

## PROBIOVIT PHYTOTHERAPY EFFECTS OF DIARRHEAL SYNDROMES IN PIGS

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### **Abstract**

*Apiphitotherapy, branch of unconventional therapies provide health through detoxification and repair functions affected, reinstalling homeostasis of the body and its relationship with the environment. Getting Probiovit product apiphitoterapeutic of propolis and vegetal mass resulting from the process of winemaking was done by percolation battery hydroalcoholic extract in optimizing extraction parameters (time,temperature, granulation plant material, report solvent / plant material) in order to achieve optimal concentration of flavones, lectins, pectin. The preparation is a natural product derived from plants with anti-diarrheal properties. It is easy to administer at young piglets during treatment in diarrheal syndromes, hypotreptic, and the stress of weaning piglets.*

**Key words:** diarrheal,piglets, probiovit,syndromes

### **INTRODUCTION**

Checking efficacy Probiovit (herbal extract) therapy nonspecific enteritis in piglets to control hypotreptic and diarrheal syndrome.

Conducted research objectives consisted in:

Obtaining herbal product Probiovit powder and tincture and tested "in vitro" and "in vivo"

Lectins of this product isolation and study their effect in pathology of hypotreptic syndrome and diarrhea in swine

Productive performance evaluation of piglets receiving Probiovit powder

## MATERIALS AND METHODS

The experiment was conducted during the 2010-2011 academic year at the Congregation pig farm Jesus Popesti Leordeni. Young pigs included in the experiment was obtained in farm mothers F1 (Landrace & Large White) and terminal boars (50% and 50% Petrain Hamshire) transferred speakers growth at the age of 60 days.

In test plots were:

Group I. experimental - E 1 - 52 piglets treated with diluted Probiovit 50% in 0.85% saline, 1 ml / kg twice daily for 5 consecutive days oral.

Group II. witness - M1 - 54 piglets treated with streptomycin 0.1 g / kg and Efitard 10,000 IU / kg / day for 5 consecutive days intramuscular.

Group III. witness M2 - Composed of 20 piglets hypotreptic 33 days of age were treated with saline 1 ml / kg;

Group IV. experimental E2 - hypotreptic composed of 20 piglets treated with Probiovit 1ml/kg weight 50% dilution in saline 0.85% - for 5 consecutive days.

Group V. witness M3 - consisting of 6 animals - fed with a concentrated blend without added Probiovit.

Group VI. Experimental E3 - consisting of 6 animals - fed with the same mixture but added Probiovit dose of 10 kg / tone.

Table 1

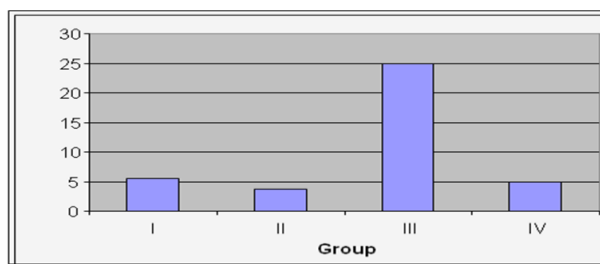
| <b>Group</b>               | <b>Average initial weight (g)</b> | <b>Final average weight (g)</b> | <b>Average growth for the period 10 days</b> | <b>Mortality rate (%)</b> |
|----------------------------|-----------------------------------|---------------------------------|--|---------------------------|
| <b>Group I</b>             | 2210                              | 2910                            | 700  | 5,5                       |
| <b>Group II Probiovit</b>  | 2165                              | 3320                            | 1155   | 3,8                       |
| <b>Untreated group III</b> | 2920                              | 3420                            | 500  | 25                        |
| <b>Group IV Probiovit</b>  | 2880                              | 3380                            | 500  | 5                         |

Probiovit powder and tincture herbal product was investigated biochemical and toxicological and have identified and characterized lectins contained. Were made also metabolic profile investigations (biochemical and haematological) in piglets from lots located in experiment. Were performed on animals weighing experiment and evaluated average daily gain, average daily consumption, specific consumption, especially for clinically healthy piglets weaned lots.

## RESULTS AND DISCUSSIONS

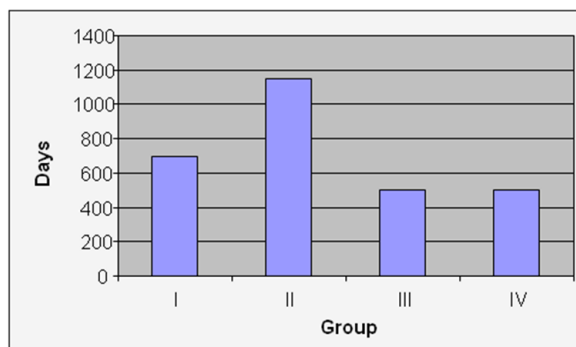
Therapeutic effectiveness in combating diarrhea and Probiovit product hypotriptic interpreted on the basis of assessing body weight and mortality rate (%)

Table 2. Increase growth medium weight piglets during the 10 days of experiment



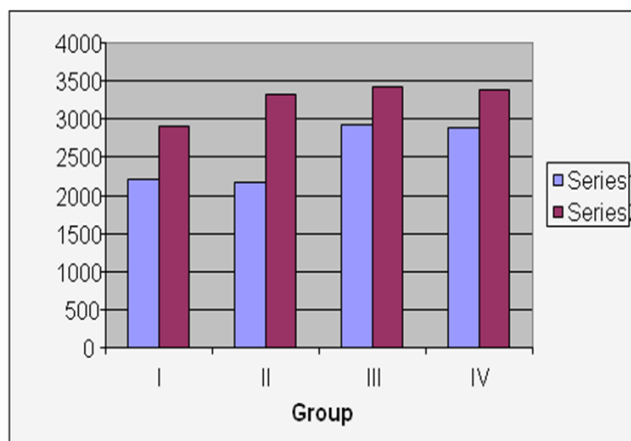
Group I - control group infants  
 Group II - experimental and infants (Probiovit)  
 Group III - witness hypotriptic  
 Group IV - hipotriptic experimental II (Probiovit)

Table 3. Evolution lots mortality of piglets treated / untreated Probiovit during 10 days of experiment



Group I - control group infants  
 Group II - experimental and infants (Probiovit)  
 Group III - witness hypotriptic  
 Group IV - hipotriptic experimental II (Probiovit)

Table 4. Evolution of the average weight of piglets in the experimental groups before and after the experiment



Group I - control group infants  
 Group II - experimental and infants (Probiovit)  
 Group III - Mart hipotrepic  
 Group IV - hipoterpici experimental II (Probiovit)

Table 5. Evolution of average daily gain (g) on stage and the entire experimental period 33-155 days (weaners)

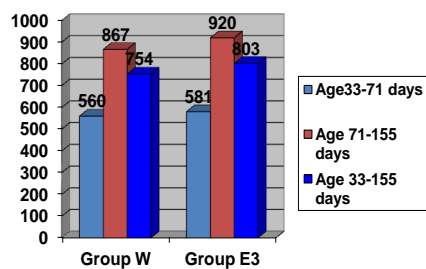
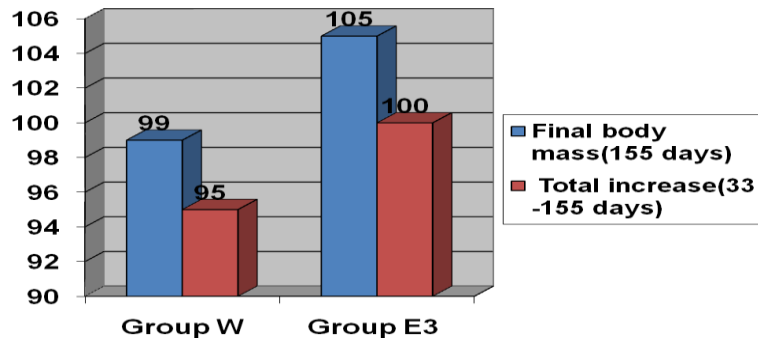


Table 6. The influence of Probiovit product on growth indices at pigs tested



## CONCLUSIONS

This paper has established the presence of lectins (protein fractions with similar electrophoretic properties and activity agglutinated) in Probiovit product.

Given antidiarrheal effect exerted by Probiovit preparation, we believe that lectins interact with different bacterial, preventing their proliferation.

It also appeared that there were no side effects from treatment Probiovit, and suggests that lectin doesn't have negative effects.

Due to their properties, we concluded that it is possible to use purified lectins in preparation Probiovit therapy diarrheal syndrome.

Although mortality rates of piglets with neonatal diarrhea in experimental and control groups are similar, the average gain during the experiment at pigs treated with Probiovit is superior and the product must be used in the treatment of neonatal enteritis in piglets.

Percentage of mortality, although lower in group hypotrophic piglets treated with Probiovit (5% vs. 25% for the control group) may not require use of the product in control piglets hypotrophic, final average gain is the same in both groups.

Inclusion in weaned piglets Probiovit product, the rate of 10 kg / tone of feed did not induce significant changes in hematological and biochemical parameters of blood.

Probiovit product administration in feed resulted an increase in body mass by 6.13% compared with controls, which is below the threshold of statistical significance.

The group on which the feed was added *Probiovit*, average daily gain was improved.

33-71 days during specific consumption was reduced by 9.3%, and the entire experimental period to 8.58 in the group to which the feed was supplemented with Probiovit being statistically significant.

The effects of product management and weaned piglets Probiovit to recommend it as a prophylactic and therapeutic product strictly diarrhea significantly more effective than currently used antibiotics.

## ACKNOWLEDGEMENTS

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