

Reviewer comments

“Local soil quality assessment of north-central Namibia: integrating farmers' and technical knowledge”

by Brice Prudat et al.

MS Version 3

Specific

page	line	comments
3	table, line pH	I suggest, that doing numerous measurements on soil pH is cheaper by application of the sensor technique instead of the Hellige test kit
4	table	add a row with information, for which sort of soils (types, region) and land use the soil quality indicators were proposed
4	10	Verlinden and Dayot, 2005 ^a
6	31	what is meant with color shade ? The standardized MUNSELL soil color charts are composed by the variables hue, value and chroma. Is shade identical with value ? Please explain.
7	12	“two sample rings”: defined volume? calculation of bulk density possible ? please explain or reformulate
9	table	hardness is an often mentioned indicator for soil quality. I suggest, that the hardness is related to the condition of the soil in the (almost) dry state, perhaps for that time of the year, when ploughing is done. Please add some explanations on the local farmers intention.
10	21	values of pH (8.4 to 10.1) are not existing in Table 5 !
11	table 5	in row <20 µm – sub data of sand are give and in row sand – sub data of < 20 µm are given. Check all data and compare with data in respective chapters. add row with WRB classification
12	table 6	same mistakes as for table 5 !!
12	6	acc. to tab. 6 the coefficient of variation is large for TOC, moist color value, < 20 µm fraction but not for pH (in both depth intervals CV < 0.2)
13	figure 2	this graph pretends a precise depth distribution which was not analysed. Additionally this graph is redundant, please delete.
13	8	fragipan: delete term because of its vague definition
14	8	“large variety of soils” → large variety of soil properties
14	9	“standardize the assessment of the SQ at a specific location and time”. Why time ? Soil quality assessments always results in a potential for intended land use. Different climatic conditions may be included in the potential. Thus the results are irrespective of time, however may be altered by changes in soil properties due to land use. What is meant with location in this context: Three villages were studied, should the SQ assessment by different for each village?
14	16	harder in dry conditions (?)
14	21	this increase in < 20 µm can only be marginal
15	12	Data presented by Blume eta al 2011 cannot be transferred to Namibian soils.

16	8	“indicates important degradation”. Relevant forms of degradation (acidification, salinization, decline in nutrients, compaction) do not include the shift to more coarse particles. Thus, if farmers classify soils as Elondo and field tests show, that sand content is > 90 %, this means that farmers needed to shift to less suitable soils.
16	9	“major soil improvements”: see above