**JSC greenhouse analysis and plan**

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**Summary**

* -The JSC greenhouse offers Johnson State College a unique teaching opportunity that would appeal to potential oncoming students, but also a chance to have a “green” agricultural facility that would provide the JSC cafeteria with fresh locally grown greens.
* -By creating a Greenhouse on campus it opens doors for the educational departments to work together to accomplish a unique “real life” situational way of teaching few other colleges offer. An example of this would be if the business classes worked together to create a business (selling produce) in the off-season to Sodexo or local co-ops. This way of teaching combined with a more traditional way of teaching combined with an agricultural facility would transform the way potential applicants see Johnson State College.

**Description**

* **Summary**- The already existing greenhouse located on top of Bentley, will help provide the school with heads of lettuce as a priceless learning opportunity to the students. The business department could use the produce being produced to create a business and sell it to Sodexo or local food stores.
* The tasks of planting harvest and up keep of the greenhouse will be a work-study job assigned to four different students.
* **Mission Statement-** The Johnson state college greenhouse’s goal is to present students with a hands on learning experience and future entrepreneurial opportunities as well as help provide the cafeteria with fresh produce.

**Operational Issues**

**System**- In the green house there is space for a 12’ Length by 6’ width by 6’ height, hydroponics system. This system will be roughly producing a minimum of 12 heads of lettuce every two months. This is not necessarily allot of produce, but again it is the learning opportunity to work-study students and business students that this system offers.

**Materials**

Source of supplies- Supplies and materials will be provided by Farmtek – **Contact for possible In-kind contribution of materials** (<http://www.farmtek.com/farm/supplies/home>)

**System, Lights and fertilizer**

1) Item number 113540: GT70-672 NFT Hydroponic Lettuce System- $1,559.00 /EA

(Below: Link to System)

<http://www.farmtek.com/farm/supplies/prod1;ft_ag_growing_supplies-ft_hydroponic_supplies-ft_lettuce_systems;pg113539.html>

# 2) Item number 111957: LumiBar™ LED Strip Light-$799/ EA (To cover the GT70-672 NFT Hydroponic Lettuce System I suggest getting two)

(Below: Link to lights)

http://www.farmtek.com/farm/supplies/prod1;ft\_hydroponic\_supplies-ft\_hydroponic\_grow\_lights;pg111957.html

3) Item number 113803: Pure Blend® Pro Grow 3-2-4 – Gallon- $55.95 /EA ( I suggest buying 2)

(Below: Link to nutrients)

<http://www.farmtek.com/farm/supplies/prod1;ft_hydroponic_supplies-ft_hydroponic_fertilizers_kits_4;pg113803.html>

**Seed starting**

1) Item Number 109044: Plug Tray - 72 Cell – $1.69/EA (Min order of 10)

(Below: Link to Plug tray)

http://www.farmtek.com/farm/supplies/prod1;ft\_ag\_growing\_supplies-ft\_seed\_starting-ft\_seed\_germination;pg109044.html

# 2) Item Number 112850: Starter Plugs 1.5" x 1.5" - 98 per Sheet Small Hole-$11.19/EA

(Below: Link to Starter plugs)

http://www.farmtek.com/farm/supplies/prod1;ft\_ag\_growing\_supplies-ft\_seed\_starting-ft\_seed\_germination;pg112850.html

**Operation**- The greenhouse will be operated by students who are eligible for the work study program.

*Goal*- To provide produce, and maintain a respectable clean greenhouse, through a motivated and innovative team of students.

* *Daily Duties (of work study job)*
* - Look over plants making sure any that leaves that are dying or unhealthy are picked out and thrown away (composted)
* - Sweep
* - Organize equipment
* - Fill out log sheet (Logging the temperature, report anything that might have gone wrong)
* *Harvest Duties (of work study job)*
* -Harvest plants according to the harvest schedule.
* - Pick greens and put them in a tray.
* - Weigh the greens on the scale (After canceling out the weight of the tray)
* - Sprits the greens with water from the spray bottle.
* - Put greens in a “Harvest bag” then in the refrigerator.
* - Fill out log sheet (Date/time/Name/Weight of total amount of greens grown)
* -Print out log sheet and attach to the harvest bag of greens.
* -Sweep.
* -Organize equipment.

*Planting Duties (of work study job)*

- Place seeds in starter plug holes

- Place starter plugs in plug tray

- Water the tray (plugs)

-Place in sun and put on tray cover

-Write planting date and type of plants planted on tray

-Clean up any messes made

**Finances**

**Contact Farmtek for possible In-kind contribution of materials to cut down on costs**

**Cost of materials**

GT70-672 NFT Hydroponic Lettuce System- $1,559.00

+ $241.34 Shipping

LumiBar™ LED Strip Light (X2)--------------------$1598.00

+ $26.65 Shipping

Pure Blend® Pro Grow 3-2-4 – Gallon(X2)---$ 111.90

+ $28.23 Shipping

Plug Tray - 72 Cell X10----------------------------$16.90

+18.88 Shipping

Starter Plugs 98 per Sheet Small Hole--------$11.19

+ $15.61 Shipping

**Total**-------------------------------------------------$3627

**Budget of yearly up keep**

To buy

Pure Blend® Pro Grow

Starter Plugs 98 per Sheet Small Hole

Any other things that the greenhouse might need

**Total**------------------------------------------------- $500

**Financial contributors**

Possible sources of revenue

- Johnson State College Student Government Association

**Grants (all of witch have a history of giving to comparable projects)**

-Ben and Jerry’s foundation

-[Castanea Foundation, Inc](http://fdovermont.foundationcenter.org/grantmaker-profile/?name=&state=&city=&fields_of_interest=agriculture&types_of_support=&geographic_focus=Vermont&trustees_officers_donors=&type_of_grantmaker=&range=total_giving&range_start=&range_stop=&keywords=&saveterms=1&Submit=Search&sort_by=sort_name&sort_order=0&key=CAST082&from_search=1" \t "prof_show)

-[Huntington Tracy Foundation, Inc.](http://fdovermont.foundationcenter.org/grantmaker-profile/?name=&state=&city=&fields_of_interest=agriculture&types_of_support=&geographic_focus=Vermont&trustees_officers_donors=&type_of_grantmaker=&range=total_giving&range_start=&range_stop=&keywords=&saveterms=1&Submit=Search&sort_by=sort_name&sort_order=0&key=HUNT210&from_search=1" \t "prof_show)

-[New England Grassroots Environment Fund](http://fdovermont.foundationcenter.org/grantmaker-profile/?name=&state=&city=&fields_of_interest=agriculture&types_of_support=&geographic_focus=Vermont&trustees_officers_donors=&type_of_grantmaker=&range=total_giving&range_start=&range_stop=&keywords=&saveterms=1&Submit=Search&sort_by=sort_name&sort_order=0&key=NEWE316&from_search=1" \t "prof_show)

**Gifts and grants from regional banks.**

-[Citizens Charitable Foundation](http://fdovermont.foundationcenter.org/grantmaker-profile/?name=&state=&city=&fields_of_interest=agriculture&types_of_support=&geographic_focus=Vermont&trustees_officers_donors=&type_of_grantmaker=&range=total_giving&range_start=&range_stop=&keywords=&saveterms=1&Submit=Search&sort_by=sort_name&sort_order=0&key=CITI004&from_search=1" \t "prof_show)

-[NSB Foundation Inc.](http://fdovermont.foundationcenter.org/grantmaker-profile/?name=&state=&city=&fields_of_interest=agriculture&types_of_support=&geographic_focus=Vermont&trustees_officers_donors=&type_of_grantmaker=&range=total_giving&range_start=&range_stop=&keywords=&saveterms=1&Submit=Search&sort_by=sort_name&sort_order=0&key=NSBF002&from_search=1" \t "prof_show)

**Corporate sponsorships**

-Sodexo

-Hannaford

**In-kind contributions** (for construction, materials and equipment)

- Farmtek

-Wal-Mart

-Home depot

-Lowes

More possible donors listed in the link below

http://fdovermont.foundationcenter.org/search/results?name=&state=&city=&fields\_of\_interest=agriculture&types\_of\_support=&geographic\_focus=Vermont&trustees\_officers\_donors=&type\_of\_grantmaker=&range=total\_giving&range\_start=&range\_stop=&keywords=&saveterms=1&Submit=Search&sort\_by=sort\_name&sort\_order=0

**Scale model of the greenhouse**

(The green represents the size of the aqua phonics system in the greenhouse relative to a 5ft tall person)



