

Effect of brown algae and vermicompost application on some cherry tomato traits in hydroponic system



Agroecology Journal
Vol. 10, No. 4 (77-83)
Winter 2015

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Received: 6 December, 2014

Accepted: 27 February, 2015

ABSTRACT To study the effect of brown algae *Ascophyllum nodosum* and vermicompost extracts on yield and yield components of cherry tomato, a pot experiment based on a completely randomized design in factorial with three replications was conducted in greenhouse condition in Mashhad during 2013-2014 as hydroponic system. Experimental treatments were brown algae and vermicompost extract in 0, 2, 4, 6 per thousand concentrations. Cherry tomato used seeds were soaked in mentioned concentration of each treatments immediately put in cultivation tray. To prepare container seeds field a mixed containing 50% peatmoss and 50% perlite was used. After the tomato seedlings became in the form of 4 to 5 leaves, they were transferred into peat moss and perlite hydroponic system. Growth factors include the number of leaves and plant height, stem diameter, wet and dry weight of stem and quality traits including fruit vitamin C and pH were evaluated at the end of the experiment. Both biofertilizers improved quantitative and qualitative characteristics of plant compared to control. All parameters were increased specially using higher level of biofertilizers. On the whole, using both of fertilizers in 6 per thousand level can be recommended for cherry tomato quality and quantity improvement

Keywords:

- *Ascophyllum nodosum*
- biofertilizer
- bioaminopalis
- ecological production
- Marmarin fertilizer