

## 13% increase of fresh weight

### CARROT

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#### OBJECTIVES

Evaluate the impact of mycorrhizal inoculation on the carrot yield under field experimental conditions.

#### METHODS

The trial was conducted at the Centre de valorisation des plantes, in L'Assomption (Quebec). Carrot cultivar "organic Nante II" were sown on June 4, 2003. Two treatments were tested, the control without inoculation and the mycorrhizal inoculation with *Glomus intraradices*. A 3.6 cm deep furrow was dug and the inoculant was poured in the furrow at the recommended rate. The furrows were covered almost to the surface and the seeds were sown and slightly covered with soil. For the control treatment, the same operations were conducted except that no inoculum was poured into the furrow.

At the two true-leaf stage, seedlings were thinned to one plant every 5 cm. MYKE® VEGETABLE 8-4-5 fertilizer was added at a

rate of 75 ml / 3 m on each side of double row to both treatments.

Each plot consisted of two rows and the treatments were arranged in a randomized complete block design with eight replicates. At harvest, on September 10, the number of carrots, the length (cm) and the collar diameter (cm) of all collected carrots were evaluated.

#### RESULTS

There was a significant increase (7%) ( $p = 0.002$ ) of the carrots collar diameter when inoculated with the mycorrhizal inoculant compared to the control treatment. This result was associated with an increase of 13% of fresh weight per plant compared to control treatment ( $p = 0,07$ ). When categorized by size, there were fewer small carrots and more medium-sized carrots for the ones treated with the mycorrhizal inoculant.

Effect of mycorrhizal inoculation of collar diameter and fresh weight of carrots

