PARTNERSHIPS FOR ACHIEVING CHEMICAL SAFETY IN ARMENIA

ECOLOGICAL ASSESSMENT OF THE RESULT OF A ROCKET FUEL COMPONENT “MELANGE” TREATMENT IN ARMENIA

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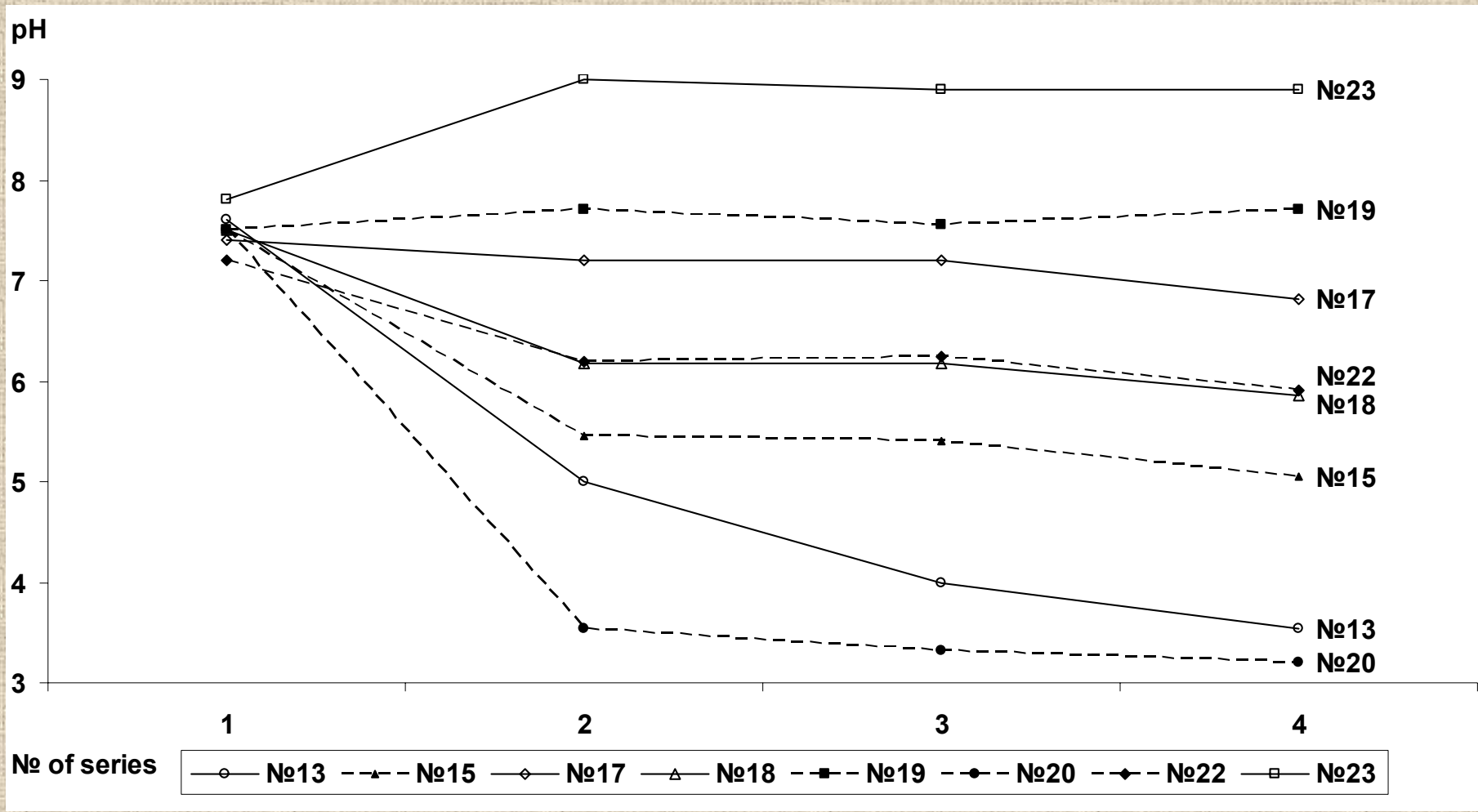
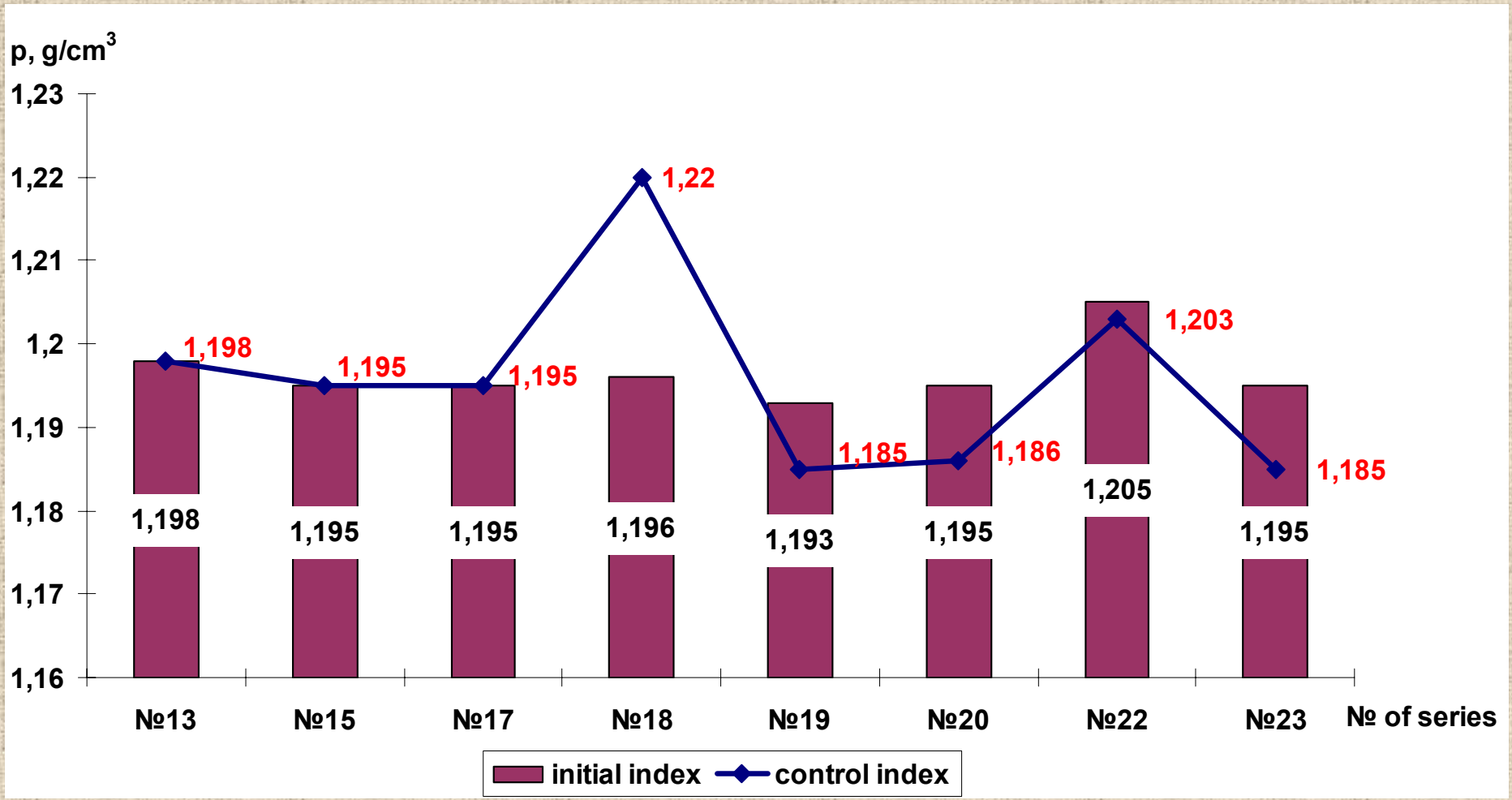
YEREVAN, 29 OCTOBER, 2007

CONTROLLING THE QUALITY OF FERTILIZER



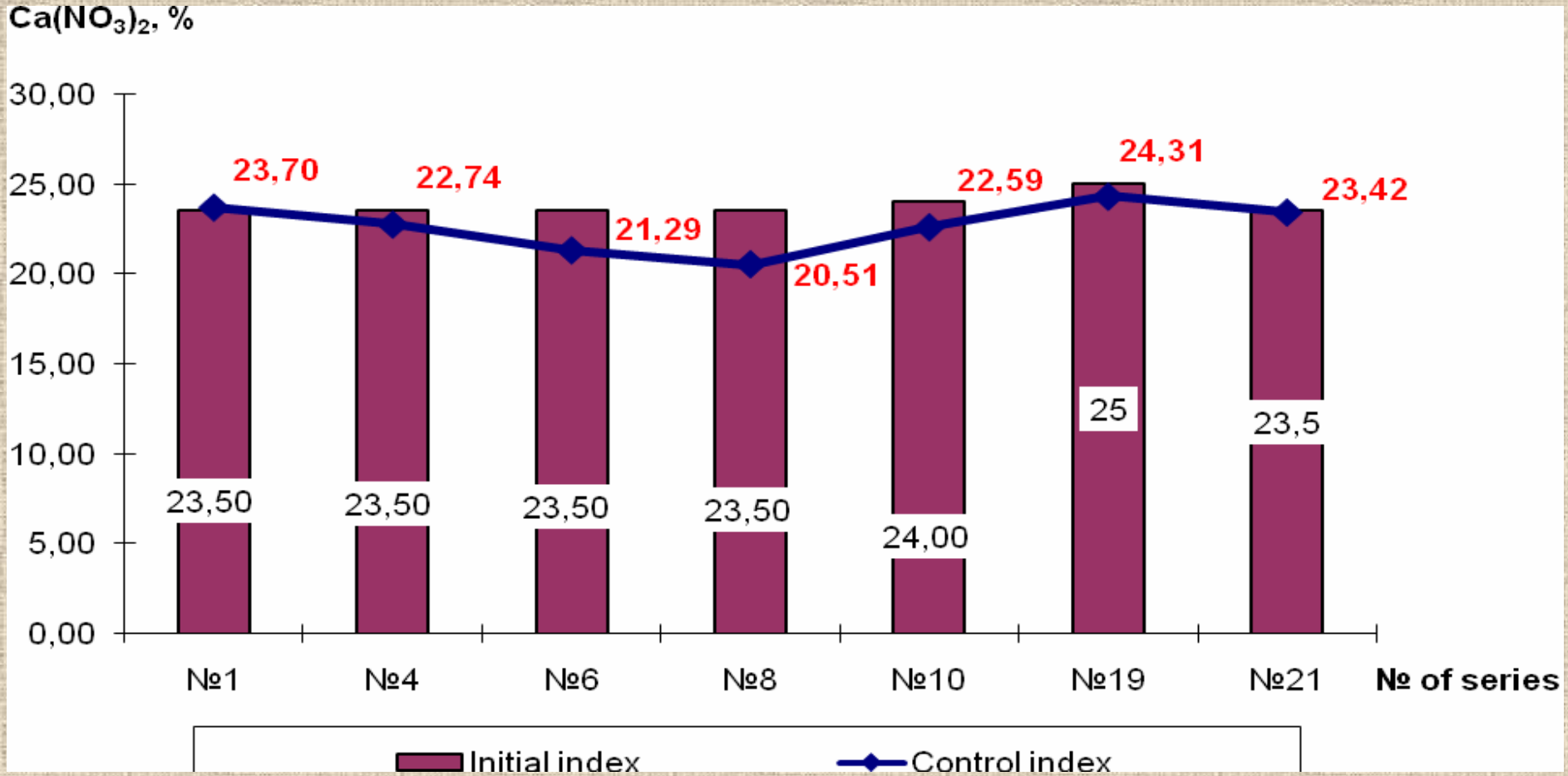
The dynamics of pH variations for separate series of Fertilizer: 1 – initial index, 2-4 – control measurements.

CONTROLLING THE QUALITY OF FERTILIZER



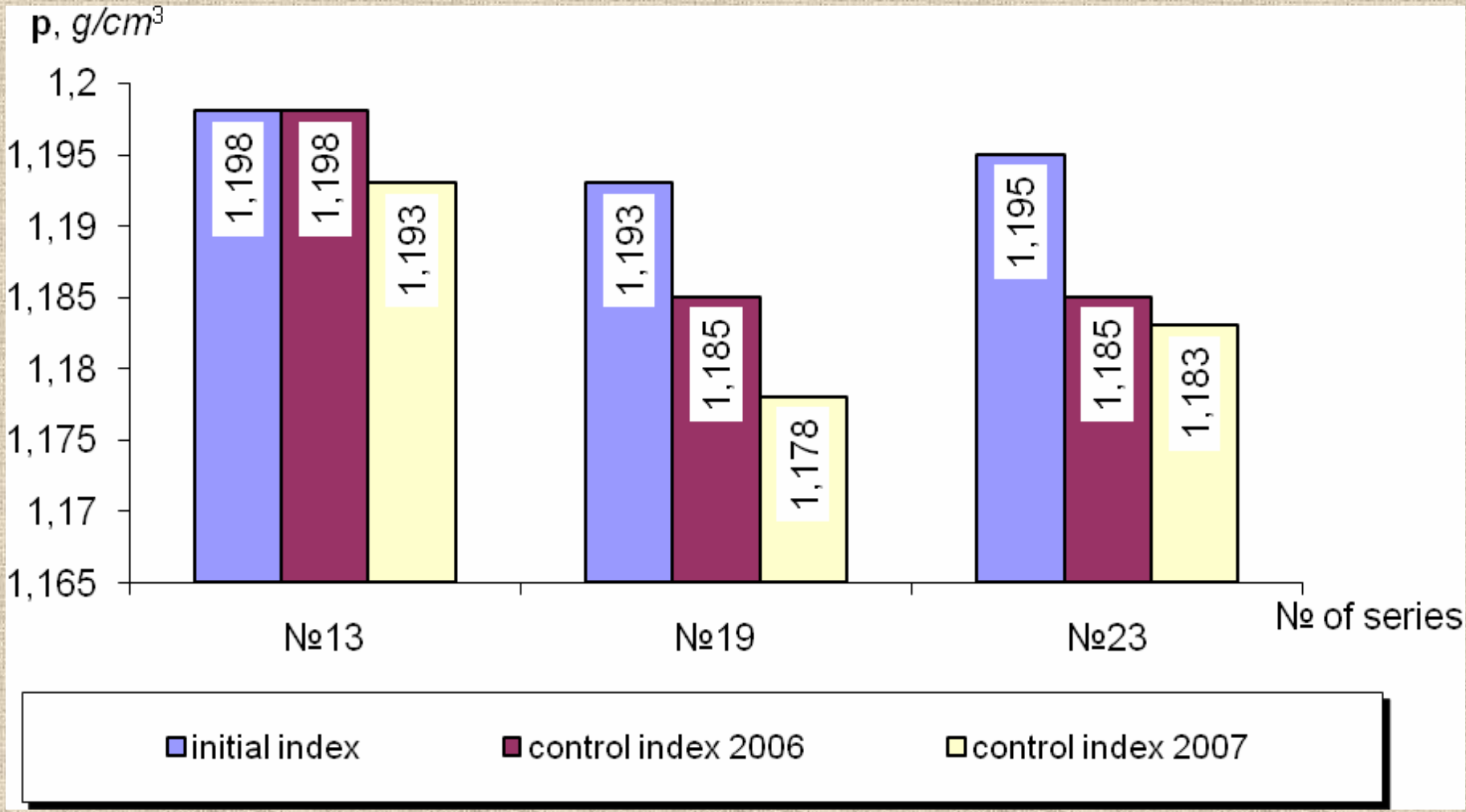
Control density (ρ) control for separate series of Fertilizer

CONTROLLING THE QUALITY OF FERTILIZER



The control of the contents of basic matter ($Ca(NO_3)_2$) in separate series of Fertilizer

CONTROLLING THE QUALITY OF FERTILIZER



Control of density (ρ) of 3 series of Fertilizer (2006) after a year of storage.

ASSESSING OF ENVIRONMENT IMPACT AFTER APPLICATION OF FERTILIZER

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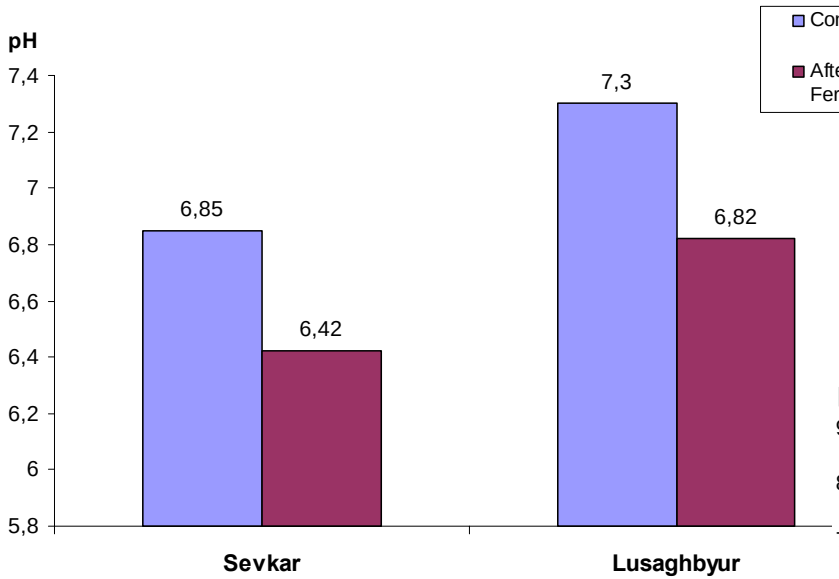
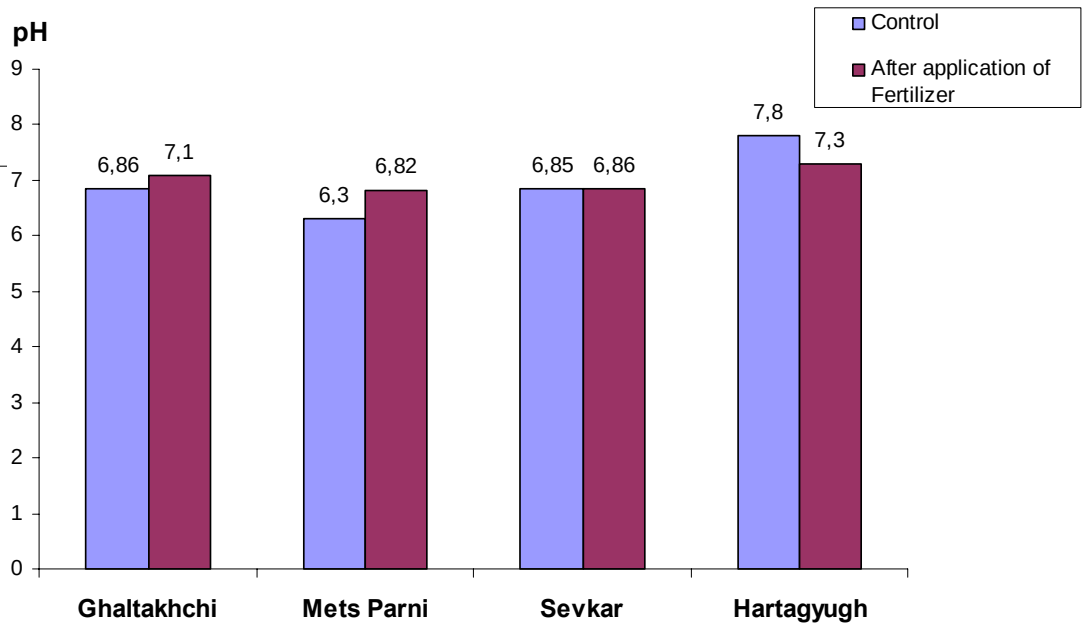
ASSESSING pH VARIATIONS FOR SOILS

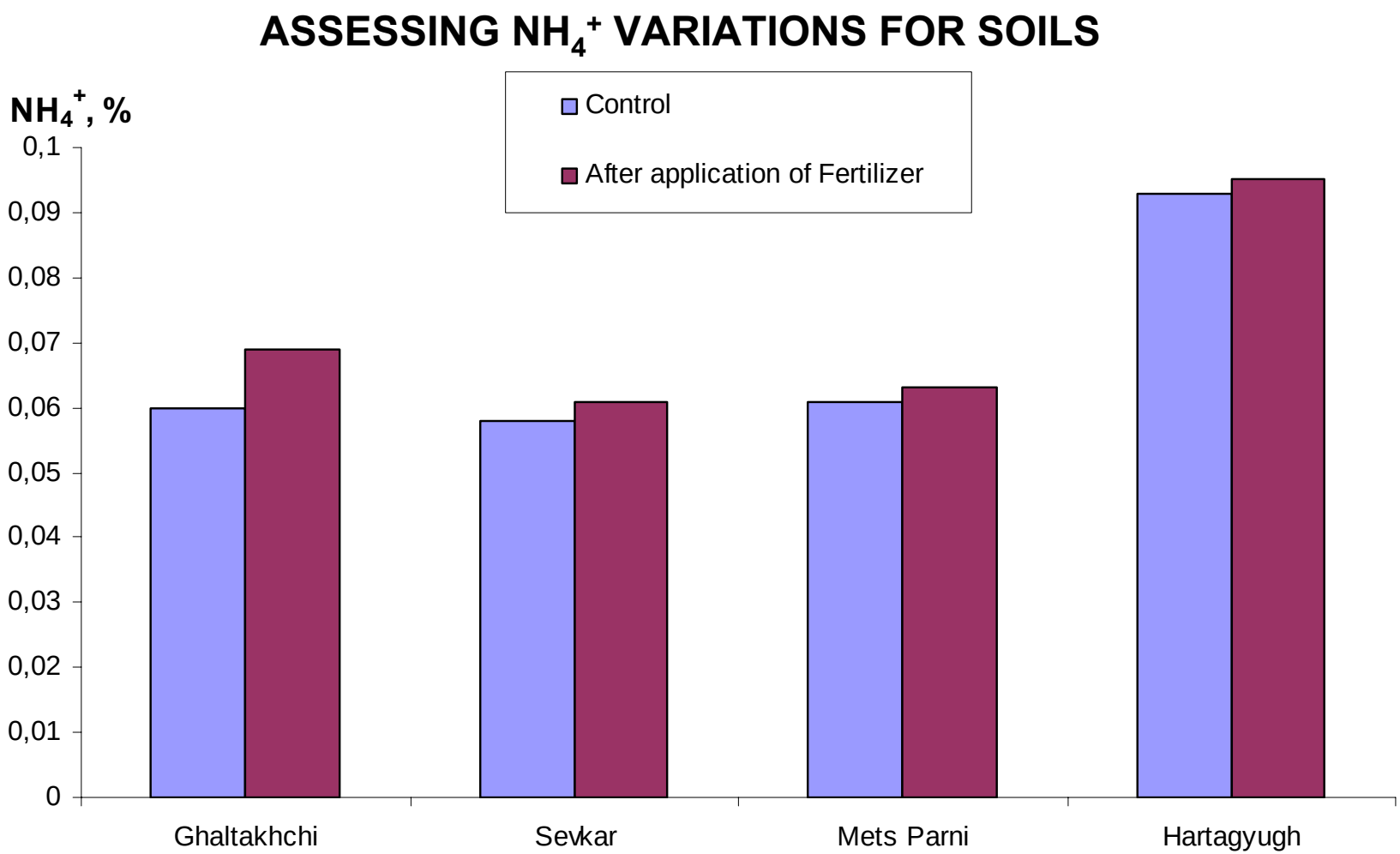


Fallow fields



Ploughed fields

ASSESSING OF ENVIRONMENT IMPACT AFTER APPLICATION OF FERTILIZER



Variations of the contents of ammonium ion (NH_4^+, %) in water extractions before (the control) and after application of Fertilizer to ploughed fields

ASSESSING OF ENVIRONMENT IMPACT AFTER APPLICATION OF FERTILIZER

The indices of electro-conductivity (EC) of soils

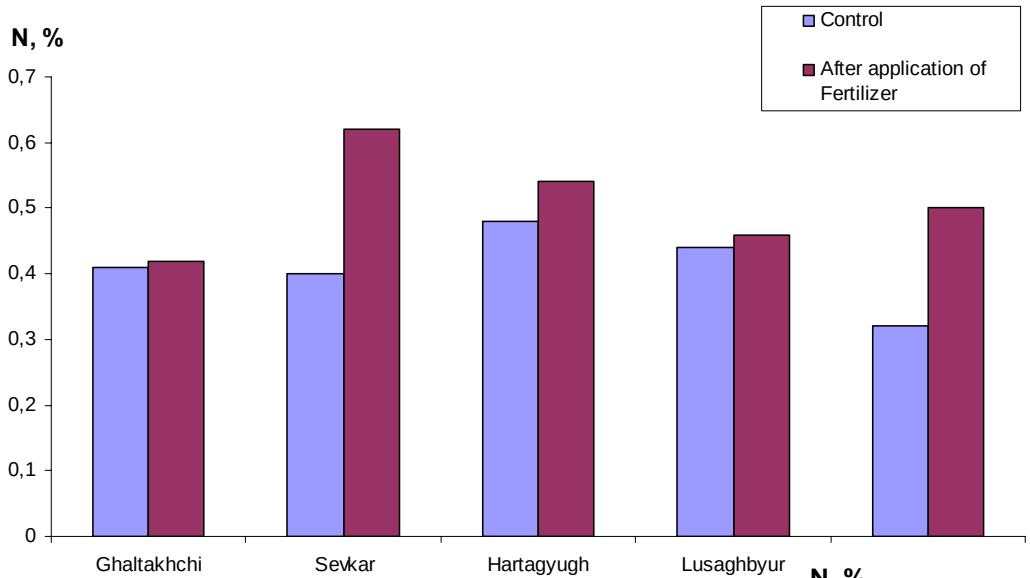
	EC
The control (no fertilizer)	0,07
Fertilized variant	0,47

The contents of water soluble salts for the study soils, in %

Soil	The sum of solts, %	CO_3	HCO_3	Cl	SO_4	Ca	Mg	Na	K
The control (no fertilizer)	0,0238	–	0,002	0,006	0,006	0,006	0,001	0,002	0,0008
Fertilized variant	0,0415	–	0,009	0,008	0,009	0,008	0,003	0,003	0,0015

ASSESSING OF ENVIRONMENT IMPACT AFTER APPLICATION OF FERTILIZER

VARIATYIONS OF THE CONTENTS OF N TOTAL (%) IN SOILS



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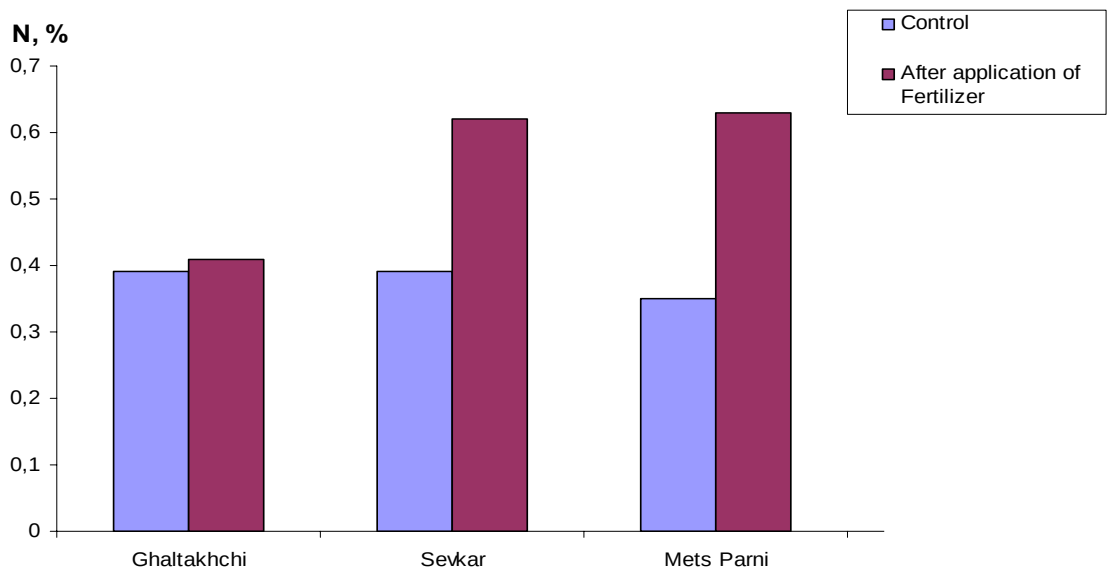
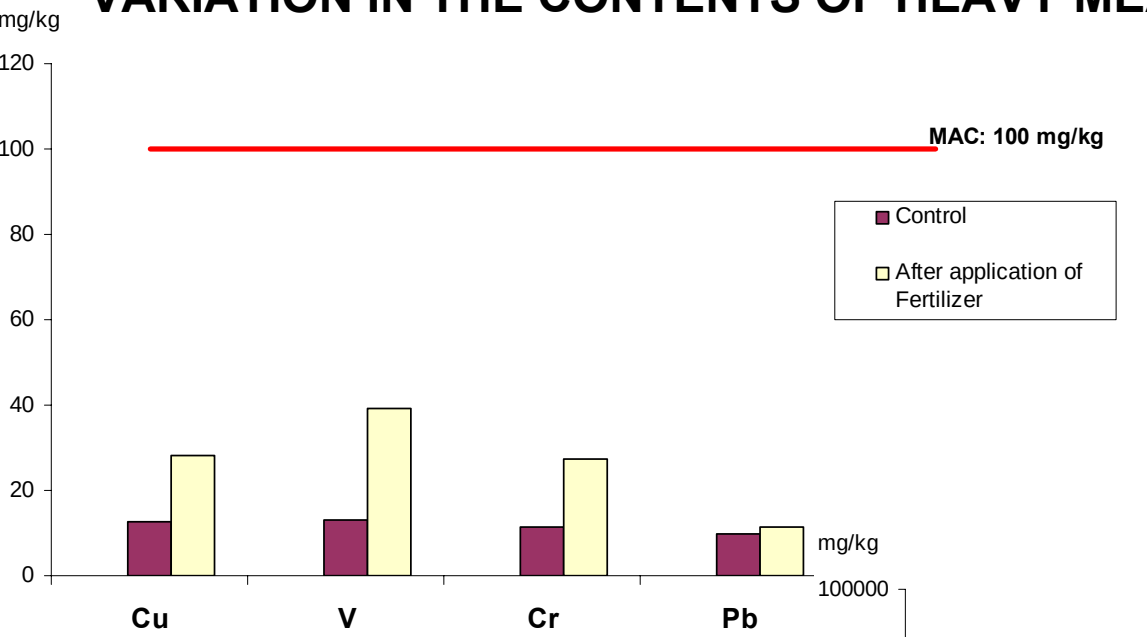
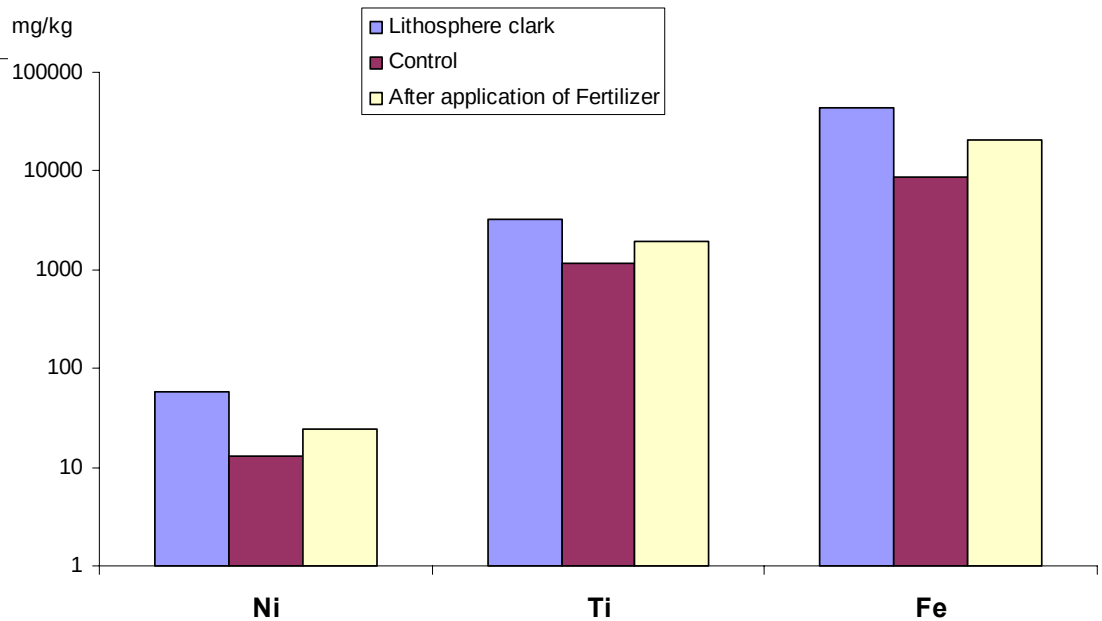


Ploughed fields

ASSESSING OF ENVIRONMENT IMPACT AFTER APPLICATION OF FERTILIZER

VARIATION IN THE CONTENTS OF HEAVY MEATLS ON ARABLE SOIL LAYER





ENVIRONMENTAL IMPACT ASSESSMENT

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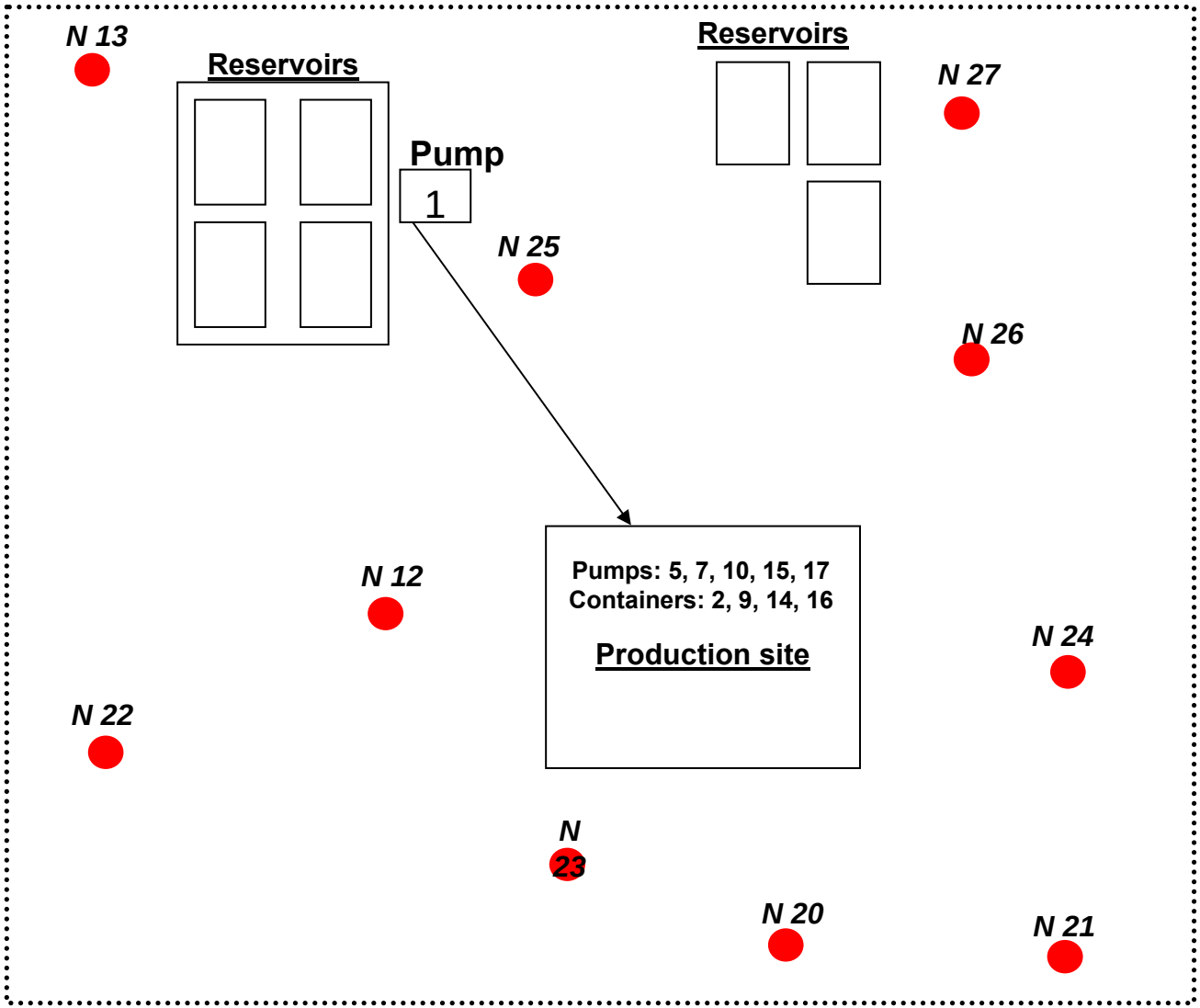
Sampling scheme on Melange treatment site



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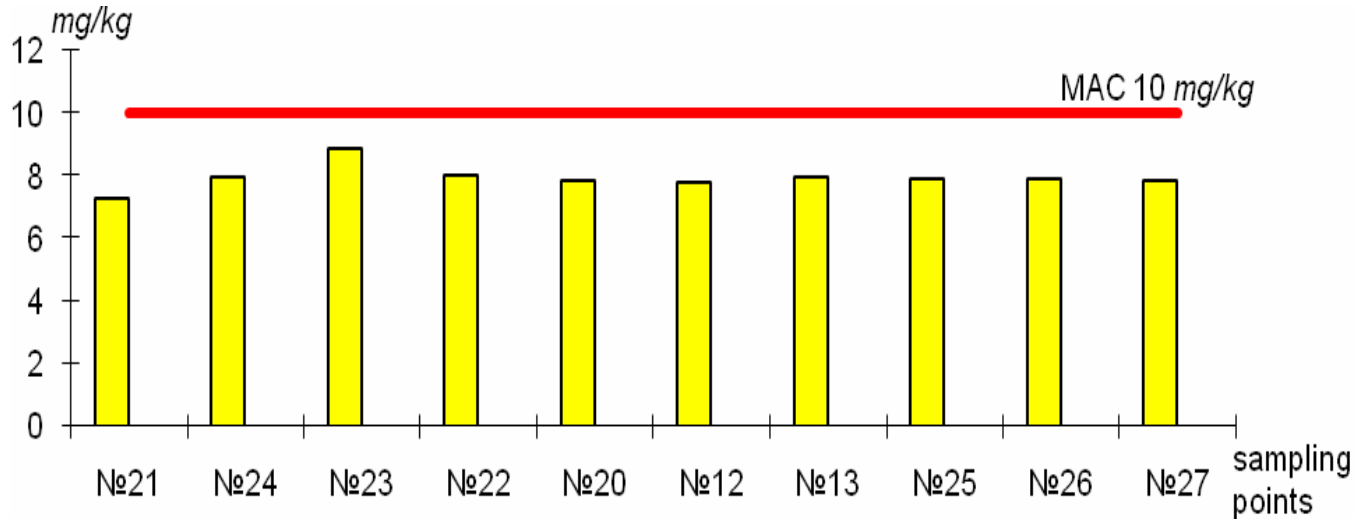
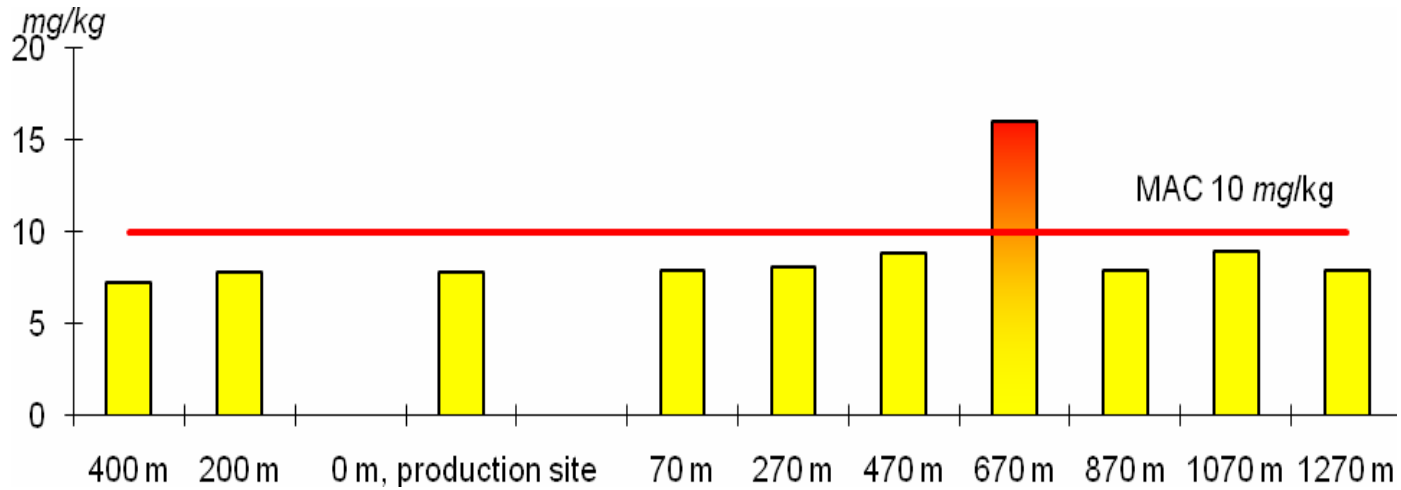


Accumulation levels of water soluble F on upper soil layers on the aggregate location site



Spatial distribution of water soluble F on upper soil layers by horizontal profile

POT EXPERIMENT

CONCLUSION

The project on liquidation of a rocket fuel component “Melange” serves as an excellent example of realization of ecologically oriented technology, when no waste has been induced as a result of treatment of extremely harmful substance and an effective agricultural fertilizer has been obtained as well.

THANK YOU FOR ATTENTION