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THE CONTENT OF POTASSIUM IN THE BASIC AND NOT COMMODITY PARTS OF A YIELD OF CULTURES IN A FIELD CROP ROTATION DEPENDING ON RATES AND SYSTEMS OF FERTILIZERS

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The content of potassium in plants depends on the biological characteristics of the varietal crops, soil and climatic conditions, the level of fertilizer application and other factors and is nota constant. The content of the general forms of potassium in one sample plant material was determined by wet ashing. Vegetative plant organs are characterized by higher potassium content than reproductive. The content of potassium in the basic production is largely dependent on the biological characteristics of culture and of small systems and norms fertilizers. According to his the main content in the product in terms of dry matter, rotation of culture were located in such descending order: corn silage – clover – peas – sugar beet – barley – winter wheat – maize. The content of potassium in the green mass of corn and other crops non- tradable of products was significantly higher than in the basic and largely ranged depending on the crop rotation fertilizer system.

***Key words**: rotation; prolonged use of fertilizers; potassium in harvest; basic and non-tradable harvest; fertilization system.*

References

1. *Hlystovskiy A.D., KasickiyYu.I., Bakhtin S.L.* Influence of long term fertilizers application on efficiency of crop rotations, balance of nutrients and fertility of soddy-podsolic heavy loam soil. Agrokhimiya. 1989. №3. P. 27-39.(Rus.).

2. *Ivoylov A.V., Shilnikov I.A., Schelkunova A.A.* Removal of nitrogen, phosphorus, potassium and calcium grain crops, tilled crop rotation. Agrokhimiya. 1990. №1. P. 26-32. (Rus.).

3. *Getmanets A.Ya, Vlasyuk S.I., Lavrentev N.M.* Influence of the systematic application of fertilizers on the conditions of plant nutrition and productivity of crop productivity on chestnut soils Siwash. Agrokhimiya. 1985. №10. P. 38-42. (Rus.).

4. *Olhovskiy G.F.* The biological removal of nitrogen, phosphorus and potassium on backgrounds with different fertilizer application.Agrokhimiya. 1980. №7. P 54-58.(Rus.).

5. *Yaroshko M.* Potassium in soil and its role in plant nutrition. Ahronom. 2013. №4. P. 22-24.(Ukr.).

6. *Plants.* Defining common forms of nitrogen, phosphorus and potassium in a dose of plant material. MBB 31-497058-019-2005. Methods of composition and properties of soils. Kharkiv.:Printing house №13. 2005. B. 2. P 189-208. (Ukr.).

7. *Pavlov K.V.* Optimization of barley supply of potassium in the local application of potash fertilizer. Agrokhimiya. 2009. №2. P. 28-34. (Rus.).

СОДЕРЖАНИЕ КАЛИЯ В ОСНОВНОЙ И НЕТОВАРНОЙ ЧАСТЯХ УРОЖАЯ КУЛЬТУР ПОЛЕВОГО СЕВООБОРОТА В ЗАВИСИМОСТИ ОТ НОРМ УДОБРЕНИЙ И СИСТЕМЫ УДОБРЕНИЯ

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Показаны результаты исследований влияния длительного применения разных норм и систем удобрения в полевом севообороте на содержание калия в основной и нетоварной частях урожая. Установили, что содержание калия в основной продукции в значительной мере связано с биологическими особенностями культур и почти не зависит от норм и систем удобрения. Вегетативные органы растений содержат значительно больше калия, чем репродуктивные.

***Ключевые слова:** севооборот; длительное применение удобрений; содержание калия в урожае; основная и нетоварная часть урожая; система удобрения.*