

## Summary

In order to evaluate the impact of tropical grass-legume pastures on the milk production in dual purpose farms, grass pastures were established with and without the additional incorporation of legumes on a total of eight farms and two research stations in two regions in the Andean Piedmont of Colombia, Meta, and Caquetá. The utilized grass species was *Brachiaria decumbens*, and the incorporated legumes consisted of a mixture of different species (*Centrosema* spp., *Desmodium* sp., *Arachis* sp., and *Stylosanthes* sp.).

In the trial pastures, milk yield was significantly influenced by season. In the dry period, in six out of 10 locations significant increases in individual daily milk yields of 340 g to 660 g per cow and day were monitored for cows grazing on grass-legume pastures ( $P < 0.05$ ). In the rainy season, the yield difference in favor of the grass-legume pastures was less pronounced. In three locations, yield increases of cows on grass-legume pastures were statistically significant and averaged 780, 310, and 340 g per cow and day, respectively ( $P < 0.05$ ). In six other locations, average daily milk yield increases of cows on grass-legume pastures of 100 to 240 g per cow were monitored. Although these differences were not statistically significant, a tendency in favor of mixed pastures is obvious.

In most locations, yield differences of grass stands and grass-legume stands were greater during the dry season than during the rainy season. On the farms in Caquetá, these seasonal yield differences between dry and rainy season were smaller than in the Meta region due to the shorter dry period in Caquetá.