



Research Article

Analysis of factors determining supply of and demand for animal energy use in crop production

■ P.S. PRASANNA KUMAR, SACHIN HUNDRE, P.S. RANJITH KUMAR AND L.B. HUGUR

ARTICLE CHRONICLE :

Received:

18.12.2012;

Revised :

16.03.2013;

Accepted:

16.04.2013

SUMMARY : Energy is a critical input in crop production activity. Sufficient availability of right energy and its effective and efficient use are prerequisites for improved agricultural production. The present study was carried out Raichur district of Karnataka state during 2010. Both primary and secondary data were collected and analyzed for determining the factors influencing supply of and demand for animal energy use in crop production. The study revealed that the land holding pattern along with the age, experience in agriculture and the family size of the farmer influences the nature and quantum of energy used in agriculture. The total animate and mechanical sources of energy utilized for paddy cultivation by small farmers (1,913.20 MJ/acre) was found to be significantly higher than that of medium (1,382.50 MJ/acre) and large (1,480.30 MJ/acre) farmers. This indicated that energy utilization from draught animal source decreased with increase in the farm size. But in contrast, mechanical energy utilization increased with increase in farm size. It means that with increase in farm size draught animal energy was replaced by mechanical energy indicating that large farmers were more dependent on mechanical energy than the lower size group of farmers. Asset holding factor also influences the use of different types of energies in farm production which was evident from the fact that large farmers owning modern farm tools use more of mechanical energy in contrast to small farmers depending on human and draught energy. The total bullock energy requirement in major crops of Raichur district was 3,763.07 lakh MJ which was significantly higher (92.58%) against the total availability of just 279.24 lakh MJ due to significant lower bullock population. The factor of availability of energy source during the peak season was another major factor determining supply of and demand for animal energy use in crop production.

KEY WORDS:

Factor, Energy supply, Energy demand, Asset position, Energy availability, Energy requirement

How to cite this article : Prasanna Kumar, P.S., Hundre, Sachin, Ranjith Kumar, P.S. and Hugur, L.B. (2013). Analysis of factors determining supply of and demand for animal energy use in crop production. *Agric. Update*, 8(1&2): 191-196.

Author for correspondence :

SACHIN HUNDRE

Rural Development,
Syndicate Bank,
Email:sachinphundre@gmail.com

See end of the article for authors' affiliations