ABSTRACT

Geographical Information System Application to See Forage Requirement and Land Use at Ranch Business Area’s Dairy Cattle of Bogor’s Regency

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Geographic Information Systems (GIS) can serve as a platform to link data sets and models based on locations and spatial relationships. The benefits of this research will enhance the capability of GIS as a platform of information integration for management forage supply and land use system at ranch business area (Kunak) of Bogor’s Regency, West Java. The research was done at Kunak Bogor's Regency dairy cattle as extensive as 94.41 ha that consist of Kunak I and Kunak II.

The method that is observation and interview sheet as GIS layer to record data management system (forage requirement, livestock’s population, milk production, and feed supplement that is given at Kunak). Identification of forage availability was used to calculate and identify agricultural waste.

The result of this research was on the form of maps as a basic of information for various purposes (such as forage and feed resources development). Moreover, it was also found there were a shortage of forage supply, a change of dairy cattle population composition, and an increasing of milk production. Based on calculation, forage requirement for 7,800 animal unit can be supplied either by utilization of agricultural waste from surrounding area (Cibungbulang’s district and Pamijahan’s district) or by land extencivication of forage planting from an area of 101.5 ha.

Keywords: Geographic Information Systems (GIS), dairy cattle of Kunak, forage requirement