



BACKGROUND + GOALS

IPRO 344 investigated methods for safe, low-cost community gardening in the urban setting. Most community gardens within large cities are sited in vacant lots that have been previously built upon. When the structures that once occupied these sites were demolished, the debris filled the basements of the structures, and was then covered by a shallow layer of nutrient poor dirt. The resulting vacant lots pose two problems for community gardening. First, the ground becomes tough and nearly impossible to manually prepare for gardening purposes. Second, the presence of lead and mercury from the paint and other construction materials has been incorporated into the soil, which can be harmful when transferred into plants which are then ingested. Since most community gardens in low-income neighborhoods do provide food, it became the aim of IPRO 344 to inexpensively grow plants which would be safe to eat in an urban community garden.

ORGANIZATION + TASKS

Gardening / Labor
 Finding Materials
 Researching
 Documenting / Photographing
 Soil Testing
 Sponsor Liaisons

ISSUES

- With the cooperation of Ditch Witch®, five trenches were dug into the site at 43rd and Wentworth. Students, then, created gardening rows within these trenches.
- Half of the plantings were in the original soil from the site, and half were in new “clean” soil.
- Most materials were student-supplied and re-used, due to budget constraints and the costs of soil testing.
- Varieties of plants were researched to determine which ones would show traces of heavy metals.
- Throughout the week, students had to maintain the garden.
- Methods for testing the soil and the plants were also researched.

FINDINGS + FURTHER RESEARCH

Testing the original soil to determine the quantity of heavy metals within the site provides a basis for the expected levels of heavy metals within the plants. Next, the metals in the plants from both the original and the “clean” soil can be compared to determine whether the gardening methods which were employed had an impact on the plants. Unfortunately, due to the time constraints, no tests have been performed yet. In order to draw conclusions from this community research project, the garden will continue to be maintained until August 11, 2006, so that the required tests can be performed.

Further Research may include testing the garden in several months to determine if the heavy metals from the walls of the trenches will eventually seep into the “clean” soil, and contaminate the plants. Another hypothesis that could be tested from this research project is whether the plants will always choose to stay contained within the best soil, thus staying within the confines of the trenches, or if they will grow beyond into the nutrient-poor soil.

ADVISOR

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TEAM MEMBERS

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City of Chicago
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 Mayor



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