**Canavalia brasiliensis and Vigna unguiculata at different growth stages**

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**1. INTRODUCTION**

- The weak perennial legume *Canavalia brasiliensis* (Fig. 2) can be grown on a wide range of soil pH (4.3–8.0) on low fertile soils up to a height of 1800 masl and has a good regrowth up to the second year.
- The annual *Vigna unguiculata* (Fig. 1) shows even a wider range of environmental adaptation.
- The crops were investigated for the assumed high level of crude protein which suggests a good suitability as feed supplement for ruminants and possibly even for swine.

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**2. MATERIALS & METHODS**

*Canavalia brasiliensis* CIAT17009 and *Vigna unguiculata* 9611 were established in September 2007 at Palmira station, Colombia, in quadruplicate.

- Each plot had a size of 5 m\(^2\) m\(^2\)
- Row-spacing was 70 cm and within rows 30 cm or 20 cm respectively for *Canavalia* and *Vigna* at a sowing rate of 20 kg/ha.
- *Canavalia* forage was harvested at 8, 12, 16 and 20 weeks of growth, *Vigna* at 6, 8, 10 and 12 weeks.
- Yield and feed value of the total above-ground plant were determined.

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**3. RESULTS**

- The dry matter (DM) yield of *Canavalia* developed slowly from 1.1 t/ha after 8 weeks of growth to 3.6 t/ha after 12 weeks, then to 6.1 t/ha at 16 weeks and doubling 12.3 t/ha DM after 20 weeks (Fig. 3).
- The DM content rose from 21 to 24% from 8 to 16 weeks, and to 39% after 20 weeks.
- The fast growing *Vigna* started with a DM yield of 1.7 t/ha (6 weeks), and increased to 3.5, 5.1 and 8.5 t/ha with 8, 10 and 12 weeks.

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**4. SUMMARY & CONCLUSIONS**

- *Vigna unguiculata* is a fast growing legume with a constantly high digestibility for ruminants, harvest with 10 weeks recommended.
- *Canavalia brasiliensis* had high yields after 16 weeks of growth whereas digestibility decreased probably due to the high fibre content.
- In general, *Canavalia* had a lower crude protein content and digestibility compared to *Vigna*.
- However, depending on the general nutritional status of cattle and feeding options, this multipurpose tropical forage legume might be a good supplement to the basic feed.

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Fig. 1: *Vigna unguiculata*, 10 weeks old
Fig. 2: *Canavalia brasiliensis*, 20 weeks old

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This work was supported by [Image]