

Interactive comment on “Cultivated grasslands present a higher soil organic carbon sequestration efficiency under leguminous than under gramineous species” by Yu Liu et al.

E. Abakumov

e_abakumov@mail.ru

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Topic of carbon sequestration became more and more important for stabilization of postantropogenic ecosystems and climate issues regulation. Carbon sequestration is the one of the most important soil ecosystems services. Nevertheless, manuscript is devoted to assessment of storages of carbon, but not focused on SOM quality. From my point of view the quality of SOM is the most important aspect of stabilization rate assessment. I strongly recommend to discuss it in review, results and discussion as well as in conclusion chapter. This is general comment. The particular ones are follows: a) discussion should be more detailed, with taking into account another types of published data about post antropic successions; b) chemical mechanism of sequestra-

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tion efficiency should be taken in to account, e.g. characterization of SOM by ¹³-NMR o by kinetic parameters; c) please provide the soil name in few soil taxonomies, please specify the soil profile morphological organization, name of horizons, soil morphological features, especially of carbonate genesis; d0 please provide more detailed soil chemical and particle size information.

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