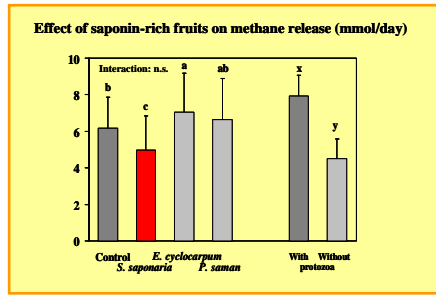
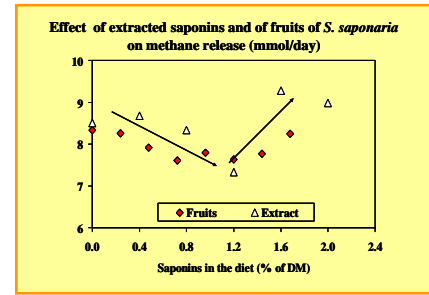


# Potential of saponin-containing fruits and of forage legumes as tropical feed resources to manipulate rumen fermentation and to improve ruminant nutrition

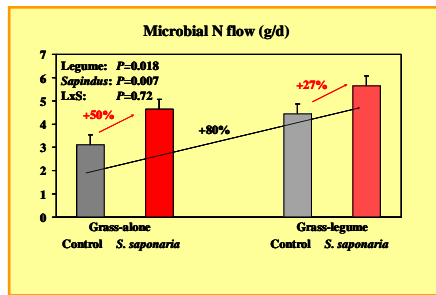
H.D. Hess<sup>1</sup>, C.E. Lascano<sup>2</sup>, J.E. Carulla<sup>3</sup>, T.E. Díaz<sup>4</sup> and M. Kreuzer<sup>1</sup>  
<sup>1</sup>ETH Zurich; <sup>2</sup>CIAT, Colombia; <sup>3</sup>Universidad Nacional de Colombia; <sup>4</sup>Corpoica, Colombia



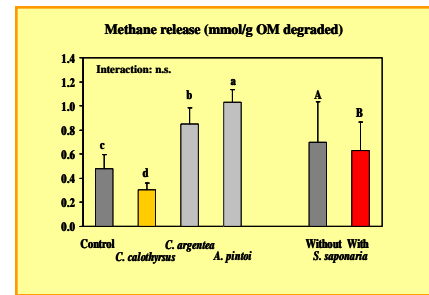
Testing dose response relationship



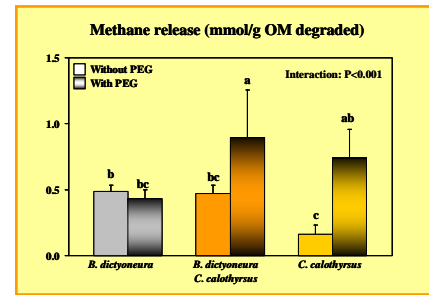
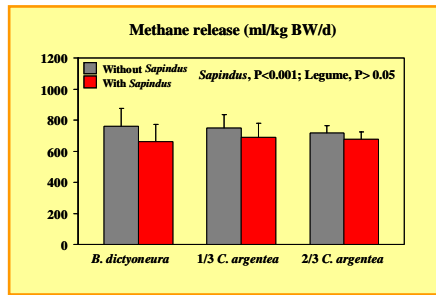
Testing fruits in combination with diets of contrasting quality



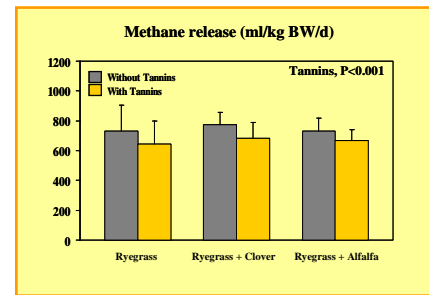
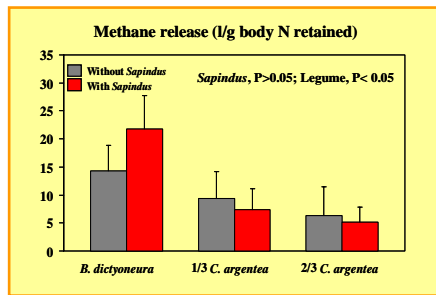
Testing fruits and legumes in feeding and respiratory trials



Assessing the tannin effect in vitro



Assessing the tannin effect in vivo



## Conclusions

Fruits of *Sapindus saponaria* are a useful supplement in reducing methane emission and improving microbial protein flow to the duodenum. *Cratylia argentea* supplementation largely decrease methane release per unit of body protein retained. Tannins in tropical legumes clearly suppress methane release from ruminal fermentation.