Panbonis®
The unique natural source of the bioactive form of vitamin D

Supports the essential functions of vitamin D
Improves calcium and phosphorus utilisation in feed
100% natural and high bioavailability
High processing and storage stability
An economical and safe complementary feed

Herbonis – Synonym for healthy bones
In today’s market environment, meat producers need to improve performance to stay competitive. To reach that goal, optimal quality standards in production, maximal efficiency and minimizing losses are of greatest importance. Fast growing animals frequently experience bone and health problems that could lead to reduced performance. Calcium and phosphorus metabolism is frequently associated with those phenomena. Vitamin D₃ plays an essential role in the metabolism of the two minerals and, in particular, in the mineralization of bones.

Panbonis® boosts the action of vitamin D and supports its functions.

Vitamin D in feed is important for:
- Bone strength and health
- Muscle function and cell signaling
- Immune functions

Ref.: Edwards 1993, 1989 / Prietl 2013

Panbonis® contains 1,25-dihydroxycholecalciferol-glycosides and delivers the active form in a controlled amount to the intestine, at the very place nutrients are absorbed. Following uptake, Panbonis® releases the right amount of the active form during intestinal transit. This supports the intestinal uptake of calcium and phosphorus from feed into the body’s circulation.

- Increases growth performance and bone mineralization
- Increases eggshell breaking strength
- Allows up to 20% reduction of phosphorus addition in feed

Ref.: 1) Bachmann 2013; 2) Belgium 2014; 3) Herbonis 2016
The unique herbal product Panbonis® acts fast. It delivers a dosed amount of glycosides of 1,25-dihydroxycholecalciferol directly the intestinal track without being activated by the liver and kidney. Afterwards, it is rapidly excreted without accumulation in tissue.

**High processing and storage stability**

- **Stability of Panbonis® in a typical premix**
  - Panbonis® diluted with 25% calcium carbonate stored at 3 different temperatures and analysed. Result: stability is given for at least 12 months.

- **Stability of Panbonis® in pellet feed**
  - Panbonis® prepared as a broiler grower feed of wheat corn type with coccidiostat. Pelleting temperature was 75°C. Result: stability is given for at least 8 months.

**An economical and safe complementary feed**

Panbonis® is a formulated, processed and standardized complementary feed containing the plant *Solanum glaucophyllum*, which fulfils the criteria for feed material according to EC 767/2009 regulation and naturally contains 1,25-dihydroxycholecalciferol-glycosides.

Economic advantages with Panbonis® in your feed:

- supports vitamin D functions
- is a high quality plant material
- is safe for humans, animals and the environment
- allows reduction of phosphorus addition in feed
- increases growth performance and bone mineralization
- has a broad tolerance
- increases eggshell breaking strength
- has high processing and storage stability

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1) Herbonis 2016; 2) Bachmann 2013; 3) Ref.: Belgium, 2014; 4) Thermal stability for storage / processing up to 120°C.
Panbonis® product and dose recommendation

The product is a complementary feed according to EC 767/2009 regulation and available in two concentrations, Panbonis® 10 ppm and Panbonis® 20 ppm. It should be used on top of recommended vitamin D₃ sources.

### Further information and contact

**References:**
- EFSA 2010 Scientific Opinion on the substantiation of health claims related to vitamin D and normal function of the immune system and inflammatory response (ID 154, 159), maintenance of normal muscle function (ID 153) and maintenance of normal cardiovascular function (ID 159) pursuant to Article 13(1) of Regulation (EC) No 1924/2006.
- Belgium, 2014 A. Molina, L. Maertens, E. Delezie / Institute for Agriculture and Fisheries Research Melle, Belgium
- Herbonis 2016 Yuwares Ruangrattan - 1. 25-CALCITRIOL GLYCOSIDE (PANBONIS®) ENHANCES GROWTH PERFORMANCE, BONE MINERALIZATION AND IMMUNE STATUS OF BROILERS FED DIETS CONTAINING LOW AVAILABLE PHOSPHORUS / ESPIN 2015, 24-27 August 2015, Prague, Czech Republics, P 062

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Panbonis® GREEN


Herbonis endeavors to make a significant contribution to animal welfare with biologically active natural compounds