



A comparative study of sweet pepper fruits nutritional composition produced under conventional and organic systems

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Abstract : Consumers demand organic products because they believe they are more flavorful and respectful to the environment and human health. A plastic house experiment was carried out at Humrat Al-Sahen; about 15 km from As Salt-Jordan, During the 2010-2012 seasons; to compare the effect of four fermented organic matter sources (cow, poultry and sheep manure in addition to compost) in which 4 kg organic matter m⁻² were used, with that of the conventional agriculture (chemical fertilizers) treatments on "Barotte" red pepper fruit quality, by using a randomized complete block design (RCBD) with four replicates. Conventional treatment influenced the total yield per replicate, produced the biggest fruit size, and the highest water content, lycopene and titratable acidity, while fruits characteristics cultivated in soil supplemented with manure were generally better than those from plants grown in soil only; addition of animal manure increased sweet pepper fruit content of soluble solids, ascorbic acid, total phenols, crude fibre and intensity of red color. In most cases of animal manure treatments, best results were obtained by sheep manure treatment that produced the highest TSS, while the worst results were obtained by the poultry manure treatment that produced the lowest fruit lycopene content and the smallest fruit size.

Key Words : Pepper, Yield, Compost, Phenols, Ascorbic acid, Lycopene

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