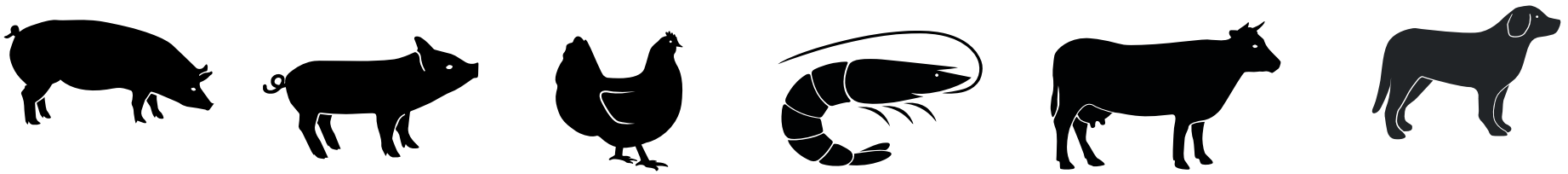
APLIDIUM & SOLUTIO

Company & Products

More quickly. More healthy. Better results.



Company & Registers

- **Aplidium & Solutio, S.L.**

  - Manufacturer of technological pre-mixes and complementary feed.
  - Authorization of Manufacturer n# ESP08304031
  - GMP+ Certificate n# 017665

GMP+ Nr. 017665

- General Data

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Legal basis & Register

- Regulation (EC) No 767/2009 of the European Parliament and of the Council of 13 July 2009 on the placing on the market and use of feeds, amending Regulation (EC) No 1831/2003 and repealing the Directives 79/373 / EEC of the Council, 80/511 / EEC of the Commission, 82/471 / EEC of the Council, 83/228 / EEC of the Council, 93/74 / EEC of the Council, 93/113 / EC of the Council and 96/25 / EC of the Council and Commission Decision 2004/217 / EC.

Regulation (EC) No 767/2009 of the European Parliament and of the Council on the marketing and use of feed provides, in its Article 24, the creation of the **Community Catalog of raw materials for animal feed.**

		materials. Phyto nutrients and amino acids and saccharides and fats.		
Rock dust	EN	\"Rock Dust\" incorporates organic matter consisting of long chain fatty acids. The minerals are the result of the combination of certain elements (oxygen, iron, magnesium, calcium, sodium, potassium, etc) and compounds (silicon, aluminum, etc...).	2016-07-18	06350-EN

- Commission Regulation (EU) 2015/327 of 2nd March 2015 amending Regulation (EC) No 1831/2003 of the European Parliament and of the Council with regard to the requirements applicable to marketing and marketing conditions of use of the additives that consist of preparations.

Products

APLIDIUM products are premixtures for natural and mainly mineral based feed. The composition consists of 100% natural ingredients and does not contain "chemical" substances. The products contain, among other ingredients, non-digestible components that have a prebiotic effect on bacteria in the digestive tract of animals.

A unique combination of more than 70 elements and trace elements form a perfect energy and nutritional supplement for biological processes and significantly favor the absorption of nutrients from the food. This ensures the supply of the animal with minerals and nutrients from the feed.

The morphological structure of **APLIDIUM ensures that certain nutrients are absorbed more evenly by the body. The advantage of this mechanism is a uniform supply of minerals and nutrients for the animal. The optimal supply guarantees a high and healthy growth performance of the animal.**

Prebiotic Activity

„non-digestible food ingredients that favorably affect their host by controlling the growth and / or activity of one or more of the food ingredients
stimulate selectively several types of bacteria in the colon and thus improve the health of the host“

– Gibson und Roberfroid, 1995

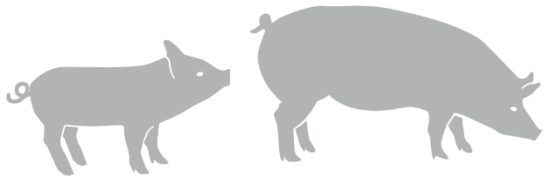
Unlike probiotics, **prebiotics** are not living microorganisms but certain parts of foods that go undigested into the colon; these are not attacked by gastric or digestive juices in the small intestine. Prebiotic fiber and starches can stimulate the **healthy intestinal bacteria by serving as a food source**. When positive bacteria settle in the intestine, germs and unwanted bacteria can be repelled. **At the same time, the immune system is strengthened and digestion promoted.**

Bacteria & Stress

Many of us have already experienced, that stress can hit the stomach and intestines. In the meantime, Australian researchers have been able to prove **to humans that the number of "good" intestinal bacteria is reduced for students in examination stress.**

In pigs, stressors (weaning, overcrowding, weakened animals) cause a change in the intestinal flora – for instance with increased excretion of E. coli bacteria in the faeces. The combination of gut and stress also works in the other direction: In laboratory experiments, mice became more anxious, in which antibiotics had changed the intestinal flora, others more courageously, after they had been transplanted certain microbial species. There are observations confirming that a disturbed intestinal flora can negatively affect the behavior of pigs (including cannibalism).

This is exactly where treatment with OMNIFECT® starts:
We provide a healthier intestinal flora and a reduction of potential pathogenic bacteria from the beginning.



Products: Mode of Action

Endogenous mode of action:

Almost all components of our products are not digestible in the upper digestive tract for the animal. However, they are digestible by microorganisms (in the case of mammals) located in the lower digestive tract (small and large intestine). In this environment, our products form a trophic substrate for the existing bacteria. Animal and microbiota are in close and lively exchange. They strongly influence each other. For example, butyrate, which is fermentative formed by the microbiota in the digestive tract, has a very strong influence on the immune system and the microvilli length of the intestine, and thus also on the absorption capacity of the intestine.
An experiment in Denmark showed a significant increase in microvilli in fattening pigs treated with **APLIDIUM**

In addition to prebiotic ingredients, various essential fatty acids are also included in **APLIDIUM** products. **They can be converted by the intestinal flora as a building material for their cells or in the beta-oxidation in adenosine triphosphate (ATP, an energy equivalent of the cell) and used as an energy source. On the other hand, essential fatty acids are absorbed by the animal and are often converted into hormones, which play important roles in the metabolism. The fatty acids contained in the products have an effect on anti-inflammatory processes, which consequently have a positive effect on animal health. By the correct ratio of different fatty acids primarily anti-inflammatory tissue hormones such as 1-prostaglandins are formed by the animal**. The animal will thank you with a high and healthy performance.

Products: Mode of Action

The increase of the "biological mass" or biota **allows a significantly better utilization of nutrients, proteins and amino acids in the treated animal. Of course, every species has a different way of using these nutrients and metabolizing the feed. In any case, the biota (intestinal flora) is responsible for most of these tasks.**

Higher microbial activity of the intestinal biota and a greater capacity of protein synthesis allow a lower nitrogen excretion, which in turn has a positive effect on the ammonia emissions and thus the environment.

By feeding APLIDIUM products, the animal can realize higher growth performance. Higher synthesis efficiency eventually affects nitrogen excretion, as more nitrogen (N) remains in the form of protein in the animal. The higher approach thus indirectly leads to lower N excretions. At lower N concentration in manure, less can be emitted into the atmosphere when converting various N compounds into ammonia N. Thus, a reduction of ammonia in the stable air was determined by up to 40 percent.

Products: Mode of Action

In addition, there are other exogenous reactions:

At the recommended dosage, parts of our product are present in the animal excrements that have not been digested in the digestive tract of the treated animal. Slurry analyzes of animals treated with **APLIDIUM** revealed various changes in the composition of the substance. Thus, a reduction of the total N by 30 percent, whereas an increase of plant-available ammonium was determined by 33 percent. An increase in ammonification can be observed. Less total N is in the manure therefore can emit less and he has a higher value for plant nutrition. As a consequence, APLIDIUM treated animals and their manure are good for the environment, animals and plants.

In manure there is another effect. As mentioned before, not all components of **APLIDIUM** can be used by the animal in the anterior intestine. A small part is eliminated and acts directly on the manure. The indigestible components ensure that ammonia (gamma-ammonia-oxidizing bacteria, gamma-AOB) and nitrifying bacteria (NOB) are increased by 10-12 times in the liquid manure. These bacteria and their metabolites play a crucial role in plant nutrition and ensure rapid and adequate supply of the plant.

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The animals have a better defense and immune system, the protein / feed conversion improves and ensure less ammonia formation. Less ammonia in the stables and less stress on the animals are the main reasons for better growth, better animal health and lower mortality.

Conclusions of the treatment

Preventive and with prebiotic activity:

(i) the ability to **stimulate growth and activate the metabolism of bacteria in the intestinal tract of animals**, serving, at the same time, substrate or nutrient and altering favorably the intestinal health of the host animal.
(ii) in the immune system, in the biological barrier that prevents the colonization of pathogens or gastrointestinal pathologies,
(iii) affects the transformation of soluble dietary fiber when fermented by microorganisms in short chain fatty acids, and
(iv) in the nutrients that must be absorbed and in the protein synthesis.
(v) in the reduction in the generation of ammonia and digestive endogenous nitrogen

The consequence **of these effects directly affect the growth and development of the animal, as well as very significant reductions in the presence of ammonia in its growth environment**.

At the same time, it results in the characterization of the excreta, in terms of a lower GENERATION of digestive endogenous NITROGEN and the greater fixing capacity of ammonium as a by-product. That is to say, at the same time that there is a lower generation of Nitrogen as a result of the better capacity of protein synthesis, the higher ammonification activity, allows a higher capacity to fix ammonium in dry matter , (NH4 +), which directly results in a higher agronomic value

Significant Effect

1

Significantly healthier **intestinal flora** thanks to the **unique effect of our natural ingredients**.
This improves **metabolism** and **immune system** significantly

2

Proven higher
Protein synthesis
Thus less organic
Nitrogen in the manure and higher daily gains.

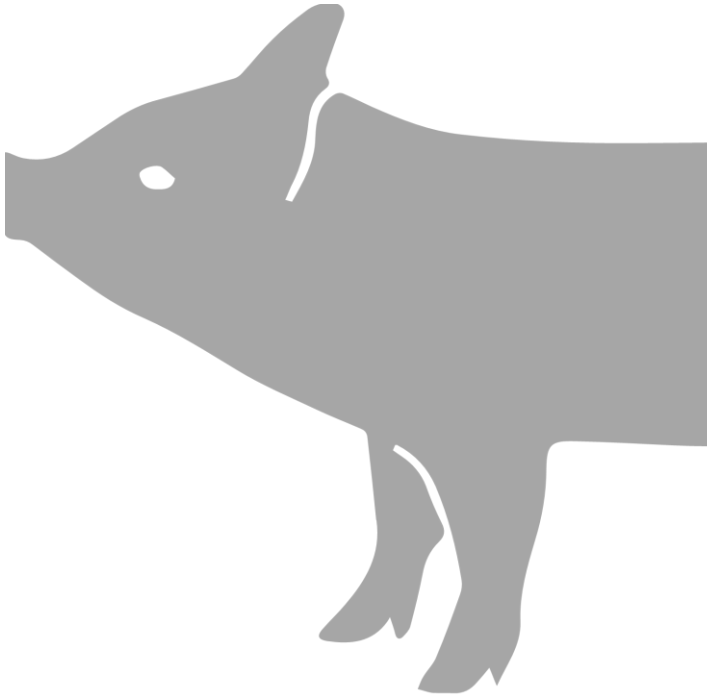
Benefits obtained in piglet breeding Ref.821404

1/2

APLIDIUM & SOLUTIO

only the pig sector will be shown as an example.

- Weaning problems are significantly reduced - without the use of zinc oxide -
- less weakness due to a better feed conversion
- Intestinal biota significantly healthier due to the unique effect of our natural ingredients
- Number of beneficial intestinal bacteria significantly increased
- Higher daily gains due to better feed conversion (up to 4 days advantage in piglet production)
- Customers confirm that up to 20% less protein is needed
- perfect basis for a successful fattening



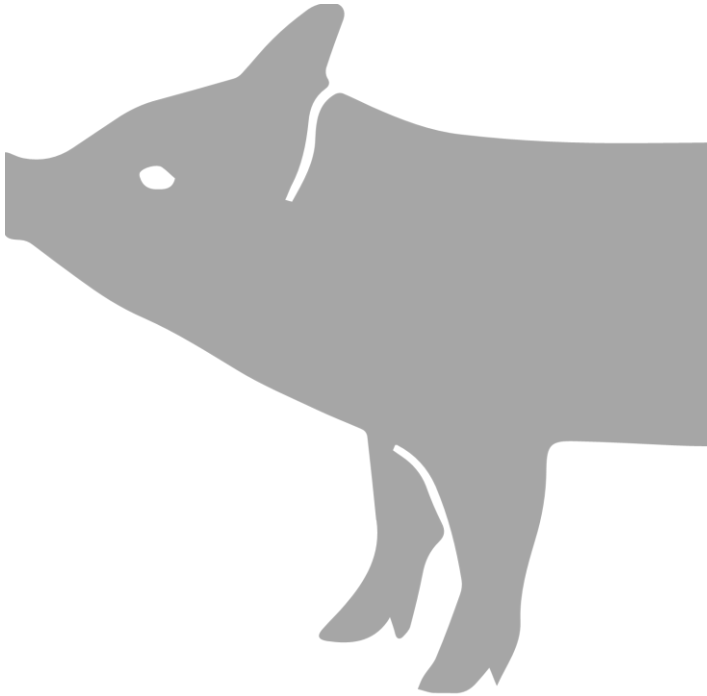
Benefits obtained in piglet breeding Ref.821404

2/2

APLIDIUM & SOLUTIO

only the pig sector will be shown as an example.

- less ammonia emissions (NH3)
- Better air in the stable
- lower volume of manure
- More homogeneous manure
- less organic nitrogen in the manure due to better protein synthesis
- At the same time better availability of nitrogen for the plants
- **lower nitrate pollution in the groundwater**



Benefits obtained in piglet breeding Ref.821404

APLIDIUM & SOLUTIO

Product dosage in pig breeding:

Per piglet: approx. 80g of product in the weaning phase (21 or 45 days treatment)*

Results

No Zinc addition

Up to **40%**

Less NH^3
In the air

Up to **50%**

Lower
Mortality

Dosage:
6 kg / t*

*for exact dosage see label

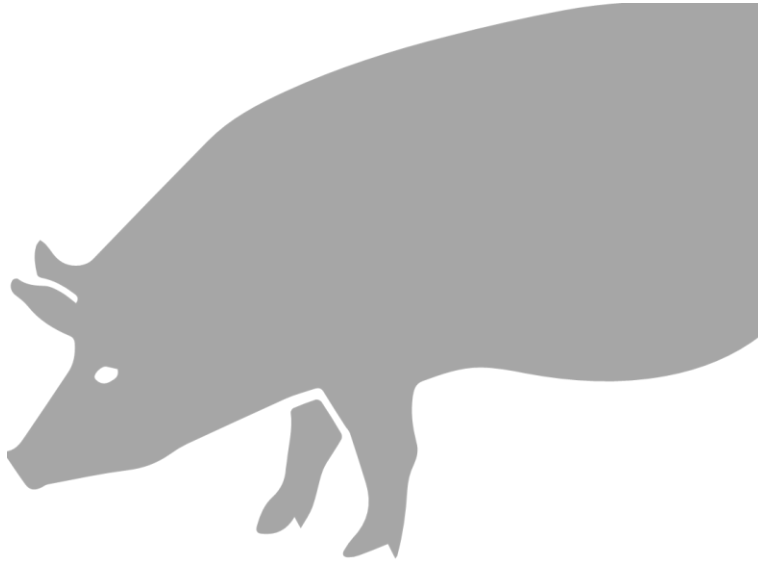
Results obtained in fattening pig Ref.603010

1/2

APLIDIUM & SOLUTIO

only the pig sector will be shown as an example.

- Intestinal flora significantly healthier due to unique effects of our natural ingredients
- Number of beneficial intestinal bacteria increased significantly
- Higher daily gains due to better feed conversion (up to 5 days advantage in the fattening / CR reduction between 30 & 60gr)
- Clients confirm a reduction in the contribution of protein in the diet
- Less ammonia emissions (NH3)
- Better air in the stable

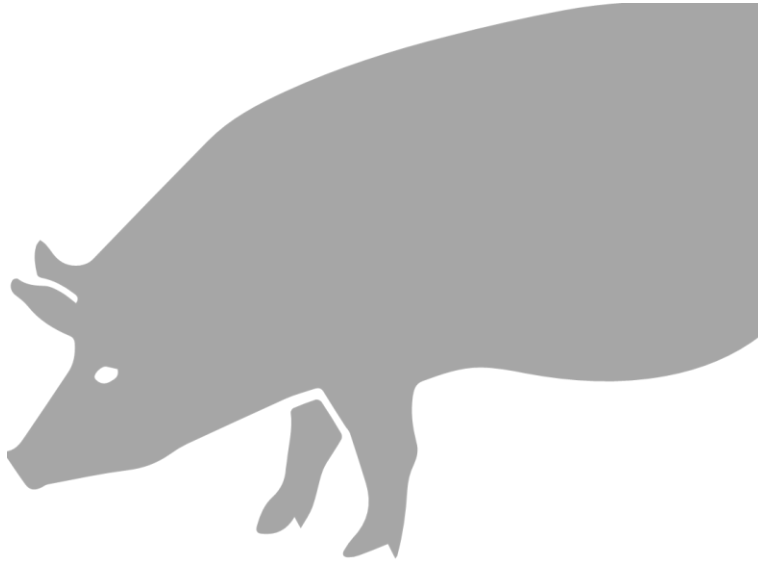


Benefits obtained in fattening pig Ref.603010

2/2

only the pig sector will be shown as an example.

- Less stress on the animals
- **Proven less stomach ulcer**
- Lower manure volume
- Homogeneous manure
- Less organic nitrogen in manure due to a better protein utilization
- At the same time better availability of nitrogen for the plants
- **lower nitrate pollution in the groundwater**



Results obtained in fattening pig Ref.603010

APLIDIUM & SOLUTIO

Product dosage in pig fattening:

Per pig: 127g evenly dosed during the first 70 days of the fattening period

Results

up to **52g**
More weight pig per day (On average)

up to **6,2 kg**
More weight pig in 120 days (On average)

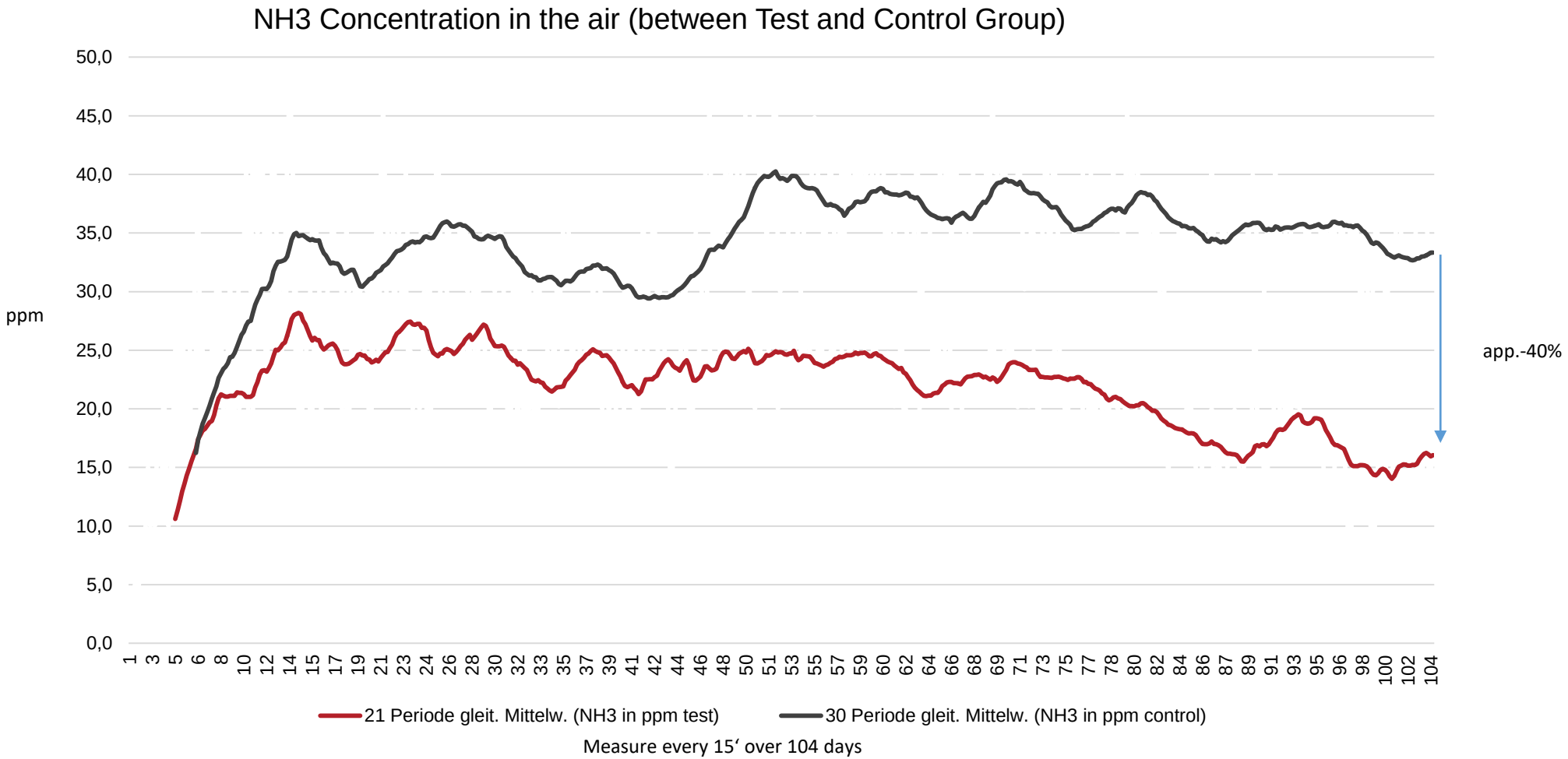
up to **50%**
less NH3 in the air

Dosage: **1kg / t***

In addition:
higher quality manure, less cannibalism, better transformation index, cost-effective use at no extra cost

Starting Date:			06.03.2015
Starting Weight:			27,8 kg
Box-Nr.	**Quantity**	**Weight / Day (middle)**	**Ratio Feed / weight**
Test group:			
Box 1	20	799g	1:2,40
Box 2	24	814g	1:2,45
Box 3	25	740g	1:2,58
Box 4	20	793g	1:2,58
Box 5	22	841g	1:2,32
Box 6	16	801g	1:2,80
Total	127	798g	
Control group:			
Box 7	22	778g	1:2,51
Box 8	20	787g	1:2,41
Box 9	23	757g	1:2,46
Box 10	22	745g	1:2,47
Box 11	18	690g	1:2,58
Box 12	23	720g	1:2,52
Total	128	746g	

NH3 Concentration in the air Ref.603010

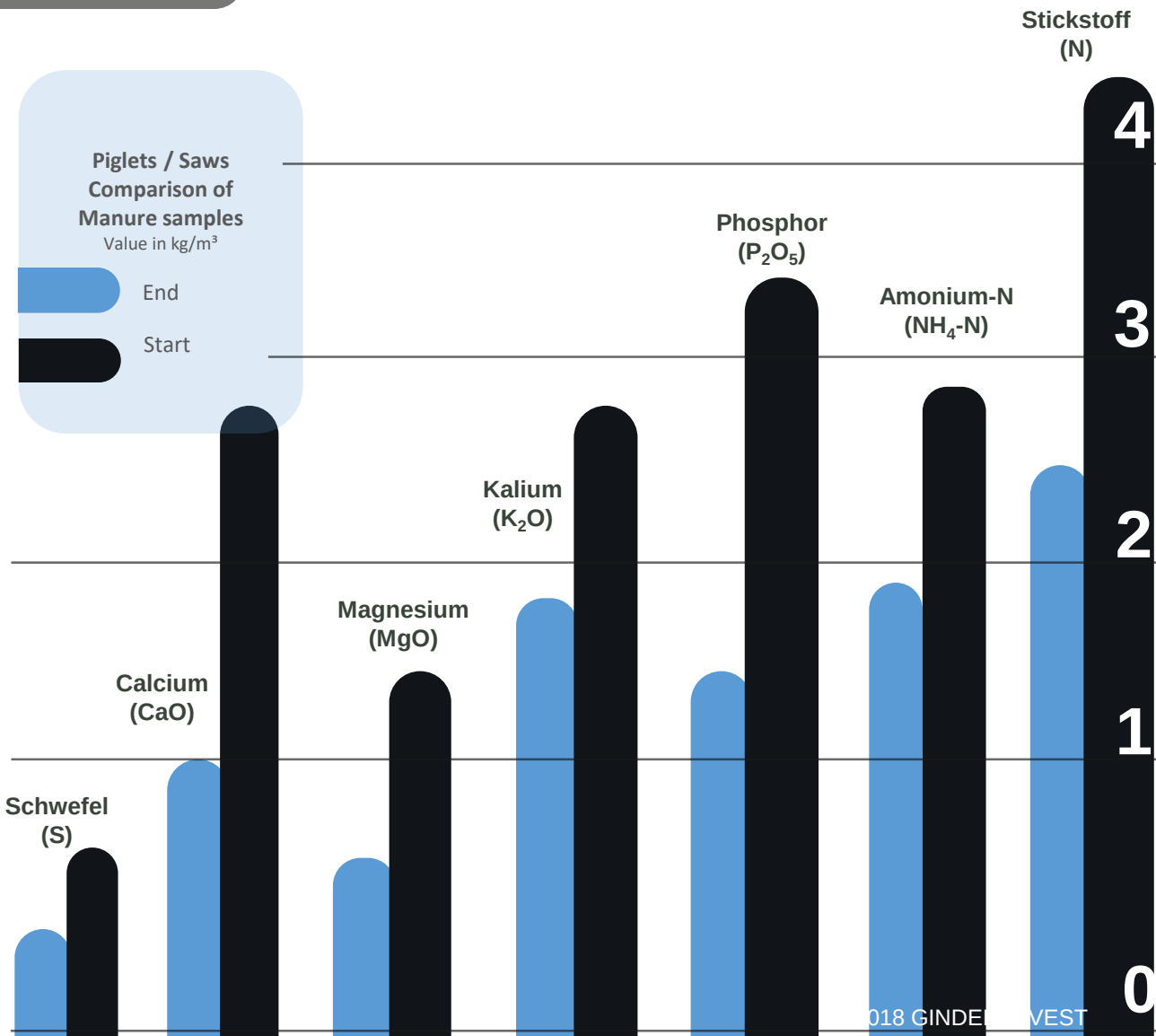


At the same time, **APLIDIUM**
counteracts the nitrate and phosphorus problem of "agriculture"

The additional feeding of APLIDIUM reduces endogenous nitrogen through increased absorption from the digestive tract. The additionally absorbed nitrogen can be used as protein. Thanks to this circumstance, there is proven to be less nitrogen in the excrements of the animal (analysis of manure). This is manifested not only by a significant reduction of ammonia in the house air, but also in the amount of total N, which does not have to be applied to the fields.
There was a 25-30 percent reduction in total-N and a 50-60 percent increase available ammonium of the plants. By tightening the Fertiliser Ordinance such indicators are always crucial. APLIDIUM is a tried-and-tested product to control excessively high nitrogen flows due to space shortages.

Piglets/Saws comparison of manure Ref.821404 y 603010

	Variation		Start 23.03.2017			End 25.09.2017		
			Fresh		Dry	Fresh		Dry
	%	kg/m³	%	kg/m³	kg/m³	%	kg/m³	kg/m³
Dry Matter			4,90			2,20		
Stickstoff (N)	-43%	-1,86	0,43	4,28	8,70	0,24	2,42	11,20
Ammonium-N (NH_4-N)	-35%	-0,89	0,28	4,82		0,18	1,84	
Phosphor (P_2O_5)	-60%	-1,95	0,33	3,25	6,65	0,13	1,30	6,03
Kalium (K_2O)	-34%	-0,91	0,27	2,68		0,18	1.77	
Magnesium (MgO)	-60%	-0,81	0,14	1,36		0,05	0,55	
Calcium (CaO)	-61%	-1,57	0,26	2,57		0,10	1,00	
Schwefel (S)	-62%	-0,32	0,05	0,52		0,02	0,20	



Benefits obtained in broiler Ref.603010

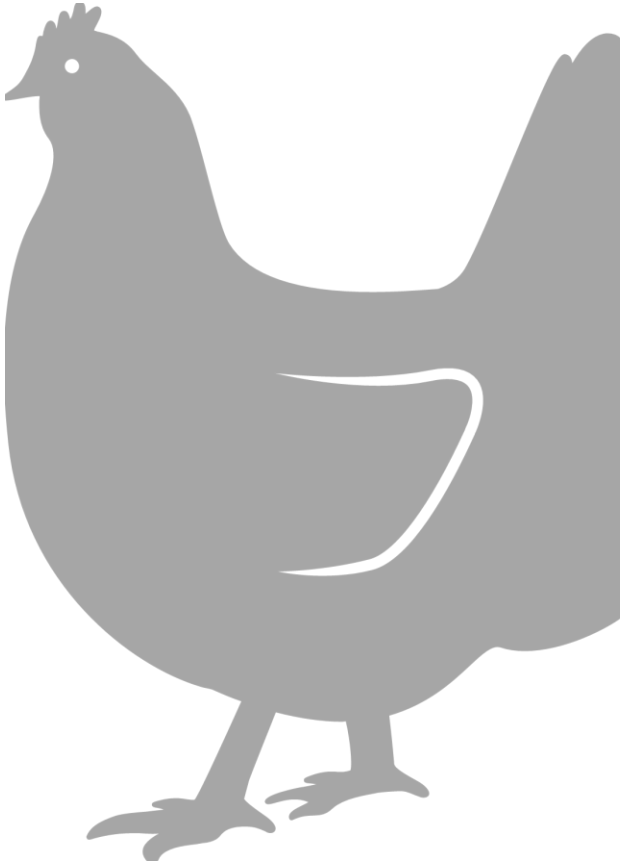
APLIDIUM & SOLUTIO

- Intestinal flora significantly healthier due to unique effects of our natural ingredients
- Number of beneficial intestinal bacteria increased significantly
- Higher daily gains due to better feed conversion (about 2 days reduced heavy fattening time)
- Better transformation rate
- Up to an average of about 150g more carcass weight

Benefits obtained in broiler Ref.603010

APLIDIUM & SOLUTIO

- Significantly less E. coli bacteria (up to -43%)
- Drier excretions, thus fewer pathogens in bedding
- Less ammonia emissions (NH3)
- Better air in the stable



Results in the Chicken fattening

Results

Product dosage in the fattening chicken :

Per chicken: 12g evenly spread over 45 days

Up to **1,8** Days reduced fattening period (chicken intensive fattening)

153 g More weight chicken in 45 days (On average)

Up to **-43%** Less E.Coli

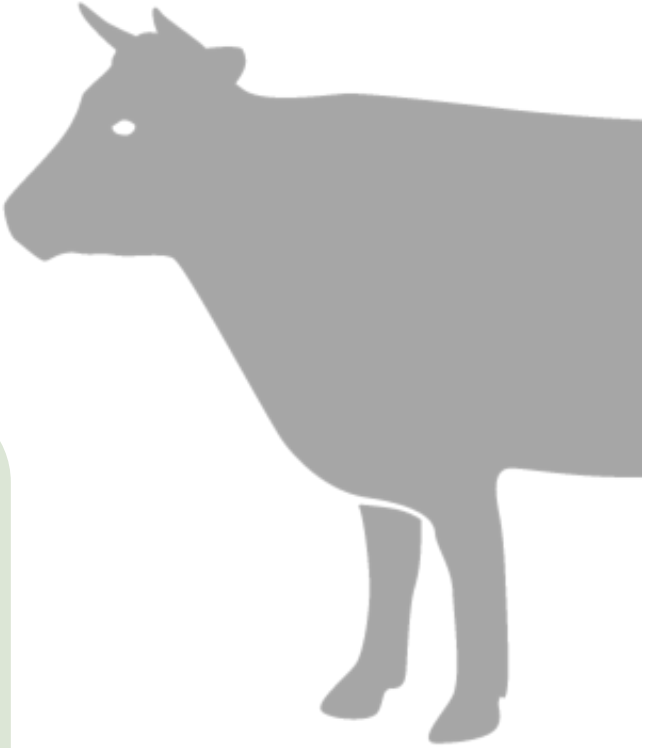
Dosage: **2,7kg/t**

	Test-group	Control-group
Amount of feed	55.440	40.937
Number of chicken at the end	11.735	7.745
Average weight per chicken	2,56	2,51
Number of fattening days	43,6	45,4
Daily gain kg	0,0587	0,0553
Weight after 45 days (kg)	2,64	2,49
E.Coli (NMP/g)	5,20E8	9,12E8
Increase carcass weight per chicken (kg)	**+0,153**	
Increase carcass weight per cheicken (%)	**+6,2%**	
E.Coli	**-42,9%**	

Benefits obtained in dairy cows Ref.20-402020

APLIDIUM & SOLUTIO

There are many factors that determine the economic efficiency and the health of the animals in dairy cow husbandry. With OMNIFECT Inlacto you have the opportunity to improve both. With OMNIFECT Inlacto, protein efficiency in the rumen improves through higher nitrogen binding in the microbial protein and provides better protein supply to the cow. The increased efficiency of microbial protein synthesis provides the animal with more protein for animal performance, such as milk production.



How does OMNIFECT Inlacto affect the stress of animals?

- **APLIDIUM** reduces the excretion of urea by improving N-binding to the microbial protein. By better binding of N in the microbial protein, this can be converted into milk protein, is not excreted through the urine and reduces an important reason for stress: ammonia in the air.
- Behavioral observations show that animals fed with **APLIDIUM** behave more quietly. The animals have less stress. The "Non Return Rate" has been lowered.

Benefits obtained in dairy cows Ref.20-402020

APLIDIUM & SOLUTIO

Another important indicator is the **somatic cells** in the milk. The cell count serves as an evaluation criterion for the raw milk quality. Based on the cell count of the milk, the udder health of the dairy cows can be assessed. These are glandular epithelial cells, immune cells and bacterial cells that are detectable in the milk. If this number is increased significantly , this indicates that more immune cells in the udder fight bacteria by inflammation (mastitis). Mastitis is spoken from 250 thousand cells. Then the animal has strong pathological symptoms.

How does OMNIFECT Inlacto affect the cell count (SCC)?

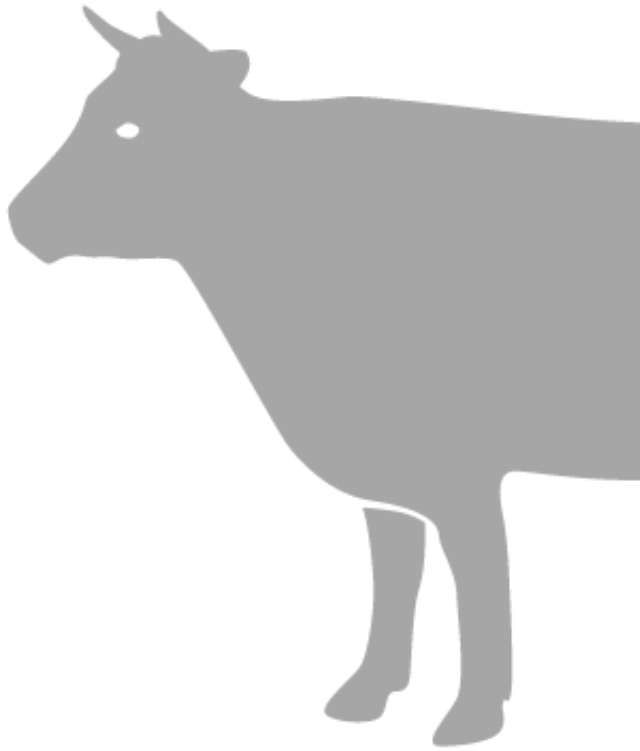
- Reducing SARA (Subacute ruminal acidosis) usually ends in a reduction in SCC. An inflamatory reaction increases the number of immune cells in the blood. In addition, the animal is nutritionally weakened by the SARA.
- Better energy and protein supply prevent or improve hoof diseases. If more energy and protein is available for hoof formation, this reduces the likelihood of injury and thus inflammation of the hoof.
- The better protein supply, especially at high power leads to an improvement of the immunological status. The immune system is very energy intensive and consumes 1/3 of the basal metabolic rate.
- The **cell count is noticeably reduced**. Experiments show a reduction **of up to 30%.**

Benefits obtained in dairy cows
Ref.20-402020

APLIDIUM & SOLUTIO

Experience has shown that the supplementation of **APLIDIUM** has various positive properties on the:

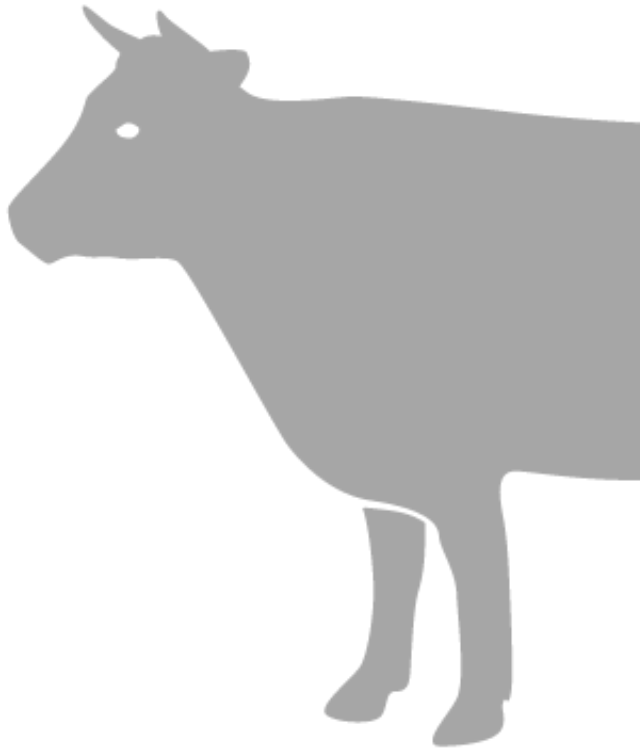
- Less somatic cells
- Lowering the non Return Rate
- Better ingredients in the milk (fat and protein content)
- Increase in milk production
- Improvement of protein efficiency in the rumen due to higher nitrogen binding in the microbial protein



Benefits obtained in dairy cows Ref.20-402020

APLIDIUM & SOLUTIO

- Urea content in milk is improved
- Improvement of protein supply for the cow
- Less amomonia emmissions due to N reduction in urine
- y reduction of NH3 and CH4 emissions
- pH stabilization of the rumen to prevent (rumen) acidosis
- Less stress (through better digestion and reduced harmful gas pollution)

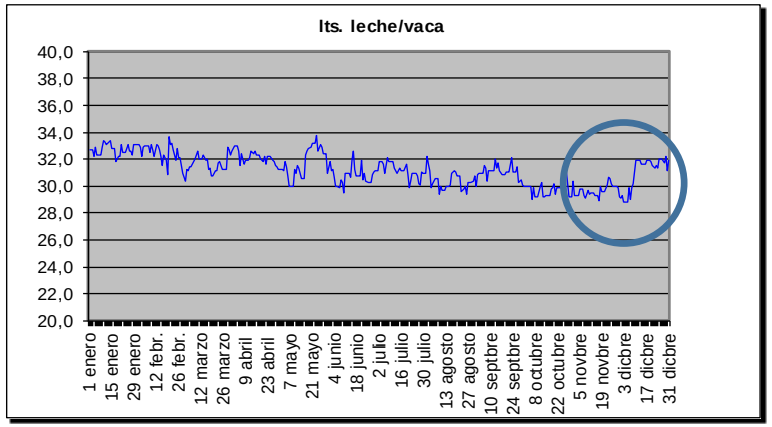


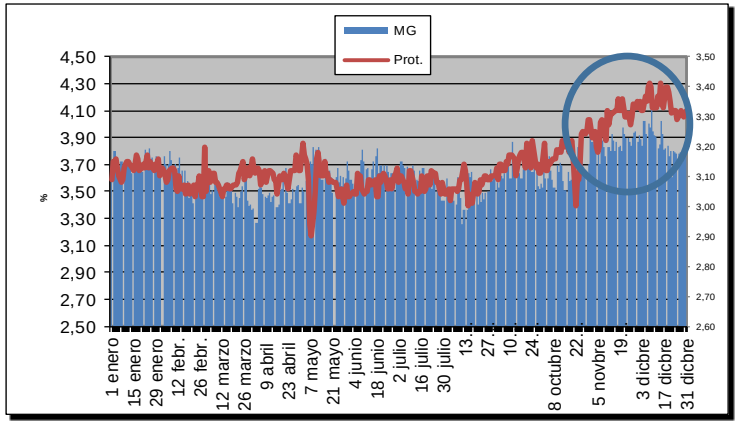
Development of Results in Dairy Cows

(Treatment from the end of October 17)

Control de Producción y consumo de MS

mes	ración kg/vaca	Ing.MS / vaca	Vacas Nº	Total lts. Leche	lts/vaca posibles	lts/vaca reales	Coste l. aliment. €	MG %	Proteína %	C.S. x 1000/ml	Bacterias x 1000/ml
enero	49,80	24,8	49,00	49708	36,2	32,7	0,155	3,71	3,14	315,8	20,06
febrero	49,80	24,9	49,00	44651	36,4	32,5	0,161	3,62	3,08	386,2	15,00
marzo	49,80	24,9	50,84	49840	36,3	31,6	0,185	3,51	3,09	274,3	23,74
abril	49,80	25,4	50,13	48281	37,3	32,1	0,185	3,46	3,11	237,7	16,20
mayo	49,80	25,7	48,55	47765	37,9	31,8	0,190	3,63	3,08	301,3	18,55
junio	49,80	25,9	47,84	44226	38,4	30,8	0,198	3,65	3,07	403,2	16,63
julio	49,80	25,7	48,71	47049	38,0	31,2	0,194	3,60	3,08	329,6	23,84
agosto	49,80	25,6	48,87	46018	37,8	30,4	0,198	3,50	3,07	312,1	16,39
septiembre	49,41	23,4	51,48	47930	33,4	31,0	0,188	3,66	3,15	296,7	17,50
octubre	45,90	25,8	52,00	47948	38,1	29,7	0,217	3,65	3,18	272,55	15,10
noviembre	45,90	25,6	49,77	44216	37,7	29,7	0,215	3,86	3,29	211,17	13,57
diciembre	45,90	24,4	50,35	48484	35,5	31,1	0,197	3,86	3,34	186,58	11,06
	48,8	**25,2**	**49,7**	**566116**	**36,9**	**31,2**	**0,190**	**3,64**	**3,14**	**293,9**	**17,3**





Results in Milk Production
Ref. 20-402020

APLIDIUM & SOLUTIO

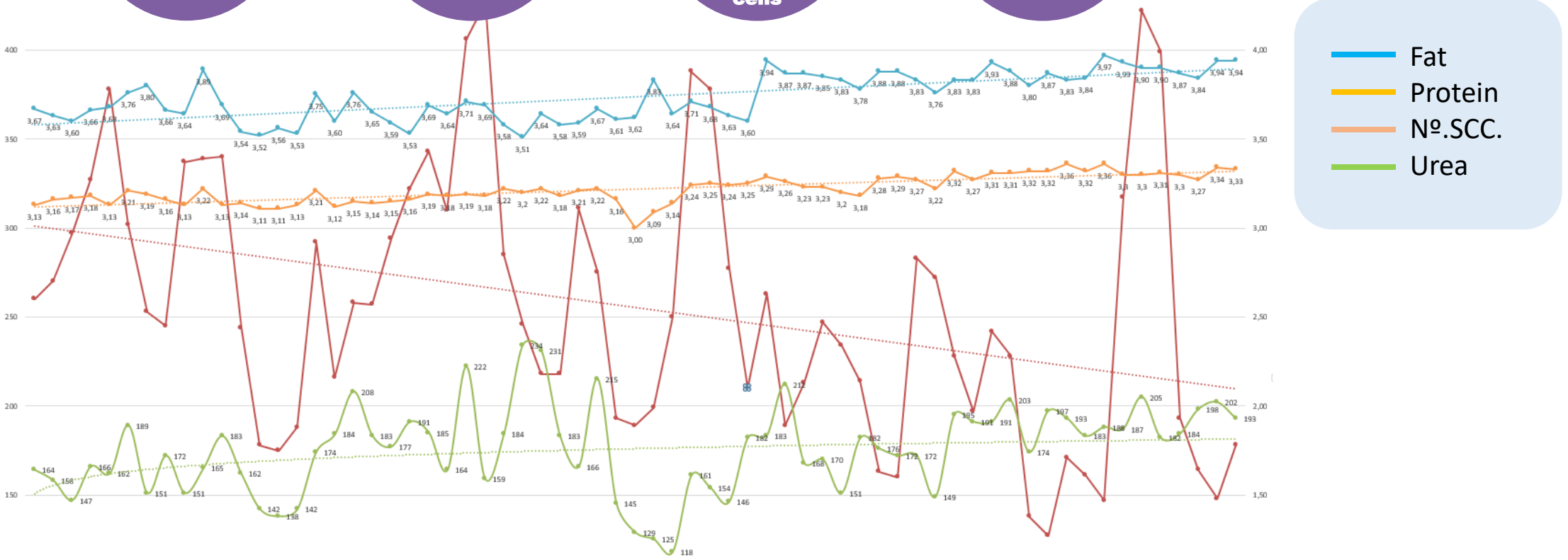
Results

Up to:
7,5%
More fat

Up to :
6,4%
More protein

Up to:
30,5%
Less somatic cells

Dosage:
5g/Day



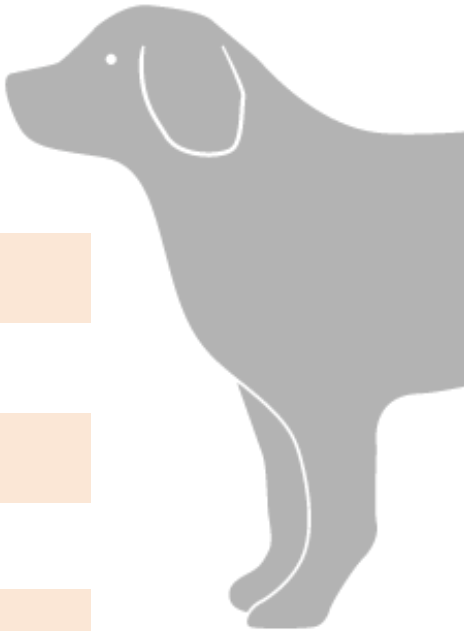
Mezcla diaria de muestras de tanque durante 75 días.

Benefits obtained in Dog Ref.20-152540 DC

APLIDIUM & SOLUTIO

Dosis: **1 Stick / Day**

Target Market: **B2C**



- **Better absorption of vitamins, minerals and proteins**
- **Strengthening the immune system**
- **More Vitality**
- firming and at the same time elasticizing effect on the bones
- Protects gut and liver
- Improved digestion
- healthier bowel movements
- strong reduction of diarrhea

- Healthy, beautiful coat
- Better growth
- Supports muscle building
- GMO-free
- Certified production
- 100% natural ingredients
- **Recommended by veterinarians**

Sample of Product B2C Pets
Ref.20-152540 DC

APLIDIUM & SOLUTIO

Sample of Product B2C Pets
Ref.20-152540 DC

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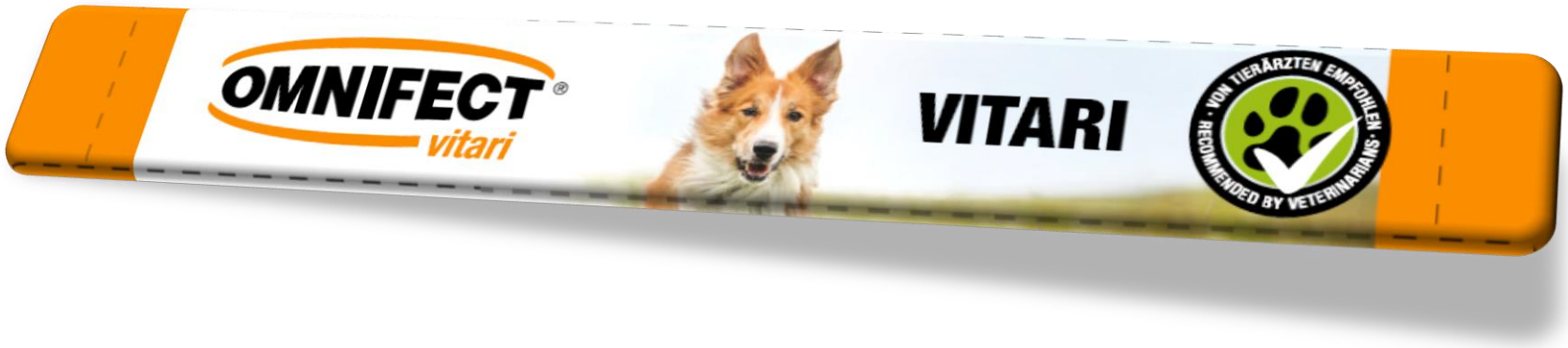
Sample of Product B2C Pets
Ref.20-152540 DC

APLIDIUM & SOLUTIO



Properties and Benefits Of the product Ref.20-152540 DC

APLIDIUM & SOLUTIO

+ **100% natural ingredients without artificial additives.**
Prebiotic properties positively affect the intestinal bacteria and displace pathogenic intestinal bacteria. Thus this supports the entire intestinal system.

+ **Growth optimization**
By promoting beneficial intestinal bacteria, the body must put less energy into defense against the pathogenic intestinal bacteria. This provides more energy for other body performance (growth, immune system, pregnancy, exercise). The coat is shiny, your dog has fewer infections and is healthier. At the same time the permeability of the intestinal wall is increased, whereby the absorption of nutrients is facilitated..

+ **Better muscle growth**
The better energy supply automatically increases the protein biosynthesis for optimal and healthy growth of the dog.

+ **Healthier, more beautiful coat**
A healthier intestinal flora facilitates the absorption of important vitamins and nutrients. An improved supply of essential nutrients and vitamins will make the coat of your pet look shinier.

+ **Odor control**
A healthier intestinal flora ensures an improved digestion of nutrients. This means a more complete digestion of the valuable ingredients, so that less odor-causing fermentation arises.

+ **Intestinal / liver protection**
The qualitative and quantitative improvement of the intestinal flora optimizes the utilization of nutrients and protects the intestines of their animals. The competitive inhibition of the bad microorganisms causes fewer enterotoxins to be detoxified by the liver. At the same time, individual components of Omnifect Vitari bind toxic compounds that can not be absorbed but excreted.

+ **Rheumatism / Arthrosis protection and bone stability**
Calcium has a strengthening and at the same time elasticizing effect on the bones.
It stimulates a stable bone structure by positively influencing the bone envelope and bone structure.

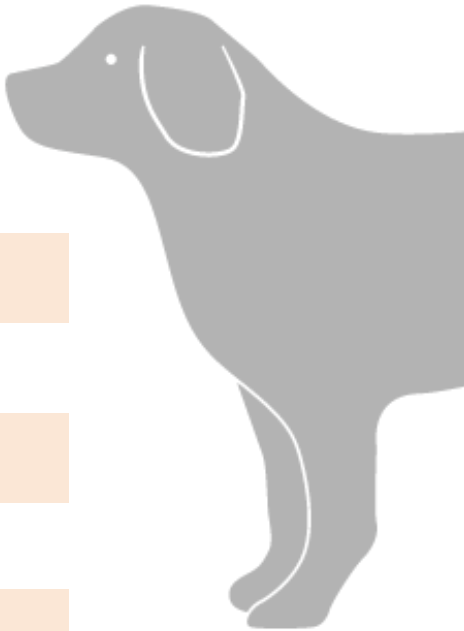
Other applications and benefits obtained in Dog Ref.20-152540 DC

APLIDIUM & SOLUTIO

Also available as a premixure for feed producers!

Dosage: **8,3kg/t**

Target Market: **B2B**



- **High quality animal feed**
- **Strong reduction of diarrhea**
- **Better absorption of vitamins, minerals and proteins**
- **Improved digestion**
- **Healthier gut movements**
- **Strengthening the immune system**
- **Protects gut and liver**

- healthy, beautiful coat
- Better growth
- supports muscle building
- GMO-free
- Certified production
- 100% natural ingredients
- **By veterinarians recommended**

gnificant aspects in fish and shrimp farms with ef. 603010

APLIDIUM & SOLUTIO

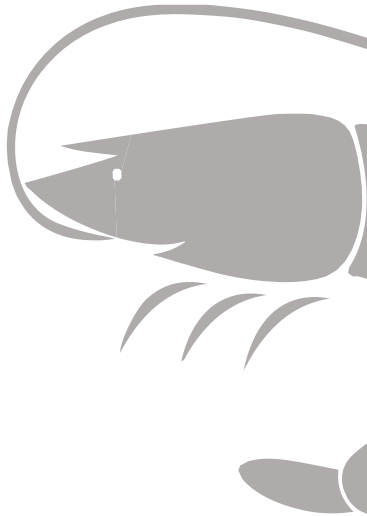
Better transformation rate

- **Better use of protein synthesis**
  - **Less emissions of endogenous digestive nitrogen**
- Activation of the immune system => Disease reduction
  Mortality rate decreases drastically
  - **Reduction of water toxicity**
  - **Better conditions of the environment (Water)**
  - **Less stress of the animals**
  - **More oxygen available**

Better results and less cost

Less Mortality

better water quality



Results in shrimps farm with Ref. 603010

APLIDIUM & SOLUTIO

RESULTADO DEL ANÁLISIS BACTERIOLOGICO

EN MEDIO TCBS
SELECTIVO PARA EL GÉNERO
Vibrio sp

UPA	FECHA	No. De Estanque	LUGAR DE DONDE SE EXTRAE LA MUESTRA	CANTIDAD DE HEMOLINFA QUE SE EXTRAE (ml)	No. de COLONIAS EN AGAR TCBS	Hml UFC/mL (VIBRIO TOTALES)	OBSERVACIONES	
							EN EL ORGANISMO	EN LAS CAJAS PETRI
OCHOA MENDOZA HNOS.	12/11/2013	6	AGUA	0.1	980	9800	Sin características anormales aparentes	VARIACIÓN DE COLONIAS
			HEMOLINFA	0.1	91	910	Sin características anormales aparentes	VARIACIÓN DE COLONIAS
		7	AGUA	0.1	53	530	Sin características anormales aparentes	VARIACIÓN DE COLONIAS
			HEMOLINFA	0.1	0	0	Sin características anormales aparentes	VARIACIÓN DE COLONIAS

Pond n° 6 : UNTREATED
Pond n° 7 : TRATED

CESACOL
Comité Estatal De Sanidad Acuícola
Del Estado De Colima A. C.

OBSERVACIÓN El resultado obtenido de colonias es de solo un organismo
Se sembró 0.1ml de agua y hemolinfa

Results in shrimps farm with Ref. 603010

APLIDIUM & SOLUTIO

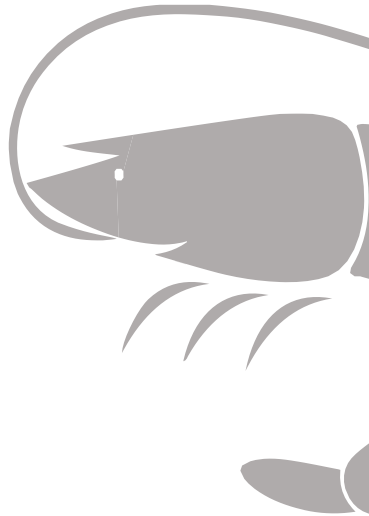
Muestreos

Muestreo camarones

Muestra	Estanque	Fecha	Camarones	Peso total "g"	Promedio "g"
1	Estanque 7	10/10/2013	39	133.8	3.43
2	Estanque 7	10/10/2013	41	173.5	4.23
3	Estanque 7	10/10/2013	44	207.7	4.72
1	Estanque 6	10/10/2013	26	104.5	4.02
2	Estanque 6	10/10/2013	36	138.4	3.84
3	Estanque 6	10/10/2013	49	174.3	3.56

4.13 g ↑ 8.42%

3.81g



Tratamiento	Estanque	Período	Promedio	
			Oxígeno	Temperatura
	4	17-30/09/13	7.22	31.25
	5	17-30/09/13	8.62	30.99
Control	6	17-30/09/13	5.94	31.10
Ecominti	7	17-30/09/13	7.87	31.10
	8	17-30/09/13	9.13	31.03
	4	1 - 10/10/13	9.67	32.02
	5	1 - 10/10/13	9.48	31.93
Control	6	1 - 10/10/13	7.77	32.04
Ecominti	7	1 - 10/10/13	10.26	32.00
	8	1 - 10/10/13	8.79	31.88

7.87 ppm ↑ 32.49%

5.94 ppm

10.26 ppm ↑ 32.05%

7.77 ppm

gnificant aspects in fish and shrimp farms with ef. 603010

APLIDIUM & SOLUTIO

Better transformation rate

Better development in growth → Weight

The homogeneity of growth and the acceleration of the fattening cycle allows to calculate in advance the desired average weight.

Activation of the immune system => Disease reduction

Less emissions of endogenous digestive nitrogen due to improved protein synthesis

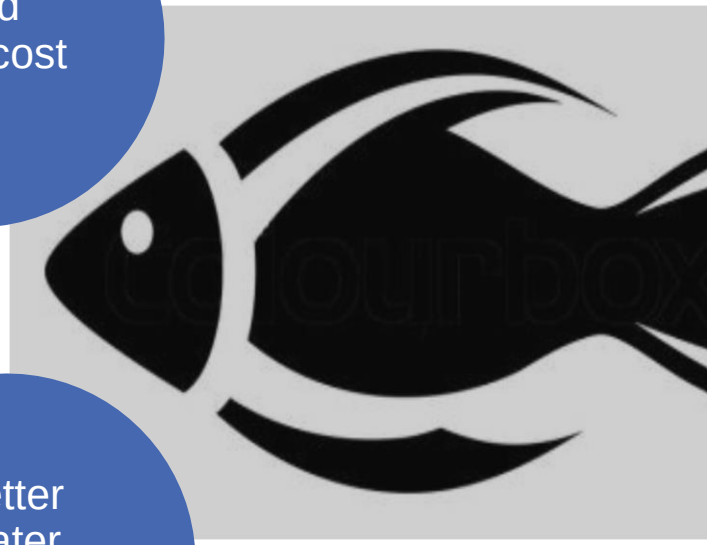
Less mortality

Lower rate of Ammonia (NH3) in water → Less toxicity

Improves the quality of pond or pool bottoms by increasing the fixation of Ammonium (NH4 +)

Facilitates the cleaning of the bottom and their agronomic quality

Better results and less cost



better water quality

Types of Aquaculture Treatment Refs. 603010, 871003OS y 762004PL

Types of treatment

In feed

Water treatment

Open sea with cages

Closed waters (pools…)

Types of Aquaculture Treatment Ref. 603010

APLIDIUM & SOLUTIO

Dosage for pre-mix

SHRIMPS FARMS

Approx. (Depends on the diet) = 6.15kg / ton -> 0,13g / Shrimp/Cycle

FISH FARMS

Approx. (Depends on the diet) = 8.50kg / ton -> See dosage in each specie. –

Important to send the information in the requirements sheet.

Types of Aquaculture Treatment Ref.762004PL

APLIDIUM & SOLUTIO

Dosage for closed Water Treatment:

4,83/5,00 kg / ha / month

For example:
32,2 kg per 2 ha / 100 Days
32,2 kg per 1 ha / 200 Days
64,4 kg per 2 ha / 200 Days

Treatment:

Spray it on the Surface every 4 Weeks.

For example:

1 ha => 16,1 kg / 100 Days

5,4kg in the beginning
5,4kg after 4 Weeks
5,4kg after 4 Weeks

Types of Aquaculture Treatment Ref.871003OS

APLIDIUM & SOLUTIO

Dosage for Open Water Treatment

14,64/15,00 kg / ha / month

For example:
97,6 kg por 2 ha / 100 Días
97,6 kg por 1 ha / 200 Días

Treatment:

Spray it on the Surface every 4 Weeks.

For example:

1 ha => 48,8 kg / 100 Days

12,3 kg in the beginning
12,3 kg after 4 Weeks
12,3 kg after 4 Weeks