# CHINA NUTS AND ROASTED SEEDS INDUSTRY PHASE 1 2023 TOTAL NINETY SIX ISSUE WWW.CS.FIC.CIT

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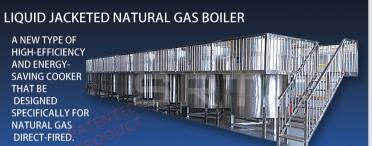


#### Super energy saving

Drying professional equipment for roasted seeds and nuts

#### KAIFENG LANGRUI (SRT) MACHINERY CO.,LTD

- THE VICE CHAIRMAN UNIT IN CHINESE ROASTED SEEDS AND NUTS ASSOCIATION.
- FORMULATE THE STANDARD OF CHINA LIGHT INDUSTRY OF DRYING EQUIPMENT AND ROASTING EQUIPMENT FOR NUTS & ROASTED SEEDS.
- SRT PRODUCTS ARE INTEGRATED WITH MANY NATIONAL PATENTS AND PROPRIETARY INTELLECTUAL PROPERTY RIGHTS





APPLICATION: DRYNG SUNFLOWER SEEDS, WATERMELON SEEDS, PEANUTS, PUMPKIN SEEDS, CORN, WALNUTS, APRICOT KERNELS, MACADAMIA NUTS, PIS-TACHIOS, DAILY NUTS AND OTHER NUTS, FOOD, GRAIN, POTATO CHIPS ETC.



THE CIRCULAT-ING HOT AIR IS **BLOW IN RIGHT** LEFT UP DOWN. **PARTITION TEM-**PERATURE. MULTI-PUR-POSE DRYING.



APPLICATION: DRYING OF SUNFLOWER SEEDS, WATERMELON SEEDS, PEA-NUTS, PUMPKIN SEEDS, PECANS, ALMONDS, DAILY NUTS AND OTHER NUTS,



#### INTERMITTENT HOT AIR CIRCULATION DRYER

APPLICATION: DRYING SUNFLOWER SEEDS, WATERMELON SEEDS, PEANUT PUMPKIN SEEDS, WALNUTS, FLAT WALNUTS, PECANS, MACADAMIA NUTS, DAILY NUTS ETC.

HOT AIR RECYCLING, SAVING **ENERGY AND REDUCING CON-SUMPTION** 

> **ENERGY CONSUMPTION DOWN 30%**

MOISTURE EMISSION OUT-DOORS EFFECTIVELY IMPROVE **TPRODUCTION ENVIRONMENT** 



#### **NEW DIRECT-FIRED AUTOMATIC ROASTING MACHINE**

APPLICATION: ROASTING ORIGINALLY SUNFLOWER SEEDS, WATERMELON SEEDS, SHELLED PEANUTS, PEANUTS KERNELS, TRICHOSANTHES SEEDS, PUMPKIN SEEDS, HANGING MELON SEEDS, BEANS, GREEN BEANS, WALNUTS (KERNELS), CASHEW NUTS, ALMONDS ETC.









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ChaCha Daily Nuts

## Keep Fresh with Key Tech

As fresh as just peeled









## San pang dan Sink dan Sink E A A 表

MELOSEIEDS

SUNFLOWER SEEDS ————





三胖蛋食品旗舰店

Q





## 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.





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**Guided by:** Specialized Committee for Nuts and Roasted Seeds of China National Food Industry Association.

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A HANDFUL OF NUTS AND ROASTED SEEDS A DAY IS GOOD FOR YOUR HEALTH

## **BRANDS**

































































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FEB 2023



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## A Letter of Invitation for New English Electronic Edition of China Nuts And Roasted Seeds

China Nuts And Roasted Seeds is under the guidance of the Specialized Committee for Nuts and Roasted Seeds of China National Food Industry Association and sponsored by Beijing Zhongjian Heguo Information Technology Service Co., Ltd., http://www.csnc.cn and www.chinanutexpo.com. it is currently the only domestic guiding journal for the nuts and roasted seeds industry. To make the world's nuts industry know more about China's nuts and roasted seeds industry, to integrate China's nuts industry into the global nut economic and trade integration, and to cooperate with the global peers for win-win results. To adapt to this new development trend, since April 2020, China Nuts And Roasted Seeds has added an English electronic version to serve as an exchange of information for nut enterprises, the industries and associations worldwide. We are sincerely soliciting contributions from domestic member enterprises, as well as domestic and foreign readers, professional scholars, and nuts and roasted seeds practitioners. The contents and scope of the contributions are concluded as follows:

I.Popularize the performance and experience of the enterprise and its leaders (chairman and general manager) (please attach the working photos of the enterprise and leaders at the same time);

II.Introduction to working attainment and experience: workshop management, technology, process, quality, quality management, product development, inspection and other working attainment and experience;

III.Popularize the latest scientific research achievements of the enterprise (raw

material planting, nutrition, technology, equipment, additives, etc.) and the promotion of new products (in Chinese and English);

IV.Marketing experience and introduction: attainment and experience in warehousing, transportation, wholesale, product sampling, direct selling and terminal markets, business negotiation and contract signing, etc.

V.Solicit the information needed by the enterprise, such as the information consultation on raw material purchase, equipment purchase, talent recruitment, etc.

VI.Put forward the relevant suggestions and opinions to the Magazine;

VII.The members of the Magazine's expert panel shall provide 2-3 professional manuscripts each year, which may be prepared by themselves or recommended.

VIII.Manuscripts may be provided in both Chinese and English. Welcome to contribute and recommend your manuscript! Requirements for manuscript solicitation: manuscript shall be in the form of electronic document.

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Editorial Department of China Nuts And Roasted Seeds

#### Information Consulting Service Table for China Nuts And Roasted Seeds in Chinese and English

The Chinese and English versions of China Nuts And Roasted Seeds also receive the information consulting services from relevant enterprises and associations at home and abroad. The specific contents are concluded as follows:

I.Information Consulting Service Charge for Chinese Version

1.Consulting Service Price

Category A: RMB 18,000/Page/Year for Single Page (6 Issues of Internal Pages + 1 Issue of the Journal)

RMB 35,000 Yuan/Year for Continuous Pages (6 Issues of Internal Pages + 1 Issue of the Journal)

Category B: Enterprise Special Service: Carry out the special popularization (including pictures, interviews, popularization reports, etc.) in the specific consideration of the needs of the enterprise. Consult the staff of the Association for the specific details.

Category C: 4-Cover Services (Bimonthly, Six Issues a Year)

Front Cover: RMB 45,000 yuan/year (no single issue); Back Cover: RMB 38,000 yuan/year (8000 yuan/issue)

Cover II: RMB 28,000 yuan/year (5000 yuan/issue); and Cover III: RMB 28,000 yuan/year (5000 yuan/issue)

Full Page Position of English Contents: RMB 25,000 yuan/year (4500 yuan/issue)

Full Page Position of Copyright: RMB 25,000 Yuan/Year (4500 Yuan/Issue) 2.Rights and Interests in Consulting Services

All the aforesaid three categories may enjoy the following services: 1. Free 3 copies of magazines each issue throughout the year; 2. One page (A4) published in each issue throughout the year to popularize the colorful pages of the enterprises or products, or to popularize the latest scientific research achievements of the enterprise (raw material planting, nutrition, technology, equipment, additives, etc.) and the soft-text promotion of new products. 3. Other consulting services provided, such as the industrial standards, policies and regulations.

3.Production Requirements

Front Cover Size: 210\*206mm (to set aside a reading guidance position); Cover II/Cover III/Back cover/Inner page size: 210\*285mm; precision requirements for four covers and inner pages: 300DPI; format requirements: JPG, PSD, TIF, EPS, AI; Leave 3mm around each to extend or expand.

II.Information Consulting Service for the English Electronic Magazine

1.Consulting Service Price

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RMB 15,000 Yuan/Year for Continuous Pages (6 Issues of Internal Pages + 1 Issue of the Journal) (3000 Yuan/Issue)

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Category C: 4-Cover Services (Bimonthly, Six Issues a Year)

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Cover II: RMB 10000 yuan/year (2000 yuan/issue); and Cover III: RMB 10000 yuan/year (2000 yuan/issue)

Full Page Position of English Contents: RMB 12000 yuan/year (2500 yuan/issue)

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## Two Major Directions for OFFLINE PHYSICAL STORES IN FUTURE



any stores in traditional industries have been open for one or two decades, but now the main problem is the impact of e-commerce. Online prices are generally lower than the sales and sometimes even purchase prices of physical stores. Some visiting customers will simply ask the merchants about the possibility to offer the online prices. So how could the physical stores respond under such circumstances? First of all, why does the appearing

First of all, why does the appearing e-commerce instantly kill the traditional business? Because it provides the following three benefits. Firstly, multiple choices, and you can even intensively shop around for a certain commodity; Secondly, cheaper prices. Pinduoduo, for instance, has huge markets in lower-tier cities; Thirdly, convenience.

For example, in JD.COM, all orders made in morning will immediately be served in afternoon, so JD.COM is more like a logistics company rather than an e-commerce merchant. Therefore, the traditional e-commerce almost meets these demands from consumers. So where is the value of the next round? When the users have no idea on how to choose, the next value of "multiple choices" will exactly be "optimization", "selection" and "recommendation"!

Therefore, the content e-commerce, interest e-commerce, KOL's popularization and recommendation are all based on the users' belief in their professional selection and aesthetics.

Furthermore, the penetration rate of the Internet is getting higher and higher today. If the information search, shopping and entertain, socialization and study may all be realized online, then why should we do so

offline? Therefore, the physical stores shall pay attention to two valuable directions in future.

The first one is what we call the extreme efficiency, which means convenience. The second one is the so-called extreme experience. The social scenes can't be provided online, while the physical stores offline are exactly the social places that may provide the warm experience. This is exactly the way how the times does business. Most of the time, even with the same time and experience, you may only change from "losing money" to "losing less" and from "earning money" to "earning a little more", without the model and algorithm of the times, hardly seeing any hope and future. Today's physical stores can no longer exclude and confront the online stores. The only feasible way for them is to think about how to embrace the Internet.



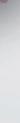
## MULTIPLE FLAVORS YOU MAY NOT KNOW THE TONGUE WILL FALL IN LOVE



## SHATU FOOD SHATU MELON SEEDS | | |

Shandong Shatu Food Industry Co., Ltd. was founded on August 8, 1988. It is a joint-stock private enterprise. It is a specialized enterprise that produces, processes and sells roasted food. The company is located in Hezecity, Shandong Province, the beautiful hometown of peony. The head office covers an area of more than 300 mu, with fixed assets of more than 100 million yuan and total assets of 1 billion yuan.

To Meet Shuatu Food and never forget when you are eating it. Sandy soil food will go adhere to the idea of doing well in products and services, never forget to start its mission to climb to the top level on quality.











### **STIR FRIED NUTS**

Manufacturer: Shandong Shatu Food Industry Co., Ltd

Address: Jiamei Road, Shatu Town, Mudan District, Heze City, China

Tel: 0530-5771168 Fax: 0530-5776118 Website: www.shatufood.com



























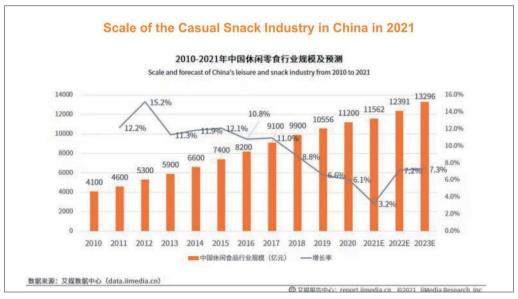


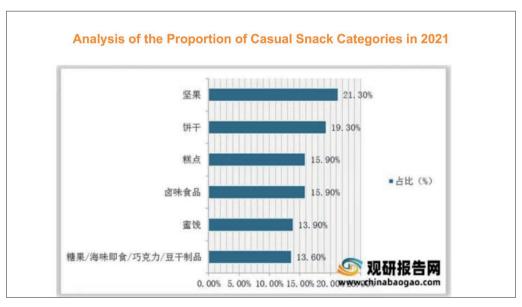




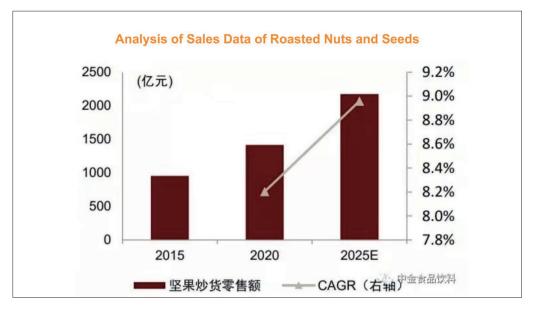
#### INDUSTRY CHAIN MARKET

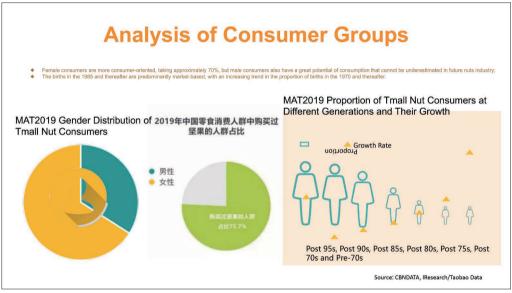






#### INDUSTRY CHAIN MARKET







#### INDUSTRY CHAIN MARKET

#### **Continuous Upside of the Roasted Nuts and Seeds Market**

At present, the nuts industry in China is still at the early stage of development, and there is still a big gap between per capita consumption and foreign developed economies such as the United States and Japan.

According to the research data of Northeast Securities, the per capita consumption of non-melon-seed packaged nuts in the United States reaches RMB 130.1 Yuan, approximately 8 times that of China's amounting RMB 16.3 Yuan. It is estimated that the market space of packaged nuts in China will exceed RMB 100 billion yuan in future, still 3 - 6 times higher than that at present.

#### Accelerated Online Layout and Enhanced Online and Offline Linkage Experience

Because the entire people "all stay at home" during the epidemic period, casual snacks have an eye-catching growth rate due to their rigid-demand attributes, and online layout has played a greater role in this epidemic period though everyone is not allowed to go out.

Blossoming Snack Collection Shops throughout the Country
Challenges to Large-scale Chain Stores





#### Marketing with the Integrated Quality and Effect

Improved Basic Sales and Scores of Tik Tok/Video/AAuto Stores

Livestream Marketing and Distribution by Popular People

Popularization by Xiaohongshu (Applicable for Single Products with High Customer Price)

#### INDUSTRY CHAIN PRODUCT

7<sup>th</sup> (2020-2021) Science and Technology Progress Award in National Nuts and Roasted Seeds Industry

## Nutty Oatmeal Variety Pack

COFCO Shancui Peanut Products (Weihai) Co., Ltd.)



"Nutty Oatmeal Variety Pack" developed by COFCO Shancui Peanut Products (Weihai) Co., Ltd. won the second prize of the Science and Technology Progress Award in National Nuts and Roasted Seeds Industry. The product is made from low-temperature baked oatmeal as the main raw material, adding large-particulate matter baked nuts, pumpkin seeds, dried cranberries and other auxiliary materials, and is seasoned with brown sugar containing various microelements through unique formula, light baking and slow baking. It integrates

the nutrition and delicacy, and bears the concept of health and convenience.

Generally, the air cooking technology is used for nut baking, which may easily cause uneven heating and insufficient fragrance though having high heating efficiency with faster warming and shorter baking time. However, the baked nuts in the Nutty Oatmeal Variety Pack are realized by direct-fired gas, thus achieving the precise temperature control, low baking temperature, long baking time and comparatively sufficient reaction of flavor substances. Therefore, the nuts may have strong flavor and rich taste in this way.

Oatmeal is mostly baked at high temperature and has a ordinary taste. The addition of red sugar gives a unique flavor to oatmeals, and the steam oven is used to bake at low temperature, so as to retain the original flavor of red sugar, avoid nutrient loss during baking, and improve the nutritional value of products.

The scientific ratio of baked nuts and brown sugar oatmeal realizes multiflavor organic combination, featuring both mellow oats and crisp nuts, and the sweetness of brown sugar makes the taste and aroma reach a brand-new height. Besides, the combination of multi-latitude raw materials may satisfy the health needs of office workers, students, middle aged and elderly people, et. al. It may not only supplement energy instantly, but also mate the yogurt, milk, coffee and tea, respectively. It is also delicious as a complementary food for breakfast, fully satisfying the demands of consumers for nutrition, health and delicacy.











#### MY MEYER

#### **Quality nuts need refined sorting**

#### Why refined sorting?

- With the upgrade of end consumption, processing customers pay more and more attention to standardization, refinement, and diversification of production.
- Affected by planting time, environment, and other complex factors, nut raw materials often produce extremely complex defects, which brings challenges to quality control.

#### Traditional color sorters are hard to ...

- Impurities and defects cannot be sorted purely, must have manual re-sorting
- Materials are easy to break, and the processing profit is difficult to guarantee
- Irregular size / too large, hard to be sorted
- · Unstable structure, difficult to meet the long-term operation
- The equipment is easy to accumulate materials, hard to clean





### Meyer Engineering AI Belt Color Sorter, opening the new era of refined sorting

- Based on the engineering design, the structure of the machine is highly standardized and modularized. The operation is stable and reliable, meeting the needs of agricultural processing enterprises for long time continuous production
- Equipped with deep learning technology, can realize refined sorting of foreign objects and defects in complex scenes, avoiding manual picking after traditional color sorting





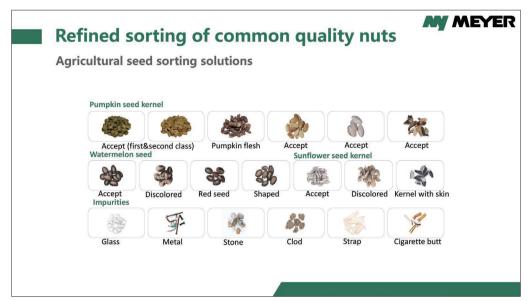
#### Refined sorting of common quality nuts

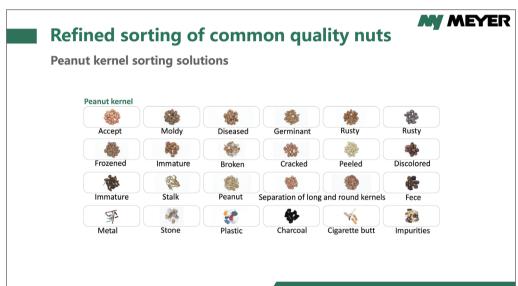
Sunflower seed sorting solutions



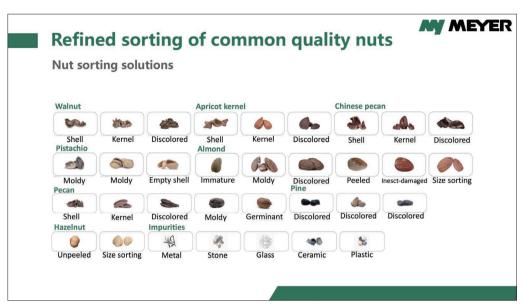




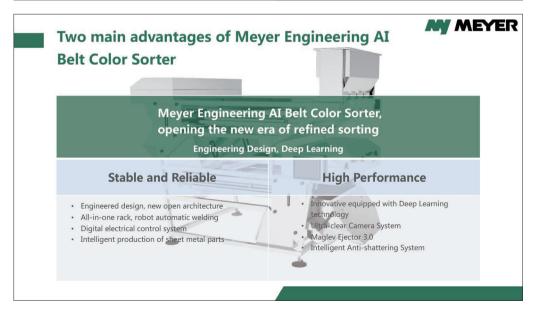










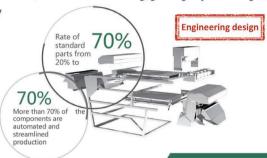


## Meyer Engineering AI Belt Color Sorter - Stable and reliable

MY MEYER

 Engineering design, new open architecture, highly modular and standardized structure, the rate of standard parts from 20% to 70%, changing the traditional manufacturing mode, ensuring product consistency and reliability from the source

Integrated frame, robot automatic welding, good rigidity and strength, high carrier reliability



#### MY MEYER

## Meyer Engineering AI Belt Color Sorter - Stable and reliable

Digital electrical control system with topological structure, reducing 45% of redundant control modules and realizing hidden wiring design, controlling the sudden failure of core components from the source and guaranteeing stable and reliable operation process



Reducing 45% of redundant control modules

### Meyer Engineering AI Belt Color Sorter - Stable and reliable

MY MEYER

 Intelligent production of sheet metal parts, through bending plate center forming and automatic welding, to ensure high stability and reliability of the sorting box, hopper, and other components with high sealing and waterproofing



Meyer Intelligent Factory (parts and final assembly production base)



Meyer Intelligent Factory (Painting and Sheet Metal Production Base)



processing line



Robotic assembly welding line

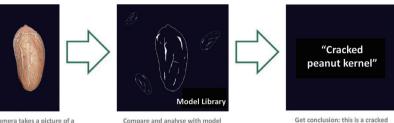
Unmanned Maglev Eject

#### Meyer Engineering AI Belt Color Sorter -**High performance**

M MEYER

MY MEYER

- Innovative equipped with Deep Learning technology
- -- Based on a massive sample database, it can quickly build and iterate deep learning sorting models, which can challenge complex foreign objects and defects that are difficult to cope with by traditional algorithms, and meet customers' changing and refined sorting needs



The camera takes a picture of a cracked peanut kernel

Compare and analyse with model



peanut kernel

#### Meyer Engineering AI Belt Color Sorter -**High performance**

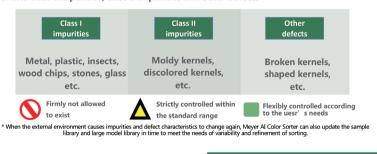
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#### 5 Advantages of Meyer Deep Learning Technology



#### **Meyer Engineering AI Belt Color Sorter -High performance**

- MY MEYER
- The Refined Analysis System of Rejects Characteristics for Agricultural Products
- -- For nuts, it no longer defines the sorting scope in general, but subdivides into sunflower seeds, guajava seeds, watermelon seeds, fenugreek seeds and other varieties, and subdivides foreign matter into class I impurities, class II impurities and other defects



#### M MEYER

### Meyer Engineering AI Belt Color Sorter - High performance

The Refined Analysis System of Rejects Characteristics for Agricultural Products
 Common nut material impurities and defects refinement sorting matrix

No.	Material	Class I Impurities	Class II Impurities	Other Defects
1	Sunflower Seed	Glass, metal, plastic, cigarette butt, sheep dung ball, insect, stone	Sunflower disc, sunflower stalk, cocklebur, sclerotia, moldy kernel, rusty kernel	Insected-eaten, broken, shaped seed
2	Cucurbit seed	Glass, metal, plastic, cigarette butt, insect	Melon flesh, rind	Broken seed
3	Watermel on seed	Glass, metal, cigarette butt, insect, fece	Discolored seed	Insected-eaten, broken, shaped seed
4	Psidium guajava seed	Glass, metal, cigarette butt, sheep dung ball, insect	Shaped seed	Broken, shaped seed
5	Peanut kernel	Charcoal, metal, cigarette butt, clod, brick, ceramic	Peanut, rusty kernel, discolored kernel	Broken, peeled kernel
6	Peanut	Metal, cigarette butt, clod, brick, ceramic	Stalk, moldy peanut, cracked peanut, peanut kernel	Broken, rusty, moldy peanut
7	Walnut	Metal, stone, clod	Shell, moldy walnut	Shrunken walnut
8	Walnut kernel	Metal, stone, clod	Discolored kernel, moldy kernel	Shrunken, broken, shaped kernel



#### M MEYER

## Meyer Engineering AI Belt Color Sorter - High performance

The Refined Analysis System of Rejects Characteristics for Agricultural Products
 Refined sorting case (Sunflower seed)



#### MY MEYER

## Meyer Engineering AI Belt Color Sorter - High performance

- · Meyer Multi-spectrum Confocal System
- -- provides multi-dimensional sorting and detection solutions such as color, shape, texture, material, etc. to meet users' differentiated processing needs.



- Visible light is mainly used for sorting according to the difference in color and shape of the material.
- Infrared light is mainly used for sorting according to the moisture and material differences
- X-rays are mainly used for sorting according to the differences in material density
- UV light is mainly used for sorting according to the difference in fluorescence it induces



#### MY MEYER

## Meyer Engineering AI Belt Color Sorter - High performance

Meyer Ultra HD Imaging System

-- Equipped with low distortion camera lens, the minimum recognition area can reach 0.0025mm², material recognition is clearer



- Low distortion camera lens with ultra-high definition resolution and undistorted imaging
- Industrial-grade four-color CCD sensor, can be added to the R, G, B three primary color technology Y (yellow) pixels, greatly increasing the image color performance capabilities
- For micro chromatic aberration materials, Meyer also increased the image color restoration algorithm to capture images more realistic

#### MY MEYER

#### Meyer Engineering AI Belt Color Sorter - High performance

- Meyer Maglev Ejector 3.0
- -- Integrated structure, unmanned production, precise rejection of 1200 times per second, long service life and convenient maintenance









Maglev Ejector "Black Light Factory"

- · Ultra-high-speed response, more accurate rejection
- millisecond start/stop, fully avoiding air leakage, allowing for greater output and lower loss
- Modular design, making maintenance more convenient
- "Black Light Factory" unmanned production, standardized production, component reliability is greatly improved, further extending the service life

#### MY MEYER

## **Meyer Engineering AI Belt Color Sorter - High performance**

- Intelligent Anti-shattering System
- -- Through the targeted rejection algorithm and soft landing design, reduces the stress on the material and maximizes the control of breakage





Seven models to meet the needs of different customers















MY MEYER

CG.A series

Multi-purpose color sorter

K series

KS series Multi-purpose belt color sorter (single-layer) Multi-purpose belt color sorter (double-layer)

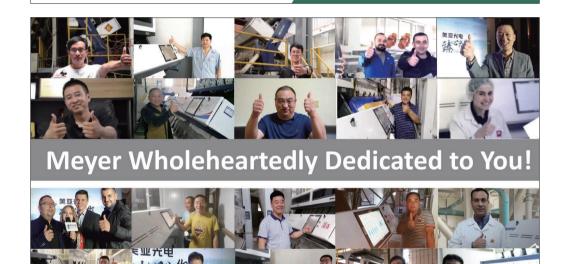
**KI** series Multi-purpose belt color sorter (Infrared, single-layer)

**KX** series Multi-spectrum integrated sorting machine

X-ray inspection machine for packaging

XS series

X-ray inspection machine for food material







# Application of the Compound Spice Extract Essence in the Roasted Seeds and Nuts

Shanghai Chengyu BioTechnology Co., Ltd.

#### Project Description:

In the Project, more than a dozen common spices are compared from varieties, producing areas, prices, odor characteristics and other aspects, and different pretreatment processes and extraction methods are adopted to prepare spice extract essence with unique flavor by matching and flavoring.

#### Approval Background:

The spice extract essence for the flavoring of the roasted seeds and nuts was obtained by pretreatment and extraction process of spices.

#### Innovation:

The pretreatment and extraction technology has been applied to obtain spice the extract essence with better natural feeling for the roasted seeds and nuts to replace the use of spice package in the current roasted seeds and nuts cooking process. The subsequent selection and preservation



of raw materials, however, need to be further improved to make the product quality more stable. At present, it is the sole water-soluble compound spice extract used to replace the spice package in the cooking process of the roasted seeds and nuts.

#### Application:

Featuring the excellent natural feeling

and long aftertaste, this essence not only overcomes the shortcomings of heavy chemical taste and greasy flavor of spices used in the roasted seeds and nuts in the past, but also saves the customers' economic, labor and time costs by replacing a large number of spices added in the cooking process of the roasted seeds and nuts.

#### INDUSTRY CHAIN RAW MATERIAL

# TOTAL PLANTS and Selection of The Selec

here are many strains of hazel nuts, but at present, the most important and widely planted hazel nut in China is the European filbert hybrid hazel nut.

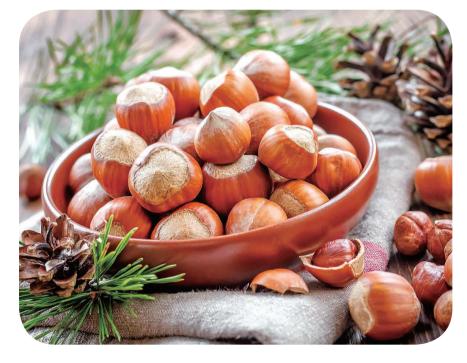
After continuous experimental research, we mated European hazel nut with flat hazel nut, and formed European filbert hybrid hazel nut applicable for cultivation in China. The European filbert hybrid hazel nut is the most common and main strain in China, and there are many different varieties to be selected and cultivated according to the main characteristics of each variety.

#### 1 Flat-topped Yellow

Flat-topped yellow is named after its yellow-brown bottom. Its nuts are oblate and large, with an average weight of 2.4 grams per fruit and a kernel yield of 41%. The nuts are full, bright and clean, with good flavor and high quality. The flat-topped yellow may be planted everywhere, which is most applicable for Northeast China.

#### 2 Dawei

Dawei is a variety with large cultivated



area in hybrid hazel nut, and its nuts are large, oblong and reddish brown. The average weight of a single fruit is 2.5 grams, and the nuts are usually full, bright and clean, with unique flavor and high quality. Dawei varieties are applicable for planting throughout the country.

#### 3 Thin Shell Red

The thin shell red fruit is conical and reddish brown, with large and beautiful

single fruit and thin shell. The kernel production rate is high, reaching 45.9%.

#### 4 Golden Bell

With its fruit like a bell, the golden bell looks golden yellow and oblong. They are definitely a bit similar.

#### 5 Jade Pendant

Its nuts are round and dark red, with an average weight of 2.04 grams per fruit, and its nuts are smooth and full.

## Why do peanuts produce empty shells? Mainly Related to Calcium

t is commonly found by many peanut farmers that, when they harvest their own peanuts, despite of many fruit pods, there are many empty shells or non-full grains, which seriously affects the yield of peanuts.

#### Causes of the Empty-Shell Peanuts

There are many reasons for the emptyshell peanuts. Variety, calcium deficiency or insufficient microelements and incorrect seeding time will cause the phenomenon of empty shells. The specific reasons are concluded as follows:

#### 1. Variety

Generally, the large-sized peanuts tend to produce empty shells, while the small-sized ones rarely produce empty shells. Because the large-sized peanuts require more nutrition for growth, if the nutrient is not timely supplied or the planting density is too high, the empty shells will naturally occur. There are also some water-fertilizer-resistant varieties that will produce empty shells when planted on dry slopes.

#### 2. Calcium Deficiency

Peanuts are prone to empty shells due to calcium deficiency, and this is also the most important reason for empty-shell peanuts. The calcium deficiency mainly occurs due to the following reasons: Lack of organic fertilizer and calcium



fertilizer in soil; generally a low level of active calcium in acidic or slightly acidic soil; Excessive application of phosphorus and potassium in the process of planting peanuts, which will affect the absorption of calcium by plants when reacted with calcium.

In addition, during the periods of continuous high temperature and rainy weather, soil calcium may be rapidly lost with rain. Meanwhile, the accumulation of water will also affect the absorption of calcium by roots.

#### 3. Insufficient Microelements

To pursue the yield, some farmers arbitrarily apply the nitrogen fertilizer for fertilizing, while ignoring the application of other fertilizers, thus resulting in excessive nitrogen in soil, which leads to the overgrowth of peanut plants with empty shells at the underground parts due to the insufficient nutrition.

Simultaneously, the boron deficiency in peanuts will also delays flowering and affects the formation of pods and kernels, thus resulting in empty-shell peanuts.

#### 4. Incorrect Seeding Time

The peanut seeding time is decisive. If seeded too late, the peanut will also produce empty shells. Especially in autumn, if seeded too late, the peanut will also produce empty shells since no organic matter may be accumulated when the temperature is too low at the later stage. Therefore, during the process of seeding, the time of planting must be well controlled.

Especially in the northern region, try to plant in April or May, and preferably before April in the northerly part. In the southern region, however, peanuts may be planted in spring (e.g. March) and replanted in autumn (e.g. July-August).

## The Philippines Lowered Tariffs to Stimulate the Corn Imports

According to the Business Mirror in the Philippines, United States Department of Agriculturethe Manila ServicesOffice of the USDA Foreign Agricultural Service (USDA-FAS) expressed that under Pricesthe background of global commodity Grainfluctuations, the Philippine government lowered tariffs to ensure the CornImportstable supply and ease the price pressure. Therefore, the import volume of corn in the 2022-2023 period may nearly triple to 1.7 million tons. At the same time, due to the decline in unit yield and small harvest area, it is expected that the local corn yield will drop by 440,000 tons YOY.

## Peanuts Are Launched into the Market in Burma, But Their Prices Continue to Fall for Various Reasons



According to the Burmese bean and sesame traders, the peanut prices in Burma's domestic bean and sesame markets

continue to fall for various reasons.

As pointed out by Mandalay bean and sesame traders, peanuts have been harvested recently and launched into the market. However, the peanuts, which are priced in foreign currencies, are traded coldly due to the stabilization of the exchange rate. Therefore, peanut prices continue to fall.

Recently, peanuts have been launched into the market, and a large number of them will be available next February. If purchasing power remains insufficient, peanut prices will fall even more severely then they are now. In such cases, farmers will certainly lose money. And then, a new round of peanut planting will be definitely affected.

## First Batch of Nuts in Dola Province, Vietnam Were Exported to Japan through the Normal Trade Channel



A ceremony was held by the People's Committee of Krong Nang, Dola Province, Vietnam with the enterprises in Krong Nang on the afternoon of November 9, for the export of the firstNutscontainers from ExporttoJapan via the normal trade channel.

This is a good opportunity for the nuts produced by Krong Nang or even Vietnam to gradually seize the regional and world markets.

Wu Wenmei, chairman of the People's Committee of Krong Nang, said at the ceremony that the purpose of the Krong Nang export ceremony of macadimia nut containers is to promote and introduce the potential and advantages of nuts in the county; It helps to connect the local investors and entrepreneurs with large domestic and overseas-funded enterprises in order to sell products and develop the clean, high-tech and sustainable agricultural production successfully and effectively.

At the ceremony, DAMACA and Japan OLTY jointly signed an exclusive distribution contract for DAMACA's dried nut products in the Japanese market.

It was learned that the nuts exported to Japan through the normal trade channel weighed more than 6t and were planted in Krong Nang. The products have successfully passed the inspection of pest control, food safety and hygiene, packaging specifications and traceability by specialized agencies of the two countries.

## Taking an Approximate Amount Of Sesame Sects to OCCURRENT OF THE SECTION OF THE





#### 1. Improve the Immunity

Taking an approximate amount of sesame seeds is helpful to improve the human immunity, because sesame seeds are rich in nutrients, including vitamins, protein, unsaturated fatty acids, lecithin, microelements, minerals, etc., which are needed by human body.

With the help of proper diet and comprehensive nutrition, we can activate the function of immune cells, enhance our resistance, and improve our body's ability to resist pathogen invasion, so as to effectively prevent diseases. Therefore, people who want to have good immune ability may wish to take an approximate amount of sesame seeds.

#### 2. Nourish the Skin

The sesame seeds have the effect of nourishing the skin. If you want to beautify yourself and keep your skin in good condition, you can take an approximate amount of sesame seeds at ordinary times. Because the sesame seed is rich in vitamins, includingVitamin C, Vitamin A, and Vitamin E. It may play a good antioxidant effect against free radical production.

In addition, these vitamins may moisturize the elastic fibers and collagen fibers in the skin, thus making the skin elastic. Nutrition provision, in turn, maintains good circulation, and skin tissue has enough nutrients to be moistened, naturally smooth, and glossy.

#### 3. Promote the Hair Health

Taking an approximate amount of sesame seeds, a kind of black food, is helpful for hair care. Chronic malnutrition will lead to hair loss. People with this kind of trouble should adjust their diet structure and have a reasonable mix of meat and vegetables. Usually, you should take an approximate amount of sesame seeds, because the rich minerals, microelements and vitamins inside are important raw materials for melanin synthesis, which may keep human hair black. In addition, the acquisition of vitamin E may play an antioxidant role, keep good the blood circulation in scalp, and improve the vitality of hair follicles, thus nourishing hair and improving its dryness and color change.

tudies have shown that a diet rich in antioxidants may help reduce the risk of death. In general, some fruits and vegetables are rich in antioxidants, and Cornell University has conducted a new study and published the important study results in the Nutrients. The pistachio nuts have high oxidation resistance, and compared with many foods well-known for their oxidation resistance, such as blueberries, pomegranates, cherries and beets, the pistachio nuts have the highest oxidation resistance.

Recent studies have found that many of the health benefits of pistachio nuts are obtained due to the combination and interaction of these beneficial antioxidants, bioactive compounds and other nutrients in the pistachio nuts. The pistachio nuts contain many important phytochemical components, such as the vitamin E ( $\beta$ -tocopherol and  $\gamma$ -tocopherol), carotenoids (lutein, zeaxanthin and  $\beta$ -carotene), phenols and flavonoids.

In vitro studies have shown that the phytochemical extract of pistachio nuts has strong anti-proliferation activity on breast cancer, liver cancer and colon cancer cells. Interestingly, population studies have shown an correlation between the frequent consumption of pistachio nuts and the reduced risk of certain cancers.





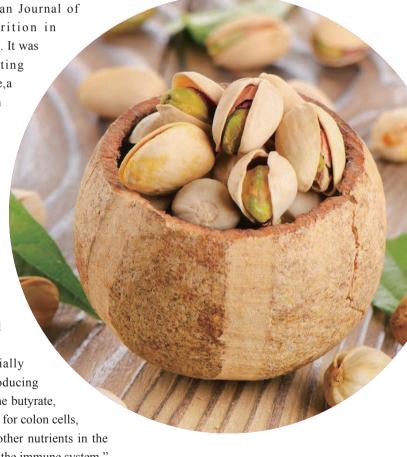
## How Almonas **Benefit the Intestines**

his clinical study was published in the American Journal of Clinical Nutrition in September 2022. It was found that eating almonds will increase butyrate,a microbiome by-product with a series of health benefits. This helps to break down the dietary fiber in the large intestine and serves as the main energy source for colon cells.

Results: Although the almonds had a limited effect on the composition of intestinal flora, participants who ate almonds had a significant increase in intestinal butyrate levels.

The intestinal flora will partially affect the human health by producing such short-chain fatty acids as the butyrate, which would act as a fuel source for colon cells, and regulate the absorption of other nutrients in the intestinal canal and help balance the immune system."

In addition, the increased fiber intake by the participants did not cause any discomforting gastrointestinal symptoms. Eating enough fiber is an important habit to ensure the intestinal health. Without it, the intestinal bacteria would have no food to eat.





### **Herbaceous application leader**

## Nutantioxidation of muts Only Nanko

The nut antioxidant contains a variety of plant antioxidant components, its features include scientific combination, synergistic effect, strong antioxidant effect, stable structure, and high temperature resistance. It can effectively inhibit the oxidation of oil and fat in nuts and the deterioration of taste. It has the effect of improving the quality of nuts and extending the shelf life of nuts. The correct use of nut antioxidant can not only prolong the shelf life of nuts, bring good economic benefits to producers, but also bring betterfood safety to consumers.



■ 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)









Sunshine Taste





## NINGJINXIAN TIANHUA MESH BELT MACHINERY CO., LTD





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Chain plate multilayer dryer

Flavor machine





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chain plate air drying cooling line

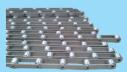
#### ACCESSORIES AREA











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Executive director unit of the Specialized Committee for Nuts and Roasted Seeds of China National Food Industry Association

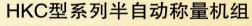
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