Forecasting volume and economic efficiency of maize production in Ukraine

M.M.Ilchuk, I.A. Konoval

National University of Life and Environmental Sciences of Ukraine

Indicators of maize production in Ukraine are analyzed. Harvested area under maize has increased from 1.3 mln ha in 2000 to 4.4 mln ha in 2012; gross harvest has increased from 3.8 mln t in 2000 to 21.0 mln t in 2012. The main factors in the increase of maize production have become introducing modern growing technologies and a good selection of varieties and hybrids of the culture. In 2012 the agricultural enterprises produced 87.0% of the total volume of produced maize whereas the households – 13.0%.

The economic efficiency of maize production in agricultural enterprises (including farms) of Ukraine for 2010 is analyzed. Profitability of maize production of enterprises located in the steppe zone was 30.3%, in the forest-steppe zone – 32.3% and in the Polissya zone – 17.8%. According to statistical data of 2010 - 2011 years authors developed mathematical models of demand and supply on the maize market in Ukraine. Analysis of the models allows determining optimal demand and supply for maize on prospects. The methods of economic substantiation of program of maize production in agricultural enterprises of Ukraine for 2015 are presented. Results of researches show that on the sown area of 3759.6 thsd. ha and an average yield of 5.77 t/ha enterprises of Ukraine can produce 21.7 mln t of maize in 2015.

For obtaining the planned harvest of maize in 2015 agricultural enterprises will have need in fertilizers worth 5846.51 mln UAH, fuel – 3880.64 mln UAH. The total need of cash funds will be 21.405 milliard UAH. Total costs for maize production in agricultural enterprises of Ukraine will amount to 23.417 milliard UAH. Profitability of maize production of enterprises of Ukraine on the whole will amount to 58.8%.