

THE VALUE OF FORAGE FOR COWS FROM THE POINT OF VIEW OF THE NET-LACTATION (NEL) ENERGY

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Summary. Energy is one of the most important indexes in the feeding of milking cows. They need forage energy maintain vital functions, reproduction and milk production. Following the research of the USA, Germany, the Netherlands, an evaluation system of net energy for lactation (NEL) has been developed and new programs of cow feeding being worked out at present are based on it. Net energy (NE) is calculated by subtracting the energy for body heat and maintenance from from the over all metabolic energy. The research shows that only 28% of the forage energy value (bruto), fed to a cow, is used for milk production. So it is very important to find some means of balancing the ration for effective conversion of the forage fed into milk.

There is no any laboratory technique to determine the net energy of forage so its value based on its chemical composition and coefficients of digestibility is calculated mathematically. This forage evaluation system being rather new in Lithuania we tried to evaluate the main forages for cows from the point of view of NEL.

Our analysis showed that cows get most net energy when they are fed on starchy grain concentrates (barley, wheat, oat) and albumen-rich grasses (clover, rape), while cows fed on wheat bran and albuminous pellets (cotton, sunflower) and grass or straw get the least amount of net energy.

Keywords: feeds, cows, energy, rations.