

SARE GRANT FINAL REPORT
PROJECT # FNE 96-151

ERIC W. ROZENDAAL
180 INTERVALE RD.
BURLINGTON, VT 05401
(802) 864-7507

APR 16 1996

1. Restate the goals of your project.

Overall the goals remained the same. I was able to experiment with root-trainers as a possible alternative to traditional pots, and also acquired valuable information pertaining to starting dates and planting spaces for artichokes.

2. Update the information on your farm since you received a producer grant. Include acres farmed, crops.

This year I grew 2500 artichoke plants for commercial production on one quarter of an acre. In total I grow one half of an acre of mixed vegetables and flowers. In 1996 I grew artichokes, shallots, statice, sunflowers, lettuce and beans.

3. Who were your cooperators and what were their roles in the project.

Vern Grubinger served as advisor on behalf of the Extension Service. Eliot Coleman has advised me since my beginning as a market gardener. The Intervale Foundation provided greenhouse space, land and equipment at a subsidized rate and NOFA organized the Summer Conference where I gave a seminar entitled "Globe Artichoke Production in the Northeast".

4. Tell us what you actually did in your project and how it was done.

Throughout the month of March I seeded 3,500 artichoke seedlings using one of the following methods. 1. Seeded on March 1st in to 72 plug trays and potted on to either roottrainers or four inch pots 2. Seeded directly in to roottrainers on March 1st 3. Seeded in to 2" soilblocks on March 15th 4. Seeded in to 4" soil blocks on March 15th or 5. Seeded in to 2" soilblocks on March 30 th. All seedlings were taken out of the greenhouse by April 15 th for a cooling (mild vernalization) period. The plants were set out between May 1st and May 15 th. Each seeding was clearly make in the field. While it proved difficult to weigh the yields of each individual plant, they were visually monitored and findings were recorded in a notebook.

5. What were your findings and accomplishments? Did you have any unexpected results? If so what were they?

For commercial plantings I found the March 15th seeding in 2" soilblocks to be the most practical. It requires the least amount of soil and less time in the greenhouse, all the while producing perfectly adequate plants. The roottrainers show considerable promise although there are several obstacles if they are ever to become widely adapted to horticulture, such

SARE GRANT FINAL REPORT
PROJECT # FNE 96-151

as their expense and the extra labor required to set them out in the field. They save considerable space in the greenhouse since they are more vertically oriented than 4" pots, therefore they can be spaced closer. They also grow beautiful plants with tapered root systems, oddly enough however these apparently stronger plants produced less artichokes than their counterparts. While I tried very hard to eliminate variables from the experiment I can't explain this inconsistency? Was there environmental factors or do stressed artichoke plants out produce healthy ones? I'll be looking for the answer to this dilemma in 1997.

While it is not directly related to the SARE grant, I determined that a spacing of 2' by 3' seems to be the most appropriate spacing.

6. Is there any specific site information relevant to your project or the results.

The only difference would be the seeding dates and setting out dates in different parts on the region.

7. What were your economic findings.

While I did not have the best year, I am still very encouraged by the economic potential of artichokes as a crop for a number of reasons. I can produce artichokes in July and August, which is a fallow period for the California producers. I can also produce organic artichokes which are very much in heavy demand. California producers due to their very large plantings have big problems with thistle borers. The artichoke is heavily consumed in the Northeast and there are very few producers in this area.

8. Have the results of your project generated new ideas about what is needed to solve the problem you were working on? What would be the next step?

I am still very curious about rootrainers and air pruning of roots. I will continue to use them in my seedling production. The 1996 season seemed to produce more questions than answers and I look forward to tackling those questions during the upcoming season. Thanks to the seedling research that SARE supported I was able to determine the best seeding date and method (see #5). During the 1997 year I will be working on mulching methods, new spacing and fertilization requirements.

9. Will you continue to use the practice you investigated? Why or why not?

See #8

10. What do you tell other producers about your project and the results?

I have a policy of being very open when people have questions about particular crops that I grow. It is my belief that secretive knowledge is destructive to our overall goals of regional food production. Since my farm field is in a fairly public setting I am often visited by farmers and gardeners. On many occasion throughout the year I was able to share

SARE GRANT FINAL REPORT
PROJECT # FNE 96-151

different elements of my project with interested folks. I often mentioned the SARE program and on several occasions handed out the address.

11. Explain what you did in your outreach program?

In addition to these one on one interactions I gave a seminar on globe artichokes at the NOFA summer conference. About fifteen to twenty people attended, some were farmers some were gardeners. The talk seemed to be fairly well received and there were lots of questions. I also conducted an interview for NOFA NOTES.

SARE GRANT FINAL REPORT
PROJECT # FNE 96-151

Trials- Plants were visually monitored throughout the season and findings were recorded in a notebook. Plant performance was rated on a scale of one to ten, with ten being optimal. During the months of May and June plants were rated on their vigor, color, size and leaf stage. Starting in July earliness and productivity were factored in to the equation.

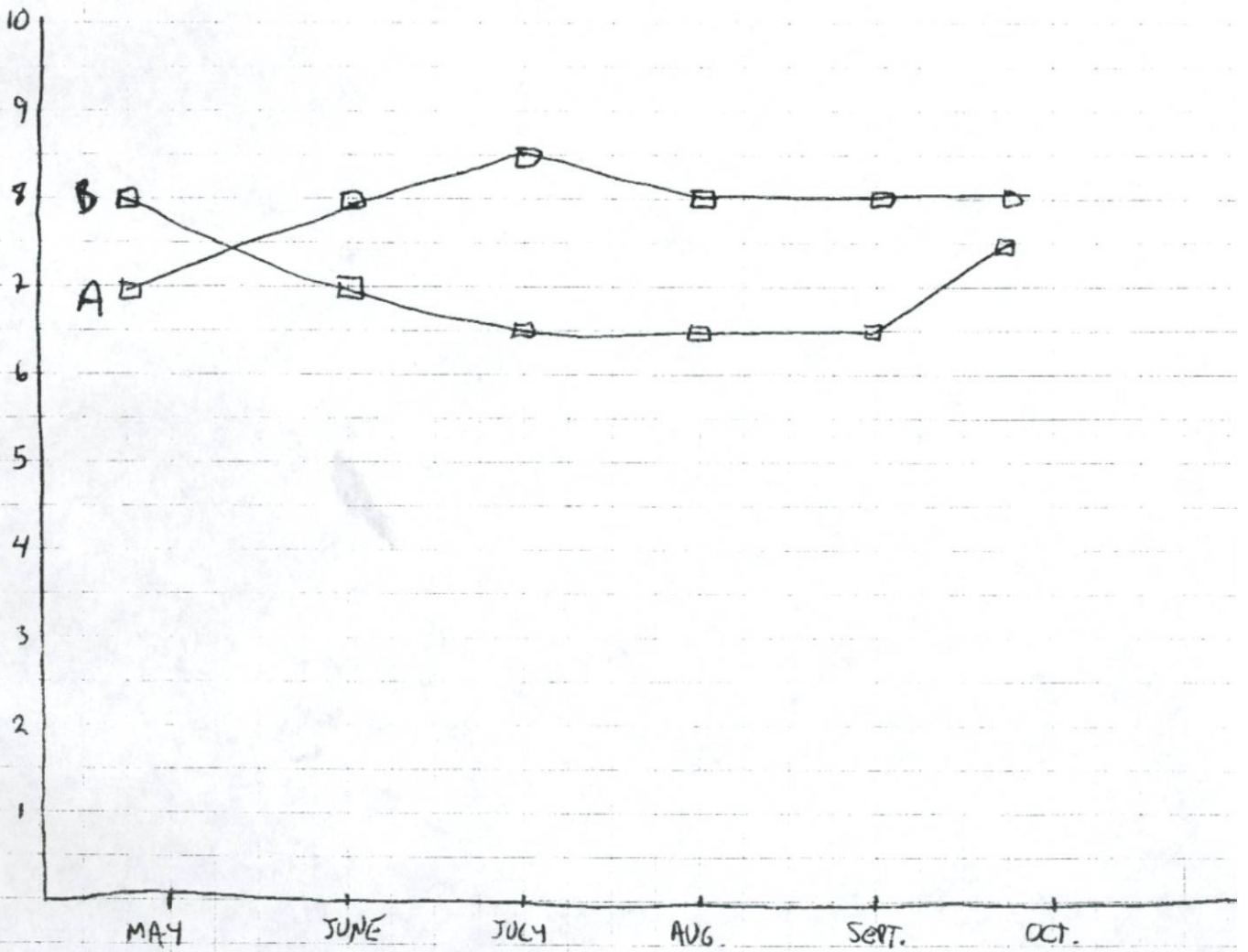
Conclusions drawn from the grant:

- 1) The best starting date and method for commercial production would be direct seeding in 2" soil-blocks on Mar. 15 th. Plants would be moved to cold frames on Apr. 15th and set out between May 1st and May 15th.
- 2) Root-trainers save considerable space in the greenhouse, allowing a farmer to grow almost twice as many plants in the same area, when compared to four inch pots.
- 3) Root-trainers produce nice strong plants with very healthy roots, however they are expensive and labor intensive to set out in the field.
- 4) Regional artichoke production has great economic potential, especially when done organically. Vermont growers can produce artichokes at times when California growers are not. The Boston and New York markets are very big.

TRIAL #1 -

A = 72 CELLS SEEDED MAR. 1st, potted on MAR. 15th to 4" POTS

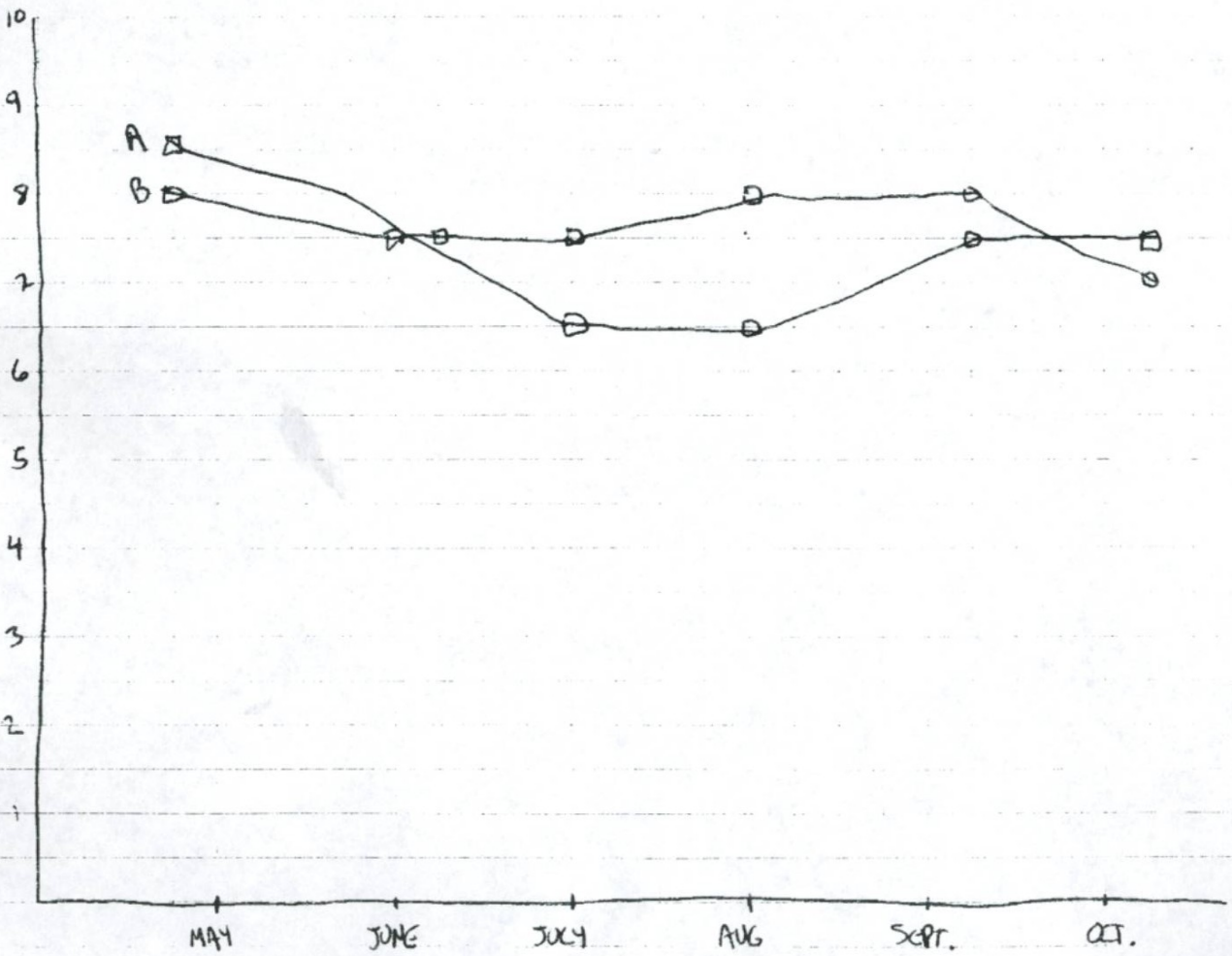
B = 72 CELLS SEEDED MAR. 1st, potted on MAR. 15th to ROOT-TRAINERS



TRIAL #3 -

A - DIRECT SEEDED MAR. 1st IN ROOT-TRAINERS

B - SEEDED MAR. 1st IN 72 CELLS, POTTED ON MAR. 15th TO 4" POTS



TRIAL #4

A = DIRECT SEEDDED IN 2" SOIL-BLOCKS (3/15)

B = DIRECT SEEDDED IN 2" SOIL-BLOCKS (3/31)

