

**Paul C. And Edna H. Warner Endowment Fund for Sustainable
Agriculture
Report Form**

Summary: (describe your project, it's objectives and results in one or two sentences)

This project seeks to determine the effect of different types of organic fertilizer on bulb size of garlic. The addition of leaf humus or compost is often the only form of fertilizer used by urban growers for garlic production. This has proved to be time and cost prohibitive and growers are seeking low cost, easily-applied organic alternatives. This project is studying the effects of four types of organic fertilizer. Garlic is a fall planted crop. The garlic was planted in Nov. 2013 and will be harvested in July of 2014. Final results will be available after this time.

What was done? (one paragraph describing the goals, experiments and how they were performed)

The goal of this project was to determine the effect of different types of organic fertilizer on the size of garlic bulbs. 'German Extra Hardy' was the variety used. It is a hard neck variety often grown in this region and is known for large bulb size. The experiment was a CRB design with 4-blocks. The treatments were:

- Fish emulsion pre-treatment
- Side dress with feather meal (12-10-0) at a rate of 1 lb. per 100 sq. /ft.
- Pre-plant incorporation of Revita (3-3-3) at a rate of 5 lbs per 100 sq. /ft.
- Fish emulsion + Side dress + Pre-plant incorporation
- Control, no fertilizer added.

The cloves were planted 6 inches between plants and approximately 6 inches deep, with twelve cloves per block.

What were the results? (one paragraph on the outcome of the experiments, what was learned from them)

The garlic cloves were planted in Nov. 2013 and will be harvested in the summer of 2014. Bulbs will be weighed and measured to determine final size.

Cloves divided by treatment



Fertilizer ready for application



Planted cloves



Block #3 planted and covered with straw



How have the results contributed or will they contribute sustainable agriculture? (One paragraph on how will farmers use this research information and what difference will it make on their farms.)

Garlic is a high value crop which requires minimal space, making it a perfect crop for urban growers who are space limited. The value of garlic increases with the size of the bulb. The results from this research will assist urban growers to make appropriate fertilizer regime decisions.