**Research-Proven Zinpro Performance Minerals**

At Zinpro, we believe to truly thrive, animals must receive optimum trace mineral nutrition throughout their life stages. It’s what we call Lifetime Performance®.

Lifetime Performance is the commitment of over 45 years that Zinpro has devoted to researching, and developing, world leading products and solutions to support animals, their health and wellness.

Trace minerals are relevant at all stages of the productive lives of animals and Zinpro has been researching the roles Performance Minerals® play during all stages to ensure that animals can have a lifetime of performance. The table below summarizes the relationship between different productive stages and essential trace mineral roles.

<table>
<thead>
<tr>
<th>Birth</th>
<th>Growth</th>
<th>Performance</th>
<th>Reproduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intestinal Epithelium Zn</td>
<td>Muscle Development Zn</td>
<td>Hoof Integrity Zn, Mn, Cu</td>
<td>Fertility Zn, Mn, Cu</td>
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<tr>
<td>Immune Function Zn, Mn, Cu</td>
<td>Bone Development Zn, Mn, Cu</td>
<td>Skin and Coat Zn, Mn, Cu</td>
<td>semen Quality Zn, Mn, Cu</td>
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<tr>
<td>Important Liver Stores Zn, Cu</td>
<td>Vaccination Response Zn, Mn, Cu</td>
<td>Fiber Utilization Zn, Mn, Cu</td>
<td>Fetal Development Zn, Mn, Cu</td>
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<td>Gastrointestinal Health Zn, Mn, Cu</td>
<td>Colostrum Quality Zn, Mn, Cu</td>
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Note: 4-Plex®EQ is manufactured and sold as 4-Plex®C in the U.S. and Mexico. In all other markets, please contact your representative and ask for Availa®4.

To learn more about Zinpro Performance Minerals and 4-Plex®EQ, formulated specifically for equine nutrition, visit zinpro.com/equine.
To truly thrive, horses must receive optimum trace mineral nutrition throughout their productive life stages.

Colostrum Quality
Higher immunoglobulin concentration in colostrum provides for enhanced passive transfer of immune factors from the mare to the foal. Mares fed 4-Plex-EQ produced higher quality colostrum and foals subsequently had improved immunoglobulin serum levels at 24 hours after birth.

Digestive Health
All breeds and ages of horses are susceptible to gastric ulcers. However, gastric ulcers are most prevalent among performance horses. Thoroughbred horses fed Zinpro Performance Minerals maintained lower gastric ulcer scores following exposure to an ulcer model.

Bone Development
The development of a sound skeleton begins during fetal development and remains a critical lifetime factor for performance. Research evaluating the prevention of spiral fractures in turkeys offers evidence of how bone quality is affected by dietary minerals.

Hoof Integrity
For all horses, maintaining hoof integrity and sound movement is mandatory for growth and performance. Previous evaluations demonstrated an advantage for hoof growth during the first 120 days of feeding 4-Plex-EQ. In lactating mares, sole depth increased for mares fed 4-Plex-EQ. This suggests that horses with thin soles, ulcers, abscesses, and other compromising issues can benefit from a diet formulated to contain more bioavailable minerals. It also sets a solid foundation in the hoof for all horses to meet movement performance demands.

A Healthy Start
Trace mineral supplementation is an important factor to optimize responses to vaccination programs. In young horses fed 4-Plex-EQ, the total antibody response was increased, establishing stronger protection.

A Bend in the Road for 4-Plex-EQ
Spiral fractures in turkeys fed Zinpro Performance Minerals showed a 77% reduction in spiral fractures compared to the control group.