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## S & S Homestead Farm

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*Annual SARE Report  
Ag Professional and Producer Grant*

### SECTION 1

The following is the year-end grant report submitted by Henning Sehmsdorf, S&S Homestead Farm, Lopez Island, WA, January 31, 2005.

### SECTION 2

Type of Report: Progress

Project No: FW04-305

Purchasing Agreement No: 03-5135034

Project Title: "Bio-Intensive Forage and Hay Production"

Location of Project: Lopez Island, WA 98261

Funding Period: April 1<sup>st</sup>, 2004-October 31<sup>st</sup>, 2005

Total Grant Award: \$7,499

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### SECTION 3

#### Summary:

The primary goal of the project is to carry out replicated field trials on S&S Homestead Farm comparing the use of lime vs. application of non-commercial microbial stimulants in order to improve on-farm forage and hay production

#### Objectives:

1) To carry out replicated field in a selected 1-acre parcel to establish whether biological stimulant materials that can be created on-farm are economically and ecologically viable alternatives to liming for the purpose of raising soil pH-levels and/or increasing soil N, P, K, micronutrients and soil organic matter in forage and hay production on small-scale, sustainable farms; 2) to put the soil fertility management of forage and hay production on S&S Homestead Farm on a new and improved footing, thereby satisfying crucial food and fiber need; 3) to enhance the natural resource base of the farm through optimum use of on-farm resources to replace economically and ecologically costly purchased inputs; 4) to extend the integration of biological cycles and controls now practiced on the farm in growing grain, fruit and vegetables to the production of forage and hay; 5) to enhance and sustain the economic viability of the farm; and 6) to model sustainable production

methods for other small-scale producers on Lopez Island and in San Juan County, thereby strengthening local food security and the quality of life of farmers and the whole community.

Progress:

Severe drought between June and the end of October, 2005 prohibited early application of some treatments, notably lime. Drought conditions also caused a general drop in forage and hay production for the entire farm. For details of field activities, see attached "Bio-Intensive Project Field Record."

Activities can be summarized as follows:

- Selected a 1-acre parcel randomly subdivided into 12 18'x 225' plots with 4 replications (4 reps x Control, Lime and BD treatments)
- Took baseline soil tests in all plots prior to application of treatments
- Harvested baseline forage samples in all plots before onset of drought conditions
- Installed 3 root tubes per plot for later removal
- After 6 months lifted one root tube per plot to measure seasonal root growth
- Applied BD preparations based on supplier recommendations in designated plots
- Applied lime based on soil test results in designated plots
- Developed a rotational grazing plan coordinated with schedule of forage sampling
- Started on-farm production of BD preparations

Outreach:

On July 11-13<sup>th</sup>, 2004 S&S Homestead Farm offered a three-day workshop on Biodynamics at the farm to which all project participants, cooperators, and the general public were invited. Approximately 40 workshop participants learned about biodynamic processes in the general context of the farm and specifically about the "Bio-Intensive Hay and Forage Production Project." Led by three specialists, Harold and Lloyd Nelson and Lauri Riccardi, from The Josephine Porter Institute for Applied Dynamics, workshop participants also learned how BD preparations are produced on the farm.

A one-day follow-up workshop in BD production was offered on November 11<sup>th</sup>, 2004 and another workshop will be offered in February, 2005.

A field day during which project field data and preliminary results will be presented to the public is planned for the month of November or December, 2005 after all forage samples have been collected, ground and analyzed, and all soil, biomass and microbial tests have been completed and evaluated.

Formal presentations in various media will follow once data collection, analysis and evaluation of the project have been completed.

