RESEARCH ON THE EFFECT OF WHEAT YIELD FERTILIZATION IN THE LONG TERM EXPERIENCE AT ARDS SECUIENI

Cornelia LUPU[1], Margareta NAIE[1]
E-mail: scdasec@scda.ro
[1] Agricultural Research and Development Station Secuieni, Secuieni - Neamţ

Abstract
The rational application of fertilizers ensure along with other means of increasing production, the raising of soil fertility and thr practice of a large productivity agriculture and economic efficiency. The fertilizer dose schedule is a tehnological activity, base don the agrochemical data from the field and from plamnned harvest. This paper presents experimental results for 2006-2009 period obtained in a long experience on the influence o f phosphorum and nitrogen fertilizer on winter wheat production at ARDS Secuieni. The experience had in study: A – P2O5 dose: 0, 40, 80, 120, 160 kg/ha; B – N dose: 0, 40, 80, 120, 160 kg/ha. The cultivated variety: Crina. The productions were influenced by the dosage of fertilizer applied but also by the climatic conditions during the research. The productions in the unfertilized variant were 3269-6590 kg wheat/ha (period average was 4910 kg wheat/ha). By applying the P2O5 and N fertilizers the production increases were 5-33% representing 228-1617 kg wheat/ha.By applying phosphorus fertilizers the productions increases were 358-614 kg wheat/ha representing 6-11% and by applying nitrogen fertilizers increases ranging from 543-1150 kg wheat/ha representing 10-22%. The marginal increases in pjosphorus fertilizer application were 3,83-8,95 kg wheat/kg P2O5 and 7,18-13,57 kg wheat/kg N in nitrogen fertilizer ap plication, in both cases were inversely proportional with the doses of fertilizers applied.

Key words: wheat, phosphorus, nitrogen, productions