



OCTOBER 31, 2018

xVirity xVital Nitrate Fertilizer Trial Report
ON WHEATGRASS SEEDS

ALISON REBOVICH
GOOD NEIGHBOR ORGANICS
2324 Forest Ave, Staten Island, NY 10303




Table of Contents

1	General Information	3
1.1	Scope.....	3
1.2	Trial Location & Dates	3
2	Trial Procedure.....	4
2.1	xVital/Water Dilution Ratios	4
2.2	Scarification and Germination	4
2.3	Sowing the Germinated Seeds.....	5
2.4	Harvesting the Wheatgrass and Measuring Results	5
3	Sample Photographs for Stages of Trial.....	5
3.1	Measured Wheatgrass Seeds Pre-Scarification Sample Photographs Taken May 29, 2018	6
3.2	Wheatgrass Seeds Planted in Trays Sample Photographs Taken June 1, 2018	7
3.3	Wheatgrass in Trays Sample Photographs Taken June 4, 2018.....	8
4	Trial Results	9
5	Trial Data	11
6	Trial Summary	11
7	Attestation	11

1 General Information

xVital™ Nitrate Fertilizer (xVital) is a patented, plasma technology-produced, unbounded (not bound or attached to salt) fertilizer. This trial report is prepared on behalf of xVirity™ LLC, 360 Herndon Parkway, Suite 1400, Herndon, VA 20170, by Good Neighbor Organics, following a trial to determine the efficacy of using xVital as a fertilizer to grow wheatgrass from seeds to mature plants.

1.1 Scope

The purpose of the trial was to compare specific metrics of the wheatgrass growing process when using xVital versus water only.

The trial looked at the length of time from wheatgrass seed to harvest, the harvest weight of the wheatgrass plants, and the quantity of wheatgrass juice produced, using various xVital/water dilution ratios, as compared to using water only in the growing process.

Only mature wheatgrass plants are harvested and produce juice. Good Neighbor Organics defines a mature wheatgrass plant as a plant with average blade height, which varies from 5"-7" inches.

Good Neighbor Organics' average growth statistics using water only indicate the following metrics for wheatgrass plants started with ½ cup wheatgrass seed:

- Time to grow from seed to mature, ready-to-harvest wheatgrass is 7 days
- Harvest weight of wheatgrass is typically 0.78 pounds
- Harvest volume of wheatgrass juice is typically 7 oz

The trial was designed to demonstrate the results of these metrics when various xVital/water dilution ratios are introduced into the wheatgrass scarification, germination and maturity processes, to reveal:

- Length of time to grow wheatgrass from seed to mature plant
- Weight of the mature wheatgrass plants when harvested
- Volume of wheatgrass juice produced at harvest

1.2 Trial Location & Dates

Good Neighbor Organics
2324 Forest Ave
Staten Island, NY 10303
Telephone: 347-831-0159
Email: alison@doctorjuice.com
www.goodneighbororganics.com

Greenhouse Manager Alison Rebovich supervised the trial, which occurred May 29, 2018-June 4, 2018.

2 Trial Procedure

2.1 xVital/Water Dilution Ratios

The following xVital/water dilution ratios were utilized in the four solution samples that were tested in this trial.

- Sample 1: 75% xVital/25% water
- Sample 2: 50% xVital/50% water
- Sample 3: 25% xVital/75% water
- Sample 4: 100% xVital/0% water

2.2 Scarification and Germination

The scarification and germination of the wheatgrass seeds started on May 29, 2018.

1. $\frac{1}{2}$ cup of wheatgrass seeds was rinsed, and all debris and/or stones were removed. This was done four times; once for each sample.
2. Each $\frac{1}{2}$ cup of wheatgrass seeds was placed in a separate sprouting container; each sprouting container was then assigned one of the xVital/water sample numbers.
3. Each of the 4 sprouting containers was then filled with its assigned xVital/water sample.
4. Each sprouting container was covered with a sprouting screen, and the seeds were left to soak for 8 hours as part of the scarification process.
5. After 8 hours, all liquid was drained from each sprouting container.
6. Each sprouting container was then rinsed with its assigned xVital/water sample and then drained, 3 times per day.
7. After two days, tiny sprouts began to form on the wheatgrass seeds in each sprouting container, indicating that the seeds were ready for planting.

2.3 Sowing the Germinated Seeds

The germinated seeds were planted on June 1, 2018.

1. A ½ to 1-inch layer of organic soil was added to four 21" x 11" plastic growing trays.
2. The soil was made ready for seeds, gently watered to moisten it; overwatering was avoided.
3. One at a time, sprouted seeds were removed from a sprouting container, and sprinkled evenly into their assigned tray, loose soil was placed over the seeds. This was repeated for each sample.
4. Each tray was covered with a plastic lid with air holes to create a greenhouse effect. The lids were tall enough to allow the wheatgrass to grow to 1-2 inches in height.
5. The four trays were then placed in an area with indirect light, with the temperature ranging from 60-80°F.
6. Until the seeds rooted and the wheatgrass began to grow, each tray was watered daily using a spray bottle with its assigned xVital/water sample; each tray received the same amount of its sample, and overwatering was avoided.
7. When the wheatgrass blades grew to 1-2 inches, the lid was removed from each tray.
8. Each wheatgrass tray was then gently watered daily with its assigned xVital/water sample; each tray received the same amount of its sample, and overwatering was avoided.

2.4 Harvesting the Wheatgrass and Measuring Results

The wheatgrass was harvested and the metrics measured on June 4, 2018.

1. When the wheatgrass blades were about 5"-7" inches tall, the wheatgrass plants from each tray were harvested, using scissors to cut just above the roots.
2. The harvested wheatgrass blades from each tray were washed and weighed on a scale.
3. Juice was then extracted from the harvested wheatgrass blades using a manual juicer, and the volume of the extracted juice was measured.

3 Sample Photographs for Stages of Trial

Photographs were taken of each of the four wheatgrass set-ups at each stage of the growth trial, and the assigned xVital/water sample number noted. Please refer to the following pages.

3.1 Measured Wheatgrass Seeds Pre-Scarification Sample Photographs Taken May 29, 2018

Sample 1



Sample 2



Sample 3



Sample 4



3.2 Wheatgrass Seeds Planted in Trays Sample Photographs Taken June 1, 2018

Sample 1



Sample 2



Sample 3



Sample 4



3.3 Wheatgrass in Trays Sample Photographs Taken June 4, 2018

Sample 1



Sample 2



Sample 3

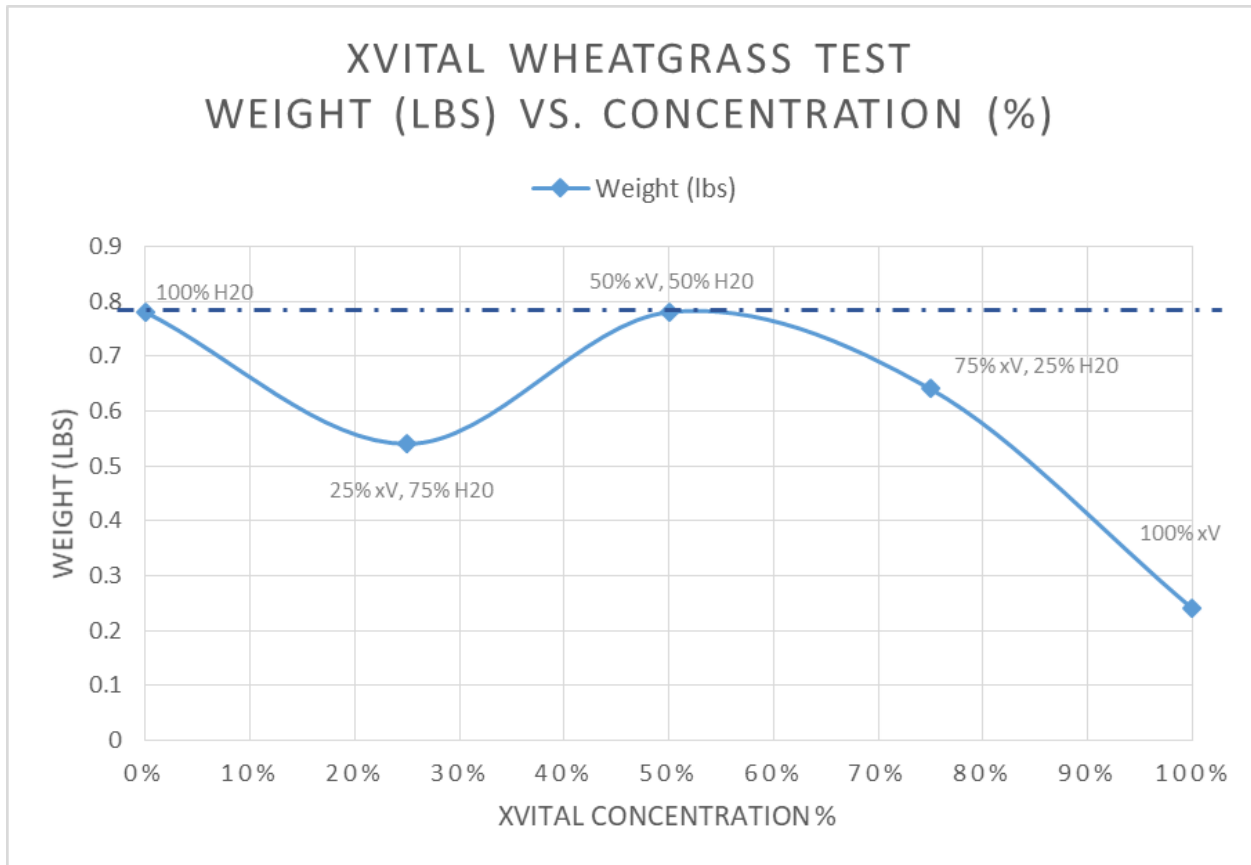


Sample 4

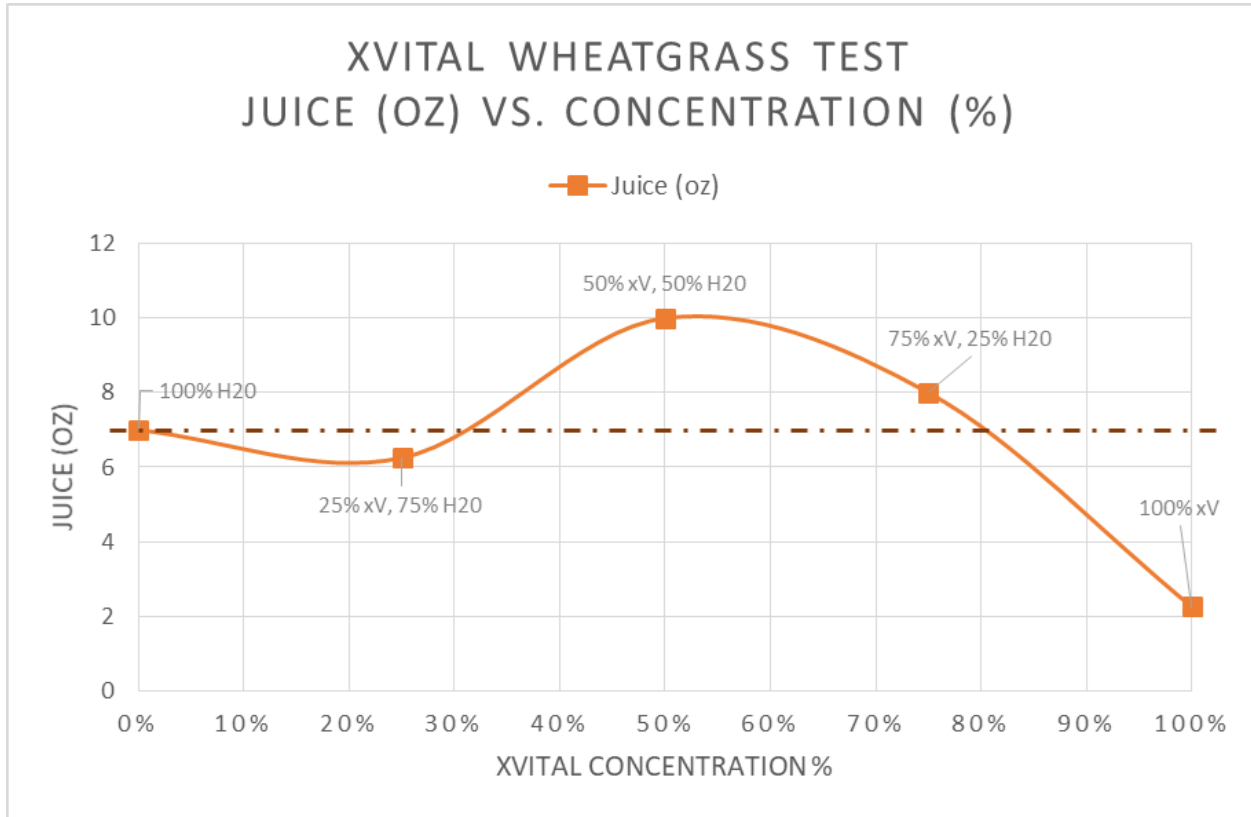


4 Trial Results

Harvested Wheatgrass Blade Weight vs xVital Concentration



Harvested Wheatgrass Juice Volume vs xVital Concentration



5 Trial Data

The following table summarizes the results for the trial metrics presented in Section 1.1 for the four different xVital/water dilution ratio samples described in Section 2.1, and it includes the average growth statistics typically achieved by Good Neighbor Organics when using water only, as reported in Section 1.1, with all other aspects of the water-only growing process the same as those described in this trial report.

Solution	Seed to Harvest (# of Days)	Wheatgrass Blade Weight at Harvest (Pounds)	Wheatgrass Juice Volume at Harvest (Ounces)
Sample 1 75% xVital / 25% Water	6	0.54	6.2
Sample 2 50% xVital / 50% Water	6	0.80	10.0
Sample 3 25% xVital / 75% Water	6	0.64	8.0
Sample 4 100% xVital / 0% Water	6	0.23	2.1
Water Only	7	0.78	7

6 Trial Summary

The trial results demonstrated that wheatgrass juice production increased substantially over the water-only results with each of the xVital/water samples used throughout the growing process, the highest gain being with Sample 2, 50% xVital/50% water.

Furthermore, the wheatgrass blades matured and were ready to harvest in less time using any of the four xVital/water dilution ratios over water alone.

The weight of the harvested wheatgrass blade was most consistent between the 50% xVital/50% water solution and water only.

7 Attestation

I, the undersigned, hereby declare that the xVital Nitrate Fertilizer Trial was conducted as described in this trial report at Good Neighbor Organics, and was supervised by me. The statements and results in this report are accurate, and correctly represent the process and findings.

Name/Title: Alison Rebovich, Greenhouse Manager, Good Neighbor Organics

Signature: 

Date: 11/01/18