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Managing Selenium Recycling Organic Matter in Soils from Semiarid Environments

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Most of the world population are exposed either to a lack from one or more essential mineral or to toxicity produced by over consumption. In fact, in most of the developing countries it has been an increasing deficiency of Se in diet as soil and plant management are focused in high yielding in detriment of quality of crops to assure a healthy diet in humans. This study tried to evaluate the deficiencies of Se in semiarid soil conditions and how the micronutrients can be effectively manage through the recycling of organic matter. This is especially true for Se, since this micronutrient is not essential for the development of plants, but it becomes an important element for animal and human diets, in order to improve defences again cancer and other well known diseases. Mineral forms of Selenium are expensive and are very limited as non renewable resource. Research has shown that organic matter plays a very important role in the selenium immobilisation and low availability to plants. The establishment of this relationship is of great importance in the case of regions submitted to arid and semi arid conditions, where the lack of organic matter does not help to maintain a natural reservoir of this element in a bioavailable form.