

# USING SCIENCE TO IMPROVE THE WORLD.

2012 Annual *Review*



INSPIRED MOLECULAR SOLUTIONS™



**“EVERY GREAT  
ADVANCE IN  
SCIENCE HAS  
ISSUED FROM A  
NEW AUDACITY  
IN IMAGINATION.”**

**John Dewey**

*American philosopher, psychologist and educational reformer*

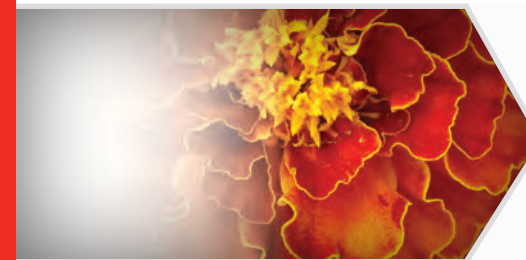
The people of Kemin are *audacious...*

From our enormous vision to our belief that after 50 years of scientific advances we've only just begun, Kemin embraces big, bold and even brash goals and self-expectations.

Kemin *is*



talented, imaginative, caring *people*



using the compounding *nature*  
of scientific achievement



in partnership with our *customers*



to truly change the *world*.



We remain dedicated to exceeding customer expectations as a partner in the use of molecular science to improve lives of people and animals around the globe. Our faith in the power of combining sound science with the human qualities of creativity, curiosity and collaboration has never been greater.

## KEMIN – USING SCIENCE TO IMPROVE THE WORLD

*Founded* in Des Moines, Iowa (U.S.A.)  
in 1961

- *7 divisions*
  - Animal Nutrition and Health
  - Animal Nutrition and Health - Vet
  - Nutrisurance
  - Human Nutrition and Health
  - Food Technologies
  - Personal Care
  - Pharmaceutical
- *200+ Patents*
- *\$520 million in sales*
- *More than 500 ingredient products*
- *1,600 employees worldwide and growing*
- *8 countries with manufacturing facilities*
- *90 operating countries*

**The people of Kemin believe in the power of science to change lives.** *Our relentless search for solutions runs deep — to the molecular level. Every day, Kemin uses these tiny building blocks of life to overcome some very big challenges.*

# WHO:

The people of Kemin working together with customers to bring the benefits of molecular science to a growing global population.



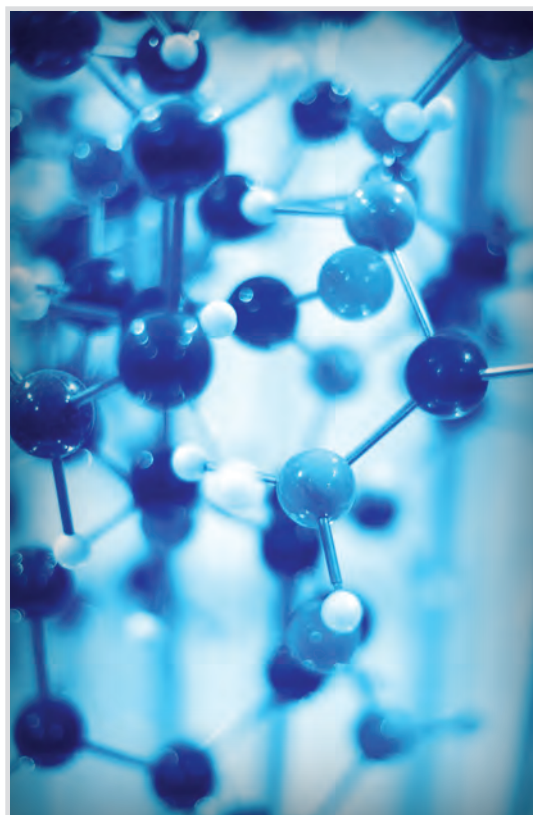
# WHY:

To move toward our vision: Improve the quality of life by touching half the people of the world every day with our products and services. Vision matters at Kemin — making a positive difference in the world energizes our employees and provides them with meaningful, interesting and profitable work.



# WHAT:

Discovering molecules and understanding how to manufacture them to deliver important nutrition and health benefits through products consumed by people and animals.



# HOW:

Kemin pursues its vision through the unstoppable combination of talented employees, powerful science, and partnership with customers. Kemin uses expertise, insight and experience to help our customers anticipate and capitalize on opportunities.



# GROWING BY SERVING

## Letter to Stakeholders

I've heard it said a person spends their early years trying to be successful and later years trying to be significant. Perhaps the same can be said for a company like Kemin. When you start a company, as my parents, RW and Mary Nelson, did with Kemin in 1961, the focus those first five to 10 years was on being successful in order to stay in business and grow.

Not only did Kemin survive the first five to 10 years, but its first 50. Today, we are able to focus on reaching our vision of touching the lives of half the world's population by being significant in the lives and businesses of our customers.

This is as practical as it is philosophical. Kemin focuses, for the most part, on ingredients that other companies use to make finished products. Therefore, our customers are integral to everything we do here at Kemin. Without them there is neither success nor significance. We further understand that serving our customers in ways that help them generate profits is key to generating the financial resources Kemin needs to pursue our vision. We approach business as if it's an ecosystem with all aspects interrelated and interdependent.

We believe Kemin, by serving our customers, will grow to have a significant positive impact on billions of people's lives in the next 50 years. We also feel a sense of urgency that comes from the growth projected in the world's population from 7 billion today to 9 billion in less than 40 short years.

This population growth in the face of limited resources will present formidable world challenges for people and animals alike. Kemin is committed to combining human imagination and the discipline of science to overcome these challenges. We can't do it alone, but we can do it together. And together we can be successful and significant in our efforts to improve the quality of life in our shared world.



Christopher E. Nelson, Ph.D.

*President*



There are 7 billion people on Earth today. That's nearly twice as many as when Kemin was founded in 1961. Earth's population is expected to hit 9 billion by 2050.

Even though hundreds of millions of people regularly experience hunger today, a third of world food production for human consumption is lost or wasted every year. If this amount of food, approximately 1.3 billion metric tons, continues to be wasted each year, feeding 9 billion in 2050 will require a 70% increase in food production.

While these facts may be daunting, at Kemin they are also inspiring. They inspire us to remain focused on discovering new molecules to help solve these seemingly impossible challenges.

The path ahead may seem difficult, until we turn around and see the great distance we have already traveled. Over our first 50 years, Kemin has already improved billions of lives by:

- **Creating** ingredients that make feed and food production more efficient as well as safe and nutritious for people and animals
- **Providing** products that protect feed and food from spoilage thereby reducing waste
- **Investing** in natural solutions that benefit the environment as well as the finished products in which they're used
- **Developing** ingredients, like lutein - an essential eye nutrient, with important health benefits
- **Remaining** on the vanguard of sustainable production practices

**KEMIN VISION:**  
IMPROVE THE QUALITY OF LIFE BY TOUCHING  
HALF THE PEOPLE OF THE WORLD EVERY DAY  
WITH OUR PRODUCTS AND SERVICES.

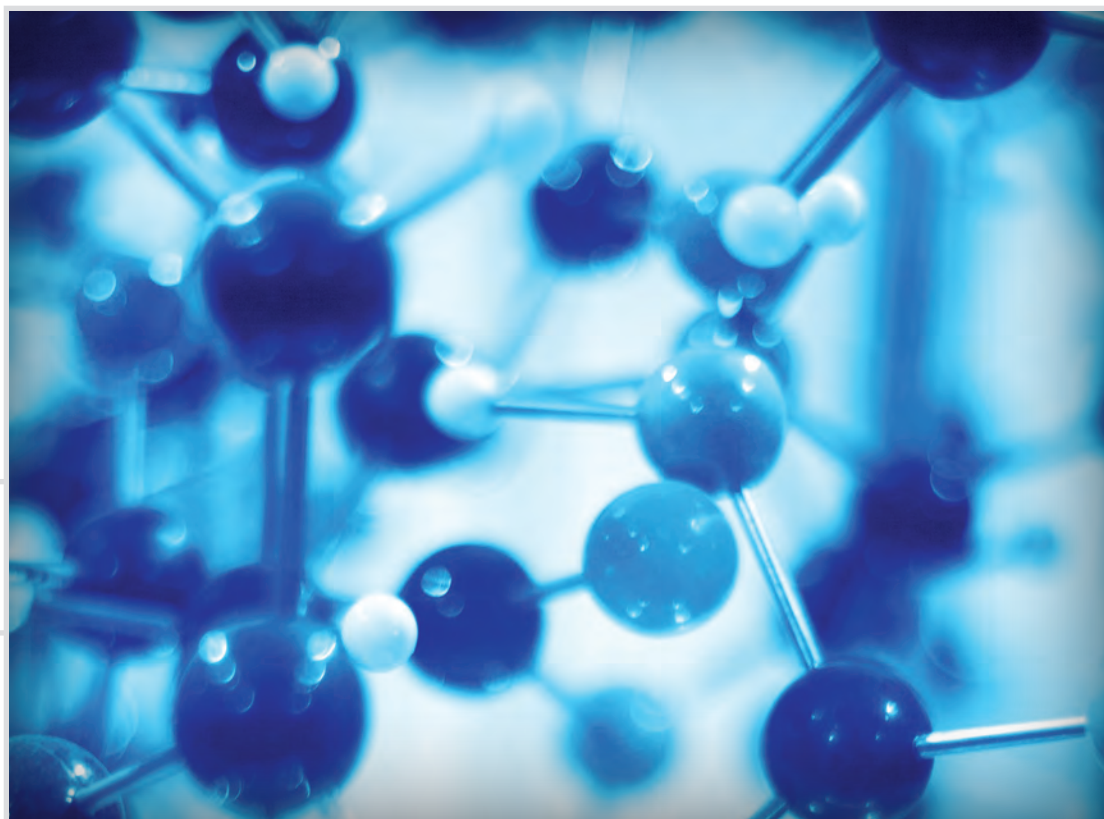
Combining human imagination and curiosity  
with science makes the impossible *possible*.

Voices carried over a telephone wire, light without fire, microbes that eradicate diseases, humans on the moon and robots on Mars ... all "impossible" at one time, yet old news today.

Building on our heritage, Kemin is driven and inspired to make its seemingly impossible vision a reality by focusing on:

- Molecular Science (pages 10-11)
- Safety and Quality (pages 12-13)
- Sustainability (pages 14-15)

Horseless carriages, pocket-sized wireless telephones, mapping the human genome — all transformed from impossible to possible through combining imagination, dedication and science. The people of Kemin look forward to many more years of making the impossible possible.



*We understand how to maximize the full benefit of the lutein molecule. That is why we formulate it for oral consumption to benefit eye health, for topical application to increase skin hydration, lipid content and elasticity, and for intraocular dyes used in cataract and retina surgeries.*

## Improving Life ... *at the Molecular Level*

Kemin scientists search for answers to life's big problems among its smallest elements — molecules. Today, Kemin is on the leading edge of molecular science. We've moved beyond simply discovering beneficial molecules to also building expertise on how molecules work within living organisms. Understanding the mode of action for all our products has led to breakthroughs in efficiency and efficacy, as well as the development of new products and processes.

We constantly improve our molecular science infrastructure, including the investment of millions in new research and development facilities and equipment.



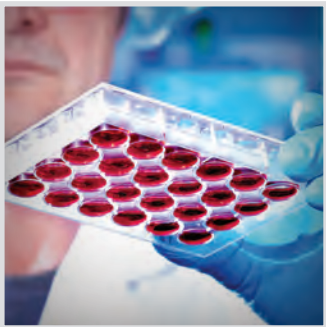
*Kemin invests heavily in research and development. Just in the last few years, Kemin has opened a new research and development facility in Belgium, added another customer laboratory services facility in North India, and is in the process of building a new research and development facility at its corporate headquarters in Des Moines, Iowa.*

**Consumer safety is always job one.** Our first priority is creating conditions and processes that ensure Kemin products are safe, efficient and effective until they reach the end consumer. Quality goes hand-in-hand with consumer safety in that investments in quality materials and processes naturally contribute to creating safe products.

By focusing on safety and quality first, Kemin helps customers enhance their brands in ways that build loyalty with current consumers and attract the new business needed to grow and thrive.

*Kemin extensively evaluates all incoming raw materials and finished products in a state-of-the-art analytical laboratory to ensure they are safe and not adulterated. This comprehensive testing provides Kemin customers with complete assurance that Kemin products are safe and delivered with the highest degree of integrity.*

## Commitment to *Safety & Quality*



*Unique raw material risk assessment procedures are used to analyze every raw material that enters Kemin facilities. Kemin employees assess the potential hazards and risks of each raw material as well as study how the raw material is manufactured by our suppliers. Even third party, outside auditors positively comment (praise) on our raw material risk assessments, calling them “unique, thorough and rare.”*



*Kemin manufacturing facilities around the world measure things like energy and water use, waste generation, emissions and recycling. This information is used to ensure we are making the best use of our resources and operating as efficiently as possible.*



## Pioneers in *Sustainability*

*Investing nearly two decades of science, expertise, innovation and partnership with family farmers has made Kemin the most vertically integrated producer of natural rosemary extract-based products in the food, health and personal care industries. Today, we contract with family farmers in Texas and New Mexico to grow a total of 1,000 acres of genetically identical rosemary plants – one of the largest commercial productions in the world.*



**At Kemin, sustainability includes both constantly improving efficiency as well as a wise use of natural resources that balances productivity with conservation.** Our focus on sustainability started decades before the green initiatives swept through the rest of the business world.

Sustainability shows itself most visibly in our plant science work, where we use conventional breeding techniques and leading-edge agronomy practices to grow specialty crops that contain beneficial molecules. This practice is good for customers and consumers, who are demanding more natural products, and for the environment as millions of Kemin plants clean the air of carbon dioxide, emit oxygen and produce waste matter that returns nutrients to the soil. More than 35% of our global sales are generated from these plant-derived molecules.



Founded the very same year Kemin began operations (1961), the World Food Programme (WFP) pursues a vision of the world in which every man, woman and child has access, at all times, to the food needed for an active and healthy life. In 2012, Kemin renewed its commitment to WFP with a five-year pledge to help the organization implement a strategic plan that includes a shift toward increasing local food purchases, providing more locally tailored products and investing in longer-term solutions to food production that combat hunger and poverty.

Kemin assists WFP in developing and implementing a Food Safety Quality Management System (FSQMS) within the organization. This is a critical initiative that will enable WFP to manage and improve food quality assurance and reduce waste throughout the entire supply chain, enable the success of local growers and manufacturers, and ultimately improve WFP's final food basket.

## Sharing Expertise to Help *Feed the World*

*Kemin has been a long-time supporter of both the World Food Prize® and the World Food Programme — not only contributing financially but also sharing our expertise to help answer the challenges of fighting world hunger.*

*Kemin has been an active supporter and participant in The World Food Prize, started by Nobel Peace Prize winner Norman Borlaug, ever since The World Food Prize headquarters returned to Des Moines in 1990.*

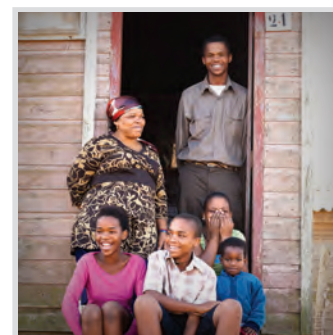
® Trademarks of World Food Prize / ®™ Trademarks of World Food Programme



## Connecting with our *Communities*



*Kemin considers itself an active partner in every community in which we have employees and strives to promote the economic and social wellbeing of those host communities. Kemin employees support many organizations individually, while our company focuses on underprivileged children, science, general education and affordable housing.*



Every year Kemin holds an auction at its corporate headquarters to raise money for the local Youth Emergency Services & Shelter (YESS). Kemin employees also donate hours of sweat equity to help build homes for low-income families through Greater Des Moines Habitat for Humanity. Kemin supports education in Des Moines and around the world, from providing scholarships to students in China to improving facilities like classrooms, sanitation systems and playgrounds in India. Kemin encourages employee participation by offering paid days away from work to volunteer in the community.

Kemin gives back to the community in part out of gratitude for all the community does for our company and its employees. It's also a way to ensure our own employees and neighborhoods are among the beneficiaries of our grand vision.

# GLOBAL AND LOCAL

In addition to its corporate headquarters in Des Moines, Iowa (U.S.A.), where Kemin was founded in 1961, it has regional headquarters in Belgium, China, India, Singapore and South America. Each location boasts its own research and development facility, manufacturing and office space. While this global presence allows us to produce cutting edge molecular technology, we have dedicated sales staff living in all corners of the world who understand how to apply this technology based on local conditions. Kemin headquarters provide sales staff with resources to support customers in their region, from tailored laboratory services to custom product application, we are dedicated to meeting your every need – wherever you call home.

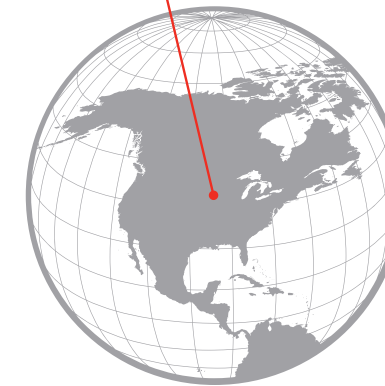
**Worldwide Headquarters**  
Des Moines, IA - USA



**Regional Headquarters**  
Herentals, Belgium



**Regional Headquarters**  
Chennai & Gummidipundi, India



## Board of *Advisors*

### *Asia*

Babu Mathew (Chennai, India)  
Chou Yuen Chong (Singapore)  
Hai Chwee Chew (Singapore)  
Jacob Ranjit (Bangalore, India)  
Kamath Prem (Mumbai, India)  
Siew Loong Leong (Singapore)  
Varghese Mammen  
(Kottayam, Kerala, India)  
Vellappally Markos (Bangalore, India)

### *Europe*

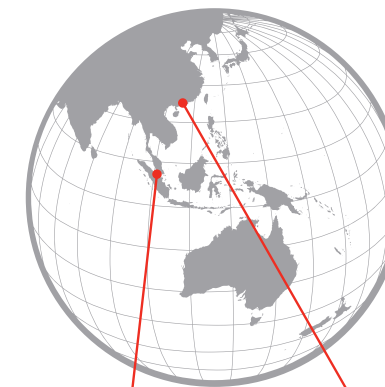
Paul Gilgen (Rheinfelden, Switzerland)  
Pierre-Etienne Weber  
(Rheinfelden, Switzerland)

### *North America*

Art Kent (Pawleys Island, South Carolina)  
Chris Cruger (Ponte Vedra Beach, Florida)  
Dr. Lynda Applegate  
(Boston, Massachusetts)  
Dr. Ted Crosbie (Ankeny, Iowa)

### *South America*

Dr. Rubens Belfort Jr. (São Paulo, Brazil)



**Regional Headquarters**  
Singapore



**Regional Headquarters**  
Zhuhai, China



**Regional Headquarters**  
São Paulo, Brazil

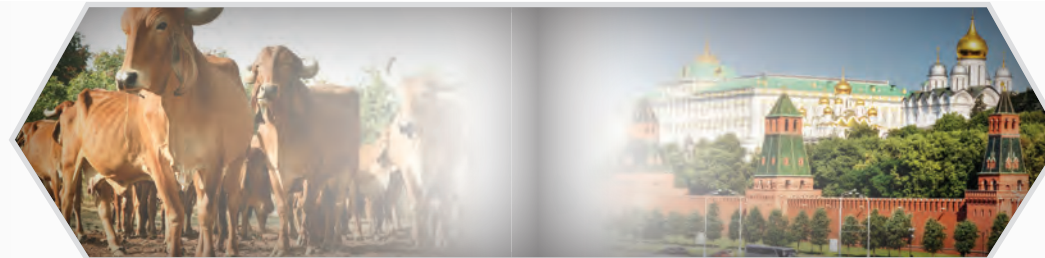
# 2012 HIGHLIGHTS



**Serving the health supplement market for pets**  
Kemin began serving the health supplement market for companion animals after acquiring Genesis Ltd and its RESOURCES™ brand. RESOURCES health supplements are marketed exclusively to veterinarians to promote digestive, immune, joint and general health of companion animals.

## Building support for India farmers

Kemin invested in a new Customer Laboratory Service facility in Punjab, India to better serve Punjab dairy and poultry farmers. The lab is equipped with a team of scientists dedicated to identifying nutritional problems, disease challenges and solutions for dairy and poultry customers.

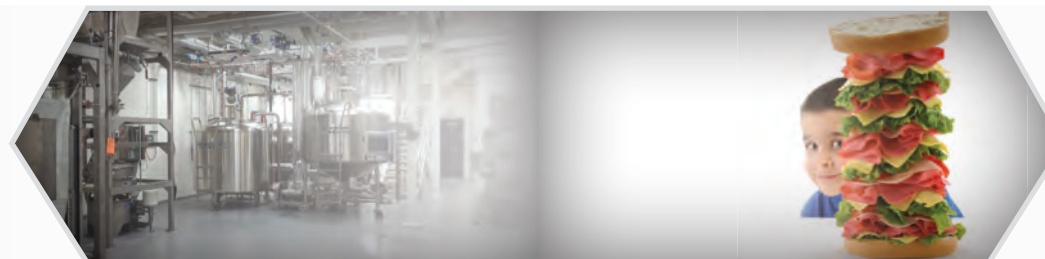


## Increasing product offerings in Russia

Kemin received registration of KemTRACE™ Chromium in Russia. The feed additive helps animals utilize energy more efficiently and contributes to the progressing agriculture industry in Russia. Kemin also received registration for its encapsulated product range for ruminants and monogastrics in Russia.

## Expanding encapsulated technology

Kemin constructed a \$3 million facility to manufacture encapsulated amino acids in North America. The facility uses MicroPEARLS® spray freezing technology to target the release of active materials in the animal's digestive system, allowing key nutrients to be absorbed more efficiently.

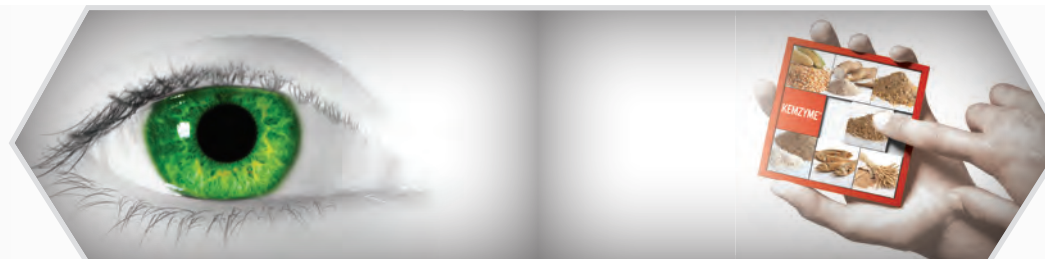


## A new product line to promote food safety

Under the BactoCEASE™ brand, Kemin launched a new line of products designed to protect ready-to-eat meat and poultry products from *Listeria monocytogenes*. These ingredients provide the industry with new, consistent alternatives for controlling foodborne pathogens.

## Entering the ophthalmic surgical market

Kemin entered the ophthalmic surgical market with the first intraocular dyes containing natural staining molecules. Kemin filed a patent application for the intraocular injection of lutein-based dyes during cataract and retina surgeries to improve visualization for surgeons.

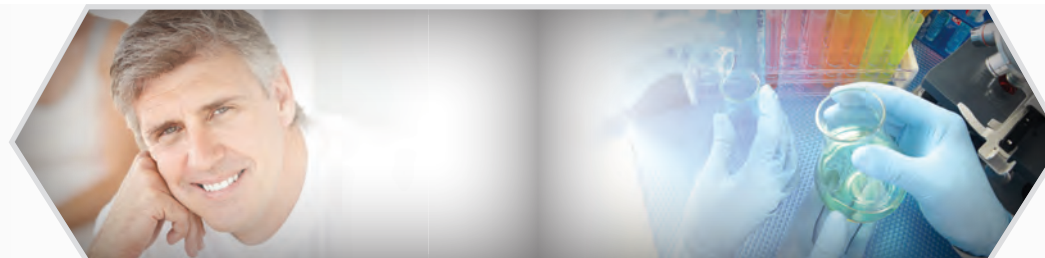


## Advancing enzyme technology

Kemin introduced Nutrikem™ XLP and KEMZYME® MAP – sustainable solutions for lowering feed costs without effecting performance. Kemin also introduced an enteric release technology to control the release of the enzyme amylase, needed to breakdown starch. It is the first feed technology to effectively deliver active levels of the enzyme to the small intestine.

## Introducing AssuriTEA® Men's Health

Kemin launched AssuriTEA Men's Health, an all-natural, water-extracted proprietary formula of catechins and theaflavins that has been clinically studied and shown to promote healthy urologic function and comfort in men.

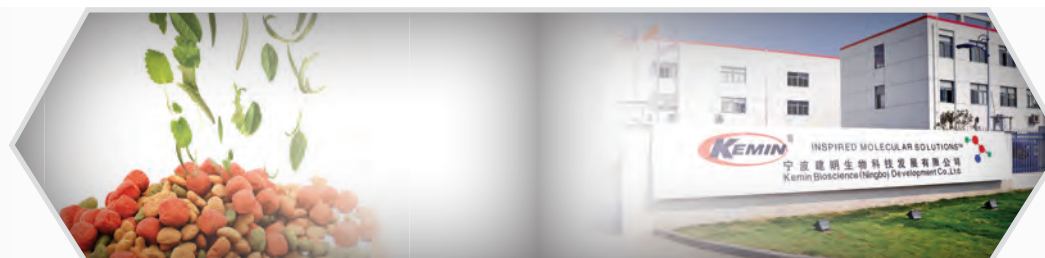


## Refining products for natural formulations

Kemin refined product offerings to provide formulators with new delivery and processing options, making the use of natural ingredients easier. Product prototypes were developed to demonstrate outstanding performance and versatility – offering customers a hands-on approach to product evaluation.

## A breakthrough in natural shelf life stability

Kemin unveiled Verdilox™ at Petfood Forum. Verdilox is an innovative blend of naturally sourced antioxidants that moves beyond mixed-tocopherols to assist in maintaining pet food and ingredient stability.



## Joining forces to offer more natural products

Kemin acquired a significant controlling stake in Chinese natural product manufacturer, Yuyao HDL Biological Co Ltd. The partnership increases the opportunity to offer natural, plant-based products to Kemin customers across the feed, food, dietary supplement and personal care industries.

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