

# Evaluation of ten tropical legume forages for their potential as pig feed supplement

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CIAT and Hohenheim University tested 10 alternative forages for their nutritional value and *in-vitro* digestibility for pigs in order to predict their potential as alternative protein supplement in a tropical smallholder context.

Herbage of

*Cratylia argentea*

,

*Desmodium velutinum*

,

&nbsp;   *Flemingia macrophylla*,

&nbsp;   

*Leucaena diversifolia*,

&nbsp;   

*Canavalia brasiliensis*

,

*Centrosema brasilianum*

,

*Clitoria ternatea*

,

&nbsp;   *Lablab purpureus*

,

*Stylosanthes guianensis*

&nbsp;   and

*Vigna unguiculata*

&nbsp;   from the CIAT (International Center for Tropical Agriculture) gene bank were assessed for their nutritional value and

*in-vitro*

&nbsp;   digestibility for pigs in order to predict their potential as alternative protein supplement in a tropical smallholder context.

Crude protein (CP) contents ranged from 137 to 257 g kg

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&nbsp;   dry matter (DM) (mean 191 g kg

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DM), although a considerable proportion of it, 27 % on average, was bound to neutral detergent fiber (NDF). Interesting levels of lysine were found in

&nbsp;   *Cratylia argentea*

&nbsp;   (14 g kg

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&nbsp;   DM) and

*Leucaena diversifolia*

&nbsp;   (13 g kg

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&nbsp;DM), whereby the latter was also high in tannic acid concentration (49 g kg

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&nbsp;DM) thus limiting the amino acid digestibility.

*Vigna unguiculata*  
&nbsp;presented highest  
&nbsp;*in-vitro*  
&nbsp;enzymatic degradability (521 g kg

-1  
&nbsp;DM), which even increased in a 40:60 mixture with maize. Lowest degradation was obtained with

*Flemingia macrophylla*  
&nbsp;(248 g kg

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&nbsp;DM), while the median of the forages approached 390 g kg

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&nbsp;DM. It is concluded, that

*Vigna unguiculata*  
&nbsp;herbage meal has the highest potential to be successfully included in pig diets, while  
*Cratylia argentea*  
&nbsp;meal should equally be assessed  
*in vivo*

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**Keywords:**

&nbsp;amino acids, fiber, in-vitro digestibility, tannins



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Yes