

CURRENT KNOWLEDGE OF DIETARY NITROGEN UTILIZATION IN EQUIDS

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Summary

Nutrient management plans may be necessary to improve and maintain sustainability of the horse industry in increasingly urbanized areas. Large nitrogen (N) losses to the environment due to excessive protein intake by equids impact ground water and air quality. The design and implementation of better feeding strategies is directly contingent upon assessment and knowledge of protein quality of common feeds fed to equids, which in turn depends on the amino acid composition and digestibility. There is some evidence suggesting contribution of the equine hindgut to protein digestibility and amino acid absorption but the extent of this contribution remains to be characterized as it may impact the estimate of N and amino acid requirement, and as such post-gastrointestinal N metabolism. Uncovering the gaps in methodological assessment of N metabolism in equids will improve our understanding of dietary protein utilization.