

## **A new approach to improve fertilization practices of small farmers in China**

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### **Abstract**

Small farmers in China, in difference from farmers with large management scale in developed counties who are well skilled and educated, can hardly understand and follow the best fertilization recommendation. One major reason is that the few recommendations made by experts are too principal or too far away from technique conditions of farmers. Since there is no practical suggestion for small farmers, over- or under-use nutrients by wrong fertilization practice are very common in China. It results in yield depress as well environment pollution. Harvest Genius (HG) is a new technique to give small farmers so-called “Rectified Fertilizer Recommendations”. Different from “Best Fertilizer Recommendation”, which can only give a fixed fertilizer receipt for one region; “Rectified Fertilizer Recommendations” just give a correction of farmer’s wrong practice. In doing this, intelligent expert system, modern information technologies such as internet, mobile info and digital geo-soil data have been applied to HG. As only unreasonable measurements were corrected by HG, it is easy to be understood and followed by small farmers. Case studies in many villages in China have been proved that HG can be applied for different crops and to every region. Generally, it will increase crop yield and income of farmers by 15-30%. The technique is cheap and effective. It will also introduce the internet and modern information technologies to rural regions and small farmers.