

عنوان مقاله:

Survey Changes of Nitrate and Tuber Production of Potato under Integrated Management of Manure and Chemical Fertilizer in Different Locations of Isfahan, Iran

محل انتشار:

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ABSTRACT Nitrogen fertility management is a key component in potato (*Solanum tuberosum* L.). Production To investigate the effects of manure fertilizer and chemical fertilizer (Urea) on potato yield and nitrate content (Arinda cultivar), an experiment was conducted in 2014-2015 at two regions of Khorasgan and Faridan, Isfahan, Iran. A split plot layout in a randomized complete block design with four replications was used in each location. Manure fertilizer (0, 30 and 60 ton/ha) considered as main plots, and chemical fertilizer (0, 175, 350 and 525 kg/ha Urea) was used as sub-plots. Increasing the N fertilizer application rate from 0 to 60 kg Urea per ha generally resulted in increase of fresh and dry tuber yields, percentage of large tubers, and increase nitrate content of tuber. In most cases, tuber yield was significantly different between treatment of 60 kg/ha Urea and the other tow treatments. The maximum dry tuber yield was obtained in Faridan region with application of 60 ton/ha manure fertilizer and 525 kg/ha Urea. The number tuber and fresh tuber yield in Faridan region was higher than those values in Khorasgan region. The results of this research suggested that the use of animal manure not only reduces the deleterious effects of chemical fertilizer, but also increases the yield and yield components of potato. Applying 60 ton/ha manure fertilizer along with chemical fertilizer is necessary to achieve the highest performance and to protect the soil from degradation. Keywords: Nitrate, Tuber .production, Potato, Manure fertilizer, Chemical fertilizer

کلمات کلیدی:

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