

FOOD AND NUTRITIONAL

# Supply Chain Outlook 2022

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*the***WrightGroup**<sup>™</sup>

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# ECONOMY

- MORE EVIDENCE OF INFLATION IN U.S.
- CHINESE TRADE REMAINS STRONG

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## Pricing Trends Key

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

## Economic Update

Recent purchasing managers' index (PMI) reports for US manufacturing shows more evidence on inflation. It says that manufacturing inventories are starting to rise sharply after a sustained period of declining. Order backlogs for manufacturers are declining. This implies either a weakening of consumer demand and/or an easing of supply-chain disruption. If sustained, these trends suggest weaker pressure on prices and the possibility that, in months to come, inflation will decelerate.

In US employment, the sectors with the biggest job gains included professional and business services, transportation and warehousing, construction, and manufacturing. Administrative and waste services led the professional and business services sector with an increase of 42,000 jobs. Couriers and messengers led the transportation and warehousing sector with an increase of 27,000 jobs. The Federal Reserve has estimated that the economy would hit a 4.8% unemployment rate in 2021, 3.8% in 2022, and 3.5% in 2023. Market performance in past month, as of January 3:

- S&P 500: +5.15%
- DJIA: +5.22%
- NASDAQ: +4.27%

## Europe

Inflation in Eurozone continues to accelerate and will surely put pressure on the European Central Bank (ECB) to remove monetary

## US MANUFACTURING SHOWS MORE EVIDENCE ON INFLATION.

stimulus sooner than planned. Incoming German Finance Minister Christian Lindner said that "inflation gives rise to legitimate concerns." However, the ECB leadership continues to say that the high inflation is likely due to one-off factors, including supply chain disruption, the rise in the German VAT, and the spike in energy prices. Still, ECB Vice President Guindos said that "bottlenecks may last longer than expected" in 2022. The pattern of inflation in the Eurozone is like that in the United States, although at a somewhat lower level. In both locations, goods inflation exceeds service inflation, reflecting a shift in demand that businesses are struggling to accommodate. This suggests that supply chain problems are the principal cause of higher inflation.

## China

In November, China's year-over-year export growth decelerated while imports accelerated. When measured in US dollars, exports were up 22.0% from a year earlier, slower than the 27.1% clocked in October. Still, 22.0% is a strong number. Moreover, exports were up 8.4% from the previous month, having fallen from September to October. The strength of exports comes at a time when the domestic Chinese economy is facing significant headwinds, especially as the property sector falters, electricity rationing remains, and the zero-tolerance policy toward the virus disrupts factories and ports. From a year earlier, exports were up 22.3% to ASEAN, 33.5% to the European Union, but only 5.3% to the United States. The weakness of exports to the United States could reflect the impact of the rising value of the renminbi. Or it could reflect a weakening of US demand.

# CURRENT EVENTS

- AT HOME TREATMENT FOR COVID-19
- BAN ON PRODUCTS MADE WITH FORCED LABOR IN CHINA

## Inflation

- Inflation doesn't just equal higher prices. Meet inflation's rude relatives: shrinkflation (when the size of a product gets smaller) and skimpflation (when quality and speed of service gets worse). All three "flations" mean your dollar doesn't stretch as far as it used to.
- Shrinkflation is when a product's size gets smaller, but the price stays the same. Some recent examples include; Royal Canin made its cat food cans smaller, family-size Tillamook ice cream containers went from 56 ounces to 48, and Walmart-brand paper towel rolls shrunk from 168 sheets per roll to 120. All without a price drop to compensate for the difference.
- Skimpflation, a term coined on NPR's "Planet Money," happens when companies cut corners on labor and services while still charging the same prices. Airlines cancelling flights and responding with painfully slow customer service, Domino's pizzas taking longer to be delivered, and restaurants foregoing physical menus.

## Global Trade

- On January 1, 2022, the Regional Comprehensive Economic Partnership (RCEP) will go into effect for China, Japan, Australia, New Zealand, Singapore, Thailand, Vietnam, Brunei, Cambodia, and Laos. The RCEP is a free-trade agreement among Pacific Rim nations that was initiated by ASEAN and has been fueled and dominated by China. It will eliminate many tariffs starting in 2022 and will eventually lead to free trade for 90% of goods traded in the region.
- The RCEP competes with the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP), which is the successor to the TPP from which the United States withdrew in 2017—and has said that it will not rejoin the CPTPP but will seek a new framework for regional trade that will focus on digital trade. The CPTPP involves not only East Asian countries but also Canada and Mexico. China and the United Kingdom have expressed an interest in joining the CPTPP, which is a more comprehensive agreement than the RCEP. That is, while the RCEP cuts tariffs, the CPTPP also implements trading rules governing data privacy, protection of intellectual property, subsidies to state-owned enterprises, labor standards, and environmental standards.
- Both the RCEP and the CPTPP have the potential to boost intra-regional trade and lead to further rationalization of regional supply chains. The RCEP is the vehicle by which China hopes to dominate trading rules in the region. The CPTPP is the vehicle by which Japan and Australia hope to offset China's footprint in the region. The absence of the United States from either agreement means that the world's largest economy is expected to play a lesser role in the Asia Pacific economy.

## Supply Chain

- While it is against U.S. law to knowingly import goods made with slave labor, the Uyghur Forced Labor Prevention Act shifts the burden of proof to companies from customs officials. Firms will have to proactively prove that their factories, and those of all their suppliers, do not use slavery or coercion.
- The law, which passed the House and Senate nearly unanimously, is Washington's first comprehensive effort to police supply chains that the United States says exploit persecuted minorities, and its impact could be sweeping. A wide range of products and raw materials (such as petroleum, cotton, minerals, and sugar) flow from the Xinjiang region of China, where accusations of forced labor proliferate.
- "I anticipate that there will be many companies — even entire industries — that will be taken by surprise when they realize that their supply chains can also be traced back to the Uyghur region," said Laura Murphy, a professor of human rights and contemporary slavery at Sheffield Hallam University in Britain.
- If the law is enforced as written, it could force many companies to rework how they do business or risk having products blocked at the U.S. border. Those high stakes are expected to set off a crush of lobbying by companies trying to ease the burden on their industries as the government writes the guidelines that importers must follow.

## Review of 2021

- Sports returned in 2021, but not the way we remembered them. Every game, every practice, every season is a positive test or outbreak away from being postponed or compromised or canceled.
- The US population growth is at an all-time low. The Census Bureau released estimates that show the US population only grew by 0.1% (equates to 392,665 people) between July 1, 2020, and July 1, 2021. This is the lowest rate since the nation's founding!
- The Federal Aviation Administration (FAA) is partnering with TSA to share information about misbehaving passengers. Those on the "naughty list" will no longer have the luxury of expedited screening through TSA PreCheck.
- FDA granted authorization for Pfizer's Paxlovid, the first at-home treatment for COVID-19 with data showing the pill can cut hospitalizations and death by almost 90%.
- The White House announced a plan to remove and replace all lead water pipes across the country in the next decade and EPA will also impose stricter limits on amount of lead allowed in water.
- 2021 was a momentous year (with lots of ups and downs) for Bitcoin, its 13th since the cryptocurrency's white paper introduced it to the world.
- Amazon announced its support for federal cannabis reform legislation and removed cannabis from its drug screening programs for unregulated positions. Cannabis stocks rally.

FAT SOLUBLE

# VITAMINS

Trending Vitamins:

- FOLIC ACID
- VITAMIN C
- CYANOCOBALAMIN
- VITAMIN D

The Olympics as well as Chinese New Year have historically affected vitamin production and as the world is watching, the government tries to clean up air quality around Beijing. None of this should be surprising. The question is, how much stockpiling of inventory was able to be done in advance of these events given Covid zero tolerance and existing supply chain issues? Long story short, customers need to communicate what their needs are likely to be in Q1.

**Vitamin A:** Prices for Vitamin A remain stable as demand is low, all despite the BASF Force Majeure.



**Vitamin D:** Prices on Vitamin D seem to be stable despite the increased demand for immunity products.



**Vitamin E:** Prices continue to rapidly rise, and output could be reduced due to the Olympics and Omnicron.



**Vitamin K:** Market price for vitamin K1 has increased due to the cost of raw material's rising.



## The Olympics as well as Chinese New Year have historically affected vitamin production

### Pricing Trends Key

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WATER SOLUBLE

# VITAMINS CONT.

Trending Vitamins:

- FOLIC ACID
- CYANOCOBALAMIN
- VITAMIN C
- VITAMIN D

**Vitamin C:** The cost of Vitamin C's raw material is extremely high because of China's dual control policy. Market price has risen and is expected to continue, and supply has a likely potential of impact as well.



**Vitamin B1 (Thiamine):** Prices starting to move upwards due to increases in raw material costs and China's recently implemented energy control policies.



**Vitamin B2 (Riboflavin):** Market prices have increased as have production prices.



**Vitamin B3 (Niacin/ Niacinamide):** Pricing continues to rise with the supply, shrinking.



**Vitamin B5 (Calcium Pantothenate):** Xinfu and Xinafa are not offering in 2022, causing panic in the market. Non-Chinese supplier pricing is increasing quickly.



**Vitamin B6 (Pyridoxine):** Rising phosphorus prices along with production being cut by 90%, are leading to increase in vitamin B6 pricing.



**Vitamin B7 (Biotin):** Price has increased exponentially with limited supply.



**Vitamin B9 (Folic Acid):** Vitamin B9 prices have increased due to lack of raw material availability and decreased production.



**Vitamin B12 (Cyanocobalamin)** B12 prices have seen increase for many months now. B12 producers' proximity to the Olympic grounds will bring more challenges for this vitamin's availability.



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# MINERALS

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

## Trending Minerals

- Iron
- Magnesium Sulfate
- Magnesium Oxide
- Magnesium Citrate
- Zinc Gluconate
- Zinc Citrate
- Zinc Oxide

**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

### Pricing Trends Key

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**Copper:** Prices have stabilized after steadily increasing for most of the year due to increased demand related to Covid-19.



**Iron:** Reduced prices are increasing due to production ceasing. North American Höganäs (NAH) announced in press release that their Niagara Falls plant operations will end November 1st and full plant closure will take place December 1st. This facility produces reduced iron powder for food fortification, water treatment, and automotive and aircraft brake pads. NAH states closure is necessary due to unexpected hydrogen gas supply shortage.



## Electrolytes

**Calcium:** As with energy restrictions, the Omnicron variant will likely also affect the production of Calcium in a negative way and prices have begun to increase.



**Magnesium:** Magnesium production issues have caused steady increase in price.



**Potassium:** We are seeing an increase in pricing as producers in China are dealing with uncertain energy supplies.



**Phosphorus:** Pricing for phosphorus is rising as production is severely decreased by 90%.



**Sodium:** Sodium prices are on the rise due to production and transit issues, limiting availability.



## Zinc

Zinc pricing has stabilized after increases throughout 2021 after covid related demand spikes. Lead times still remain high.



**Zinc Gluconate:** Pricing has stabilized though lead times still remain long.



**Zinc Oxide:** Lead times begin to improve but pricing has started to increase.



**Zinc Sulfate:** Zinc sulfate prices and lead time are currently stable.



**Zinc Ascorbate:** The price and lead times for zinc ascorbate are stable.



**Zinc Citrate:** Zinc citrate prices have stabilized though at high levels.



# 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 are increasing, and lead times are longer than average.



**Zinc Glycinate Chelate:** The zinc glycinate is experiencing longer than average lead times, and prices are beginning to increase.



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



**Manganese Amino Acid Chelate:** Prices for manganese amino acid remain stable but are experiencing longer than average lead times.



## 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

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# PREMIXES

- MANUFACTURERS ARE SWITCHING TO PREMIXES
- PANDEMIC HAS CHANGED THE WAY PROVIDERS OFFER SERVICES



## 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.



## Wright Group 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<sup>®</sup>, our most recent innovation using our proprietary SMART<sup>™</sup> 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, The Wright Group 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, The Wright Group 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 The Wright Group™ 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. The Wright Group 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



# FUELING YOUR PRODUCTS ENHANCING YOUR BOTTOMLINE

## About The Wright Group

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.

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