israel struggling to fight both Lebanese and Palestinian wars. Israel is aware of Hezbollah's use of drones to carry out attacks on military bases, hospitals and civilian territory. Although Israel has been able to destroy a significant amount of Hezbollah's arsenal and even kill a military leader, it still appears Israel is struggling to defend its people and military against Hezbollah's constant drone strikes. The US has

continued its aid to Israel in both the Hezbollah fight and the war in Gaza.

Vitamins

- Because of the BASF plant explosion on July 29, 2024, pricing is being affected. This is expected to continue affecting pricing through the beginning of 2025.
- With contract season here, many vitamins will see higher prices for 2025 than were seen in 2024 mainly due to the BASF plant's temporary woes.
- Some factories in China have stopped quoting and accepting new orders.
- Shipping rates for China-US routes have increased over 200%, which has led to a significant increase in the cost of cargo and freight.
- On October 1st, 2024, The International Longshoremen's Association (ILA) went on strike closing East Coast and Gulf Coast ports. Luckily on October 4th, an agreement was reached on two important issues that allowed workers to return to work and the ports to reopen. This only led to a slight backlog and delay on incoming shipments.



FAT SOLUBLE

VITAMINS

Trending Vitamins:

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

Vitamin A: Vitamin A is still seeing strong prices across all forms. The explosion at the BASF facility in Germany will create more pressure on vitamin A and force prices to continue to increase.



Vitamin D: Vitamin D is on the rise again. Feed market prices have increased which translates to higher USP pricing. Factories have stopped quotations for D3 40MIU which will continue the increase.



Vitamin E: Pricing for Vitamin E is on the rise. Shandong NHU will halt production from July to September for maintenance which will also affect the price. Supply will be tight. Most factories have stopped quoting prices at this time. The explosion at the BASF facility in Germany will create more pressure on vitamin E and force prices to continue to increase.



Vitamin K: Current pricing for vitamin K1 has stabilized.



Pricing Trends Key

Price Increase

Price Increase Due to Current Events

Price Stable

Price Decrease

BASF halted vitamin production after an explosion at its German plant, causing supply disruptions. Shipping delays and rising costs due to port congestion will further impact availability and pricing.



WATER SOLUBLE

VITAMINS CONT.

Trending Vitamins:

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

Vitamin C: Vitamin C prices for regular pure grade have increased. The shut downs across all producers will continue to drive this price up. Factories have been slow to return and remain at low production due to an oversupply in the US market. Look for prices to remain higher through the beginning of 2025.



Vitamin B1 (Thiamine):

The B1 market pricing has begun to strengthen since 2024 contracts have been established. Look for this increase to continue through 2024. Supply from the main manufacturers is tight. The outlook for B1 in 2025 seems to be relatively stable.



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): Prices have begun to strengthen, and some manufacturers have stopped quoting. This will only cause a further increase in prices.



Vitamin B5 (Calcium

Pantothenate): B5 pricing has

stabilized but remain low. There have been some manufacturers that have stopped quoting and taking orders. This will likely cause some increase in the price.



Vitamin B6 (Pyridoxine): B6 pricing has begun to strengthen. The manufacturers have shut down for maintenance and stopped quoting. This has created an increase in pricing.



Vitamin B7 (Biotin): The main manufacturers for Biotin have limited capacity. This along with the BASF incident have created a rise in prices.



Vitamin B9 (Folic Acid):

The B9 market has stabilized after seeing historical lows at the end of 2023.



Vitamin B12 (Cyanocobalamin)

The B12 market has stabilized.



Pricing Trends Key

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Price Decrease

Price Stable to Rising



MINERALS

- SOME MINERALS HAVE SEEN PRICE INCREASES
- PRODUCTION AND TRANSIT ISSUES ARE PART OF ESCALATION

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. We are seeing some cost increases strictly due to the rise in transportation costs.



Electrolytes

Calcium: Calcium prices have stabilized.



Magnesium: Magnesium market price and supply are stable.



Potassium: Potassium prices and availability are stable.



Phosphorus: Global demand and pricing continue to increase.



Sodium: Sodium prices have stabilized.



Zinc

Zinc prices and availability have stabilized.



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



Zinc Oxide: Prices for Zinc Oxide are on the rise and lead times can be longer than average.



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

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Price Decrease

Price Stable to Rising

MINERALS CONT.

- SOME MINERALS HAVE SEEN PRICE INCREASES
- PRODUCTION AND TRANSIT ISSUES ARE PART OF ESCALATION

Chelates

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



Zinc Bisglycinate Chelate: Prices for zinc bisglycinate have stabilized.



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



Copper Glycinate Chelate: Copper Glycinate prices are stable and expected to remain so.



Manganese Amino Acid Chelate: Manganese Amino Acid shows an increase due to raw material availability and longer than average lead times.



Pricing Trends Key

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Price Decrease

Price Stable to Rising

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: Lead times have increased; however, prices are 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 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.



**SUPER
TAB®**
Direct Compressible Granulations



Quality Without Compromise

Dedicated to the health and nutrition market, we are the custom premix, granulation, microencapsulation & beverage products partner you can trust to help deliver high-caliber products to market faster.



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