

Addendum

Satellite Session : Tropical resources for food animals: new concepts food value, databases, tables and software

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Introduction

As part of SAPT, a satellite chaired by Daniel Sauvant (AFZ, French Association for Animal Production) and Philippe LECOMTE (CIRAD) was held on November 18 focusing on *Tropical resources for food animals: new concepts food value, databases, tables and software*. This satellite brought together people from 14 different geographic locations, involved in the promotion of tropical feed resources for animal feed in the tropics. Following the presentation of

various concepts synthesized in the enclosed pdf, the participants exchanged their views on i) concepts of feed value or multicriteria evaluation of resources ii) evaluation of the available information sources and the methods allowing a better promotion of these resources iii) presentation of the existing databases and studies in progress and iv) their intention to share their data through collaborative projects to be launched in the near future. The following papers present the discussions that were held during this satellite.

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Feed value concept and evolution, multi-criteria evaluation

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Introduction: classic concepts in nutritive and feeding values

Feed evaluation and the animal nutrient requirements were until now the basic concepts underlying animal feeding systems.

Nutritive and feed values are the two approaches for feed evaluation. The Nutritive value (crude protein, soluble and non soluble carbohydrate, minerals ...) and their digestibility are measured *in vitro* or *in vivo*. The most important components of nutritive value are expressed through feed unit systems. They allow us to estimate the animal nutrient requirements and to express the animal production potential. The Feeding value also takes into account the feed intake. Feeding value could be approximated as intake times digestibility. The nutritive value of a feed resource may vary depending on the other ingredients in the diets. This is the results of positive or negative digestive interactions. The biological laws governing these interactions, particularly in ruminants, have to be known more precisely.

Knowledge on the values of the feed resources

The list of resources of interest varies according to livestock production system. Some tropical feed resources, like cereal (corn, sorgho...) and some protein-rich feeds such as soybeans, peanuts.. are well known because they are the basis of feeding in modern livestock throughout the world. Nevertheless, there are some lesser-known varieties or by-products that could provide variability in the feeding value. A wider variety of resources from tropical biodiversity are still to be characterized accurately. Resources that are not involved in international trade and/or modern agriculture (particularly forages...) are less well known.

The new challenges of animal chains and production systems

It appears urgent to better take into account the new challenges which appeared during the last decades in livestock chains throughout the world. The concrete outcomes of these challenges are subsequent constraints linked to efficiency of