عنوان مقاله:

A complete Survey upon agricultural Management, verifying the effect of Mercury and Cadmium Concentration in Grain of Durum Wheat,and Tillage Management

محل انتشار:

اولین همایش ملی توسعه پایدار کشاورزی ومحیط زیست سالم (سال: 1391)

تعداد صفحات اصل مقاله: 10

نویسندگان:

Kourosh Motevalli - *Instructor, Applied Chemistry Department, Basic Sciences Faculty, Islamic Azad University, South Tehran Branch*

Zahra Yaghoubi - *Asistant professor, Industrial Faculty, Islamic Azad University, South Tehran Branch, Tehran, Iran*

خلاصه مقاله:

In this research, some Field experiments were performed in order to determine the effect of crop rotation, phosphorus (P)fertilization and tillage on grain yield and grain concentrations of Hg and Cd in durum wheat (Triticum durum L.).Compared to conventional tillage (CT), reduced tillage (RT) management decreased grain Hg and increased grain yield andgrain Cd in half of the site-years. The type of preceding crops of spring wheat-flax or canola-flax had little influence. Rate andtiming of P application had little effect on grain Hg, but increasing P rate tended to decrease grain Cd. No interactive effectwas detected among tested factors. Grain Cd was not related to grain Hg, but positively to other nutrients such as Fe, Mn, P,Ca, K, and Mg. Both grain Cd and Fe correlated positively with grain protein content, suggesting protein may represent a sinkfor micronutrients. The study suggested that the tillage management may have beneficial effects on both grain yield and quality.Phosphorus fertilizer can remain available for subsequent crops and high annual inputs in the crop sequence may decreasecrop grain Cd. Understanding the environment is important in determining the impact of agricultural management onagronomic and nutrient traits.

کلمات کلیدی:

Cadmium, mercury, reduced tillage (RT) management, conventional tillage (CT),grain