

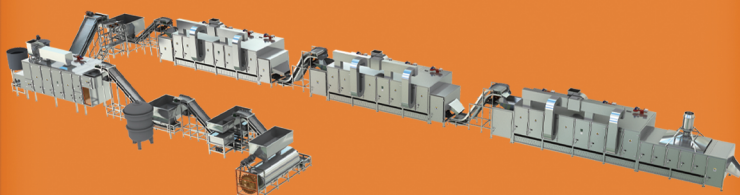
NUTS AND DRIED FRUITS INDUSTRY

PHASE I 2025 TOTAL 110 ISSUE

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NUTS, KERNELS & PEANUTS INTELLIGENT PRODUCTION LINE



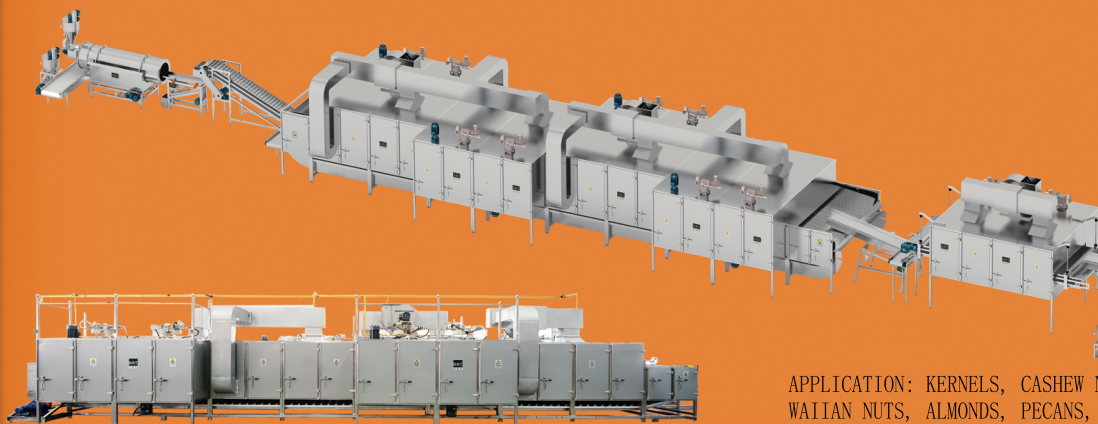
APPLICATION: DRYING OF WALNUT, ALMOND, MAGNOLIA, PECAN, PISTACHIO, HAZELNUT, KERNELS, SUNFLOWER SEED, WATERMELON SEED, PEANUT, PUMPKIN SEED AND OTHER NUTS, FOOD, GRAIN, OIL, POTATO CHIPS ETC.

ORIGINAL ROASTING INTELLIGENT PRODUCTION LINE



APPLICATION: DRYING OF WALNUT, ALMOND, MAGNOLIA, PECAN, PISTACHIO, HAZELNUT, KERNELS, SUNFLOWER SEED, WATERMELON SEED, PEANUT, PUMPKIN SEED AND OTHER NUTS, FOOD, GRAIN, OIL, POTATO CHIPS ETC.

MULTIFUNCTIONAL POWDER COATED KERNEL INTELLIGENT PRODUCTION LINE



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AUTOMATIC KERNEL POWDER COATING MACHINE

APPLICATION: KERNELS, CASHEW NUTS, HAWAIIAN NUTS, ALMONDS, PECANS, PEANUTS, WALNUT NUTS, ETC.

MULTI-FUNCTIONAL ROASTING INTELLIGENT PRODUCTION LINE



APPLICATION: ROASTING PEELED SUNFLOWER SEEDS, PAPER PUMPKIN SEEDS, BOILED WATERMELON SEEDS, APRICOT KERNELS, PEANUTS, WHEAT, RICE ETC.

NUTS, SEEDS & PEANUTS INTELLIGENT PRODUCTION LINE



APPLICATION: DRYING OF SUNFLOWER SEEDS, PEANUTS, PUMPKIN SEEDS, WALNUTS, ALMOND, PISTACHIOS, PECAN, HAZELNUTS, MACADAMIA NUT ETC.



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NUTS AND DRIED FRUITS INDUSTRY

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CONTENTS

FEB 2025



08 New Year's Greetings

8 Grasping the Innovative Opportunities of the Era & Promoting the Healthy Development of the Nut and Dried Fruit Industry in China

12 Industrial Economy

12 The fast-moving consumer goods industry is undergoing a transition from the 'seller-dominated era' to the 'buyer-centric era'

14 Industrial chain

Market

14 The Growth Path of Three Squirrels in the Short Video Era

Product

15 "Nuts on the Tip of Your Tongue"—Be&Cheery's "Original Taste Zhen Guo" (Daily Nuts)

Equipment

17 Yunnan Aofu: Pioneering a New Era in Nuts Processing

Accessories

18 Research on the application of herbal seasoning in nuts

Raw

20 Analysis and forecast report on chinese walnut raw materials and products 2023-3034

Plant

26 Breeding of 'Shuangxing No. 20' - A New Variety of High-Quality, High-Fruiting-Rate White-Seeded Sunflower

28 Window of the world

28 The production of sunflower seeds in the US is projected to hit a historic low in marketing year 2024/25

28 Cambodia exported over 790,000 tonnes of cashew nuts to Vietnam in the first ten months of 2024, generating \$1.110 billion in revenue

29 Almond production will increase to 1.6 million tons; China's imports will reach 130,000 tons

29 Zimbabwe's macadamia nut exports have attained a five-year peak.

30 The sunflower seeds in Monywa, Myanmar, achieve high yields during the rainy season.

30 Côte d'Ivoire: The country ranks first globally with a cashew production of approximately 1.1 million tons.

30 Global consumption of pistachios has reached 1 million tons, with China's imports experiencing a doubling.

32 Nutrition and Health

32 During autumn and winter, invite these "heart-guarding ambassadors" to join your healthy menu.

33 The Benefits and Nutritional Value of Eating Walnut Kernels

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Grasping the Innovative Opportunities of the Era & Promoting the Healthy Development of the Nut and Dried Fruit Industry in China

- Zhang Liaoyuan and Chen Qi

As the auspicious dragon waves its tail, bidding farewell to the old year; the propitious snake raises its head, embarking on a new journey!

At this beautiful moment of bidding farewell to the old year and welcoming the new, I extend the most sincere greetings to colleagues of the nut and dried fruit industry in China and colleagues of the nut and dried fruit industry residing worldwide; express heartfelt gratitude to all leaders, consumers, partners, and friends who care about and support the nut and dried fruit industry; and offer warm regards and profound respect to the colleagues who are dedicating themselves to production and market frontlines during the New Year! I sincerely wish all colleagues and their families a smooth and successful year ahead, filled with happiness and joy!

Let us together wish for our great motherland to remain peaceful, prosperous, and thriving! May the world be harmonious and peaceful! May humanity survive, thrive, and prosper!

Colleagues! The past year was a crucial period for comprehensively implementing the spirit of the 20th Party Congress, and a pivotal year for the nut and dried fruit



industry in China to embrace the 20th Congress as a new starting point, initiating structural innovation and welcoming unprecedented development opportunities and far-reaching transformative directions. The entire industry is marching forward with unwavering determination along the paths of innovation-driven development, industrial upgrading, market expansion, and cultural integration, striving to meet the people's aspirations for a better life, propel

socio-economic progress, and continuously advance towards becoming the global leader in the nut industry, thereby crafting a new chapter of high-quality development.

In this era of significant supply and demand transformation, the market is returning to rationality, with consumer demands becoming increasingly personalized and diversified, showing a trend of expanding consumption in lower-tier markets. Wholesale, distribution, supermarkets,

convenience stores, shelf e-commerce, content e-commerce, and discount markets are all flourishing, bringing new growth opportunities for the nut and dried fruit industry. Data reveals that the consumption of nuts in China continues to grow, currently representing over one-tenth of the whole world's total, with the nut planting area in China expanding by 20-30% over the past decade, demonstrating the market's robust demand for nut products. This demonstrates that healthy food represented by nut seeds has become a favorite among the general population.

Based on this, the nut and dried fruit industry is entering an era of structural innovation, which should encompass innovation across the entire industry. Through innovative strides across the entire industry and integrating all elements, we aim to make high-quality, nutritionally rich nut and dried fruit products more accessible - ensuring they are affordable for everyone and available everywhere, truly bringing healthy nuts to everyone and benefiting the public.

In this journey, every professional in the nut and dried fruit industry is entrusted with a critical mission: Not just being ambassadors of health concepts, but practitioners driving the healthy development of the industry, and dedicated cultivators tirelessly working to achieve the aim of "bringing healthy nuts to everyone".

In 2024, the nut and dried fruit industry in China will drive product upgrades through innovation, enhancing overall competitiveness. Continuously innovating product forms, developing diverse nut products with low sugar, low salt, and high fiber to meet the growing health demands of different consumer groups. Flavor innovations like nuts + baking, nuts + coffee, nuts + popsicles and other "nuts +" products are breaking industry boundaries. Processed nut products such as nut sauces, nut oils, nut powders, and nut cakes are naturally integrating into daily foods, winning consumer favor with their unique textures and rich nutritional value.



Innovation has become the primary keynote of the development of the nut and dried fruit industry.

In 2024, the entire industry embodied the spirit of pioneering innovation and transcendence. The 17th Food Exhibition for China Nuts & Dried Fruits hit unprecedented heights in exhibition area, visitor numbers, transaction volume, and international influence. Over 50 high-quality conference events jointly released by 18 countries propelled high-quality development of the nut and dried fruit industry of the whole world. The 2024 "9.17 China Nut Health Week" not only seamlessly blended online and offline events but also leveraged animations, short dramas, creative performances, and professional, inspiring exchange methods to enhance the event enjoyment and engagement. This approach

allowed consumers to experience the industry's vibrant growth, sparked society's collective passion for healthy living, and garnered unanimous recognition and praise from domestic and international peers for the new concept of bringing healthy nuts to everyone.

In 2024, the nut and dried fruit industry in China actively responded to the development pattern of mutual promotion between domestic and international dual circulation, achieving new breakthroughs in international cooperation. Michael Waring, Chairman of the International Nut and Dried Fruit Council (INC), recorded a congratulatory video for the 17th Food Exhibition for China Nuts & Dried Fruits. The international exhibition area featured nearly 70 enterprises from close to 20 countries. Chinese enterprises established direct procurement partnerships

NEW YEAR'S GREETINGS



with globally renowned farms. As the executive council unit of the Specialized Committee for Nuts and Dried Fruits of China, ChaCha has already become an INC council member, while Three Squirrels has joined the Science and Technology Committee of the INC on behalf of the industry, driving sustainable development of the nut and dried fruit industry of the whole world and making new contributions to shared global development opportunities. The nut and dried fruit industry in China is integrating into the global nut raw material landscape. Leveraging China's vast market demand and innovative domestic and international collaborations, the industry's scale has grown to over RMB 180 billion, establishing China as a crucial component of the nut and dried fruit market of the whole world.

As spring arrives with splendor and remarkable achievements emerge, looking forward to the new year, the nut and dried fruit industry will encounter more opportunities and challenges. As health awareness continues to rise, nuts, as a kind of nutrient-rich healthy food, will usher in broader development opportunities. Grasping the structural innovation opportunities in the nut and dried fruit industry over the next 3-5 years, seizing new trends, embracing new challenges, and supporting industry development is the inevitable path for all industry peers to "bring healthy nuts to


everyone".

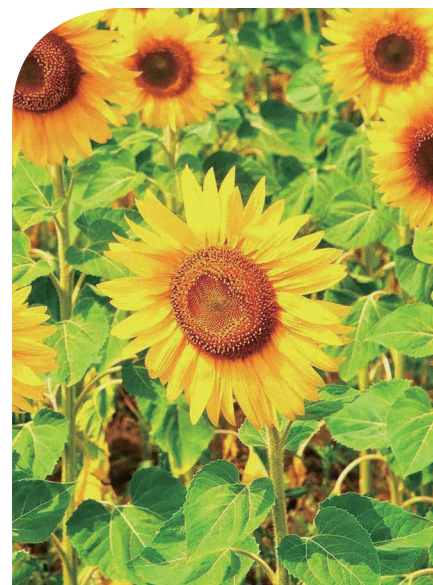
In 2025, we will continue to uphold the principle of quality supremacy, actively embrace the digital era, leverage emerging channels, strengthen promotion and marketing to help more consumers understand and love nuts, enhance exchanges and collaboration with domestic and international markets, and drive the internationalization of the nut and dried fruit industry, enabling Chinese nut and dried fruit products to go global.

In 2025, the entire industry will further expand openness, deepen collaboration, and play an even more significant role in leading innovation, focusing on hosting an exceptional 18th Food Exhibition for China Nuts & Dried Fruits. The exhibition's scale, precision transaction rate, and level of internationalization will reach unprecedented heights, attracting over 100 nut and dried fruit enterprises and overseas institutions from more than 30 countries of the whole world. New additions will include a "Festival Gift Pavilion", raw material and auxiliary material hall, and on-site procurement/supply negotiation zone, providing a one-stop procurement and communication platform for both buyers and suppliers, and promoting close exchange and collaboration among upstream and downstream industry chain enterprises.

In the new year, the nut and dried fruit industry will be like a massive vessel

cutting through waves, sailing boldly across the ocean of healthy food. Colleagues, let us move forward with rock-solid confidence, seize every moment with unwavering determination, and demonstrate unyielding perseverance. In this way, we will undoubtedly forge new paths, unite our strengths toward the future, and courageously become the communicators, practitioners, and diligent cultivators of "bringing healthy nuts to everyone".

Let us join hands, working together to write an even more brilliant tomorrow for the nut and dried fruit industry, and make increasingly significant contributions to building a shared destiny for the nut industry of the whole world! 





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The fast-moving consumer goods industry is undergoing a transition from the 'seller-dominated era' to the 'buyer-centric era'

The transformation of retail channels is happening one after another, impacting not only online but also offline retail. Supermarkets are undergoing adjustments, snack shops are aggressively expanding, and more.

Brand owners have also faced business struggles this year, having been impacted first by e-commerce and now by new retail trends.

Distributors, who were once squeezed by both upstream and downstream entities, are now finding themselves abandoned by many of them. The trend of larger players acquiring or eliminating smaller ones is becoming increasingly evident.

However, behind these current situations lie deeper dynamics:

1. The survival logic of retailers at the grassroots level has undergone a transformation.
2. The brand's discourse power in the market has seen a significant decline.
3. Distributors Need to Redefine Their Role in the Market

1.The survival logic of retailers at the grassroots level has undergone a transformation.

In the consumer goods industry, there is a saying that goes, "He who is closest to the consumer holds the most sway."

In the commodity circulation chain, retailers



serve as the final direct link between sales and consumers, thus wielding considerable influence within the distribution channels, particularly in stores and national CVS chains.

This influence has historically granted traditional offline retail giants an edge. Their business model is not fundamentally about selling goods but rather about selling shelf space.

Various entry fees, barcode fees, display fees, promotional fees, and store celebration fees are subject to deductions, and only those who can bear the costs have their products placed on shelves.

Consequently, the majority of limited shelf space is occupied by top brands.

However, today, the retail sector is grappling with severe oversupply and undergoing numerous transformations. Times have shifted, rendering the "selling shelf space" model obsolete, as consumers are no longer swayed by it.

The emergence of new retail formats, such as warehouse membership stores and snack shops, in recent years suggests that consumers are not averse to in-store shopping but rather that traditional retail stores have failed to provide compelling reasons for in-store purchases.

Traditional retailers are gradually acknowledging these issues. On the one hand, retailers like Zhongbai and Yonghui have sought the assistance of Pangdonglai to adjust their supermarkets, focusing on refining their product structure.

On the other hand, some retailers have embarked on a journey towards naked procurement, eliminating all front-end and back-end fees, waiving return and exchange policies, and shortening settlement terms. However, they demand the same prices as distributors and the autonomy to adjust retail prices.

This transformation signifies a shift in retailers' survival logic from "selling shelf space" to "selling goods," and from focusing on front-end and back-end costs to prioritizing supply chain efficiency and product quality.

2.The brand's discourse power in the market has seen a significant decline.

Currently, there is an increasing number of channels that forge closer connections with consumers, thereby bolstering their discourse power. In stark contrast, brand merchants are progressively losing ground.

The market discourse power of top-tier brand merchants is also gradually diminishing in the course of change. This evolution can be broadly categorized into several stages:

The first stage: couple shops and wholesale markets.

Top brands have secured absolute discourse power through deep distribution models.

The second stage: the emergence of chain convenience stores and hypermarkets.

Large chain retail giants wield considerable influence, but due to their channel fee structure, top brands possess robust financial advantages and continue to dominate shelf space.

Traditional retail giants and top brands form a conspiratorial alliance within the channel system, with top brands firmly grasping the market discourse power.

The third stage: the ascendancy of e-commerce platforms, including platform



e-commerce, vertical e-commerce, and private domain e-commerce.

The dawn of the era of infinite shelves has drastically reduced the cost of product listing, disrupting the profit model of traditional retailers and enabling numerous small and medium-sized brands to directly engage with consumers.

The discourse power of top brands has waned, while the influence of online platforms has strengthened. However, various "channel fees" persist on these platforms, allowing top brands to maintain dominance by investing in "traffic acquisition."

The fourth stage: the rise of new retailers, such as Sam's Club, Hema Supermarket, Metro AG, and contemporary snack stores.

These retailers have genuinely prioritized consumer demand, leading the supply chain through cash-based product selection and customized development, rather than relying on channel fees.

Market discourse power is gradually shifting towards retailers who cater to consumer needs, with brand owners' influence severely diminished in this process.

By peering through the veil of phenomena, it becomes evident that the fast-moving consumer goods industry has transitioned from the "seller-dominated era" to the "buyer-centric era," shifting from brand sovereignty to consumer sovereignty.

3.Distributors Need to Redefine Their Role in the Market

Every time there is a shift in distribution channels, distributors face the greatest challenges. As they occupy a middle position, they are squeezed between downstream retailers and upstream

manufacturers.

Firstly, as the survival strategy of retailers evolves, the business opportunities available to distributors diminish.

Secondly, the era of earning profits solely by relying on brand momentum to deliver goods to the terminal has come to an end.

While the market still necessitates such services, it no longer requires a multitude of dealers to provide brand-related services.

So, what other services do dealers need to offer? Currently, we have observed successful directions for dealers in the market:


One type is regional B2B platform distributors, who provides one-stop product selection, operation, and service for small and medium-sized stores.

Another type is category-focused distributors, who specializes in a particular category and create a brand matrix category distribution through a combination of multiple brands, offering category shelf operation services to retail stores.

In fact, many retailers lack the expertise to manage shelves and operate segmented categories, which presents opportunities for distributors deeply involved in these categories, as mentioned earlier in the context of supermarket adjustments.

For instance, Zhengzhou Dapeng Trading, which was previously highlighted as an emerging distributor, continues to expand its business by offering comprehensive shelf solutions for segmented categories, such as leisure food. Similarly, Zhengzhou's Shi Zhi Rui specializes in daily chemical products and offers comprehensive shelf solutions.

The market has always been present, and the fast-moving consumer goods industry exhibits stronger risk resistance compared to other sectors. However, with more participants and increasing competitive pressure, all players in this industry are compelled to evolve.

Retailers, brand owners, and distributors will continue to exist in this market, but ultimately, who occupies each role will be determined by natural selection and the survival of the fittest. 

The Growth Path of Three Squirrels in the Short Video Era

(1) Adapt to the situation and gain comprehensive insights, precisely pinpointing the pivotal moment for business growth.

The short video industry, as an emerging sector propelled by traffic algorithms, underscores the significance of timing. It necessitates agile strategy adjustments aligned with temporal nodes. Annually, we observe the outbreak of numerous marketing campaigns, termed "emotional nodes" on the TikTok platform. When a particular emotion reaches its zenith, traffic naturally floods in. Confronted with a myriad of products, we must continually seek out fresh emotional nodes for alignment. The cornerstone of this endeavor is to perceive the qualitative shifts in supply and demand with acute sensitivity. By capturing this transformation and astutely integrating it with traffic, we can catalyze a spike in sales growth.

(2) Deep Integration of Product and Sales: Expediting the Launch of New Products

To achieve seamless integration between product categories and sales, Three Squirrels has undertaken a comprehensive transformation across its entire corporate chain. Our current focus is on genuinely merging these two pivotal elements to guarantee a swift market response and facilitate the efficient introduction of new products. Nowadays, the journey from concept to product development for a new item can be completed within 15 to 30 days, paving the way for swift iteration and upgrades in subsequent cycles. This accelerated pace opens up avenues for expanding into more categories, as our robust quick-feedback and response mechanisms empower us to adapt flexibly



to the market's fluctuating demands.

(3) Establishing an Efficient Online Distribution Matrix to Accelerate Product Testing and Promotion

The advent of short videos has revolutionized enterprise operational efficiency. Upon the launch of a new product, we leverage short video platforms for swift selling point testing and product validation.

Furthermore, the online realm is teeming with influencer resources. Three Squirrels has successfully reached out to over 400,000 influencers, constructing an expansive sales network that amplifies our reach and impact.

Comprehensive Upgrade of the "From Three Arises All Things" Strategy by 2025


In 2025, Three Squirrels has embarked on a new strategic path: transcending mere channel optimization to focus on enhancing organizational efficiency and delivering superior quality products to

consumers.

Firstly, Three Squirrels is undergoing organizational transformation, drawing inspiration from aspects of the Amoeba management model. However, our approach diverges in that it emphasizes consumer-centric delivery. Internally, we are structured into multiple operating units, fostering an efficient and collaborative work environment.

Secondly, we are actively deploying centralized factories across the country. Recently, Three Squirrels established a second headquarters in Tianjin, serving as a hub for North China, encompassing factory construction, centralized warehousing, logistics, and distribution, among other areas. Moving forward, we aim to establish several more centralized factories nationwide to optimize logistics and supply chain efficiency.

Furthermore, with the proliferation of new product categories, we are continuously incubating new category brands. These brands are not created ex nihilo but are nurtured under the umbrella of Three Squirrels. It's akin to branching out from one large reservoir into numerous smaller ones. For instance, our quail egg and dried fruit brands naturally emerged rather than being artificially crafted. When a particular category gains market traction, we assign it new brand connotations and progressively introduce it across all channels.

Reflecting on Three Squirrels' decade-long entrepreneurial journey, we have encountered numerous changes, challenges, and detours. However, this year, we have finally discovered the correct trajectory and achieved steady performance growth. Navigating growth in the evolving market landscape is no small feat. For Three Squirrels, this marks both a significant breakthrough and a valuable development opportunity. 

"Nuts on the Tip of Your Tongue" —Be&Cheery's "Original Taste Zhen Guo" (Daily Nuts)

Hangzhou Haomusi Food Co., Ltd

Author: Zhang Nan

Be&Cheery is deeply engaged in the realm of nut nutrition research, and through a scientifically rigorous research and development process, has achieved precise nut ratios, with the aim of furnishing consumers with more balanced daily nut offerings.

Be&Cheery's "Original Taste Zhen Guo" (Daily Nuts) is a pristine, additive-free, low-salt, and low-sugar mixed nut product. It meticulously blends five premium nuts: almonds, cashews, walnuts, pistachios, and hazelnuts, while cleverly incorporating selected dried cranberries and blueberries, creating a magnificent golden ratio of "nuts: dried berries = 75:25".

This thoughtfully crafted ratio not only imparts a rich, diverse, and layered taste to the product, but also ensures it is abundant in protein, unsaturated fats, dietary fiber, and a spectrum of vitamins and minerals, effectively replenishing nutrients that people often lack in their daily diets. It aligns seamlessly with the recommended daily nut intake of 25 to 35 grams for adults as outlined in the "Chinese Dietary Guidelines (2022)".



Furthermore, Be&Cheery employs a design of individual small packages, each precisely tailored to meet daily consumption needs, thereby catering not only to modern consumers' quest for convenience but also addressing their health concerns.

To accommodate the specific health requirements of certain groups,

Be&Cheery's some daily nut selections also adopt a full-nut blending approach, further decreasing sugar content and presenting more considerate and comprehensive health options for pregnant women and individuals needing blood sugar management.

In addition to scientific proportioning, the assurance of core products at their source

is equally pivotal in guaranteeing the quality of Be&Cheery's daily nuts.

The raw materials for Original Taste Zhen Guo (Daily Nuts) are meticulously sourced from the world's core production areas, encompassing Badam nuts from the United States, cashews from Vietnam, walnuts from Chile, hazelnuts from Türkiye, and blueberries from Canada, thereby establishing a robust foundation for product quality from its inception.

Concurrently, Be&Cheery has embarked on comprehensive innovation and upgrades in both production technology and packaging processes, with the aim of preserving the authentic flavor and nutritional integrity of the ingredients.


In contrast to traditional dried nut products, Original Taste Zhen Guo forsakes the use of prolonged baking or pickling methods, instead adopting low-temperature baking and gentle processing techniques. These techniques adeptly retain the natural essence of nuts and effectively mitigate the loss of nutrients. Furthermore, intelligent and automated granule blending technology has been incorporated, facilitating an efficient and hygienic blending process for mixed nuts, thereby further enhancing product quality. Regarding packaging, Original Taste Zhen Guo (Daily Nuts) employs a dry-wet separation packaging design independently developed by Be&Cheery. This design segregates nuts and dried fruits to ensure freshness, rendering the nuts crunchier and more delightful, while the dried fruits retain a more moist and appetizing texture. The outer packaging comprises four layers of protective materials, namely OPP, aluminum-coated PET, and PE, making it effortless to open with a gentle tear. This packaging not only ensures safety and hygiene but also offers convenience for consumption.

Through the implementation of innovative technology, Original Taste Zhen Guo



(Daily Nuts) triumphantly preserves the original flavor and nutritional value of its ingredients, affording consumers a superior experience that harmonizes health with deliciousness. Coupled with the nutritional balance afforded by "scientific matching," Original Taste Zhen Guo has garnered numerous accolades. Beyond this particular award, it has also been honored with distinctions such as the "High-Quality Science Pioneer Award" and the "Excellent Science Matching Award," reflecting the profound recognition and affirmation of Be&Cheery's product quality by the market.

In contemporary times, nuts have seamlessly integrated into people's daily lives, emerging as an indispensable and preferred option across diverse scenarios, including nutritious breakfasts, leisure moments, afternoon tea breaks, travels,

fitness energy replenishment, and festive gifts. Adhering to the aspiration of "becoming a globally respected food enterprise," Be&Cheery continues to introduce a series of products, such as Original Taste Zhen Guo (Daily Nuts), offering consumers a broader array of convenient and healthy choices, and facilitating their enjoyment of the latest trends in healthy living. 

Yunnan Aofu: Pioneering a New Era in Nuts Processing

Yunnan Aofu Intelligent Equipment Co., Ltd. has been committed to the research and production of nuts processing equipment since its inception in 2008. After more than a decade of relentless pursuit and steady accumulation, Yunnan Aofu has emerged as a shining "star" at the forefront of the nut initial and deep processing equipment industry. Today, our products are sold across China, including Yunnan, Jiangsu, Zhejiang, Shanghai, Guangdong, and Guangxi, among other provinces, and have been exported to numerous countries such as South Africa, Australia, Russia, and Brazil. We have not only driven the upgrading of the domestic nut industry but also brought China's nut processing technology to the global stage, enhancing our international influence.

The fully automated processing line for macadamia nuts has achieved a seamless mechanized production process, encompassing intelligent screening, automatic grading, shell opening, kernel extraction, color sorting, baking, grading, and packaging, thus providing a strong impetus to industry development. This project addresses the challenges faced by nut processing lines, such as high production costs and expensive foreign equipment, by integrating existing intellectual property achievements in nut equipment technology. Through industrial design, functional component integration, and other multi-faceted integration and transformation processes, we have transformed standalone and scattered equipment into automated, integrated, and industrialized complete sets of equipment, filling a domestic gap and providing specialized processing solutions for the nut industry.

The grading technology of this production line employs circular hole screening, which boasts a 20% improvement in accuracy compared to elliptical screening technology. It offers 10 screening levels

with an accuracy of $\pm 0.2\text{mm}$, enabling more refined and accurate nut grading and enhancing the screening efficiency of high-quality nuts.

In terms of shell opening technology, we have introduced the PLC Aofu intelligent control system, which can open up to 12 nuts at once, leaving the shell clean and dust-free without damaging the fruit. The size, curvature, depth, and speed of the opening can be adjusted via numerical control. The maximum achievable circular opening is 340 degrees, allowing for easy opening with one hand.

The kernel extraction technology utilizes PLC automatic recognition of fruit size and precise control of collision-based kernel extraction. The output rate of whole and half kernels is $\geq 98\%$, representing a 20% increase compared to existing technology. By precisely controlling the force and angle of collision, we have achieved a higher whole kernel rate, improving nut yield and quality. The whole kernel rate is as high as 75%-80% or above, meeting the market demand for high-quality nuts.


The spray cleaning equipment uses high-pressure spray water to clean nuts. It relies on the force generated by the high-pressure water flow sprayed by the nozzle to remove dust attached to the surface of processed nuts. Additionally, the equipment can be used to clean sugar solution after nuts have been flavored. The cleaning rate is $\geq 98\%$, which is 10% higher than drum cleaning technology, and it does not damage the nuts. The water used as the medium can be filtered and reused, achieving low energy consumption, energy conservation, and environmental protection.

In terms of drying, air-source heat pump technology has played a pivotal role. It can reduce the moisture content of shell fruits to 0.5%-1%, with precise humidity and temperature control. The



highest temperature can reach 90-120°C, improving drying efficiency and quality while reducing energy consumption and product loss.

The color sorter utilizes photoelectric detection technology to automatically sort fruit shells and kernels based on differences in their optical properties, as well as inferior kernels such as yellowed, insect-infested, and shriveled ones mixed in. Its net selection rate is $\geq 99\%$, featuring high efficiency, speed, and non-destructive sorting.

The upgrade of intelligent operating systems (including control program software V1.0 for nut processing equipment and intelligent control system V1.0 for macadamia nut processing production line opening equipment) has achieved seamless equipment connection, increasing productivity by 20% and reducing labor costs by 25%. This upgrade optimizes the production process, minimizes manual intervention, enhances production stability and efficiency, reduces costs, and strengthens the company's market competitiveness and profitability. 

Research on the application of herbal seasoning in nuts

JIAN Suping CHEN Gang WU Ke
(Jiangxi Nanke Food Co., LTD)



Seasoning refers to a kind of auxiliary food that can enhance the flavor, color, improve the taste and improve people's appetite. Natural seasoning refers to the seasoning products produced by natural raw materials and non-chemical means, which is a new trend in the development of the global seasoning industry. At present, more than 60% of the traditional seasonings have been replaced by natural seasonings abroad, while only 20%-30% of the domestic share; In recent years, with the increase of people's demand for dietary diversification, China's natural seasoning market is increasing at a rate of 30% per year, and has become a new driving force to promote the economic growth of China's food industry. Natural, health and diversification are the

characteristics of consumers' pursuit of food flavor at present, and the seasoning is becoming more and more important in the preparation of food flavor. With the strengthening of health awareness, traditional seasonings are more and more unable to meet people's needs for food health and safety, while natural herbal compound seasonings meet people's needs for natural safety, healthy and delicious, unique flavor and nutrition, which is also one of the future development directions of China's seasonings market. Nuts contain protein, fat, carbohydrates, but also contain vitamins (vitamin B, vitamin E, etc.), trace elements (phosphorus, calcium, zinc, iron), dietary fiber, especially contains monounsaturated fatty acids, polyunsaturated fatty acids, including linolenic acid, linoleic acid and other essential fatty acids of the human body. The nutrition of nuts and the concept of daily nuts have been deeply rooted in people's hearts, but some nuts have poor taste, and the heavy responsibility of not destroying nutrition but giving delicious taste falls on the shoulders of herbal flavoring, and the application of herbal flavoring in nuts is becoming more and more popular.

1. Herbal seasoning ingredients

Herbal flavoring mainly consists of a variety of herbal plant extracts. Compared with traditional flavoring, herbal flavoring has natural fragrance, unique flavor, nutritional safety and certain health functions [3]. Herbal seasonings are based on the functional components and flavor characteristics of different plants, so that they have different styles and can be suitable for processing different products.

1.1 Herbal tangerine peel seasoning

The dried peel of the ripe fruit of the rutaceae plant orange (*Citrus reticulata* Blanco) and its cultivated varieties is called tangerine peel (*Citri Reticulatae Pericarpium* CRP). Tangerine peel is rich in a variety of medicinal bioactive ingredients, including polysaccharides, flavonoids, alkaloids, volatile oils and a variety of trace elements. Tangerine peel is warm with bitter and tangerine taste, and has the effects of drying dampness and eliminating phlegm, regulating qi and strengthening spleen, and alleviating indigestion, according to data, Tangerine peel also has physiological functions such as anti-inflammatory, antibacterial, anticancer, antioxidant, lowering blood lipids, lowering cholesterol, and regulating lipid metabolism.

In the application of nuts, researchers have used tangerine peel as the main seasoning, and marinated together with walnuts to obtain a unique flavor of tangerine peel walnut products.

1.2 Herbal Lycium barbarum seasoning

Lycium barbarum L (LB) is a deciduous shrub of *Lycium* L of the family Solanaceae, which is commonly distributed in temperate and sub-temperate hillsides and sandy areas [8]. China's *Lycium barbarum* L planting areas cover Qinghai, Gansu, Ningxia, Xinjiang, Inner Mongolia and other places, and the two most famous varieties are Chinese *Lycium barbarum* L and Ningxia *Lycium barbarum* L.

Lycium barbarum is rich in a variety of bioactive substances, such as *Lycium barbarum* polysaccharide, *Lycium barbarum* brass, protein, betaine, carotenoids and trace elements such as calcium, phosphorus, iron and

selenium. In recent years, studies have shown that *Lycium barbarum* has health functions such as lowering blood sugar, anti-oxidation, anti-aging, enhancing immunity, inhibiting tumor and preventing cell canceration.

For the application of *Lycium barbarum* in nuts, most of them are processed into composite drinks together with *Lycium barbarum* and nuts as raw materials. The herbal *Lycium barbarum* seasoning is also suitable for the flavor of nut soaking and nut coating powder, which can enrich the nutrition of nuts and taste pleasant, but also provide a new way for the comprehensive utilization of *Lycium barbarum*.

1.3 Herbal Wumei seasoning

Wumei, also known as yellow plum, sour plum, dry branch plum, and Han plum, is a kind of slightly gray and black dried fruit obtained by smoking the fast-ripening fruit of the deciduous tree plant *Prunus mume* in the rose family with fireworks. It is also one of the traditional Chinese medicinal materials with the same origin as medicine and food in China. Wumei is rich in fatty acids, vitamins, flavonoids, sterols, terpenes and other effective components, as well as mineral elements such as magnesium and phosphorus. Studies have shown that Wumei has effects of antibacterial, anti-inflammatory, anti-radiation, anti-oxidation, lowering blood lipids and enhancing immunity. At present, the application of Wumei in the field of food mainly lies in the successful development of food and drinks with Wumei as raw materials, such as some researchers put Wumei with *Zizyphus Jujube* Mill, roses to make rose *Zizyphus Jujube* Mill Wumei drink, or Wumei with licorice to improve patients' bad breath, improve patients' appetite and so on. Jiangxi Nanke Food Company made a kind of herbal Wumei flavoring with Wumei extract as the main component, which was used for soaking the flavor of nuts and coating the nut kernel powder, it not only removes the astringency of nuts but also increases the function of promoting the secretion of nuts.

1.4 Herbal *Zizyphus Jujube* Mill seasoning
Zizyphus Jujube Mill, also known as *Jujube* Mill, is the mature fruit of *Zizyphus Jujube* Mill in the *Rhamnaceae* family, With its warm nature, sweet taste and a wide variety of nutrients, it is very popular among people.

In the current research, *Zizyphus Jujube* Mill is generally used to make fruit wine, fruit and vegetable cake, fermented yogurt, fermented beverage, etc, and there are reports of using *Zizyphus Jujube* Mill extract as a seasoning applied in nuts. At present, *Zizyphus Jujube* Mill is applied to walnuts, peanuts and other nuts more and more, which is greatly enriched the taste of nuts.

1.5 Herbal *Jasminum sambac* seasoning

Jasminum sambac is an evergreen shrub of the genus *Jasminum* in *Oleaceae*. Its flowers release a unique sweet fruity fragrance when they open, so they have been deeply loved by people. *Jasminum sambac* is a Chinese herbal medicine used for both medicine and food. Studies have shown that *Jasminum sambac* is rich in protein, fat, polysaccharide, flavonoids, aromatic phenols and other active ingredients, as well as mineral elements such as calcium, potassium, phosphorus, sulfur and magnesium, and has biological functions such as anti-inflammatory, antibacterial, antioxidant, anticancer, hypoglycemic and cardiovascular protection.

At present, people's research on *Jasminum sambac* mainly focuses on extracting various effective components in *Jasminum sambac*, or drinking it directly as flower tea, while *Jasminum sambac* extract as a seasoning is rarely involved in literature. The application of herb jasmine flavoring to the seasoning of nuts can enhance the palatability of nuts and make the aroma, taste and nutrition of nuts integrated.

2. Combination of herbal seasonings

Herbal seasoning mainly refers to polyphenols, saponins, aromatics and other flavor substances extracted and separated from plants, which have the advantages of natural, nutritious and pleasant, and some also have the advantages of increasing flavor and masking odor. It is accord with the modern pursuit of nature, safety, nutrition of the big health concept. However, herbal seasoning also has some defects in taste and processing performance, such as slow action of some plant extracts, light flavor, heating and other shortcomings, especially different plant extracts will act after compounding and produce bad flavor and even nutrient loss, especially in the processing of nuts, this phenomenon is more serious. Jiangxi



Nanke Food Company has been focusing on the research and development of herbal flavoring products since 2015. Our company has discussed and cooperated with more than 10 domestic plant research institutes and plant extraction companies, and formed a set of ideas for the development of herbal compound products. According to the characteristics of different plant components, the relationship between the components must be considered "to make each other, to fear each other, and to oppose each other" to combine, so as to achieve the purpose of pleasant flavor, nutrition and health, and play an escort role for the processing of nuts, no loss of nutrition, and pleasant taste.

3. Conclusion and Prospects

With the rapid change of science and technology, chemical synthetic flavors and fragrances have become a pain point of modern food, without adding flavors and fragrances, the taste of the product can not meet the needs of consumers, if relying on chemical synthetic flavors and fragrances, its harm has been recognized by consumers, products are also defined as "unhealthy food", "junk food" and so on. People's diet is no longer limited to "color and fragrance", but towards the "natural delicious, safe nutrition, healthy and convenient" concept, which provides a huge development space for the herb seasoning market. The quality of herbal extracts will also be improved with the progress of modern extraction technology and the development of modern food processing technology, and the compound herbal flavoring will also be healthier and more comprehensive, and its application research in nuts will be more mature, thus providing a huge boost to the green and healthy development of nuts.

每天一把坚果瓜子，有益健康

Eating a small handful of nuts and seeds each day is beneficial for your

2023-2024 年度中国核桃原料、产品分析与预测报告

Analysis and Forecast Report on Chinese Walnut Raw Materials And Products 2023-2024

中国坚果籽类产业发展联盟——核桃产业联盟

China Nut and Seed Industry Development Alliance - Walnut Industry Alliance

阿克苏浙疆果业有限公司

Aksu Zhejiang Fruit Industry Co., Ltd

2024年4月

April 2024

PART ONE

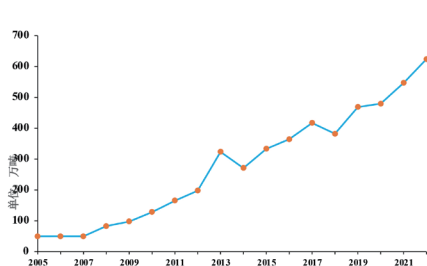
中国核桃主产区情况

Situation of the main walnut production areas in China

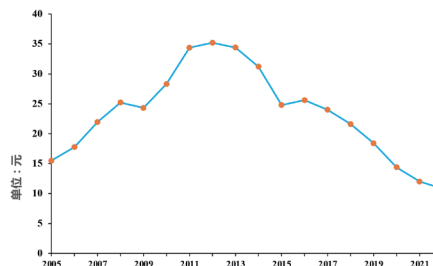


2005-2022年全国核桃产量、价格趋势图

National walnut production and price trend chart from 2005 to 2022



产量情况 Production

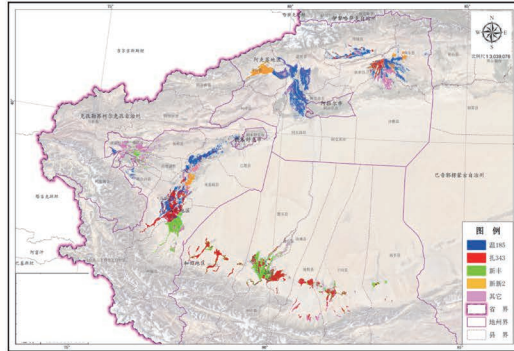


价格情况 Price

新疆核桃分布情况

Distribution of Walnuts in Xinjiang

Diagram of Walnut Variety Distribution (Aksu, Kashgar, Hotan)
核桃品种分布示意图 (阿克苏地区、喀什地区、和田地区)



核心产区：阿克苏、喀什、和田

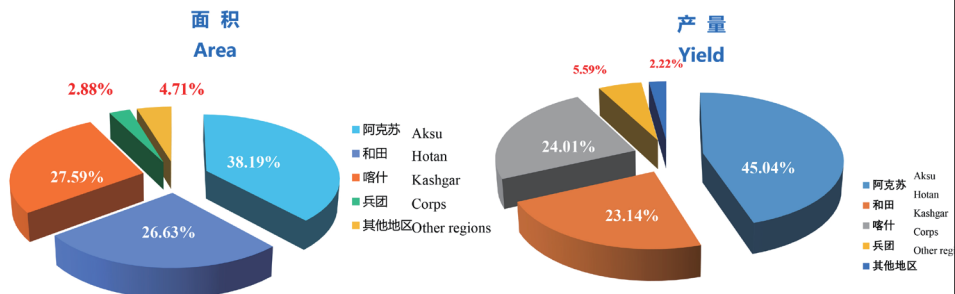
Core Production Areas: Aksu, Kashgar, Hotan

栽培品种：温185、新新2、新丰、扎343

Cultivars: Wen 185, Xinxin No.2, Xinfeng, Zha 343

新疆核桃面积、产量、种植品种情况

Xinjiang Walnut Area, Yield, and Planting Varieties



种植品种情况：阿克苏地区主要以温185、新二为主，是中国核桃商品果主要生产基地。喀什地区主要以新丰、扎343为主。和田地区主要以扎343、新丰为主

Planting Varieties: The Aksu region primarily specializes in varieties such as Wen 185 and Xin No.2, establishing itself as a significant production hub for commercial walnut in China. The Kashgar region mainly cultivates varieties like Xinfeng and Za 343. The Hotan region predominantly grows Za 343 and Xinfeng.

云南核桃种植情况

The situation of Yunnan walnut industry

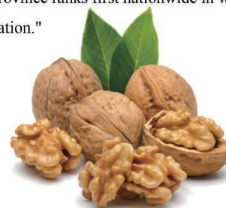


云南核桃广泛分布在全省除西双版纳以外的15个州市。

Yunnan walnuts are widely distributed across 15 provinces and cities within the province, with the exception of Xishuangbanna.

全省核桃种植稳居全国第一。

The province ranks first nationwide in walnut cultivation."



云南核桃种植情况

The situation of Yunnan walnut industry

主要栽培品种： Main Cultivated Varieties:

泡核桃： 漾濞泡核桃、大姚三台核桃、昌宁细香核桃、大白壳核桃

Juglans sigillata: Yangbi Walnuts, Dayao Santai Walnuts, Changning Xixiang Walnuts, and Big White Shell Walnuts.

夹绵核桃： 娘青、圆波罗、桐子果

Soft-shelled walnut: Niangqing, Yuanboluo, and Tongziguo.

云南是世界泡核桃（深纹核桃）的原产地

Yunnan stands as the cradle of the world's Juglans sigillata.



PART TWO

中国核桃进出口情况

China's Walnut Import and Export Sitti

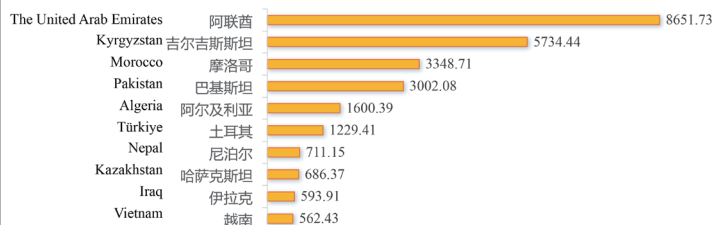


中国核桃出口情况

The export situation of Chinese walnuts

2023年带壳核桃出口前十目的地国家（万美元）

Top 10 Destination Countries for In-Shell Walnut Exports in 2023 (in USD 10,000)



数据来源：中国海关

中国核桃仁出口情况

Export situation of Chinese walnut kernels

2023年核桃仁出口前十目的地国家 (美元)

Top 10 Destination Countries for Walnut kernel Exports in 2023 (in USD 10,000)



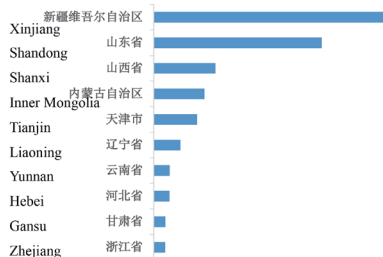
数据来源：中国海关

中国核桃出口情况

The export situation of Chinese walnuts

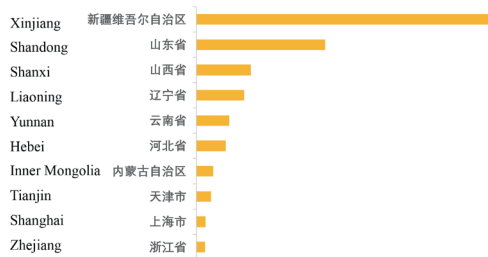
2023年度核桃出口前十省份 (万美元)

Top 10 Provinces for Walnut Exports in 2023 (in USD 10,000)



2023年度核桃仁出口前十省份 (万美元)

Top 10 Provinces for Walnut Kernel Exports in 2023 (in USD 10,000)



数据来源：中国海关

PART THREE

中国核桃价格趋势

The price trend of Chinese walnuts

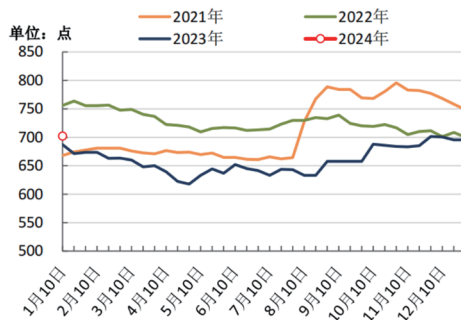


中国核桃(核桃仁)价格指数

Chinese Walnut (Walnut Kernel) Price Index

图1 新华·全国核桃(核桃仁)价格指数年度间变化

Figure 1: Annual Changes in the National Walnut (Walnut Kernel) Price Index



一月上旬核桃市场热度基本维持稳定，局部产区核桃仁价格起伏明显。

In early January, the popularity of the walnut market remained stable, although there were notable fluctuations in walnut kernel prices in certain production areas.

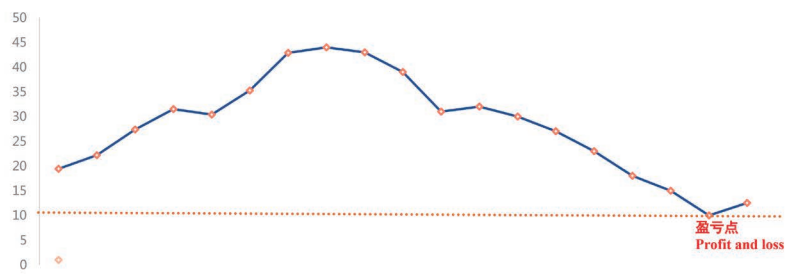
三月上旬开始，核桃市场热度上升较快，原料价格涨幅较大。

Starting from early March, the walnut market has experienced a rapid surge in popularity, accompanied by a significant increase in raw material prices.

Data source: Xinhua Index

2005-2023年新疆核桃价格趋势图

Trend Chart of Walnut Prices in Xinjiang from 2005 to 2023



PART FOUR

核桃产情预测

Walnut yield prediction



原料市场需求情况

Walnut Characteristics

- 产品的多样性和市场规模的扩大，对于核桃、核桃仁原料的需求会持续增量。
The diversity of products and the expansion of market size will continually fuel the demand for raw materials such as walnuts and walnut kernels.
- 核桃加工产品同质化严重，加上原料价格不断上涨影响，加工企业利润越来越薄。
- The homogenisation of walnut processing products is a significant issue, and when combined with the relentless increase in raw material prices, the profit margins of processing enterprises are becoming increasingly narrow.



核桃产情

Walnut yield

- 2023年产季，温185、新新二核桃主产区新疆阿克苏地区，受冻害影响，造成新新二核桃大幅度减产，其它品种与往年基本持平。
- In the 2023 season, the main production areas of Wen185 and Xinxin No. 2 walnuts in Aksu, Xinjiang, experienced freezing damage, leading to a notable decline in the production of Xinxin No. 2 walnuts. However, the production of other varieties remained largely unchanged compared to previous years.
- 2023年产季，阿克苏地区在核桃采收季天气较好，核桃霉变率低、白仁率达到60%以上，品质好于往年。
- During the 2023 walnut harvesting season in Aksu, the weather conditions were favorable. There was a low mold growth rate, and the white kernel rate exceeded 60%, contributing to an overall improvement in quality compared to previous years.



核桃产情

Walnut yield

- 新疆主产区：核桃挂果面积在增加，2023年产季核桃销售价格高于往年，农户对核桃种植管理投入增加，预计2024年产季核桃产量会创新高。
- Main Production Areas in Xinjiang: The area dedicated to walnut cultivation is expanding, and the sales price of walnuts in the 2023 season has surpassed previous years' levels. Farmers have bolstered their investments in walnut planting and management, leading to anticipations that walnut production in the 2024 season will attain a new peak.
- 云南主产区：今年雨水少于正常年份，对核桃有一定的影响。由于核桃价格回升，农户对核桃种植管理投入增加，预计2024年产季核桃产量与往年持平。
- Main Production Areas in Yunnan: This year's rainfall has been below average, which has had a specific impact on walnut crops. Nevertheless, due to the resurgence in walnut prices, farmers have augmented their investments in walnut planting and management. Consequently, it is anticipated that walnut production in the 2024 season will maintain its previous year's levels.



Breeding of 'Shuangxing No. 20' - A New Variety of High-Quality, High-Fruiting-Rate White-Seeded Sunflower

Hebei Shuangxing Seed Industry Co., Ltd

Sunflowers constitute a vital economic crop in China and serve as a staple for modern leisure and entertainment. While black sunflower seeds dominate the market, they often suffer from mold and decay during harvesting and drying, leading to undetectable high levels of aflatoxin. Conversely, the white sunflower variety boasts a white outer seed shell that undergoes noticeable color changes when mold occurs, facilitating easy removal via color selection technology to guarantee premium seed quality. Nevertheless, the prevalent white sunflower variety in China, the conventional 'Baimaya', struggles with issues like uneven growth, low yields, susceptibility to lodging, and a poor fruit-setting rate. Hence, the cultivation of white sunflower hybrids exhibiting uniform growth, a high fruit-setting rate, and enhanced yields is of utmost importance.

The breeding of 'Shuangxing No. 20' is a proprietary initiative by Hebei Shuangxing Seed Industry Co., Ltd., aimed at developing high-quality, high fruit-setting rate white-seeded hybrid sunflower varieties. This project falls under the domain of elite new varieties in agriculture and forestry, as well as high-quality, efficient, and safe production technologies, spanning from March 2016 to October 2023. The resultant high-quality, high fruit-setting rate white-seeded sunflower variety, 'Shuangxing No. 20', was officially registered with the Ministry of Agriculture and Rural Affairs on July 12, 2024.

Through rigorous, multi-generational purification of in-house materials, the project team utilized highly resistant white sunflower materials as the male parent and thin-skinned, crispy materials as the female parent for hybrid crosses. From these

crosses, exemplary hybrid combinations were selected, leading to the successful breeding of 'Shuangxing No. 20'—a high-quality, high fruit-setting rate white-seeded hybrid sunflower variety, complemented by comprehensive seed production methods and cultivation techniques.

In 2020, large-scale demonstrations were conducted in Inner Mongolia Autonomous Region, Xinjiang Uyghur Autonomous Region, and Jiuquan, Gansu Province, among others. The demonstrations revealed that 'Shuangxing No. 20' exhibits neat growth, robust vigor, uniform flower disk size, and pristine, plump seeds. The plant attains a height of 200.00 centimeters, with a stem thickness of 3.60 centimeters and 30 leaves. The tongue-shaped flowers are medium yellow, featuring a disk diameter of 27.00 centimeters, a flat shape, and a slope rating of 4. The seeds are narrow oval-shaped, predominantly white without stripes, measuring 1.0-1.1 centimeters in width and 2.0-2.8 centimeters in length. The hundred-grain weight is 27 grams, with a single disk grain weight of 230.00 grams, and a



remarkable seed-setting rate of 80.00%.

To date, the 'Shuangxing No. 20' variety has been extensively promoted in major sunflower-producing regions such as Xinjiang and Inner Mongolia, yielding an average of 265.69 kilograms per mu. In comparison, the control variety, 'Baiyaqian', averages only 165 kilograms per mu, translating to an impressive yield increase of 100.69 kilograms per mu for 'Shuangxing No. 20'.

Innovation Point of Shuangxing No. 20

1. High Setting Rate: Achieves an impressive setting rate of 80%.
2. High Yield: Boasts a weight of 27.01 grams per hundred grains.
3. Robust Plant Traits: Features a well-developed root system, short stature, and strong resistance to lodging.
4. Natural Seed Color: The seeds are inherently white, eliminating the need for a peeling process during frying.
5. Advanced three-line hybrid breeding technology and non-transgenic methods have been employed, ensuring highly stable germplasm cultivation and exceptional adaptability to various environmental conditions.





Happy time with Bailian

Fujian Bailian Industry Co., Ltd. was founded in 1980s and experienced a high speed growth in 1990s. High holding the philosophy of quality, honesty, efficiency and stability, the company has grown from a trading company into a industrial and trading enterprise that engages in food development, production, sales, real estate investment and high-end property management.

Speaking of food, we specialize in producing leisure food of nuts and roasted seeds, conserved fruit, meat products, etc. With a variety of selection, distinctive favor and high quality, our products receive great welcome from customers. "Bailian melon seeds", as our main product, enjoys good reputation and market share within and beyond Fujian province.

In recent years, our company has been expanding in the northern agricultural park. The move would change the managerial pattern of the company by raw material processing to raw material production. At the same time, following the strategy of "strengthening the primary business and developing appropriately in multi industries", our Company entered the fields of real estate, property, finance, etc. Bailian Group of industry layout will gradually appear.

Our Company will continue to adhere to the business concepts of "people-oriented and keep improving" to enhance communication with all ranks of society to achieve sincere cooperation and mutual development.



Fujian Bailian Industry Co., Ltd.

Address: 26/F, Bailian Building, 2 Shuguang Branch Road, Aofeng Street, Taijiang District, Fuzhou

Customer Service

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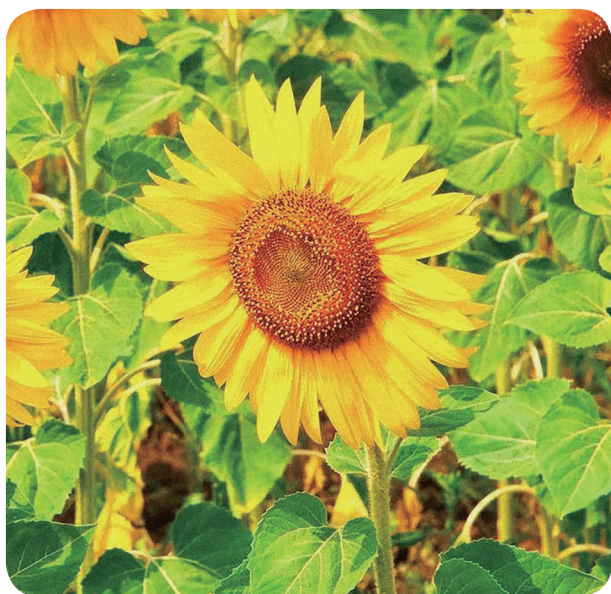
Phone number: 0591-83315111 83315198

The production of sunflower seeds in the US is projected to hit a historic low in marketing year 2024/25

According to a report released by the National Agricultural Statistics Service (NASS) of the US Department of Agriculture, the planting area of sunflower seeds in the United States for the 2024/25 season has fallen to a historic low, representing only half of the previous year's planting scale. Most of this decline is concentrated in the two largest producing states: North Dakota and South Dakota. This is due to the lower profitability of sunflower seeds compared to other oilseed crops such as rapeseed and soybeans.

The ending inventory of sunflower seeds for the 2023/24 season increased to its highest level since 2016/17, which resulted in sunflower seed prices dropping to their lowest level in the past four to five years. In addition, the expansion of rapeseed and soybean processing capacity in these states has created additional demand for these crops. Consequently, there has been an increase in the planting area for soybeans and rapeseed, and a corresponding decrease in the planting area for sunflower seeds.

The US Department of Agriculture expects the total sunflower seed production in the United States this year to be 1.3 billion pounds (589,000 metric tons), which is the lowest level since the 1976/77 season."



Cambodia exported over 790,000 tonnes of cashew to Vietnam in the first ten months of 2024, generating \$1.110 billion in revenue



In the first 10 months of 2024, Cambodia exported 790,000 tonnes of raw cashew to Vietnam, generating approximately \$1.11 billion. This represents a 36 percent increase compared to the same period last year according to the Cashew Association of Cambodia (CAC).

Suy Kokthean, vice chairman of the Cambodian Cashew Association, said that in the first 10 months of 2024, Cambodia produced 840,000 tons of cashew, marking a 26% increase compared to the same period last year. Among these, the majority of cashew were exported to Vietnam, generating significant economic income. Meanwhile, the price of cashew has risen by 9% compared to the same period in 2023.

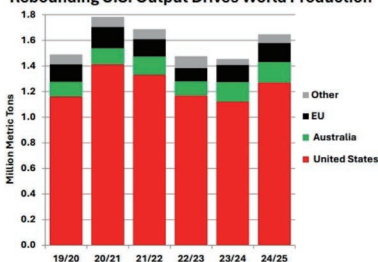
Suy Kokthean pointed out that Cambodia has the potential to become a leading producer of cashew globally within the next four to five years, due to its expanding production and increasingly higher harvests each year. He mentioned optimistically that the area of arable land continues to increase, with new cashew plantations constantly emerging.

Despite this promising outlook, Suy Kokthean also emphasized that climate change remains the biggest challenge facing the industry, as extreme weather may seriously impact production. However, he noted that farmers have mastered advanced planting techniques, and the government regularly provides training to help farmers cope with the challenges posed by climate change.

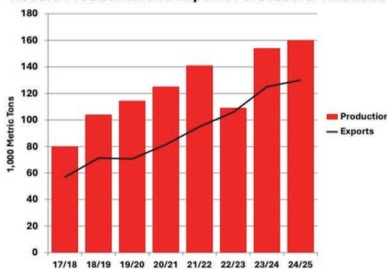
Almond production will increase to 1.6 million tons; China's imports will reach 130,000 tons

The Global Tree Nut Market and Trade report, recently published by the US Department of Agriculture, reveals that global almond production is poised to jump by 13% in the 2024/25 season, reaching 1.6 million tons, primarily due to a rebound in US production. With this supply increase, consumption is anticipated to grow by 6%, also hitting 1.6 million tons. Global almond exports are expected to rise by 3%, reaching 1.1 million tons, fueled by surging demand from key import markets such as the European Union, India, and China. Amid a decline in US end-of-season inventory, it is forecasted that global end-of-season stockpiles will continue to shrink.

Rebounding U.S. Output Drives World Production



Record Production and Exports Forecast for Australia



Despite a decrease in weight and a stable planting area, US almond production is projected to surge by 13%, topping 1.3 million tons. This growth is attributed to an increase in the number of fruit trees per acre and yield per tree. Historically, the fruit-bearing area of American almond trees has expanded from 428,000 acres in the 1996/97 season to nearly 1.4 million acres last year.

Benefiting from this expanded planting area and favorable growth conditions, Australian production is expected to increase by 4%, reaching a record 160,000 tons, with exports anticipated to rise by the same margin to 130,000 tons.

Over the past eight seasons, Australian almond production and export volumes have fluctuated (measured in thousands of tons), with the export volume trend depicted by a curve.

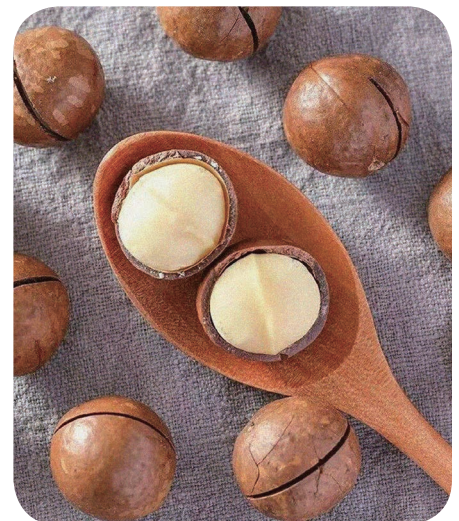
In the EU, Spain's production increase is expected to offset Italy's production decrease, resulting in an overall 11% rise in EU production to 150,000 tons. Spain's expanded planting area has boosted yields, although both Spain and Italy have faced drought conditions affecting yield per unit area. As demand for food raw materials, snacks, and candies expands, EU imports are forecasted to increase by 4% to 280,000 tons. Shelled almonds are primarily consumed immediately, while in-shell almonds are commonly used as raw materials for candy and baked goods manufacturers. Whether used as ingredients for traditional candies and pastries or for processing and re-export, the food processing and snack industry remains the largest buyer of almonds. With increased supply, consumption is expected to climb further to 410,000 tons.

Chinese almond production is projected to rebound to 24,000 tons following frost damage in Xinjiang, the main production area, during the previous season. Driven by consistent demand from food manufacturers and the snack industry, imports are anticipated to increase by 4%, reaching a record high of 130,000 tons.

Zimbabwe's macadamia nut exports have attained a five-year peak.

The News Daily recently reported that, according to data released by Zimbabwe's National Bureau of Statistics (ZimStats), the export volume of Zimbabwean macadamia nuts from January to September 2024 amounted to 7,628 tons, marking a 62% increase compared to the corresponding period in 2020. The Zimbabwean Macadamia Nuts Producers Association attributed this surge in export volume primarily to the expansion of planting areas and the maturity of the trees.

Despite this notable increase in export volume, the price of unpeeled macadamia nuts has dropped significantly, from 2.91 per kilogram in 2020 to 1.09 per kilogram, representing a decrease of 62%. Consequently, the income derived from macadamia nuts has decreased by 39%, falling from 13.72 million in 2020 to 8.35 million. Notably, during the 2022/23 season, the price of macadamia nuts hit its lowest level in two decades, primarily due to an oversupply in the European and American markets.



The sunflower seeds in Monywa, Myanmar, achieve high yields during the rainy season.

According to Myanmar media reports, farmers growing sunflower seeds in the Monywa Township of Sagaing Region have revealed that their rainy season sunflower seed crops yield over 20 baskets per acre.

One farmer stated that harvesting of the rainy season sunflower seeds began on October 1st, with yields exceeding 20 baskets per acre.

It is reported that high-yield hybrid varieties such as Hybrid No. 1 and Xinruijia No. 2 were used for planting during the rainy season. Standard plots were designated for trial planting to obtain high-quality seeds. Due to the establishment of these standard plots for trial planting and the adoption of preventive measures to ensure the absence of pests and diseases, yields were high.

In the Monywa Township area, 945 acres of rainy season sunflower seeds were planted, with harvesting completed on 259 acres so far.



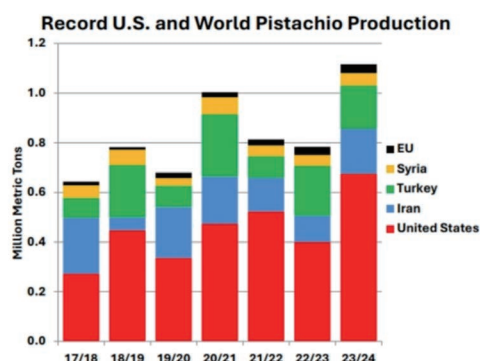
Côte d'Ivoire: The country ranks first globally with a cashew production of approximately 1.1 million tons.

On November 8, 2024, it was reported that Côte d'Ivoire remained the world's leading producer of cashews, accounting for 42.3% of total global production, or approximately 1.1 million tons, ranking first in the world. Nigeria and Guinea-Bissau followed closely behind.

The cashew harvest in 11 West African countries totaled approximately 2.6 million tons, representing a decrease of 15.3% compared to the 3.1 million tons harvested in 2023. The primary reason for this reduction in cashew production was the negative impact of climate on the productivity of plantations.

Global consumption of pistachios has reached 1 million tons, with China's imports experiencing a doubling.

A recent report titled "Global Tree Nut Markets and Trade" published by the United States Department of Agriculture (USDA) reveals that global pistachio production surged by over 40% in the 2023/24 season, reaching a record-high of 1.1 million tons, as production increases in the United States and Iran offset declines in Turkey. Due to increased production in major exporting countries, global pistachio exports grew by nearly 55% year-on-year to a record-high of 634,000 tons, while consumption increased by 30% to a record-high of 1 million tons.



Benefiting from improved growing conditions, Iran's production rebounded by 70% to 180,000 tons, following several years of lower yields due to frost and reduced precipitation. With increased supply, exports nearly doubled to 135,000 tons, with major export markets including China, India, and the European Union.



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During autumn and winter, invite these "heart-guarding ambassadors" to join your healthy menu.



During the autumn and winter seasons, a variety of nuts flood the market, presenting a dazzling array that is simply irresistible. Not only are nuts nutritious, but they also play a significant and beneficial role in maintaining heart health.

Each type of nut contains unique nutritional components, making the inclusion of diverse nuts in a healthy diet a wise decision.

The 'Nutritious heart-guarding ambassadors'

Nuts are energy-dense foods that nature has endowed with a plethora of beneficial nutrients and bioactive substances, earning them the nickname "Heart Protector" and the title of the "heart-guarding ambassadors".

As natural plant-based foods with a fat content second only to vegetable oil, nuts contain approximately half of their fats as "good" fats, namely monounsaturated and polyunsaturated fatty acids.

Take walnuts, for instance. Every 100 grams of walnuts contains approximately 10 grams of alpha-linolenic acid, an omega-3 fatty acid predominantly sourced from plants, which helps to decrease the risk of heart attacks and strokes.

Nuts are abundant in other macronutrients and bioactive substances. They serve as

a premium source of plant-based protein and are also rich in the crucial amino acid L-arginine, which significantly enhances vascular endothelial function and aids in lowering blood pressure. Furthermore, nuts are a superior provider of dietary fiber, with 3 to 12.5 grams of fiber per 100 grams, enhancing feelings of fullness and reducing the intake of unhealthy foods.

Regarding micronutrients, nuts are a rich source of folate, with peanuts boasting the highest concentration.

Almonds and hazelnuts are abundant in antioxidant vitamins, particularly vitamin E.

All nuts contain a certain quantity of antioxidants known as polyphenols, with walnuts, pistachios, and particularly certain varieties of pistachios exhibiting the highest concentrations.

It's worth noting that polyphenols are predominantly found in the outer skin of nuts, thus consuming unprocessed and unsalted nuts, preferably with their skins intact, is recommended.

Nuts are also a treasure trove of essential minerals such as calcium, magnesium, and potassium, and they typically have a low sodium content. This mineral composition

aids in preventing hypertension, enhancing insulin sensitivity, lowering the risk of cardiovascular diseases, and combating bone mineral loss.

Nuts are rich in a compound called "plant sterols" within their fat composition, which can hinder the absorption of harmful cholesterol.

When the intestinal content of plant sterols surpasses 1 gram, it significantly contributes to reducing blood cholesterol levels. Pistachios and almonds stand out for their particularly high plant sterol content.

Enjoying delicious nuts should also be approached with health in mind.

Adults should incorporate nuts in moderation into their healthy eating plans. It is advisable to consume 4-6 servings of nuts per week, with each serving equivalent to approximately one small handful (about 35 grams) of whole nuts.

Opt for nuts without added salt or sugar, as these additives may diminish the heart-healthy benefits of nuts.

Each nut type generally contains around 185 calories per serving. While savoring their deliciousness, consider using nuts as a snack or a substitute for some meals to effectively prevent weight gain and reduce the risk of heart disease.

In daily life, nuts can serve as a healthier alternative to unhealthy snacks like potato chips. When preparing main dishes, try substituting some meat with nuts. Additionally, incorporating nuts into salads adds a crunchy texture and enhances both the nutritional value and flavor of the dish. 坚果

The Benefits and Nutritional Value of Eating Walnut Kernels

The Benefits of Eating Walnut Kernels

1. Anti-inflammatory and Antibacterial, Skin Care:

Walnut kernels possess antibacterial properties and their abundant oil content effectively nourish the skin.

2. Moisturizing and Smoothing the Intestines:

Walnut kernels demonstrate significant therapeutic effects in cases of intestinal dryness, constipation, and difficult defecation. Additionally, they can promote blood circulation, regulate meridians, eliminate blood stasis, generate new tissue, and have a beneficial effect on cough suppression.

3. Preventing Constipation:

The rich oil content in walnut kernels moisturizes the intestines. Consuming walnuts can alleviate dry stools and alleviate constipation.

4. Relieving Fatigue:

The abundant nutrients and vitamins in walnuts effectively soothe nerves, relieve fatigue, and swiftly restore physical strength.

5. Enhancing Brain Function and Cognitive Abilities:

Walnuts are rich in trace elements such as zinc and manganese. Regular consumption of walnuts provides the brain with additional nutrients, promoting better health and cognitive function.

6. Promoting Hair Health:

The high vitamin E content in walnuts makes regular consumption beneficial for darker, brighter, and more luminous hair.

7. Preventing Cardiovascular and Cerebrovascular Diseases:

Walnuts can effectively control cholesterol levels, preventing cardiovascular and cerebrovascular diseases caused by elevated cholesterol.

8. Purifying the Blood and Reducing Cholesterol:

Walnut kernels reduce the absorption of cholesterol in the intestines, aiding in lowering blood cholesterol levels.



The Nutritional Value of Walnut Kernels

1. Walnut kernels contain linolenic acid, as well as minerals such as calcium, phosphorus, and iron.

2. Walnut kernels are abundant in various trace elements essential for human health and serve as important excipient in traditional Chinese medicine.

3. Walnuts are recognized for their high vitamin E content, making them excellent fruits for antioxidant and anti-aging benefits.

4. Walnuts are rich in high-quality protein, various minerals, dietary fiber, and carotenoids, showcasing extremely high nutritional value and earning them the title of a "treasure trove."

5. Walnuts are abundant in unsaturated fatty acids, with a higher content than olives and a lower content of saturated fatty acids. The oil extracted from walnuts is considered a high-end edible oil.

6. Every 100 grams of walnut meat contain 20.97 units of antioxidants, significantly exceeding the antioxidant capacity of common ingredients such as citrus, spinach, and carrots. 坚果



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Nut antioxidant

Antioxidation of nuts Only Nanko

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Technical support:

New Technology Research Office of fruit and vegetable processing, China Agricultural University
School of food, Nanchang University

In 2020, the national roasted seeds and nuts enterprises provided high-quality services (member enterprises)

Chen Lin Foods

Focus on Roasted seeds and nuts for twenty years



Pecan Flavored seeds (5kg)



Caramel flavored seeds (5kg)



Beater seeds (5kg)



Xinjiang thin-shell Walnut (2.5kg)



Boiled Seeds (5kg)



Vanilla flavored seeds (5kg)



Xinjiang thin-shell Walnut
(2.5kg Weighing in bulk)



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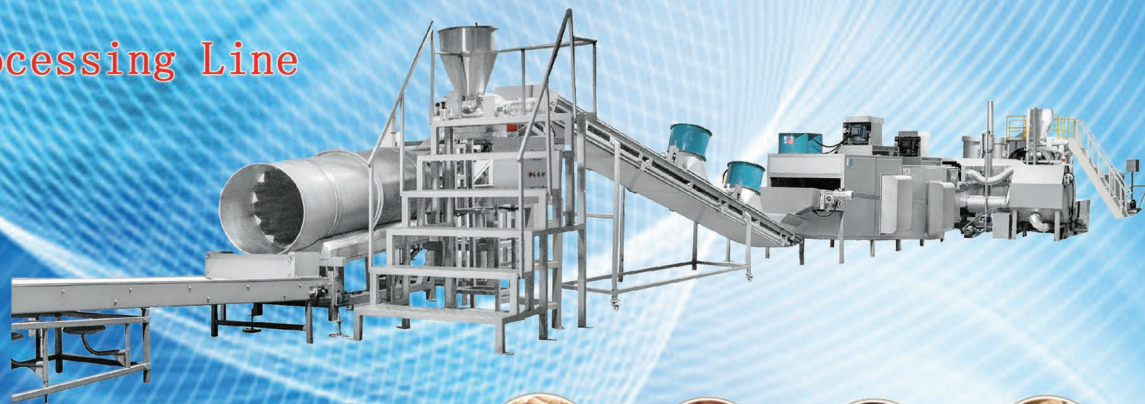
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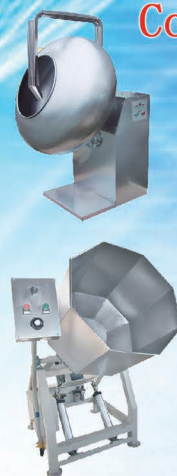


Yantai Maoyuan Food Machinery Manufacturing Co., Ltd. established in 1995, is a professional food machinery manufacturer, we are specialized in the machinery of peanut, other nuts, roasted seed.

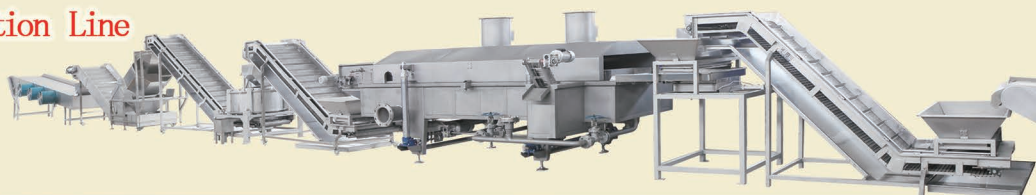
Coated Nut Processing Line



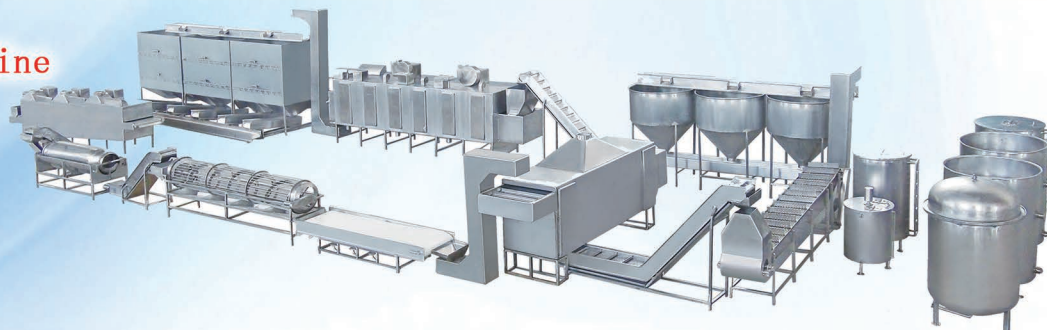
Coated Nuts Roasting Line



Net Belt Continuous Frying Production Line



Nut Roasting Production Line



Yantai Maoyuan Food Machinery Manufacturing Co., Ltd.

Tel: 0086-535-6117136 Web: www.peanutmachinery.com E-mail: [myspjx@163.com](mailto:mypsjx@163.com)



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Natural wind multi-layer air drying assembly line



Hot air multilayer drying line



Multilayer natural cooler



Multi layer fan cooler



Chain plate multilayer dryer



Flavor machine



Drawer chain conveyor



White PVC with skirt elevator

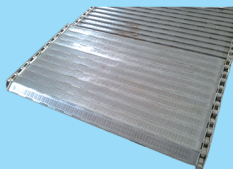


Stainless steel three-layer chain plate air drying cooling line

ACCESSORIES AREA



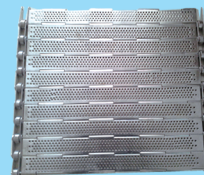
Dryer chain plate



Chain plate
(HOLE 0.9x20)



Sprocket wheel



Chain plate
(HOLE 3mm)



Chain plate
(HOLE 8mm)



Chain

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