PRACTICAL EXPERIENCE OF EFFECTIVE USE OF CROP-SPECIFIC FERTILIZERS IN RUSSIAN CONDITIONS AND ACCOMPANYING PROBLEMS

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Practical Experience: The Effective Use of Crop-specific Fertilizers in Russian Conditions and the Accompanying Problems

Village Kiseliøvo

Destruction of crop residues in combination with moldboard plowing reduces the amount of organic matter and humus in the soil.
Intensive mechanical processing of earth caused deterioration of the soil structure.

The use of chisel soil tilling methods combined with mulching the surface horizon enables to decrease erosion and to increase fertility of the soil.
The large number of plant residues in the surface layer of soil to a large extent changed the strategy and methods of delivery of mineral nutrition to cultivated plants.

Acceleration of the decomposition of plant residues has come to play a significant role in the strategy of mineral nutrition.
Agrochemical survey

Installation of the chisel tool to introduce liquid complex fertilizers (LCF)
Introduction of liquid fertilizers (UAN 32 and LCF) prior to sowing

A tool «Blue - Jet» is used to introduce LCF prior to sowing
Introduction of complex granular fertilizers at the time of sowing.

Root feeding of cultivated crops with liquid nitrogen fertilizer (UAN 32) with the use of disc coulters.
Introduction of microfertilizers and growth promoters together with herbicides (CRN 5,6 cultivator with spray equipment)

Supplementary feeding of winter wheat with liquid fertilizers on the basis of foliar diagnosis (the use of GPS navigation)