ProPath®
Performance Minerals

THE SUPERIOR PATH TO PERFORMANCE
Backed by more than 45 years of research, ProPath® is a line of patented performance minerals for animal feed products that provides superior uptake and absorption, allowing animals to receive the full health benefits needed from trace minerals.

When fed as part of a well-balanced nutrition program, the essential trace minerals provided by ProPath support the health and wellbeing of animals.

THE LATEST INNOVATION FROM ZINPRO

Zinpro.com/ProPath
Designed for optimal animal and operational performance

IMPROVING ANIMAL NUTRITION

BIOLOGICAL EFFICACY
Offering essential biological efficacy, ProPath products are designed for optimal absorption from the digestive tract, enabling trace minerals to enter the bloodstream and positively affect numerous metabolic functions.

SOLUBILITY
Active ingredients in ProPath are highly soluble, which is required to maximize absorption potential and improve utilization.

STABILITY
Highly stable, ProPath’s bond remains constant during digestion, even within the harsh conditions of the gastrointestinal tract, so minerals are more fully absorbed and utilized.

UPTAKE & ABSORPTION
ProPath delivers a patented mixed ratio of 1:1 metal-amino acid complexes for effective uptake and absorption.

METABOLICALLY AVAILABLE
ProPath Performance Minerals are metabolically available at the molecular level to reach the target organs, tissues, and enzyme systems and to consistently support animal nutrition.

VERSATILITY
Highly adaptable, ProPath is flexible for even the most specialized diets, including conventional and wet or dry.

SUSTAINABILITY
Ensuring maximum utilization and minimal waste, ProPath Performance Minerals are a highly sustainable choice for both operations and the environment.

CERTIFICATIONS
ProPath complies with regulatory requirements imposed by the European Union, allowing the same formulations to be used globally.

HIGHLY CONCENTRATED
Because our patented molecular technology requires no carrier, ProPath Performance Minerals provide maximum metal content for maximum diet density, allowing for more space in the formulation and premix.

ECONOMICAL
ProPath delivers efficiencies, like reducing freight and warehouse needs, to help lower expenses.

Zinpro.com/ProPath
Essential trace minerals support animal health for Lifetime Performance® and profitability

While required only in small amounts each day, trace minerals provide the essential nutrients animals need for key metabolic functions such as growth and development, immunity, and reproduction. Trace minerals must be added to an animal’s feed in such a way that the animal can take full advantage of the nutritional and health benefits they provide.

At Zinpro, we believe that healthy animals contribute to a profitable and sustainable operation and that to truly prosper, animals must receive optimal trace mineral nutrition throughout their life stages. We call this enduring commitment to lifelong health and nutrition Lifetime Performance®.

We use science-based solutions to create products with proven uptake and absorption to deliver the full benefits of trace minerals. By maximizing trace mineral absorption in animals, your customers can maximize the performance and profit of their operations.

Essential trace minerals support multiple health benefits

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<th>BENEFITS</th>
<th>TRACE MINERALS</th>
<th>BENEFIT DESCRIPTION</th>
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| IMMUNE RESPONSE | Copper, Manganese, Zinc, and Iron | • Humoral immunity; antibody titers in response to vaccination  
• Cell-mediated immunity  
• Non-specific immunity  
• Antioxidant activity to remove free radicals and protect cell membranes |
| JOINT & SKELETON | Manganese | • Chondroitin sulfate synthesis, key to formulation, maintenance, and repair of joint cartilage  
• Bone matrix development and maintenance |
| | Zinc | • Cell division and protein synthesis for skeletal growth and repair |
| HOOF & CLAW INTEGRITY | Manganese and Zinc | • Supports toenail and hoof hardness |
| PAW PAD CONDITION | Manganese | • Antioxidant activity to protect cell membranes |
| | Zinc and Copper | • Cell division to support paw pad growth and repair  
• Paw pad protein synthesis; collagen, keratins, cell envelope proteins, and intercellular cementing substance |
| REPRODUCTION | Iron and Copper | • Reproductive hormone synthesis: steroidogenesis  
• Helps avoid nutritional anemia |
| | Manganese | • Male libido  
• Fetal skeletal development |
| | Zinc | • Reproductive tract tissue integrity  
• Conception rates  
• Sperm maturation and quality |
| SKIN & COAT | Manganese, Iron, and Zinc | • Epidermal (skin) cell maintenance through cell division, protein synthesis and antioxidant activity to remove superoxide radicals  
• Facilitates wound healing  
• Helps avoid or reduce nutritional anemia  
• Development of a longer, fuller coat |
| ENERGY | Zinc, Manganese, Copper, and Iron | • Improved health leaves more energy for activities  
• Wellbeing enhanced, as health problems are minimized or reduced in severity |
Types of trace minerals and why the difference matters

There are three types of trace minerals: Inorganic, Organic, and Performance. The difference among the varieties lies in their absorption and performance delivery.

**INORGANIC**

Limited, inconsistent absorption

Inorganic trace minerals are those bound to a molecule that does not contain carbon, like sulfate, oxide, or hydroxyl. Inorganic trace minerals have limited and inconsistent absorption because the minerals either get excreted, bind with an antagonist molecule that blocks the metal, or become partially absorbed. This deprives the animal of the full benefits of the trace mineral.

**ORGANIC**

Significant variability in bond strength, absorption

An organic trace mineral is any trace mineral linked to a carbon-containing molecule. Its performance depends on the strength and stability of its link to the carbon-containing molecule as well as how vital the molecule is to animal health and performance.

- Many organic trace minerals are mixtures of inorganic minerals plus weak bonds (metal proteinates and metal polysaccharides).
- Some organic trace minerals are organic mineral salts that dissociate to inorganic in the stomach due to a weak bond (metal propionates and metal MHA).
- Some organic trace minerals are not absorbed or utilized well (metal glycinaltes).

**PERFORMANCE**

Consistent, reliable bond strength for optimal performance

Exclusive to Zinpro, Performance Minerals® are a special class of trace minerals that bind to an amino acid complex, thus maximizing stability and absorption. The result is a trace mineral that is scientifically proven to consistently help improve animal nutrition and optimize their genetic potential.
Forging the superior path to performance

Designed and manufactured for superior animal uptake and absorption, ProPath Performance Minerals are formulated to optimize animal nutrition, improve manufacturer production, and support greater profitability.

- **VERSATILE**
- **STABLE**
- **SOLUBLE**
- **SUSTAINABLE**

Product Line

- **ProPath Zn**: Zinc amino acid complex
- **ProPath Mn**: Manganese amino acid complex
- **ProPath Cu**: Copper amino acid complex
- **ProPath Fe**: Iron amino acid complex
- **ProPath 4**: Combination product containing zinc amino acid complex, manganese amino acid complex, copper amino acid complex, and cobalt glucoheptonate

Zinpro.com/ProPath
Our mission

Zinpro exists to improve the wellness and performance of animals and contribute to a healthier, more sustainable world.

When it comes to improving the performance of your animals and your operation, the team at Zinpro is committed to delivering products and services that meet rigorous, validated scientific standards. We invest in more peer-reviewed research—with proven, repeatable results—than all other trace mineral manufacturers, and every Zinpro product is designed with innovative, effective Performance Minerals at its core. Our team of leading scientists and technical experts brings our combined experience and expertise to successful animal production operations around the world. We’re always available to help our partners improve overall productivity and profitability.

Learn more about Zinpro Performance Minerals® at Zinpro.com.

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