The Florida Senate
Local Funding Initiative Request
Fiscal Year 2023-2024

LFIR # 1446

1. Project Title Growing Beyond Earth STEM Education Program

2. Senate Sponsor Alexis Calatayud

3. Date of Request 02/14/2023

4. Project/Program Description

Equipment and support to 300 middle and high school teachers throughout Florida will be provided to participate in "Growing Beyond Earth." Students will conduct hands-on science in support of NASA, have special STEM experiences including computer coding, biology, statistics, and data science, and present their discoveries to their peers and a panel of NASA scientists. The equipment is a computer-controlled, led-lighted indoor garden that is functionally identical to plant environments on the International Space Station. Teacher support includes training, curriculum, and coordination of experiments with NASA.

5. State Agency to receive requested funds Department of Education

State Agency contacted? Yes

6. Amount of the Nonrecurring Request for Fiscal Year 2023-2024

Type of Funding	Amount
Operations	995,000
Fixed Capital Outlay	0
Total State Funds Requested	**995,000**

7. Total Project Cost for Fiscal Year 2023-2024 (including matching funds available for this project)

Type of Funding	Amount	Percentage
Total State Funds Requested (from question #6)	995,000	82%
Matching Funds		
Federal	163,000	13%
State (excluding the amount of this request)	0	0%
Local	0	0%
Other	60,000	5%
Total Project Costs for Fiscal Year 2023-2024	**1,218,000**	**100%**

8. Has this project previously received state funding? No

Fiscal Year (yyyy-yy)	Amount		Specific Appropriation #	Vetoed
	Recurring	Nonrecurring		

9. Is future funding likely to be requested? Yes

a. If yes, indicate nonrecurring amount per year. 995,000

b. Describe the source of funding that can be used in lieu of state funding.

Beginning in 2016, NASA has provided more than $2 million in funding to establish Growing Beyond Earth. Currently 150 schools are participating in Florida.

10. Has the entity requesting this project received any federal assistance related to the COVID-19 pandemic?

Yes

If yes, indicate the amount of funds received and what the funds were used for.

PPP via SBA at $826,000 and a local grant from the County at $169,000 (CARES Act) was used to continue our operation and salaries.

Complete questions 11 and 12 for Fixed Capital Outlay Projects

11. Status of Construction

a. What is the current phase of the project?

○ Planning ○ Design ○ Construction

b. Is the project "shovel ready" (i.e permitted)?

c. What is the estimated start date of construction?

d. What is the estimated completion date of construction?

12. List the owners of the facility to receive, directly or indirectly, any fixed capital outlay funding. Include the relationship between the owners of the facility and the entity.

13. Details on how the requested state funds will be expended

Spending Category	Description	Amount
Administrative Costs:		
Executive Director/Project Head Salary and Benefits	Director (10% of salary & benefits)— Program administration and coordination with NASA.	15,000
Other Salary and Benefits	Director of Education (20% of salary & benefits)— Development of education metrics. Administration of evaluation and reporting.	25,000
Expense/Equipment/Travel/Supplies/ Other		0
Consultants/Contracted Services/Study	Contract accounting services— Grant administration and accounting ($22,000)	22,000
Operational Costs: Other		
Salary and Benefits	Program manager ($105,000), Teacher training/curriculum specialist ($90,000), Agricultural engineering educator ($90,000), Support technician ($80,000)	365,000
Expense/Equipment/Travel/Supplies/ Other	Classroom equipment (Computer-controlled, LED-lighted space gardens) for 150 schools ($300,000), consumable supplies ($60,000), cloud hosting ($10,000), annual symposium ($25,000), travel for school visits & training ($15,000)	410,000
Consultants/Contracted Services/Study	Florida teachers contracted to develop curriculum that aligns with state STEM standards (4 x $25,000), Independent evaluator to conduct teacher and student surveys ($40,000), Information Technology services ($18,000)	158,000
Fixed Capital Construction/Major Renovation:		
Construction/Renovation/Land/ Planning Engineering		0
Total State Funds Requested (must equal total from question #6)		**995,000**

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14. Program Performance

a. What specific purpose or goal will be achieved by the funds requested?

Goals are to (1) improve middle and high school STEM education, (2) prepare a STEM-skilled workforce for aerospace, technology, and agriculture, and (3) promote innovation in agriculture. Growing Beyond Earth is a STEM education program operated by Fairchild in partnership with NASA. Students conduct experiments in classrooms to support NASA research on growing food in space. This funding will double the number of participating schools in Florida from 150 to 300.

b. What activities and services will be provided to meet the intended purpose of these funds?

Fairchild will provide equipment and support to 300 middle and high school teachers throughout Florida. The equipment is a computer-controlled, led-lighted indoor garden that is functionally identical to plant environments on the International Space Station. Teacher support includes training, curriculum, and coordination of experiments with NASA.

c. What direct services will be provided to citizens by the appropriation project?

More than 10,000 middle and high school students throughout Florida, approx. 20-50 per school, will participate in Growing Beyond Earth. Students will conduct hands-on science in support of NASA, have special STEM experiences including computer coding, biology, statistics, and data science, and present their discoveries to their peers and a panel of NASA scientists.

d. Who is the target population served by this project? How many individuals are expected to be served?

At-risk youth, developmentally disabled, grade school students, and high school students. Over 10,000 individuals.

e. What is the expected benefit or outcome of this project? What is the methodology by which this outcome will be measured?

The expected benefit will be student and teacher participation in food-growing experiments. Student and teacher development and presentation of independent agricultural research will improve education. Our independent project evaluation contractor will count teachers and students participating in the program. We will report the number of students and teachers who present original agricultural research at our annual symposium. The quality of education will also improve by increasing student knowledge of STEM concepts, confidence in STEM, interest in STEM careers. Our independent project evaluation contractor will conduct surveys of students before and after participating in Growing Beyond Earth.

f. What are the suggested penalties that the contracting agency may consider in addition to its standard penalties for failing to meet deliverables or performance measures provided for the contract?

Fairchild Tropical Botanic Garden will return state funds that do not meet deliverables or performance measures provided.

15. Requester Contact Information

a. First Name	Carl	**Last Name**	Lewis
b. Organization	Fairchild Tropical Botanic Garden		
c. E-mail Address	clewis@fairchildgarden.org		
d. Phone Number	(305)776-6495	**Ext.**	

16. Recipient Contact Information

a. Organization	Fairchild Tropical Botanic Garden
b. Municipality and County	Miami-Dade

c. Organization Type

❑For Profit Entity

☑Non Profit 501(c)(3)

❑Non Profit 501(c)(4)

❑Local Entity

❑University or College

❑Other (please specify)

d. First Name Nannette **Last Name** Zapata

e. E-mail Address nzapata@fairchildgarden.org

f. Phone Number (305)479-6580

17. Lobbyist Contact Information

a. Name Charles F. Dudley

b. Firm Name Floridian Partners LLC

c. E-mail Address cdudley@flapartners.com

d. Phone Number (850)681-0024