How copper and zinc affect equine health

A faded, reddish coat can sometimes be attributed to an imbalance of these minerals.

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The dark color of your horse's coat, mane, and tail can change color. This is often attributed to exposure to sunlight. But red tips on dark manes and dark coats, particularly noticeable in bays and black horses, may be due to a copper deficiency. Fortunately, this is easy to fix. But it requires knowing the levels of copper and zinc in the entire diet.

Copper and zinc need to be balanced. Too much of one can interfere with the uptake of the other. The ideal copper to zinc ratio is 1:3. To bring your horse's diet within this level, you must evaluate everything you are feeding, including hay, pasture, feeds, and supplements. The most common mineral imbalance found in hay is too much iron combined with low zinc and copper levels. A high iron concentration can interfere with both zinc and copper absorption, making already low levels of these minerals even less available to your horse. Strive for no more than 8 times more iron than zinc.

The "rusting" of your horse's hair and mane may be the tip of the iceberg. Zinc and copper are involved in many important bodily functions including red blood cell health, metabolic enzymes, immune function, and the overall health of tendons, ligaments, hooves, and bones. Go deeper than the surface — protect your horse's overall health by assessing the mineral content of the entire diet.

Further Reading
Supplements for Horses
Is your horse getting his minerals?

Juliet M. Getty, Ph.D. is an internationally respected equine nutritionist available for private consultations and speaking engagements. Find out more from Dr. Getty at www.gettyequinenutrition.com, and meet her in person this April 12 & 13 at Equine Affaire in Columbus, OH, where she will be presenting four seminars.