



Effects of Fertilization with KF10-20 on Organic Carrot Crops



This document provides a summary of observations conducted at a commercial plot of Kibbutz Maaleh Gilboa in the autumn of 2004.

Persons involved in the study: Moshe Zeevi - Training Arm of the Israeli Organic Agriculture in Association
Natiya Solodar - VGI, Doshen-Tov
For the grower - Emanuel Magen, Moish Binyamini
Uri Adler - Chief organic farming instructor of the Israel Ministry of Agriculture)

Carrots of the Presto variety were sown on date 19 July 2004 at density of 50 seeds per meter in an organic farming plot owned by Kibbutz Maaleh Gilboa.

Size of the plot - 24 dunam (6 acres).

The carrots were sown on a plot where legumes had been grown during the previous season. Before the seeding, 100 kilo per dunam of feather flour was applied.

Five dunam were treated with KF-10 at dosage of 2-liter per dunam, which were divided into four application dates - the first at 25 August 2004, of 0.5-liter per dunam, followed by 0.5-liter per dunam once a week. The fertilizer was applied through the irrigation system.

The growth of the crop was followed visually.

For the harvest, four plots were marked out at random, 1 meter in length, for each of the treatments.

The plots were harvested by hand and the carrots were sorted into three sizes: large for carrots weighing more than 125 grams, medium - between 75 and 125 grams, and small - less than 75 grams. In addition, export-rejected carrots, classified as Grade B, were weighed separately - these carrots suffered from distortion or had been affected by pests.

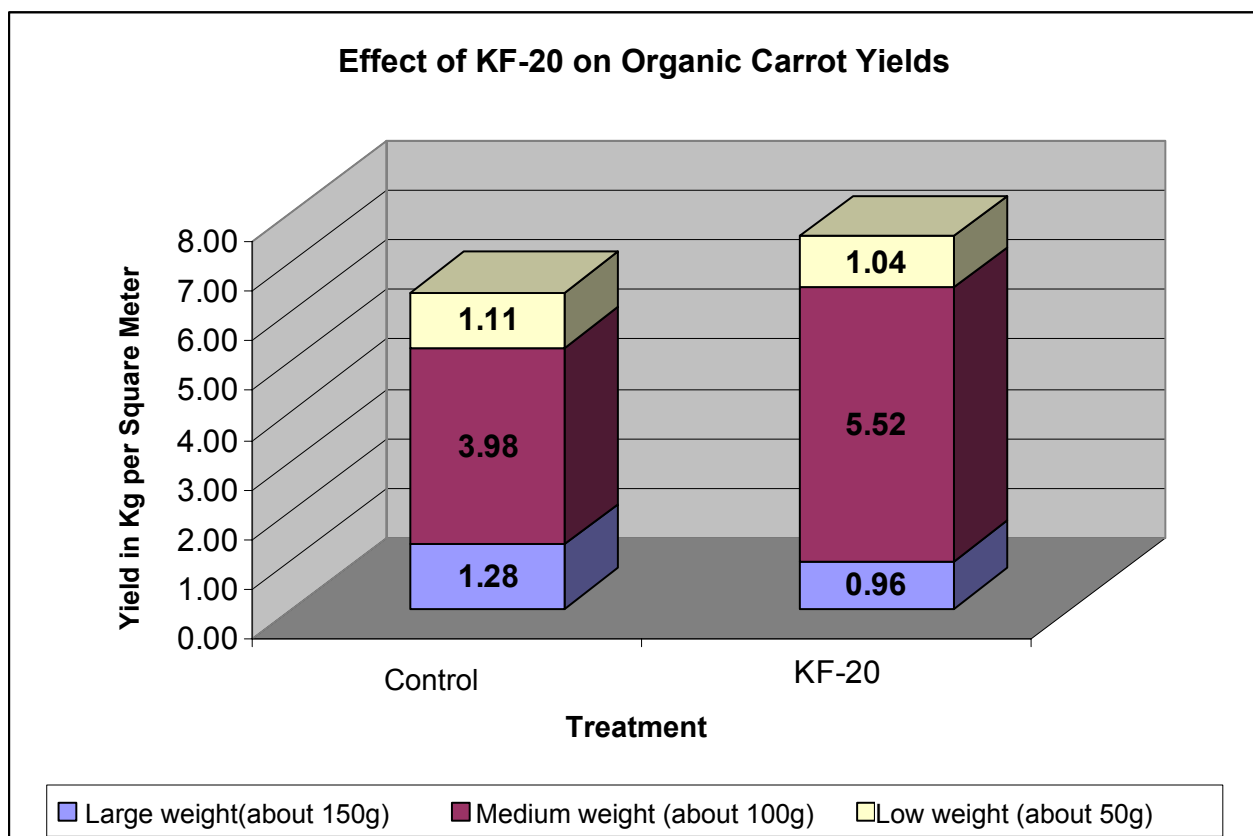
Each of the plots was weighed and counted separately.

The results were calculated as an average weight and quantity per square meter (1 kg per meter represents 1 ton per dunam).

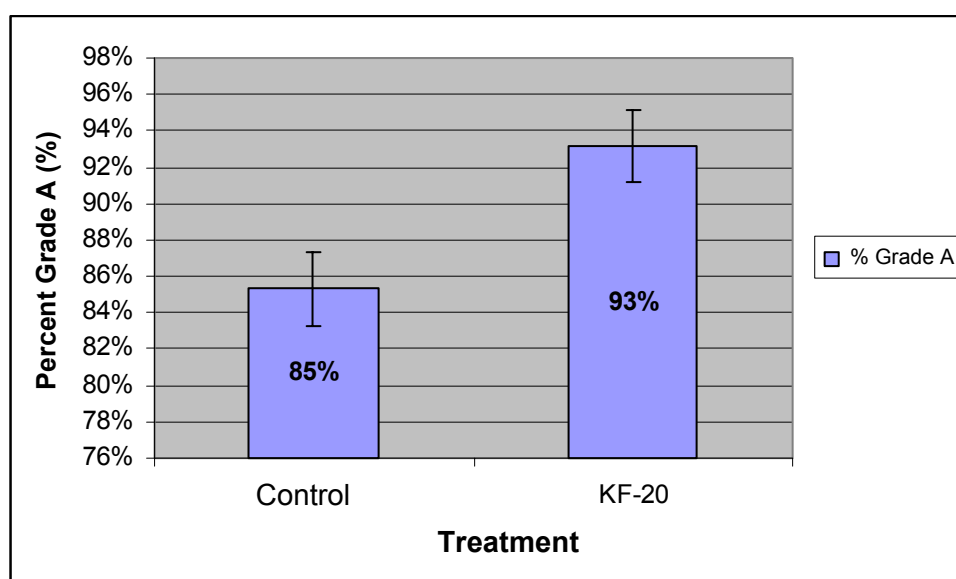


The Results:

Effects of KF-20 on the Distribution and Yield of Grade A Organic Carrots in Maaleh Gilboa



Percentages of Grade A Yields





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From the above results, an advantage can be observed from the yields of the plot to which KF-10 was applied versus other areas of the field: 7.52 tons per dunam of Grade A from the treated plot, versus 6.37 tons per dunam from the control area. The advantage is expressed mainly from the medium sized harvest where the advantage reached 1.54 tons per dunam from the treated plot. It was indicated that the advantage of yield comes at the expense of the size of harvested carrots. The finding that KF causes a reduction of size may be derived from the fact that the larger number of carrots from the treated plot, which reached fruition or with a higher stand from this plot was caused by the soil of the plot or the quality of sowing.

The advantage of KF was also expressed by the amounts of Grade A carrots that are suitable for marketing.

As the above observation was conducted without reruns and with relatively small samples of about 2 square meters per sample, the results must be considered with the appropriate caution. The observations must be repeated or similar trials must be conducted, or a well-arranged test must be set up with additional carrot plots in the future, in order to verify these results.

If the results are indeed repeated, then it seems that a tool has been achieved here for improved yields and quality of organic carrots.

