



Likely the
No 1. phytobiotic
in pig production



PATENTE HERBA[®]

PHYTOBIOTIC

PATENTE HERBA

NATURAL FEED ADDITIVE FOR SUSTAINABLE HEALTHY GUT

Patente Herba represents natural product based on a essential oils, but also modern and safe concept of replacing antibiotics as growth promotors. It is effective in prevention and during the treatment of Swine dysentery caused by *Brachyspira Hyodysenteriae*, and Ileitis which is caused by *Lawsonia Intracellularis*.

Very fast effects of the use-within only few days after application. Shows no resistance and no withdrawal period, unlike antibiotic.



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Natural alternative -



PATENTE HERBA®

PHYTOBIOTIC

*From early beginnings one of our major strengths is focus innovative and natural based solutions. Our efforts and commitment to safety of animals and humans made us **PIONEERS IN THE PHYTOGENIC FIELD.***



Phytogetic feed additives (synonyms phytobiotics, phytoGENICS or botanicals) are a group of natural growth promoters (NGPs) or **non-antibiotic growth promoters** used as feed additives; derived from herbs, spices or other non-woody flowering plants known to have medicinal properties. They are commonly regarded as favorable alternatives to antibiotic growth promoters (AGPs) in livestock production. **Essential oils** represent a concentrated form of phytoGENICS, containing mainly the active ingredients of the plants.

Company Patent co. is pioneer in providing plant based solutions for sustainable livestock production worldwide. Our phytoGENICS represent carefully selected essential oils blends and other extracts of plants that mainly belong to genres of Origanum spp., Thymus spp., Coriandrum spp., Castanea spp., Mentha spp, etc.

The most known mode of actions of our phytoGENICS' active ingredients are Antimicrobial, Growth-promoting, Antioxidant and Prebiotic, we like to shortly call AGAP phytogetic principles:

Antibiotic properties are attributed to different plant active ingredients. For example, thymol and carvacrol proved to have negative effect on growth of Brachyspirahydysenteriae (VandeMaele et. al 2016), causative agent of swine dysentery, as well as to non-specific diarrheas. Additional antibiotic effects to Gram positive and Gram negative bacteria have also tannins, linalool, terpineol, eugenol, etc.

Growth promoting effects of phytoGENICS are consequence of increased a palatability of feed and increased digestibility due to stimulation of digestive fluids. Indirectly, less undigested feed in colon means that bacteria that normally lives there, Brachyspirahydysenteriae, have less chance to survive.

Antioxidant activity of essential oils and other plant extracts showed to reduce diarrhea and prolonger feed stability.

Prebiotic feature of our phytoGENICS is explained by presence of tannins which can serve as promoter of good microbiom (Lactobacillus spp.) growth in gastro-intestinal tract of pigs.

Patente Herba product performance

INCREASES PROFITABILITY

- Improves weight gain and FCR
- Decreases mortality
- Reduces use of antibiotics

MAINTAIN HEALTHY PIG GUT

- Prebiotics effect of Castanea sativa - promotion of Lactobacillus spp.
- Antimicrobial effects of thymol and carvacrol against Brachyspira hyodysenteriae
- Antioxidant effect of Castanea sativa and essential oil blend- reduce diarrhea

FAVORS GROWTH PROMOTION

- Essential oils blend increases feed palatability and digestive juices secretion
- Tannins slower passage in small intestine due to astringent effects



PATENTE HERBA®

PHYTOBIOTIC

SAFE THROUGH WHOLE FATTENING PERIOD

- No withdrawal period
- No development of bacterial resistance
- No contraindication

Healthy gut!



↑
Increased feed intake

↓
Reduced incidence of diarrhea

↑
Increased performance parameters

↑
Improved reproductive parameters

↑
Improved feed efficiency

↑
Higher profitability



Dosage

- ✓ *Booster dosage 2 kg per ton 7-10 day*
- ✓ *Preventive dosage 1 kg per ton*



THE TRIALS

28 DAY TRIAL* – Impact of Patente Herba® on FCR and ADG of post weaned piglets

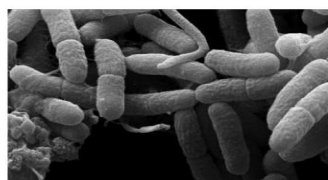


Parameters	Group	Control Group
N° of animals at the beginning of the trial	60	60
Mortality (N° of animals)	0	0
FCR	1,58	1,74
ADG	0,269	0,237

Piglets fed with feed where Patente Herba was added in 2 kg per ton had better FCR and higher ADG.

** Trial performed by Institute for Animal Husbandry Belgrade - Zemun*

TRIAL 1 - The results of Patente Herba® usage in the controlling SWINE DYSENTERY in fattening pigs (from 60 kg until slaughtering)



Parameters	Group	Contr. Group 1	Contr. Group 2
N° of animals at the beginning of the trial	2285	2297	2315
N° of animals at the end of the trial	2204	2205	2195
Mortality (N° of animals)	83	94	120
Mortality (%)	3.6	4.0	5.2
Incidence of swine Dysentery (N° of animals)	72	158	133
The cost of medical treatment, EUR/animal	1.28	1.77	2.11

In 1993 we started manufacturing products and providing solutions for the Livestock Industry from a small factory in the center of Europe. Since that time we've grown to become one of the world's most respected feed additives companies. Despite our growth, some things never change. We still call farms and feed mills home. For the past 20-years our team and business partners have enjoyed all the challenges, the ups and downs, the friendships forged, and the sheer act of improving animal productions.

We hope the next two decades will be just as exciting.



PATENT co. DOO

Tel.: +381 11 6414-333, Fax: +381 11 7820-719

E-mail: export@patent-co.com

www.patent-co.com