1. Title

Soil Management Strategy for Enhancing Crop Yields

2. Type

Commission Symposium Comm. 3.3-Soil Fertility and Plant Nutrition

3. Organizer(s) & Convener

Wolfgang Burghardt (Past Chair IUSS Division 3- Soil Use and Management) FK of Biology, Soil Technology, University Duisburg-Essen Universitaetsstr. 5, 45141 Essen, Germany

E-mail: wolfgang.burghardt@uni-due.de

Tel: +492011833754

Chunsheng Hu

Center for Agricultural Resources Research Institute of Genetics and Developmental Biology, Chinese Academy of Sciences 286 Huaizhong Road, Shijiazhuang, Hebei Province 050021, China

E-mail: cshu@siziam.ac.cn Tel: 86 311 85814360 Fax: 86 311 85815093

4. Rationale

Soils with the highest natural yield from soil fertility - that means the potential of a soil to provide for production of yields natural resources of long lasting availability and effects, such as appropriate texture, organic matter content, biological activity, soil structure, base content and minerals - must not produce the highest yield from additional investments such as from seeds, fertilizer, biocides, soil tillage, irrigation and drainage. Clay loam and sandy soils are well known examples of this discrepancy.

5. Objectives

In view of modern ways of soil use it is necessary to distinguish the yields achieved solely from natural soil and area properties, and yields achieved from soil and area properties which transform investments into yields. That means that soil fertility and soil productivity are terms which designate different properties of soils.

6. Description

The aim of the symposium is to show long term effects of components of soil fertility and of short term investments effects on soils and yields. Soil properties and their role for yields from soil fertility and for yields from investments to enhance soil productivity should be discussed.

Mainly low income regions of the world cannot pay for investments into soils. Their prosperity is dependent on soil fertility. Opposite to this rich regions can make use of the transformation properties of soils for yields and services by investments.

There will be an enormous pressure on the natural resource soil in the future for which we have to define the status of soils in view of their potential for use on different











economic levels.

We expect that the field of problems related to proper use of soil fertility and soil productivity will be addressed in the symposium 'Soil Management Strategy for Enhancing Crop Yields - Involvement of Soil Fertility and Soil Productivity'.









