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Dry Season Resource Use Efficiency of Cattle Farms in Olancho, Honduras and Implications for Forage Technology Adoption

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Abstract

According to a representative sample, 74 % of smallholder livestock farmers (<20 cattle heads) in Olancho live below the poverty line (1$/person/day). 65 % of farms earn less than 3 $/person/day. Poverty is associated with sub optimal resource use in the dry season (3–6 months), when livestock holders feed purchased and farm supplements. Milk production in Olancho is highly dependent on commercial concentrates (62 % of the farms). Legumes for high quality protein feed and forage conservation are still rarely used. Resource use efficiency measured by the dry season net income per cow in milk divides farms in groups with the average monthly incomes: lowest- -15.63$, low- 5.63$, medium- 14.29$ and top performers 32.49$. These groups make up 32 %, 17 %, 30 % and 21 % in the sample.

Lowest and low performers showed a situation, which can be described as the 'concentrate trap': purchased feed supplements are used for herd maintenance only. Obstacles for the adoption of multi-purpose forage options are cash scarcity, lack of knowledge and the prevalence of dual-purpose cattle (milk and beef) with often low genetic potential for milk production. Low dry season milk production results in a decline of cash flow.

Medium performers use a higher variety of dry season feeding strategies employing more farm produced feed. Medium performers did not show dominance of a specific herd size, thus milk production can be profitable irrespective of herd size.

Although top performers use a wide range of dry season feeding strategies, expenses for purchased supplements are clearly higher than in the other groups. Capitalizing on better genetic potential of the cows, they use purchased inputs for production and not to fill the cows.

Possibilities for policy and development interventions in lowest and low performer's systems should generate a continuous cash flow through year-round milk production, employing as much as possible forage based feed. Adoption of such technologies is most probable among top and medium performers, where some financial reserves are available and forages can increment profits. Once technology has sufficiently spread between top and medium performers, the profitability to utilise improved forages will likely convince low and lowest performers.

Keywords: Concentrate, forages, Honduras, milk production

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