

# **THE CEDAR CREEK MOSS PROJECT**

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## **INTRODUCTION**

The collection of moss and other “secondary forest products” from the forests of Washington and Oregon is a growing industry for the horticultural trade. Mosses are used in floral arrangements and are in high demand. Recent ecological and sociological studies have shown that collecting mosses from branches and trunks of trees in the wild – particularly in old-growth forests – is not sustainable, and permits are no longer issued by the National Parks and National Forest Service. However, collecting continues on an illegal basis, mainly by migrant workers. This has led to an effort to develop ways to grow mosses under non-forest conditions, i.e., to “farm” them in order to reduce pressure on natural habitats.

Congruent with this idea is the concept that working with plants can be beneficial for incarcerated persons. Numerous horticultural therapy programs exist in many states, usually to grow vegetables or horticultural plants (flowers and bulbs). The benefits of such programs have been documented – exposure to growing plants can be therapeutic, and the skills learned in growing plants can be applied to earn money once prisoners are released. To date, no prison has a program to grow moss. However, they lend themselves well to the prison environment because their small stature requires the use of no sharp implements and because they are extremely hardy and resilient.

## **OBJECTIVES**

We propose to initiate an innovative moss-growing project in Cedar Creek Correctional Institution. We have three objectives:

- 1) investigate optimal ways to grow mosses for the horticultural trade by developing techniques of growing mosses and measuring their growth rates;
- 2) develop value-added products (e.g., small “moss gardens”) that prisoners can create that could build vocational skills once they return to the outside world.
- 3) Communicate our results to the ecological community so that our experimental farming efforts might lead to reduced pressure on natural habitats.

## **METHODS**

We wish to work with 5-10 inmates on a regular basis. After an initial visit to describe our objectives, we will arrange for visits (every 2-3 weeks) by Nadkarni and/or 1-2 student interns from the Evergreen State College. We will first set up a preliminary set of experiments in which we establish different growing techniques for the 3-5 species of mosses. This will include growing them in mesh bags, growing them on pieces of Bigleaf Maple wood, and growing them on trays. Prisoners will be responsible for observing and

recording their weight on a regular basis. We will provide mosses, bags, substrates, notebooks, balances, and notebooks.

After a preliminary monitoring period (3-5 months), we will apply what we have learned to grow the fastest growing species with the best growth substrate at a larger scale. We will also work with prisoners to develop attractive and resilient “arrangements” of mosses, rocks, mobiles, etc., that could be sold at plant nurseries or gift shops. Student interns will help by investigating the market for these objects, and provide feedback to our project.

We anticipate that this project will be of interest to the ecological and sociological communities. We intend to document the process of this project, and anticipate giving talks and writing papers on the results.

## **REQUIREMENTS**

We will need to work with prisoners on a regular and predictable basis. We will need to bring in the materials mentioned above. The two investigators plus 1-2 student interns will need to get access to the prison.

Because of travel of the investigators and students, this project will best be initiated in September, 2003, and carried out for a minimum of one year.

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