PELUANG BISNIS HERBAL FEED ADDITIVE DI INDUSTRI PERUNGGASAN DI INDONESIA

Ahmad Wahyudin
KEMIN Animal Nutrition and Health
Asia Pacific

KEMIN INTESTINAL HEALTH

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Peluang bisnis Herbal Feed Additive di industri perunggasan di Indonesia

Feed additive adalah suatu bahan atau kombinasi bahan yang ditambahkan dalam campuran pakan ternak untuk memenuhi kebutuhan khusus dan untuk tujuan tertentu. (*Summer and Lesson*, 2005)

Fungsi	Feed Additive
Memperbaiki penampilan pakan	Antimold, Antioxidant, cracking agent, etc.
Meningkatkan penampilan produk hasil ternak	Pigments, antioxidant, etc.
Memenuhi kebutuhan nutrisi	Amino acids, Vitamins, Mineral, etc.
Menetralkan/menurunkan resiko pencemaran lingkungan.	Phytase, Organic Minerals, rumen bypass products, etc.
Meningkatkan performa dan kesehatan	Enzyme, Organic minerals, antioxidant, etc.

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Phytogenic adalah bahan alami yang berasal dari tanaman yang didapatkan melalui proses pemurnian sehingga memiliki kandungan dan fungsi yang specific dan terukur.
(*Animal Nutrition, Vol 4, 2018; Medicinal and aromatic plant of the world, 2015*)

Fungsi	Phytogenic Feed Additive
Memperbaiki penampilan pakan	Polyphenols
Meningkatkan penampilan produk hasil ternak	Polyphenols, Essential Oil
Memenuhi kebutuhan nutrisi	β-carotene
Menetralkan/menurunkan resiko pencemaran lingkungan.	Tannin, Polyphenols, Saponin
Meningkatkan performa dan kesehatan	Polyphenols, Essential Oil, Saponin, Tannin, etc.



"Vitamins of the 21st century" and "***The 7th nutrients***"

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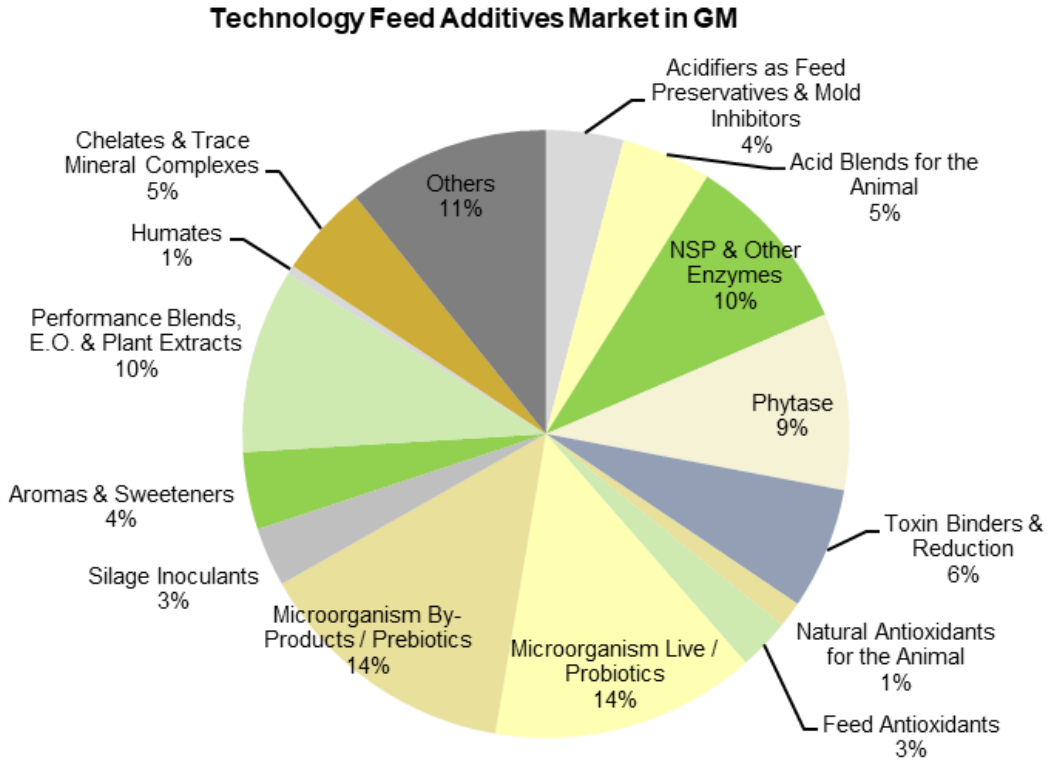
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Peluang bisnis Herbal Feed Additive di industri perunggasan di Indonesia

Country : All Country
Species : All Species

2012 – in million USD	Potential	2012–2020 CAGR
Antibiotics	4,000	1.80%
Amino Acids	4,250	7.10%
Vitamins	2,000	2.80%
Technology Feed Additives	4,295	6.80%
Others	500	4.00%
TOTAL	**15,045**	**4.50%**

2020 – in million USD	Potential	2020–2025 CAGR
Technology Feed Additives	6,771	7.80%
TOTAL	**21,395**	**4.50%**



https://www.reportlinker.com/p06028814/GLOBAL-FEED-ADDITIVES-MARKET-FORECAST.html

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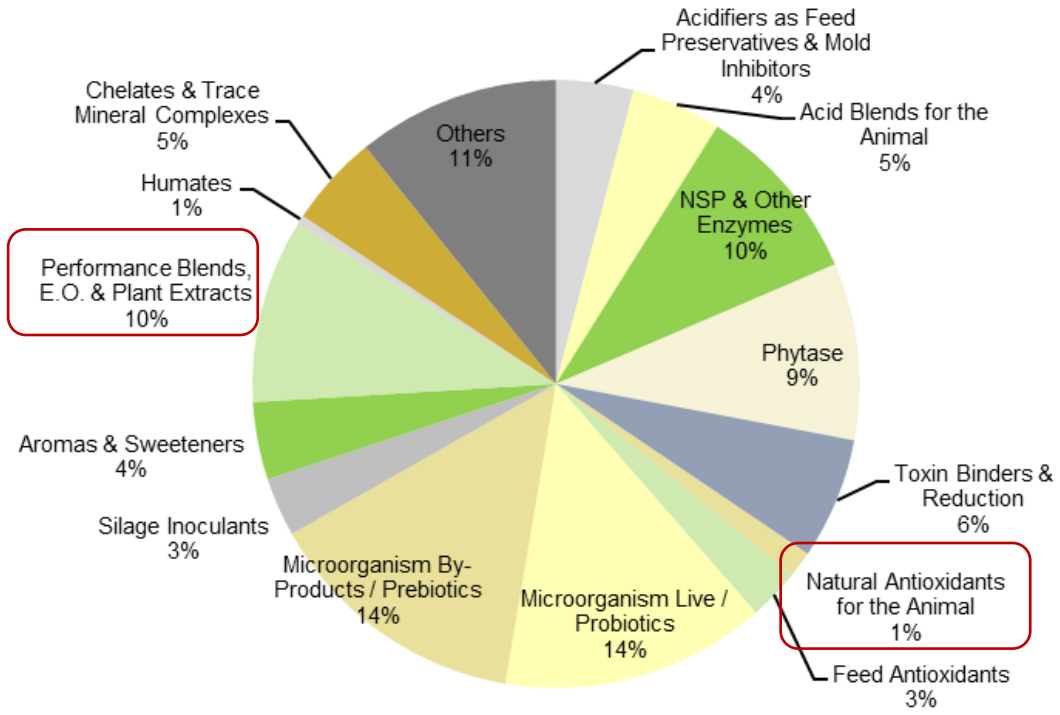
Country : All Country
Species : All Species

> The global **phytogenic** feed additives market size is estimated to be USD 753million in 2020 and is projected to reach USD 1,098million by 2025, at a CAGR of 7.8%

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NEW YORK, Aug. 10, 2020 /PRNewswire/ --Read the full report: https://www.reportlinker.com/p03903664/?utm_source=PRNThe global **phytogenic** feed additives market size is estimated to be USD 753million in 2020 and is projected to reachUSD 1,098million by 2025, at a CAGR of 7.8% during the forecast period. **Phytogenics** are plant-derived natural growth promoters or non-antibiotic growth promoters used as feed additives and derived from herbs & spices, fruits & vegetables, or flowers. The different types of **phytogenic** feed additives included in the report are essential oils, saponins, flavonoids, oleoresins, tannins, mucilages, pungent substances, and bitter substances. The global feed production has increased consistently in the recent past, driven primarily by the demand-side factors, including an increase in livestock production & consumption and the resultant global population.Another major factor that influences the volume of feed production is the increase in commercialization of livestock rearing practices, particularly in developing economies. Livestock farmers are gaining awareness about various animal health issues due to nutrient inadequacy and lower metabolism rate and have also raised concerns about the quality of final dairy and animal products that reach the consumers.The ban on low-quality animal products in developed countries, such as the US, the UK, and Japan, had created an indirect effect on the awareness levels of livestock producers. An increase in the cases related to animal diseases has created a significant demand for safe nutritional supplements that can raise the nutritional value of the animal diet without causing any side effects. Cattle are prone to infections from bacteria, viruses, or fungi; nutritional deficiencies; and metabolic disorders; whereas mycoplasmal pneumonia and swine erysipelas are common in swine. The segmentation of the **phytogenic** feed additives market i

Technology Feed Additives Market in GM



2020 – in million USD	Potential	2020–2025 CAGR
Technology Feed Additives	6,771	7.80%
TOTAL	**21,395**	**4.50%**

https://www.reportlinker.com/p03903664/Feed-Phytogenics-Market-by-Type-Livestock-Function-by-Region-Global-Trends-Forecast-to.html?utm=?utm

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Peluang bisnis Herbal Feed Additive di industri perunggasan di Indonesia

Country : Indonesia
Species : Poultry

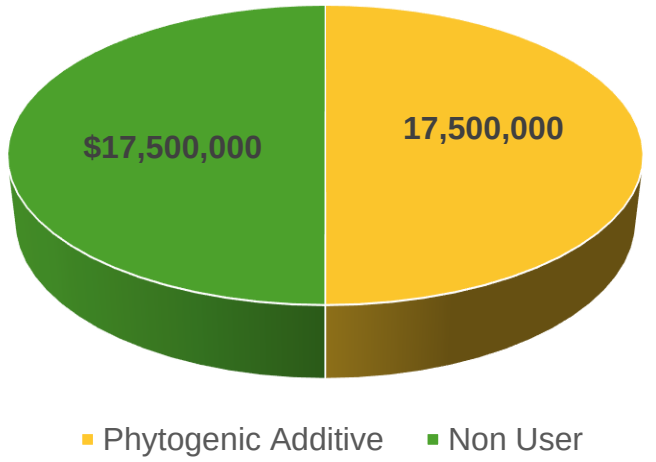
Total Feed Additive Market Potential (USD)



Technology Additive Market Potential (USD)



Phytogenic Adiitive Market Potential (USD)*



*Poultry Feed (MT/Year) : 17,000,000

*Adoption rate : 50%

Source : Kemin Market Analysis, 2020

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Peluang bisnis Herbal Feed Additive di industri perunggasan di Indonesia

External Analysis		Internal Analysis	
Threat	**Opportunity**	**Strength**	**Weakness**
Efficacy perception (-) Price (+)	Industry trend (+) Market trend (+) Regulation (+)	Resources ++	Technology (-)

*Albert Humphrey, Stanford Research Institute (1960 – 1970)

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Kemin's Specialty Crop Development Process and Encapsulation Technology



Breeding & Selection



Biochemical Screening



PESTICIDE & DIOXIN TESTING

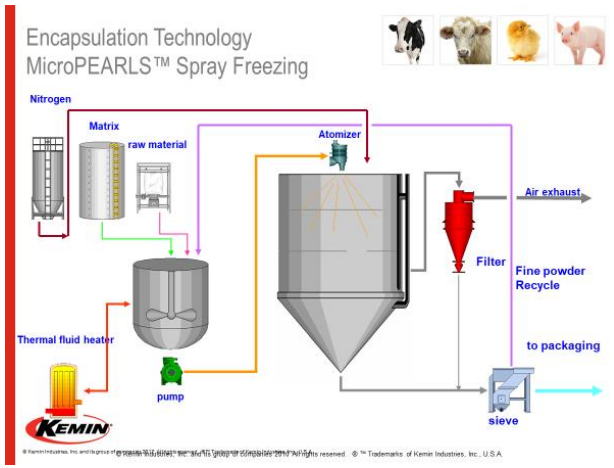




Research Agronomy



Field Agronomy Services



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Kemin's Specialty Crop Development Process and Encapsulation Technology

COZANTE™

A novel and patented, purified and encapsulated plant extract to control coccidiosis



US 20160015765A1

(19) **United States**

(12) **Patent Application Publication**
Thangavel et al.

(10) **Pub. No.: US 2016/0015765 A1**

(43) **Pub. Date: Jan. 21, 2016**

(54) **PLANT EXTRACTS HAVING ANTICOCCIDIAL ACTIVITY**

(71) Applicant: **Kemin Industries, Inc.**, Des Moines, IA (US)

KEMENTAN RI No. I. 18085606 FTS

Pei-Yong Chow, Singapore (SG); **Bruno Coppens**, Heist-op-den-berg (BE); **Sripathy Ravichandran**, Chennai (IN)

(21) Appl. No.: **14/802,545**

(22) Filed: **Jul. 17, 2015**

Related U.S. Application Data

(62) Division of application No. 13/928,504, filed on Jun. 27, 2013.

(60) Provisional application No. 61/664,795, filed on Jun. 27, 2012.

(30) **Foreign Application Priority Data**

Jan. 23, 2013 (IN) 177/DEL/2013

Publication Classification

CPC ***A61K 36/49*** (2013.01); ***A61K 31/192*** (2013.01); ***A61K 36/185*** (2013.01); ***A61K 36/22*** (2013.01)

(57) **ABSTRACT**

Natural plant parts and extracts of plants selected from the group consisting of *Quercus infectoria, Rhus chinensis* and *Terminalia chebula* containing compounds such as gallic acid, derivative of gallic acid, gallotannins and hydrolysable tannins have been found to control coccidiosis in poultry and, more specifically, coccidiosis caused by *Eimeria* spp. The plant parts and natural extracts result in a reduction of lesion score, oocysts per gram of fecal matter and mortality.

ORSENTIAL™ EXTEND

A combinate purified plant extract to control coccidiosis with patented main ingredient



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(71) Applicant: **Kemin Industries, Inc.**, Des Moines, IA (US)

(72) Inventors: **Gokila Thangavel**, Hosur (IN); **Rajalekshmi Mukkalil**, Cochin (IN); **Haridasan Chirakkal**, Chennai (IN); **Hannah Kurian**, Bangalore (IN); **Elke Schoeters**, Mol (BE); **Hilde Wouters**, Zandhoven (BE); **Ilse Mast**, Lint (BE); **Pei-Yong Chow**, Singapore (SG); **Bruno Coppens**, Heist-op-den-berg (BE); **Sripathy Ravichandran**, Chennai (IN)

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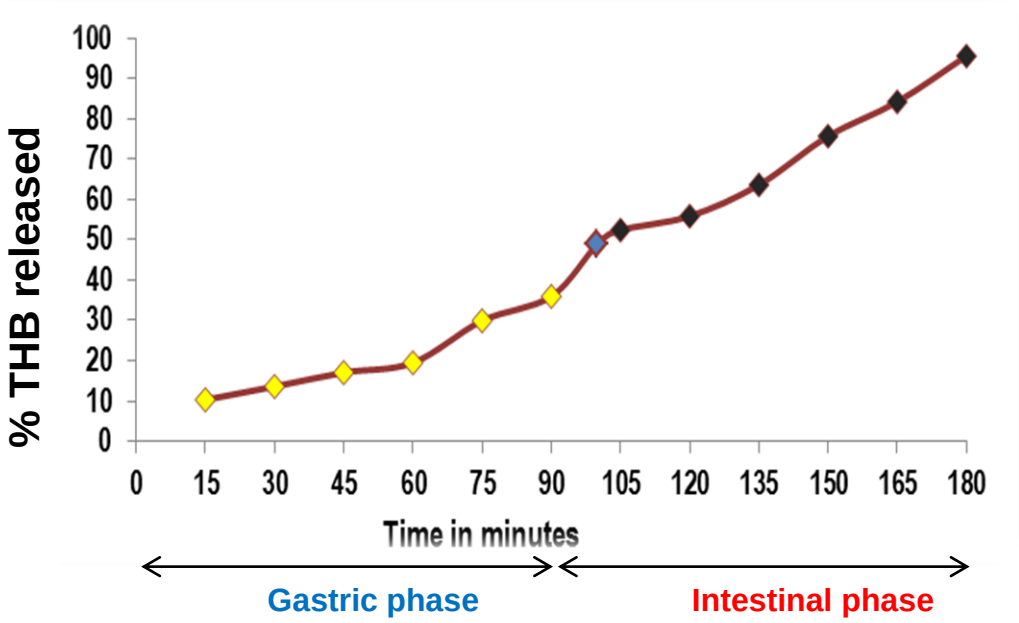
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In Vitro Study

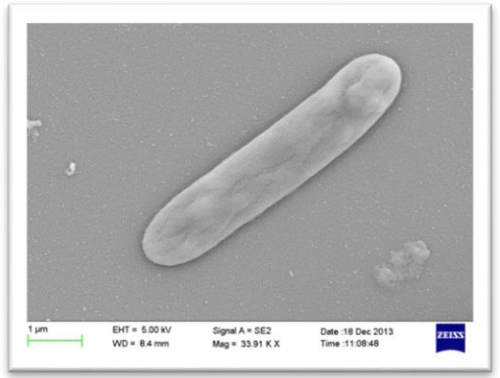
COZANTE™

A novel and patented, purified and encapsulated plant extract to control coccidiosis

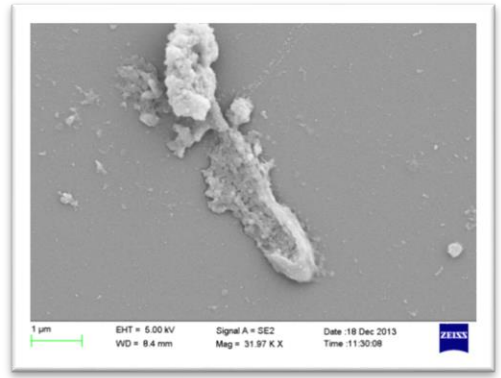


ORSENTIAL™ EXTEND

A combinate purified plant extract to control coccidiosis with patented main ingredient



Control sporozoites - Scanning Electron Microscope (SEM)



Sporozoites with COZANTE™ - Scanning Electron Microscope (SEM)

Source: The study was conducted at Indian Institute of Science, Material Research Centre (MRC). Kemin Internal Document , yet to be published

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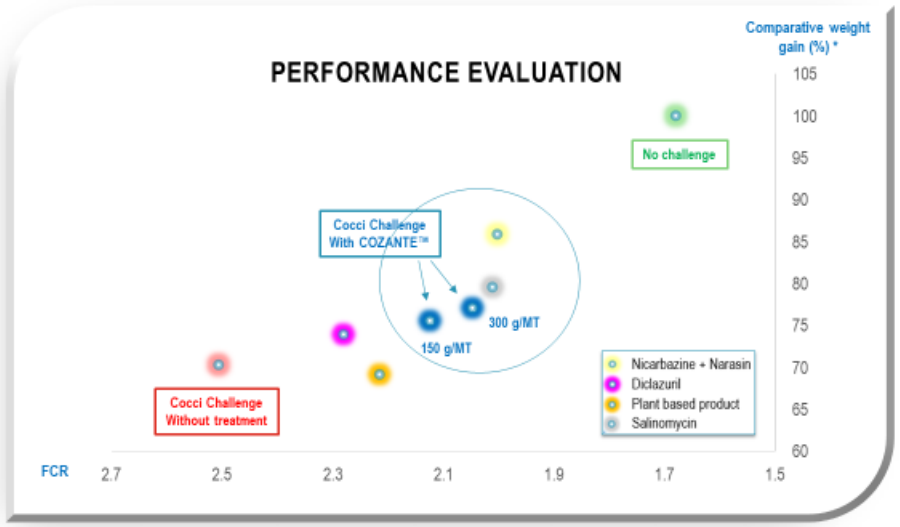
In Vivo_University Study

The aim of this study was to test the efficacy of COZANTE™ to control coccidiosis caused by *Eimeria* spp. isolated from the coccidia-infected broiler flock (field strain)

Penelitian bertujuan untuk mengetahui efikasi pemberian COZANTE dengan dosis 100, 120, dan 150 g/MT terhadap performance ayam broiler yang ditantang dengan *Eimeria spp*

Results (Day 7 – 14)

* Comparative weight gain (%) = (Average weight of treated group / Average weight of control group) X 100



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Source: Dr Narin Upragarin, Kasetsart University, Thailand

Local *Eimeria spp* challenged study in Indonesian broiler research facility

Study on Efficacy of COZANTE on Improving Performance of Coccidiosis Challenged Broiler Chicken

Conclusion

- **COZANTE** 120 g/MT dan **COZANTE** 150 g/MT memiliki efikasi setara dengan obat-obat yang diuji di dalam menurunkan lesion score pada infeksi *Eimeria tenella*, *E. necatrix*, *E. acervulina* dan *E. maxima*
- **COZANTE** 120 g/MT dan **COZANTE** 150 g/MT mampu menurunkan jumlah eliminasi oosista (OPG) sebanding dengan Diclazuril serta Narasin-Nicarbazin

Source: Dr drh Dwi Priyo Widodo, FKH UGM, Indonesia

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Peluang bisnis Herbal Feed Additive di industri perunggasan di Indonesia

- Peluang bisnis *Herbal Feed Additive* secara global sangat bagus dan diprediksi masih sangat menjanjikan karena didukung oleh tren *Antibiotic Free Production,* tren permintaan konsumen akan produk yang bebas residu antibiotik*, serta* pertumbuhan Industri Peternakan secara umum

- Tantangan yang dihadapi oleh produsen Herbal Feed Additive adalah persepsi konsumen yang masih meragukan efektifitas, cara kerja yang tidak specifik, serta harga yang relatif mahal

- Indonesia :
  - ✓ Kemudahan regulasi pemerintah dalam proses pendaftaran (registrasi) product herbal serta *enforcement* mengenai *Antibiotic Awareness* sangat mendukung perkembangan industry *herbal feed additive* di Indonesia
  - ✓ Sumber daya tanaman herbal sangat menjanjikan untuk menjadi salah satu Negara produsen *herbal feed additive* → Perlu didukung dengan technologi, research, dan inovasi yang memadai

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Terima Kasih

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