

Marine Algae as Fertilizers in the Bio-Orchard

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Food shortage is a worldwide problem and it is important to learn how to use the best methods to culture plants for food. Can marine algae be used as fertilizers to increase and strengthen the growth of plants utilizing the bio-orchard method already developed last year? The hypothesis was: if the bio-orchard method improves the oxygenation of cultures and seaweed fertilizer improves the availability of essential plant nutrients, then the combination of the bio-orchard method and an organic fertilizer based on seaweed can increase and strengthen the growth of plants compared with traditional farming methods. To do this investigation, *Lycopersicum esculentum* (cherry tomatoes) plants (ten inches tall each) were used. One plant was put to grow in the bio-orchard using soil with seaweed as a fertilizer. Liquid seaweed fertilizer was also added weekly to this plant. Another plant was placed in a conventional flowerpot with soil without fertilizer. Observation and data obtained evidenced that seaweed used as a fertilizer was highly effective. The experimental plant grew faster and bigger than the control one. It measured 46 inches while the control one measured 22 inches in the first five months. The experimental plant also produced tomatoes in just five weeks after planting it while the control plant produced tomatoes after nine weeks. The tomatoes had a pleasant smell and taste, and the texture was smooth. The hypothesis was accepted because the experimental plant grew quickly, was stronger and produced better tomatoes than the control plant.