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21st International Grassland Congress / 8th
International Rangeland Congress

Tropical Forage Meals: An Alternative for Sustainable Monogastric Species Production

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The 21st International Grassland Congress / 8th International Rangeland Congress took place in Hohhot, China from June 29 through July 5, 2008.

Proceedings edited by Organizing Committee of 2008 IGC/IRC Conference

Published by Guangdong People's Publishing House

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Presenter Information

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Tropical forage meals an alternative for sustainable monogastric species production

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Key words : tropical foliage meals , physicochemical characterization , monogastric species , sustainable production

Introduction The utilization of tropical foliage meals (annual legumes , shrubs and trees) for monogastric feeding is currently a priority in order to obtain ecological , sustainable , and low cost production .

Materials & methods In this paper information is offered about an integral evaluation of physico-chemical characterization and molecular composition of six tropical , foliage meals : three annual legumes *Canavalia ensiformis* , canavalia ; *Lablab purpureus* , dolicho ; *Stizolobium aterrimum* , mucune , two shrubs *Trichanthera gigantea* , trichanthera ; *Eritryna poeppigiana* , eritryna .and a tree , *Morus alba* ; mulberry and its effect on the gastrointestinal tract of poultry , swine , rabbits and guinea pigs . This last aspect was confirmed with growth performance experiments . Indicators of nutrient quality of fibrous fraction and molecular structure were determined . Extractable tannin content , protein , bound tannin fiber , and oligosaccharides were measured in foliages meals . Inclusion levels were related to both , monogastric species digestive characteristics and with antinutritional factors presence .

Results Among legumes , dolicho was the most promising species due to its digestible fiber components and the morphophysiology of the gastrointestinal tract of poultry , swine and rabbits . Also , it was shown in rabbits that the complete replacement of alfalfa foliage by mulberry foliage was possible taking into account its low lignin content and highly digestible fiber components and similar nutrient value .

Prospect The application of this knowledge will allow producers to make decisions and choose the formulation of diets based on foliage meal for monogastric species . These results aid in improving production and sustainability for small and medium scale operations .