World Academy of Science, Engineering and Technology
International Journal of Agricultural and Biosystems Engineering
Vol:11, No:11, 2017

Impact of Bio Preparations on Agro-Chemical Indexes and Fruit Mineral Composition of Mandarin (Citrus Reticulata) Orchard

Authors : Nunu Nakashidze, Shota Lominadze, Darejan Jashi

Abstract : Citrus culture used to be one of the leading fields of sub-tropical agriculture in Georgia and especially in Adjara region, but the citrus production has been significantly decreased in recent years due to deterioration of quality index of fruit and reduction of sale markets. The fact severely affected both the economy of Republic and population. Intensive technologies of citrus fruit production are widely implemented in the world practices, which include the following: variety of species, consumption of fertilizers and chemicals, proper use of fruit production and etc. However working on technologies which ensure getting of high quality and plentiful product is very much important if taking into consideration modern, global ecological problems. Using of bio-preparations for plant nourishment is considered as one of the activities. The present work discusses liquid organic fertilizer 'Biorag' produced in Georgia and influence of its growth stimulation (Gakhokidze N1, N2, N3) on agrochemical index of soils and mineral composition of fruit of Citrus Unshiu orchards cultivated in the sub-tropical zone of Black Sea in Adjara region. It was ascertained that liquid organic fertilizers used in the orchard of citrus 'Unshiu' and influence of growth stimulators on the quality index of fruit are not clearly shown in comparison with control one. A small priority is noticed in case of growth stimulators. In conditions of red soils, liquid organic fertilizers and growth stimulators added in the nutrition of the citrus more or less influence the dry material of fruit and the composition of ash and nutrition elements. Agro-chemical index of the soil, except exchange acidity, is somehow enlarged which is one of the positive results in this case.

Keywords : growth stimulator, liquid fertilizer, plant, fruit, soil
Conference Title : ICASFS 2017 : International Conference on Agroecological Science and Farming Systems
Conference Location : Barcelona, Spain
Conference Dates : November 02-03, 2017