aic — an LBB Specialties Company —
2000 West Park Drive, Suite 300
Westborough, MA 01581
800-238-0001 info@aicma.com

Matrix Fine Sciences

Innovate • Science • Life

TocoFeed

Essential Natural Care

Pet food & Animal Nutrition





OUR WORLD IS NATURAL

OUR KNOWLEDGE IS INDUSTRIAL!

Matrix Fine Sciences is a life science division of a fifty year old group which was established with the aim to provide the best nutraceuticals ingredients.

With a production facility spanning over 40000 sq. meters, we aim to serve global and local needs while exploring avenues for innovation through research and development.

We are the first Indian Company to manufacture complete range of Non-GMO Natural Tocopherols & Phytosterols in high concentrates. Our brands are cater to food, pharmaceuticals, nutraceuticals, cosmetics & feed industries.

Our Brands

Naturall-E™ Natural Vitamin E

Oxivert Natural Antioxidant

TocoFeed Essential Natural Care

TocoFeed E Essential Natural Care

PhytoLite Plant Sterols

CosmoActive Active Cosmetic Blend

matwax Sunflower Wax

Naturall-SQ PhytoSqualene / PhytoSqualane

SunDizel Premium Biodiesel from Soya & Sunflower source

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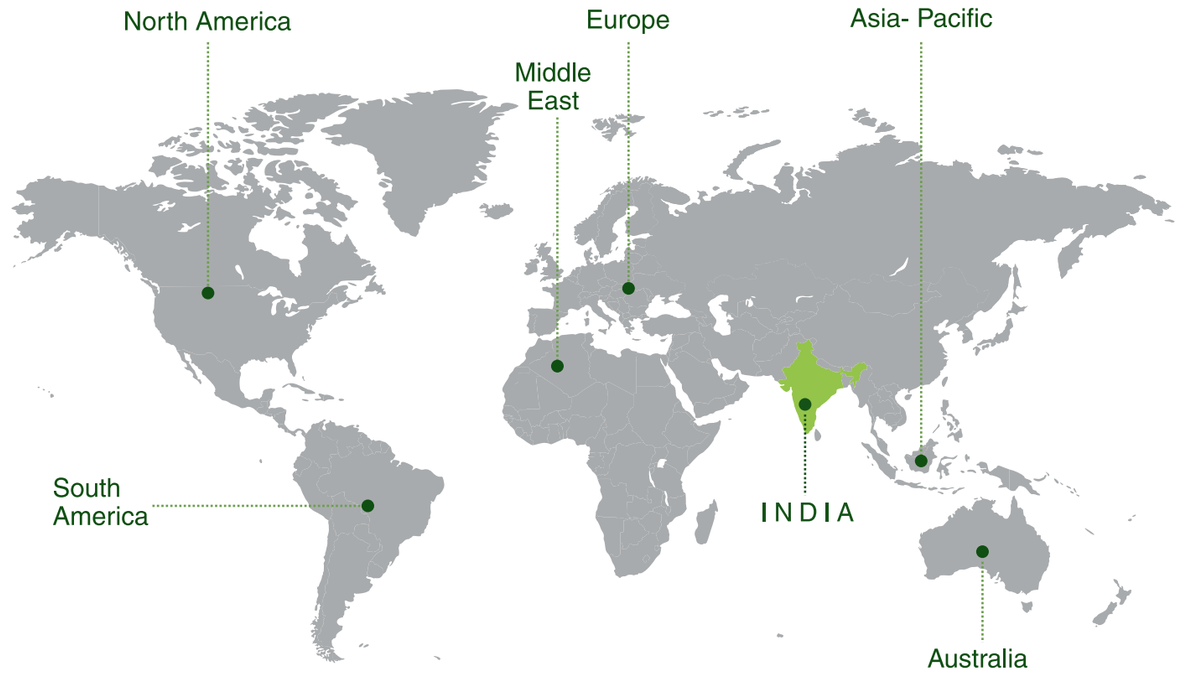
TocoFeed
Essential Natural Care

Global Presence



Channel Partners 15+

200+ Employees

30+ Countries

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Why Natural Vitamin E

Natural Vitamin E is a fat-soluble nutrient that is essential for animal muscles, circulatory system, and injury healing. It is also an antioxidant, helping to protect cells from damage caused by free radicals.

Both Natural and Synthetic sources are absorbed by the animal body but owing to Tocopherol Transfer Protein (which recognizes only Natural or RRR- Tocopherol), the unrecognised forms of synthetic Vitamin E are preferentially excreted by the body.

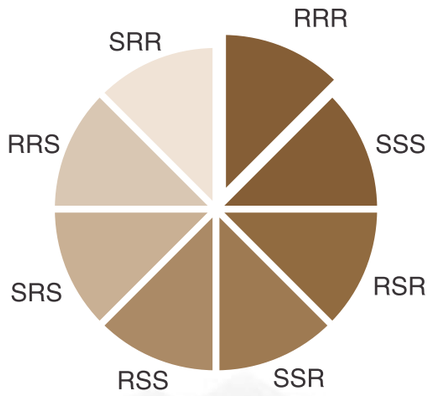
Thus, to compensate for the lower retention of synthetic Vitamin E, an animal would have to ingest twice the amount of synthetic Vitamin E (by weight) to match the bioavailability of the natural form.

Natural vs Synthetic Vitamin E

Natural-source Vitamin E is at least 2X more potent than synthetic Vitamin E. The bioavailability is approximately 2: 1 for natural-source Vitamin E over synthetic Vitamin E.

Natural - 100% RRR

Synthetic - 12.5% RRR



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Label Claim for Vitamin E

1 mg Synthetic Vitamin E Acetate (dl alpha tocopheryl acetate)	=	1 IU
1 mg Synthetic Vitamin E (dl alpha tocopherol)	=	1.10 IU
1 mg Natural Vitamin E (d alpha tocopherol)	=	1.49 IU

2x Bioavailability

Cost effective for label claim

100% Non - GMO

Customised Solutions

Global Presence

Identity Preserved

Technical Support

Organic Compliant Products

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Antioxidants

Role of Antioxidants

Pet Food

Why Antioxidants are Necessary ?

Antioxidants keep the pet's cells healthy, including lungs, heart, blood cells, muscles, nerves, GI tract, and reproductive organs.
Increases disease resistance, provides shiny coat, makes immune system strong.

Benefits of Antioxidants in Pet Food

- Maintaining the nutrition in the diet
- Increase in shelf life of the product
- They keep the energy and protein content of the formulation
- Prevention of rancid oxidation of fats.

Animal Feed

What is Oxidative stress and how it affects animals

Oxidative stress is the consequence of an imbalance of pro-oxidants and antioxidants leading to cell damage and tissue injury. Productive stress can negatively impact health status and subsequent productive and reproductive performance, metabolism, lactation, Gut health, and neonatal physiology. It causes Mastitis, Parasitic infections, etc.

Benefits of Antioxidants in Animal Feed

- Prevention of rancid oxidation of fats.
- Increase in shelf life of the product.
- Prevents the reduction in the nutritional value of fats.
- They keep the energy and protein content of the formulation.

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TocoFeed
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TocoFeed

Tocofeed is a range of natural antioxidants to prevent oxidative rancidity and thus increase the shelf life of the product. Tocofeed is natural Mixed Tocopherol a form of natural Vitamin E which shows highest antioxidant effect while protecting the feed colour, odour, flavour along with the health benefits for animals.

Product Features

- Non - GMO(IP) Certified
- Completely Natural
- Available in Powder and Oil
- FAMI - QS
- Fat Solube
- Resistant to high temperature

Application


Extruded products


Baked products


Moulded Products

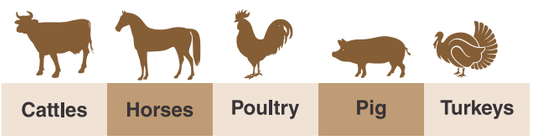

Wet feed

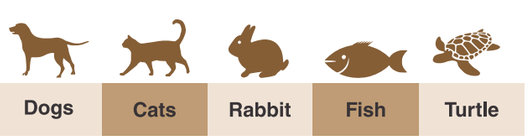

Dry mixes and powders

Benefits over Synthetic Vitamin E

Tocofeed shows better antioxidant properties because it has high gamma and delta isomers which are known for antioxidant properties, whereas synthetic Vitamin E has only alpha isomer which has the least antioxidant activity.

Products	Tocopherol Content	Type	Solubility
Tocofeed 30P	30%	Powder	Fats / Oils
Tocofeed 50	50%	Oil	Fats / Oils
Tocofeed 70	70%	Oil	Fats / Oils





D Alpha Tocopherol

Natural vitamin E : Nutrition for the well being of pets & animals

Why Vitamin E is necessary?

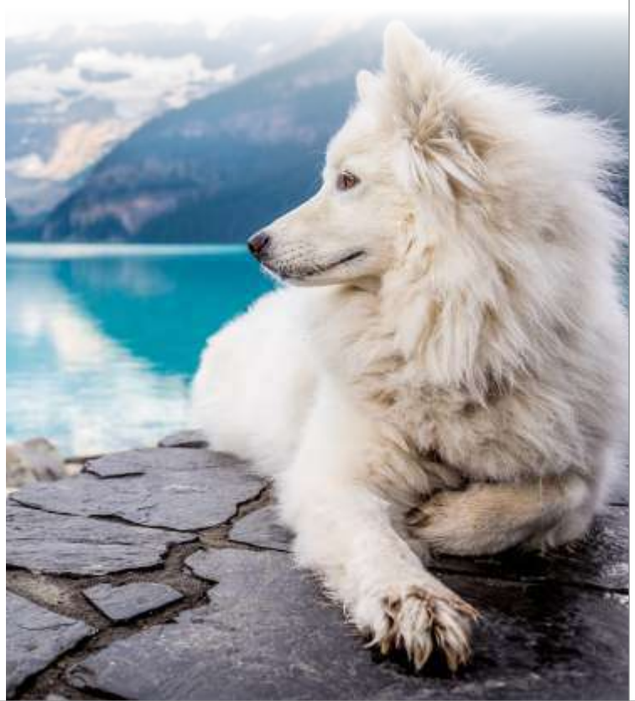
Vitamin E is involved with the control of nerves, muscles, and senses. Contraction of muscles allowing movement, heartbeat, rumen and lung function, are all influenced by Vitamin E

Improves disease resistance -
Stimulates antibody formation which increases immunity.

Reproductive and Physiological functions -
Enhances reproductive health of the animal by maintaining hormone balance and health of reproductive organs during gestation period.

Diseases caused due to Vitamin E deficiency

Muscular dystrophy
Exudative diathesis
crazy chick disease
Cerebral inflammation and haemorrhaging
Lesions in liver of growing pig fed
Lesions in heart



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TocoFeed e
Essential Natural Care

TocoFeed-E

Tocofeed E contains natural Vitamin E d Alpha Tocopherol. It is a necessary nutrient that must be given to the animals because they cannot produce Vitamin E on their own. Tocofeed e is 100% Bioavailable.

Product Features

Non - GMO(IP) Certified	FAMI - QS
Completely Natural	Fat Solube
Available in Powder and Oil	Resistant to high temperature

Application


Extruded products


Baked products


Moulded Products


Wet feed


Compressed tablets

Benefits over Synthetic Vitamin E

Tocofeed e is at least two times more potent than Synthetic Vitamin E. The bioavailability is approximately 2: 1 for natural- source Vitamin E over Synthetic Vitamin E. It has more retention time in the body.

Tocofeed E	Tocopherol content in mg/g	Tocopherol content in IU/g	Type	Solubility
d Alpha Tocopherol	671.2 mg/g	1000 IU	Oil	Fats / Oils
d Alpha Tocopheryl Acetate	735.3 mg/g	1000 IU	Oil	Fats / Oils
d Alpha Tocopherol 25%	250 mg/g	372.5 IU	Powder	Fats / Oils
d Alpha Tocopherol	335.6 mg/g	500IU	Powder	Fats / Oils
d Alpha Tocopheryl Acetate	297.9mg/g	405 IU	Powder	Fats / Oils
d Alpha Tocopheryl Succinate	960 mg/g	1210 IU	Powder	Fats / Oils


Cattles | Horses | Poultry | Pig | Turkeys


Dogs | Cats | Rabbit | Fish | Turtle

Animal	Class	Requirement*(IU/kg)
Beef cattle	Growing	15 to 16
Dairy catle	Milk replacer	40
	Growing	25
	Lactating cows and bulls	15
Goat	All classes	100
Chicken	Leghorn, 0-6 weeks	10
	Leghorn, 6-18 weeks	5
	Laying (100g intake)	5
	Broilers, 0-8 weeks	10
Duck	Growing, 0-7 weeks	10
Turkey	All classes	10 to 12
Sheep	All classes	15 to 20
Horse	Growing, pregnant, lactating and working	80
	Maintenance	50
Swine	All classes	11 to 44
Mink	Growing	25
Cat	All classes	30
Dog	Growing	22
Rabbit	All classes	40
Fish	Catfish	25 to 50
	Pacific Salmon	30 to 50
	Rainbow trout	15 to 100

* Recommended daily dosage

Certifications

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Packaging and Storage:

For Liquid products:

5kg, 25kg, 190kg HDPE Drum

900kg IBC

Storage

Our products are intended to be kept in their original packaging away from oxygen, heat, and light. Store at 18ºC (65°F) to 25ºC (78°F).Best before: 36 months under the recommended storage conditions.

Powder products

5kg, 10kg, 20kg Aluminium bags in carton box

500kg HDPE woven bag

Storage

Our products are intended to be kept in their original packaging away from oxygen, heat, and light. Best before: 18 - 24 months under the recommend storage conditions.

Stability Status

6 month's accelerated stability (as per ICH guidelines) completed, corresponding to a shelf life as above.

TocoFeed

Essential Natural Care

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