

Energy Conservation and Management in Farm Power and Machinery 3 1 0 4 to 4

Course Description & Objective:

To acquaint and equip with the energy use pattern in agriculture production systems, conservation of energy, energy planning and economics.

Course outcomes:

- 1. Determine what farm practices use the most energy for producing a crop.*
- 2. Describe farm equipment options for reducing energy use.*
- 3. Describe management options for reducing energy use*

UNIT I

Energy requirement of different operations in agricultural production systems viz. crop, livestock and aquaculture.

UNIT II

Energy conservation through proper management and maintenance of farm machinery

UNIT III

Planning and management of agricultural production systems for energy conservation and energy returns assessment.

UNIT IV

Development of computer program for efficient energy management in agiven agricultural production system.

UNIT V

Energy use planning and forecastingfor a given system.

Suggested Readings

1. Mittal JP, Panesar BS, Singh S, Singh CP & Mannan KD. 1987. *Energy in Production Agriculture and Food Processing*. ISAE and School of Energy Studies, Ludhiana. ISAE Publ.
2. Pimental D. 1980. *Handbook of Energy Utilization in Agriculture*. CRC Press.