

Volamel Extra

for increased feed efficiency



Support the natural digestive system with Volamel Extra

Improve fat digestion with Volamel Extra, based on Bredol[®] Technology

Healthy animals and optimal growth is the key objective for the farmer. Our mission is to support that by providing an additive that enables increased feed efficiency.

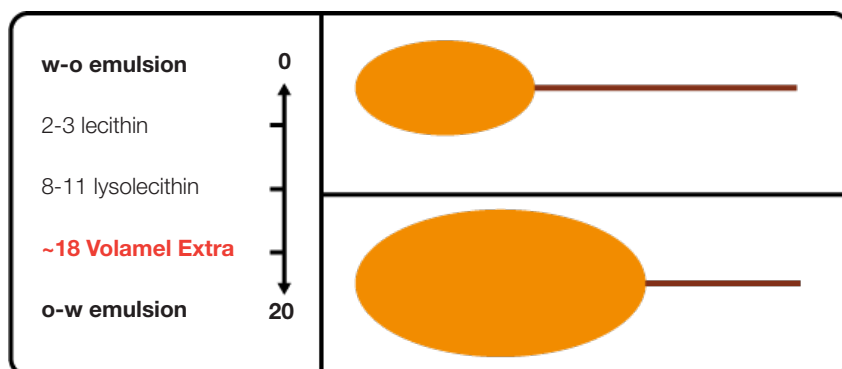
Volamel Extra is a feed additive that improves the effectiveness of your animal feed. It is a water soluble nutritional emulsifier that acts in synergy with the natural bile salt in the animal's gut. The emulsifier enhances the absorption of fat, fat-soluble vitamins and other nutrients. Volamel Extra is thus an excellent tool for improving performance and reducing energy cost of the diet.

Key Benefits

- Improved fat digestion
- The most hydrophilic emulsifier on the market
- Stable, non-ionic emulsifier
- Suitable for pelleting
- Better protein solubility

Protein	%	29,5
Ash	%	5,0
Fiber	%	2,2
ME Broilers	kcal/kg	220 000

Volamel Extra is the most hydrophilic, non-ionic emulsifier on the market



Volamel Extra can be used for multiple species



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data or suggestions, including those related to patent infringement. The development of emulsifier technology is a continuous process within AkzoNobel and the company is the owner of patents in many countries. It is the policy of AkzoNobel to enforce these patent

rights and, accordingly, AkzoNobel is actively monitoring the industry for infringement and is in the front line when it concerns feed and food health & safety as well as environmental care. The quality system is based on HACCP principles and is FAMI-QS certified.

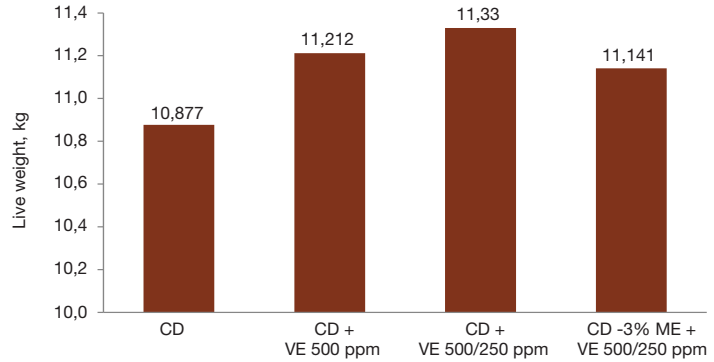
Improved fat digestability

Volamel Extra is a nutritional emulsifier able to increase digestability of fat and increase live weight gain

Trials performed at Olsztyn University of Warmia and Mazury, Poland, 2012 show that Volamel Extra contributes to the weight gain on turkeys. The diet was wheat-soya based with soya oil and animal fat in different ratios.

4% increased body weight
10% increased profitability

Turkey body weight after 112 days



Four different treatments

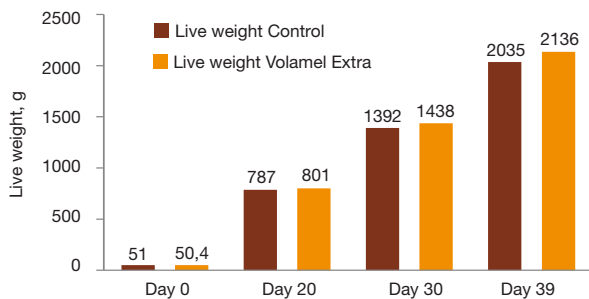
1. Control diet (CD)
2. Control diet + 500 ppm Volamel Extra (whole period)
3. Control diet + 500 ppm Volamel Extra (0-8 wks) + 250 ppm Volamel Extra (9-16 wks)
4. Control diet - 3% ME, 500 ppm Volamel Extra (0-8 wks) + 250 ppm Volamel Extra (9-16 wks)

"Adding 500 ppm Volamel Extra during the first 8 weeks and only half the amount (250 ppm) in the period from 9-16 weeks is more profitable than adding 500 ppm during the whole feeding period. Compared to the control diet, 10.6% more profit is generated (about 41 400 EUR/100 000 birds)."

Report trial PL-45/2011: Efficacy of Volamel Extra in turkeys

Academic research confirms the effect of Volamel Extra both on live weight gain and on wet littering conditions

Effect of Volamel Extra on live weight



Trials performed at West Bengal University of Animal and Fishery Sciences in India show that Volamel Extra contributes to the weight gain on broiler chickens. Trials show weight gain of ~5% compared with control group. The feed conversion rate improved by > 5% for the Volamel Extra group compared with the control group. The trial also showed significant improvement on wet littering conditions among growing birds.

"Volamel Extra can prevent pasty vent condition by improving fat digestion"

Nutritional emulsifiers: An innovative way to approach to enhance productivity, Asian Poultry magazine, 2008.

Effect of feeding Volamel Extra on feed conversion rate					
Dietary Group	Starter phase	Finisher phase	Cumulative FCR (39 days)	Change %	Wet littering conditions
Control	1,49	2,08	1,86	-	40%
Volamel Extra	1,49	1,92	1,76	5,37	15%

Trials performed with saturated palm oil. Diet composition based on corn, soybean and saturated palm oil.

Planet Possible: Our commitment to doing more with less

Our success as a company depends on sustainability. At AkzoNobel we have sharpened our focus on sustainability by reviewing our sustainability risks and opportunities against global trends and evaluating how they will impact our customers by 2020. We express the outcome as our Planet Possible approach to sustainability. It's our commitment to creating more value from fewer resources.



We know only too well that our future hinges on our ability to radically do more while using less.

- More innovation, less traditional solutions;
- More renewable energy and materials, less fossil-based;
- More value chain focus, less introverted thinking.

Employing our new strategy of radical efficiency, we work with customers and suppliers to open infinite possibilities to a finite world. Learn more

Number 1

our position in the Materials industry group on the 2015 Dow Jones Sustainability Index.

At least 20%

share of revenue we aim to achieve by 2020 from products with a sustainability advantage for customers.

More than 25%

reduction we aim to achieve in our cradle-to-grave carbon foot print per ton of product by 2020.

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AkzoNobel creates everyday essentials to make people's lives more liveable and inspiring. As a leading global paints and coatings company and a major producer of specialty chemicals, we supply essential ingredients, essential protection and essential color to industries and consumers worldwide. Backed by a pioneering heritage, our innovative products and sustainable technologies are designed to meet the growing demands of our fast-changing planet, while making life easier. Headquartered in Amsterdam, the Netherlands, we have approximately 45,000 people in around 80 countries, while our portfolio includes well-known brands such as Dulux, Sikkens, International, Interpon and Eka. Consistently ranked as a leader in sustainability, we are dedicated to energizing cities and communities while creating a protected, colorful world where life is improved by what we do.

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