

# Intensification of Dairy Goat Farming in Uplands and Lowlands of West Sumatra, Indonesia

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In Indonesia, the national milk production still relies on dairy cow farms, whereas there is alternative commodity to help meet the demand of milk consumption i.e. dairy goat sector. The local farmers should have been developed this potential livestock with the existing predominance, such as it is easily maintained, low investment and more availability of feedstuffs. Currently, the intensification farming system is an option model in animal breeding. This is an effort to elucidate the prospect of dairy goat farming as a foundation program about the milk yield improving in entire West Sumatra area. Lack of data and information on intensify dairy goat farming is one of the triggers author to conduct this research.

## Experimental Approach

The West Sumatra Island has a varied terrain, which is divided into upland and lowland categories generally. There are potential fields as dairy goat farming intensification based on the sustainability of fodder sources. However, based on an author's survey as pre-observation conducted to several potential sites of the intensify goat farming, such as the Padang, Pariaman, Padang Pariaman regency, Bukittinggi, Solok, Solok regency, and Payakumbuh, it was known that the most serious problems faced by farmers was the provision of adequate feedstuffs in quantity and the both in terms of quality. Determination of the study area was consideration a significant difference in altitude of the location.



Figure 1. Map of sampling location

The object of this research was a dairy goat farm of Etawa crossbreed (PE) intensively. There were 78 dairy goats in upland and 63 dairy goats in lowland area. Used the survey method through census and interviews with farmers and farm group, also did the direct observation for the implementation of farming management. Data collected were analyzed descriptively. The percentage score is the ratio of observed values and ideal values of impact points.

Giving different types of forage based on resource availability plants growing in two different plains as the carrying capacity of goat farm. Generally, legumes were available for dairy goats in uplands and straws for goats in lowlands. Further, two groups obtain the same value of 100% for the harvests, because consumers appreciate more about goat's milk and fertilizer also. That is way the price of goat milk is fourfold compared to cow's milk on the local markets in West Sumatra.

## Conclusion

Both uplands and lowlands could be used as dairy goat farming intensively due to sustainability of feedstuffs in the entire area, but need improvement in housing systems and equipments.



Figure 2. Performances of dairy goat farming

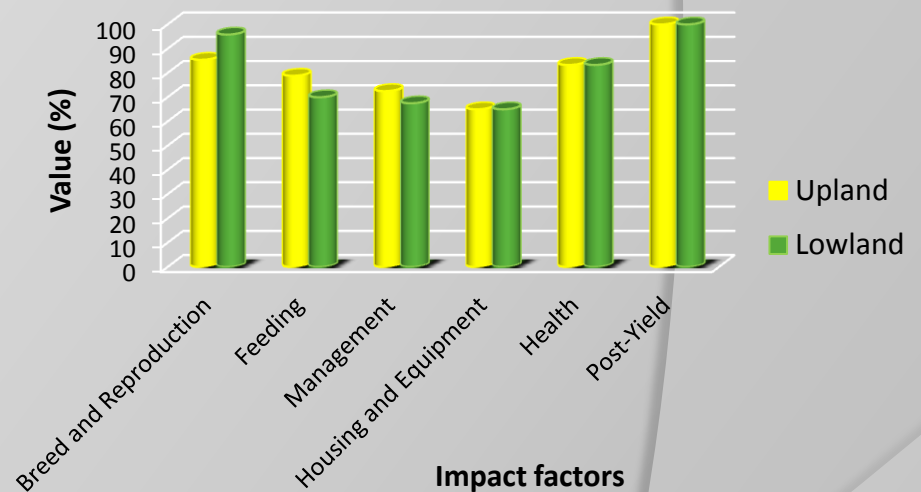


Figure 3. Value of impact factors of dairy goat farming

## Future Experiments

1. Analysis of straws as highly nutritive for ruminants in lowlands.
2. Analysis of *Tithonia Diversifolia* as legumes potentially in uplands.
3. Improvements in goat milk quantity and quality.

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