

An example of spatial correlation between soil water content and irrigated alfalfa yield at sub-field scale

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Research objective

- To reveal the presence of spatial correlation between soil water content and biomass productivity of irrigated alfalfa sowing



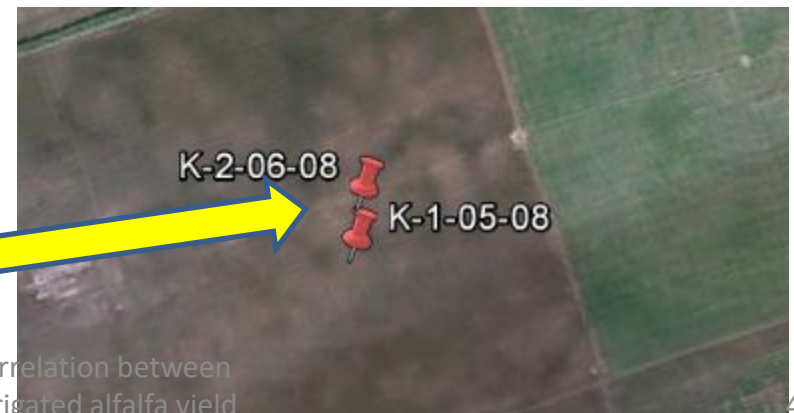
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Research objectives

- To develop and test the method of field mapping of soil water content in the soil coverage;
- Carry out field mapping of biomass for sowing irrigated alfalfa.



Objects of research (Left Bank of Middle part of River Volga)



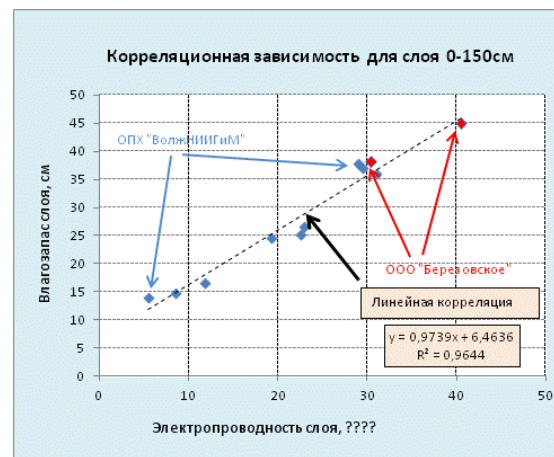
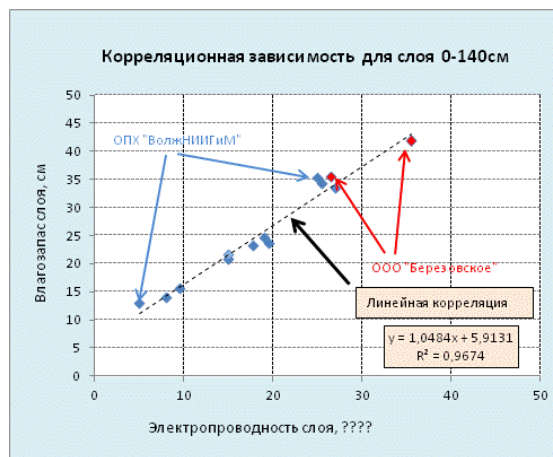
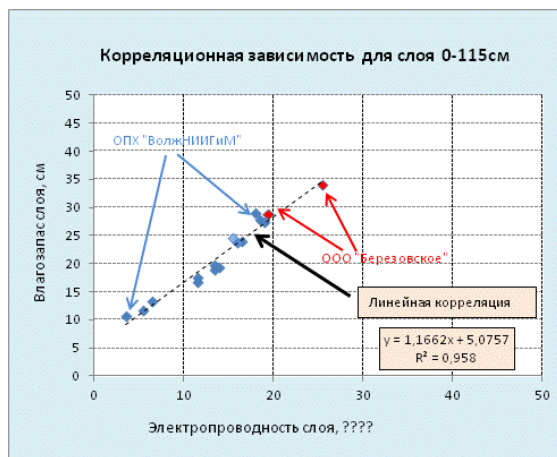
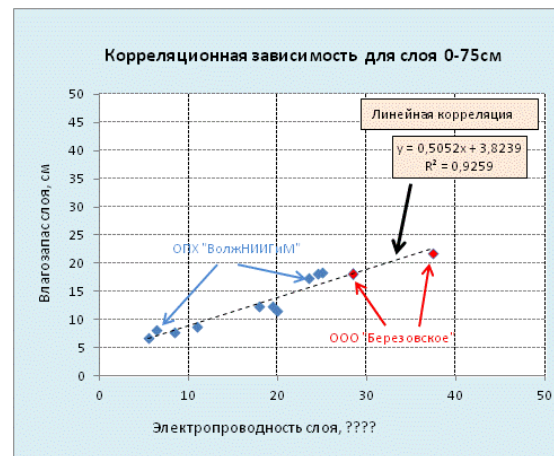
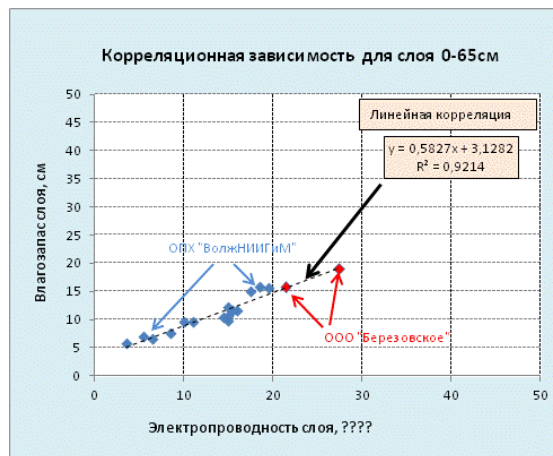
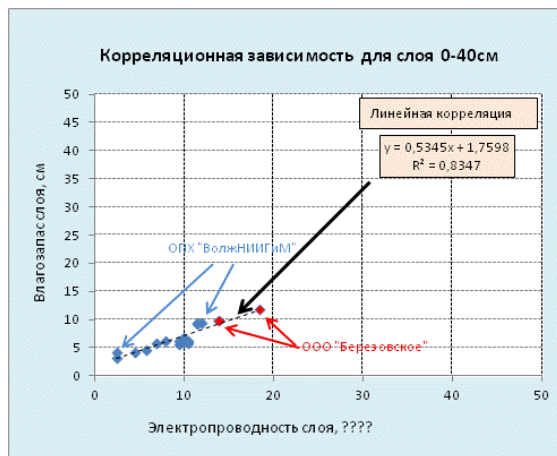
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Used measuring device EM-38



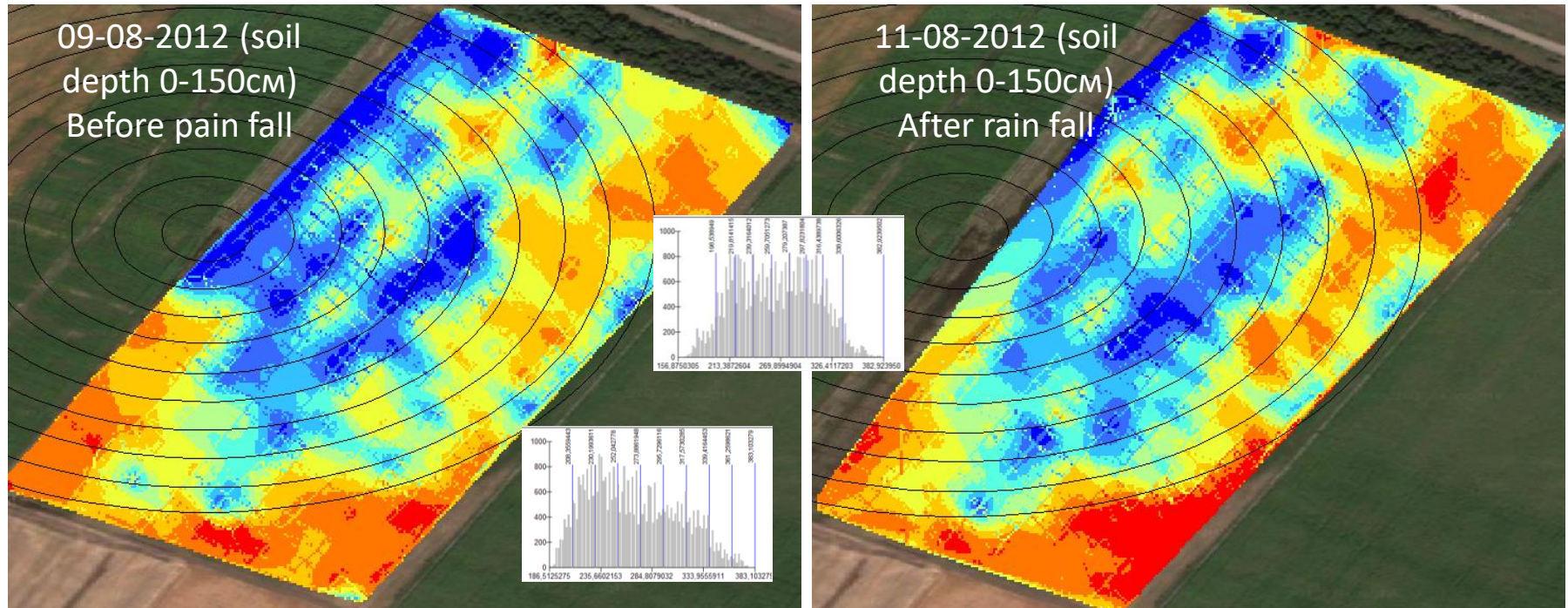
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Methodology for mapping the soil water content at soil coverage

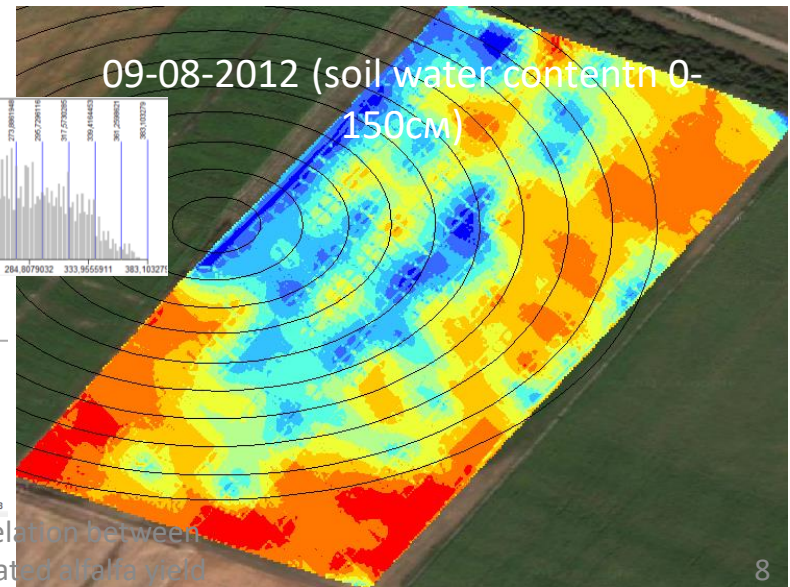
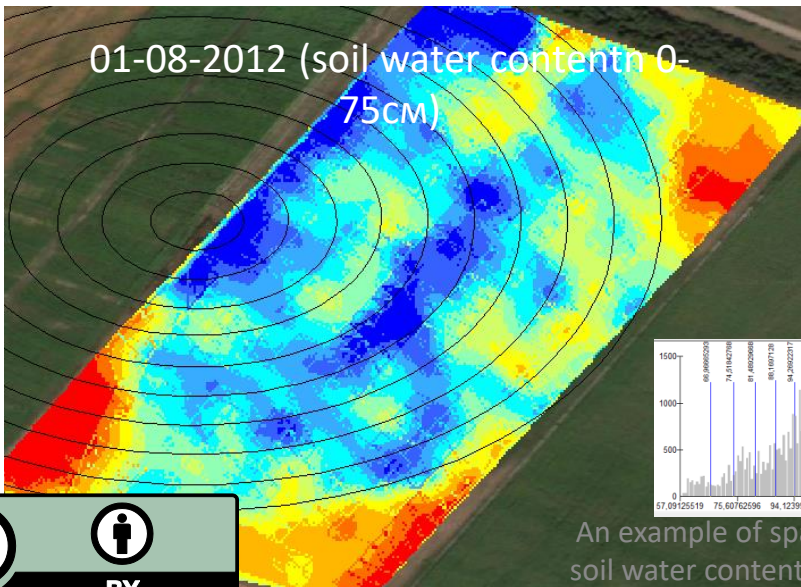
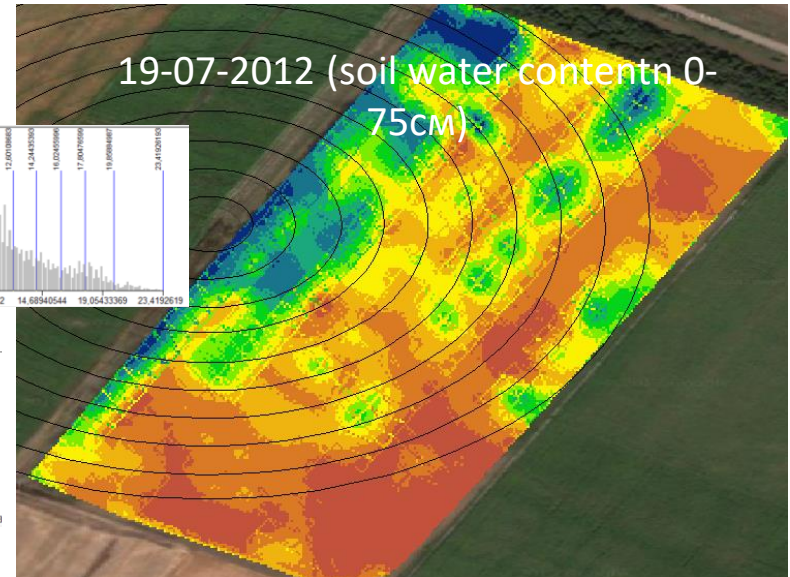
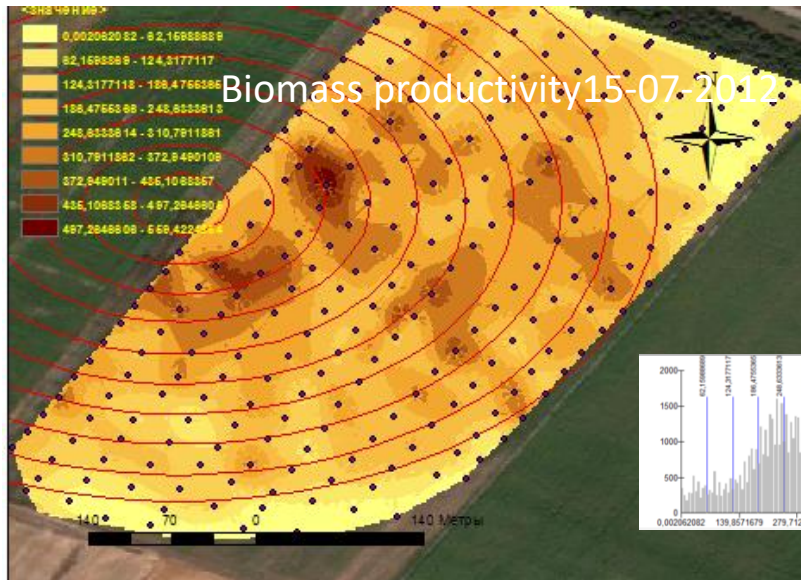


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Cartograms of soil moisture storage at 0-150 cm of two adjacent events



Results



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Conclusion

- The results of field mapping of biomass and soil water content at soil coverage indicate the presence of spatial correlation between both of them



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Thanks for your time and attention!



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