**Spatial variability of organic matter in grassland soil and determination of sampling number in Yunwu Mountain natural conservation area in Ningxia**

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**Abstract**: Soil organic matter (SOM) distribution has obvious spatial differences as fertility index in grassland. The reasonable sampling number in field for SOM is based on the spatial variability of nutrient factor and the required data precision. The classical statistics method and geo-statistics method were used to analyze the spatial variability of grassland SOM in Yunwu Mountain in a 90 m by 90 m grid. The result indicated that most of the reasonable number of SOM can be reduced sharply. SOM presented Medium Intensity Spatial Variability and normal distribution in two soil layers, and variance coefficients were 13.47% and 16.85%, respectively. Based on geo-statistics method, SOM showed intensive Spatial Autocorrelation in various directions, and SOM presented zonal heterogeneity in different directions. The reasonable sampling number of grassland soil nutrients should be based on classic statistical characteristics and spatial variability.

**Key words**: geo-statistics; spatial variability; organic matter; reasonable sampling number

# 中国气象局局长秦大河指出：制止沙尘暴提法违反科学规律

“沙尘暴作为一种自然现象，是不可能被消灭的，所谓制止沙尘暴，实际是违反科学规律的。”全国政协委员、中国气象局局长秦大河说，“沙尘暴给人类造成损失的同时，也有其正面效应，说到底，没有沙尘暴就没有中国，就没有我们中华民族。”

秦大河解释说，沙尘暴的形成已经有几百万年的历史了，而人类有文字记载亦不过三、五千年。在数百万年的历史长河中，由于沙尘暴，形成了近百万平方公里的黄土高原，黄河穿过黄土高原，把大量的尘土冲击下来，沉积而成华北平原。黄土高原是我们中华民族的发祥地，如果没有黄土高原，就没有华北平原，那就没有了我们的中华民族。要消灭存在了几百万年的自然规律，是不现实的。

秦大河员进一步解释说，沙尘暴也不仅仅只给人类造成损失，它从亚洲大陆推进到太平洋，输送到大气中的矿物气溶胶是形成大气降水所必需的凝结核，大量矿物质随雨水降落到海洋里，养活了一批浮游生物，虾吃浮游生物，鱼吃虾，人类吃鱼，又形成一条完整的生物链。这样一种人与自然的科学关系问题，远远不能用爱好与否或喜欢与否来评价。

秦大河最后强调，当然更不能忽略沙尘暴给人类造成的巨大损失，但目前完全消灭它是不现实的，人类能做的就是治理它，尽量减小它所带来的负面影响。西部大开发提出的退耕还林还草和生态与环境保护，都是治理沙尘暴的可行措施。（张 莉）

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