



## *Nutrition & Color*

The Best Choice for Feed and  
Husbandry Industries



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*Contact  
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### *About Allied*

Founded in 2001, Allied Biotech is one of the major carotenoid suppliers in the world. We have always been known for our flexibility and responsiveness to our customers' needs.

Allied offers various vegetarian, Palm-Oil free and allergen free formulations for food, dietary supplement, pet food and feed industries. We strive for product innovation and take great care of the environment and human health.

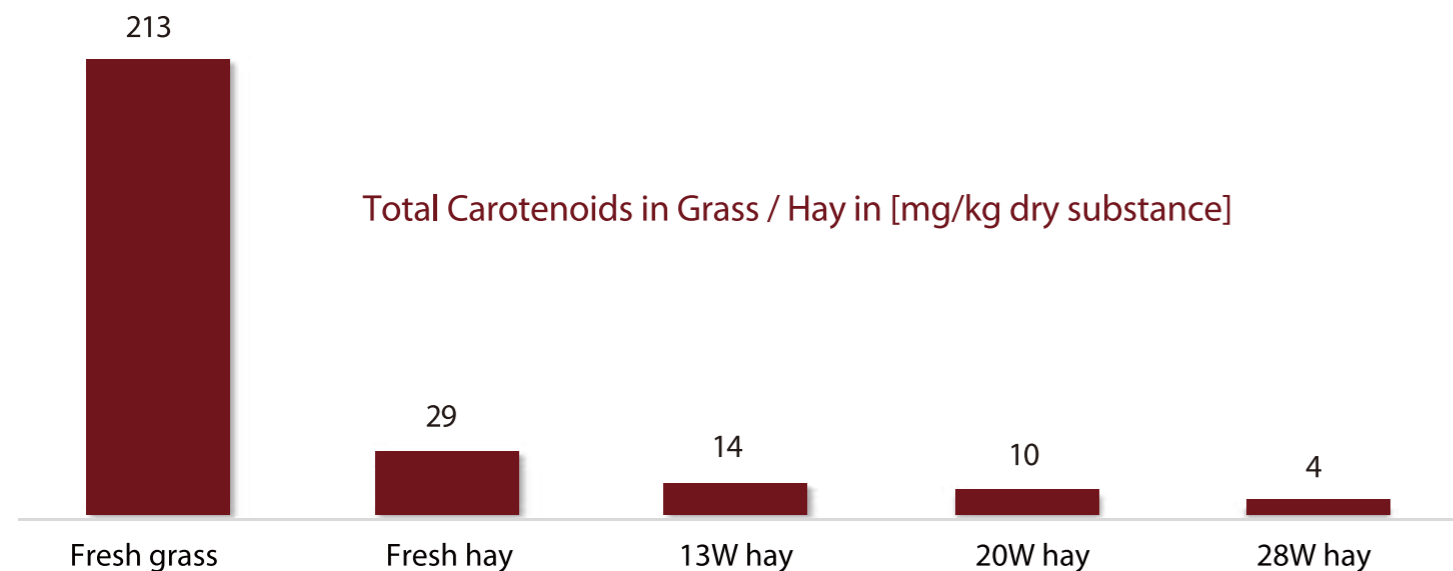
## Importance of Beta Carotene

$\beta$ -Carotene is a safe source of pro-vitamin A and of the major carotenoids, it has the highest pro-vitamin A activity. Vitamin A is an indispensable nutrient for animal health maintenance, growth and reproduction. However, direct consumption of vitamin A is most likely to cause toxicity issues.

Therefore, herbivores obtain  $\beta$ -Carotene by grazing green plants such as grass and alfalfa hay, which are converted into retinol (vitamin A) through digestions.

## Vitamin A Deficiency

Most deficiencies occur in late winter when no grass is available, making supplementation necessary for the animal's well being.



## Products

Product	Altratene®		Canthatene®
	10% WSC/FG	10% OS-SF/FG	10% WSC/FG
Formulation	Water Soluble Powder	Oil Suspension	Water Soluble Powder
Content	Minimum 10%	Minimum 10%	Minimum 10%
Palm Oil-Free Status	✓	✓	✓
Shelf Life	60 months Ambient temperature	60 months Ambient temperature	48 months Ambient temperature

Application at Different Dosages*	Color Shades in Water at Different Dosages*	White Margarine Application at Different Dosages*	Color Shades in Water at Different Dosages*	Color Change of Laid Egg Yolk*
	5 ppm	5 ppm	5 ppm	Before
	10 ppm	10 ppm	10 ppm	After
	20 ppm	20 ppm	20 ppm	

\*Please contact our sales team for more details in different applications.

## Benefits of Altratene® Beta Carotene



Altratene®  $\beta$ -Carotene as a source of vitamin A strengthens the hearts, improves conception rates and tends to reduce embryonic mortality.



Altratene®  $\beta$ -Carotene as a source of vitamin A helps increase the number of viable embryos. Sows consuming the supplements give birth to more healthy piglets per litter and have a better fertility in the next reproductive cycle.



Altratene®  $\beta$ -Carotene as a source of vitamin A improves cow's conception rate, uterine involution and fertility to healthy calf. It also reduces the incidences of cystic ovaries and early embryonic death.

## Issues with Vitamin A Deficiency

Eye problems include epithelial tissues of the eye affected, watery eyes, and night blindness.



Reduces egg production and hatchability.



Incoordination followed by posterior paralysis in growing pigs.



Rough hair coat, swollen legs in cattle.

## Benefits of Canthatene® Canthaxanthin



Canthaxanthin is commonly used in poultry sector. In diet of laying hens, it can be incorporated into the rations from where the pigment is digested and transferred to the yolk. Enabling egg producers to satisfy consumer expectations for yolk color.



A positive effect of canthaxanthin on vitamin E in the developing chicks. As a result of enrichment of the chick liver with canthaxanthin and vitamin E due to the maternal dietary supplementation, tissue susceptibility to lipid peroxidation significantly decreased.



Performs important physiological functions and benefits larval fish growth and survival.



Provides immune enhancement, hormone, reproduction, growth, maturation, and photoprotection.

Animals	Supplementation Guideline
Sows	300 mg/animal/day
Calves	50-100 mg/animal/day
Diary Cows	300-500 mg/animal/day
Horses	400-800 mg/animal/day
Egg Yolks	5-50 ppm/ton of feed depending on desired egg yolk color
Broiler Skin	1-12 ppm/ton of feed depending on desired color of broiler skin
TROUTS	50-100 mg/kg air dry feed
Shrimps	15-50 mg/kg air dry feed

Any existing legislation, regulations and relevant rights must be observed by the user.

