

## **CRAFT Application Worksheet**

**THIS IS A WORKSHEET AND IS NOT THE APPLICATION**

guidelines are subject to change

The CRAFT PROGRAM application MUST BE COMPLETED USING THE ONLINE PORTAL. The input of application information into portal (established by USDA-ARS) can be accessed at [www.craftfdn.org](http://www.craftfdn.org) on the CRAFT Foundation website home page under “Grower Application.”

This work sheet document, including program requirements may be printed and reviewed to assist in preparing for an easier online application experience.

### **Step One. Review Program Requirements to determine eligibility (See Appendix 1)**

#### **Step Two. Documents you may wish to gather:**

1. Legal Description of property intended for the CRAFT Program (CRAFT “Grove”)
2. Name(s) of entity/persons who hold title to CRAFT Grove.
3. Redacted contract for Trees (to be uploaded into the application)
4. Current photo(s) of the property (to be uploaded into the application)
5. Tax payer parcel I.D. number(s) and outline of intended project area within parcel(s)
6. Total number of acres in citrus production in the state of Florida owned by the Tax Payer indicated as owner of the Tax Payer ID # in question 5, above. Is that number less than or greater than 2,500 acres?
7. BMP Notice of Intent (NOI) # (Contact Jake Fojtik at 850-688-6859 for assistance with enrollment or NOI#)
8. Sketch of potential project design (to be uploaded into the application) – if not available, a member of the Technical Working Group will assist with development after application is submitted.

#### **Step 3. Assemble information needed on the application (Note: the application may have items not on the worksheet)**

1. SSN or EIN # of Applicant/title holder
2. Contact information and email
3. Number of acres proposed for CRAFT new solid set planting.
4. If a reset project in established groves, number of total acres in project area.
5. Certified Tree delivery date

6. For reset project in established grove, indicate block history, original planting date, scion and rootstock of current trees, tree count for original grove, average number of resets planted yearly in block, annual rates for previous nutrition program and compost rates, etc. Will you be increasing your current density?
7. Target market % fresh/gift fruit and % processed.
8. Review the Cycle V Factors of Interest for mitigation treatments you might wish to employ. Growers will be asked to indicate their primary factor of interest. The provided Factors of Interest is not exhaustive, and other factors may be presented in the application for consideration.
9. Growers will be required to indicate their plans for site preparation that should be considered such as wind breaks, irrigation design, bedded rows, pre-plant herbicide, pre-plant compost/mulch., pre-plant fertilization, pre-plant disc/harrow crop etc.
10. Are you flexible regarding testable elements and design? After meeting with CRAFT representatives or researchers, would you consider altering selected practices/inputs to further CRAFT experimental objectives? (Example: consider a higher application rate of X) and would you consider more acreage in the program?
11. CRAFT would like information about everything you plan to test on the block that might affect plant health and the efficacy of the tested factors.
12. Intended scion and rootstock for replanting
13. Grove architecture/ density
14. Irrigation type:
15. Water Source:
16. Soil type
  - a. Flatwoods
  - b. Ridge
  - c. Calcareous

## **Appendix 1. CRAFT Program Requirements**

### **I. Qualifications for Participation:**

1. Per Legislative proviso language, at least 50 percent of CRAFT Cycle III funding shall be made available to grower entities owning less than 2,500 total acres and the remaining acreage will be made available to grower entities owning 2,500 total acres or more. Participants will be required to certify their total ownership by specific tax ID. If a participant owns more than one entity, acreage totals should be reported only related to the tax ID applying for participation.
2. Cycle V projects are not limited by variety, however special consideration will be given Early orange variety solid set plantings as noted in **Appendix 2**.
3. For projects designed with new trees planted, planting must occur in the same time frame and between October 1, 2023 and June 30, 2025. Trees planted before full execution of Participation Agreement shall be at owner's risk with no guarantee of project approval. Projects planted prior to October 1, 2023 will not be considered for inclusion in CRAFT Cycle V.
4. Proposed project area must be enrolled in the FDACS BMP Program for water prior to application submission.  
<https://www.flrules.org/gateway/ChapterHome.asp?Chapter=5M-16>
5. Projects must show documentation of seedling tree commitment to re-establish entire block (unless participating in reset program)
6. Grower must have an FDACS, Division of Plant Industry Grower/Caretaker Compliance Agreement.
7. Projects may be from any citrus-producing region in the state of Florida.

### **II. Project Minimum Requirements:**

1. Solid block planting new trees must be a minimum of 20 and maximum of 100 acres. Applications for Solid Set Plantings featuring Expedited Propagation Materials must be between 20 and 50 contiguous acres. (please see Factors of Interest for additional details). Re-set applications must show that resets account for at least 10% of final grove tree census. For smaller growers owning less than 2,500 acres, parcels smaller than 20 acres will be considered on a case-by-case basis where there is scientific merit and value to CRAFT.
2. All inputs must be applied in accordance with state and federal laws including FIFRA
3. Grower must sign a contract with CRAFT Foundation Inc. and agree to follow experimental design in contract.
4. Grower must agree to standard methods for planting trees.  
<https://edis.ifas.ufl.edu/hs1302>; also
  - Proper bedding and drainage for Flatwoods plantings
  - The grove site must be free from contamination
  - Newly planted trees must have tree wraps or sprout guards installed
5. Cycle V projects may be subject to variable participation fee rates based on the type of project and may not necessarily be paid at rates paid in Cycles I-IV.

6. Projects should focus on HLB mitigation treatments and practices, however factors related to underlying stressors causing trees to not thrive or satisfactorily produce harvestable fruit may be the subject of projects in Cycle V.

### **III. Application/Approval Process:**

1. Complete online application through USDA/ARS portal linked at [www.craftfdn.org](http://www.craftfdn.org). Applications will be accepted beginning October 1, 2023 and ending November 30, 2023. All applications must be confirmed in the online portal system by 5 p.m., November 30, 2023.
2. Multiple applications for **different** experiments on adjacent land from the same landowner/grower are acceptable. For example, a grower with 200 acres may apply for two separate experiments using different test factors with 100 acres per experiment. The grower would submit two applications. Two identical applications for 100 from the same 200 block will not likely be approved for both—but the same experiment conducted in different regions by the same grower could qualify since they would represent geographic diversity.
3. Applicants are encouraged to contact Group leaders listed in **Appendix 3**. to discuss proposed projects in advance of application if they have questions.
4. CRAFT Foundation, Inc. Technical Working Group will make recommendations to the Board. The Board will review and award contracts to applications that best meet program needs and research goals. [See Appendix 2 for factors of interest to CRAFT.]
5. Applications will be date and time stamped upon receipt.
6. Applications will be submitted for earliest Board approval in order of earliest planting dates and project design completion.
7. Trees may not be planted prior to October 1, 2023.

### **Processing of Participation Payments:**

- Participants will be paid participation fees in accordance with the amounts and payment schedule in contract.
- It is expected that initial payments will be issued upon execution of a CRAFT Grower Participation Agreement and submission of an executed tree contract between participant and a certified tree nursery showing the payment of a deposit for replacement trees related to the approved CRAFT project.
- Additional payments will be issued as outlined in the grower participant's contract with the CRAFT Foundation, Inc.

### **Completion of Project:**

- Planting of all projects must be completed by June 30, 2025.
- Grower participants will be expected to submit Quarterly Reports and allow data collection as outlined in their contract with the CRAFT Foundation, Inc. for a total of six years.

### **Grower Payments**

- Payments will be made in the name of the person or entity identified in the CRAFT Participation Agreement. **Participant takes full responsibility for notifying the CRAFT Foundation, Inc. if ownership of the contracted property changes on tax rolls.**
- Participants will be required to follow the experimental framework for the project (which will be explained and included in the final grower contract), including using one or more of the treatments that you identify in the application, allowing data collection on your property and your entering data into the USDA ARS data portal (See expected data for grower entry in **Appendices 4,5**). CRAFT will provide assistance with the data input process for a fee, utilizing your existing business and production records.
- Upon delivery of performance deliverables for payment period per contract, Participant will be paid according to a schedule.

## Appendix 2. Research Areas of Special Interest to CRAFT in Cycle V.

### Solid Set Plantings featuring Expedited Propagation Material

The CRAFT Board of Directors has approved a carve-out program within Cycle V that will focus on solid-set plantings of scions released as part of the FDOC- and FDACS-funded Program for Expedited Propagation (PEP).

- Solid-Set PEP projects must be between 20-50 acres and must include four (4) of the five scions included in PEP as well as one standard Hamlin variety to serve as a control.
  - Scions included in PEP are: Parson Brown, Carney 2, Carney 3, Roble, Donaldson
- Growers must plant **equal** acreage of each of the five (5) scions selected.
- All five scions must be on the same rootstock. Growers may choose the rootstock they prefer.
- All other requirements within the CRAFT program will remain in place and must be met.
- Growers will receive a participation payment of **\$8,000/acre** over the course of their agreement.

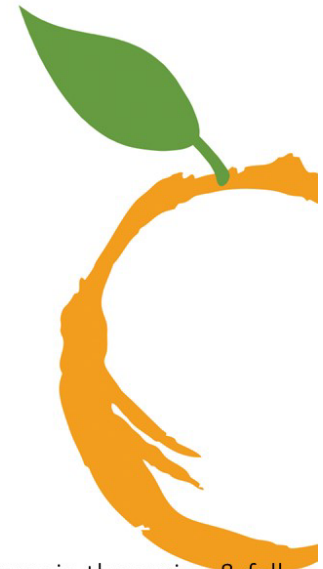
### Cycle V Factors of Interest ROOTSTOCK/SCION

- Early oranges (Carney 2 and 3, any Hamlin clone, PB F 56-2, Roble and Donaldson)
  - Rootstock or scion trials
- Mid-Season (Vernia, Valquarius, Midsweet, Pineapple)
  - Rootstock or scion trials
- Late Season
  - Any released OLL vs industry standard late oranges
  - Rootstock trials
- Orange Like Hybrids (1859, 6-2-55, others)
  - Pending budwood availability
  - Standard scion comparison to a round orange of similar maturity
- Rootstock trials with any scion using the new SS4 and SS5 vs industry standard rootstocks.

### **Cycle V Factors of Interest Nutrition**

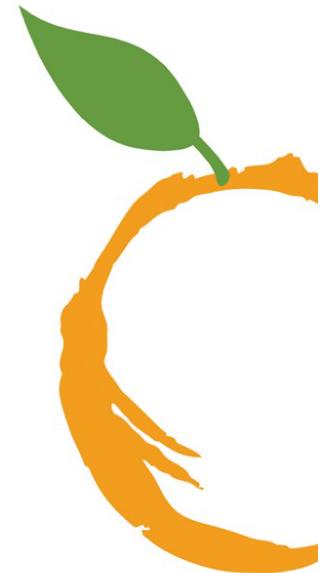
- \*Cover Crops with compost to increase seed bed establishment
- Eco-mowing with and w/out Sesbania cover crop
- N-fixing Cover crops combined with reduced fertilizer rates of N
- Liquid Biochar applications via micro sprinkler irrigation
- Comparison of fertilizer formulations with and w/out Phosphorus
- Sunn hemp planted between rows to control Sting nematode

\*Cover crops are mixes of grasses, legumes & crucifers planted between rows in the spring & fall



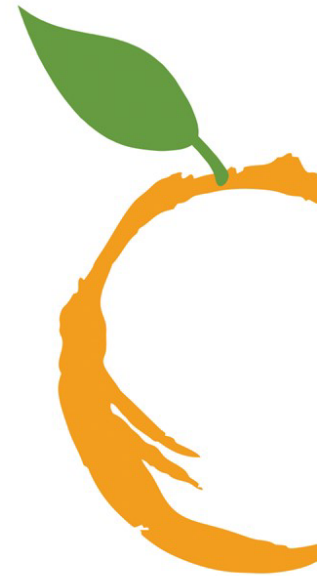
### **Cycle V Factors of Interest Pest Management**

- Oxytetracycline (OTC) rotation partners or alternatives
- IPC removal and OTC injection timing
- OTC injection and secondary pathogen suppression
- OTC injection and ACP management options
- OTC injection and Plant Defense Inducer integrations
- OTC application improvements
- OTC mixing partners to manage ACP or other diseases



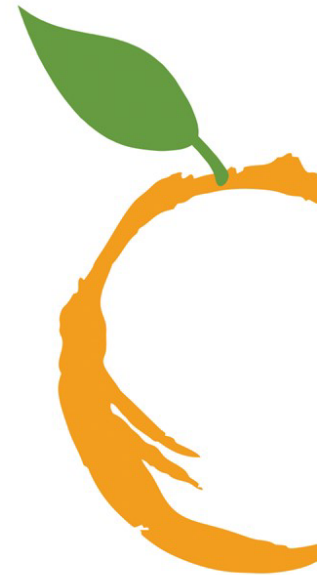
### **Cycle V Factors of Interest Biostimulants**

- Biostimulant treatments featuring direct systemic injection of antimicrobials PLUS a grower-selected biostimulant.



### **Cycle V Factors of Interest Resets**

- Different fertilizer comparisons in IPC/no IPC trees.
- Grove rejuvenation in injection-treated plantings, focusing on presence of blight, removal of trees, resetting with IPC followed by brassinosteroid or gibberellic acid treatments after IPC removal.
- After IPC removal in a reset grove, split brassinosteroid treatment:
  - Monthly in young trees for HLB protection
  - Once in fruit-bearing trees for fruit maturation improvement (November for Hamlin, February for Valencia).





### **Appendix 3. CRAFT Scientific Coordinator and Group Leaders Assigned to Research Areas in Cycle V.**

- CRAFT Scientific Coordinator – Carisa Keller (Carisa@craftfdn.org)
- Group One: Rootstock/Scion – Brandon Page, UF/IFAS CREC (bpage@ufl.edu)
- Group Two: Nutrition – Dr. Jim Graham, UF/IFAS CREC (jhgraham@ufl.edu)
- Group Three: Pest Management – Dr. Ozgur Batuman, UF/IFAS SWFREC (obatuman@ufl.edu)
- Group Four: Biostimulants – Dr. Randall Niedz, USDA/ARS
- Resets – Dr. Fernando Alferez, UF/IFAS SWFREC (alferez@ufl.edu)

**Appendix 4. Expected Data Collection by Participant before Contract for Reset Projects for inclusion in Application: DATA EXPECTED TO BE COLLECTED BY PARTICIPANT WITH SUPPORTING RECORDS.**

- A. Reset Projects should have information on past block history including:
  - Original planting date of block;
  - Scion (at original planting date);
  - Rootstock (at original planting date);
  - Original Tree Spacing/Density;
  - Total tree count at original planning;
  - Previous resets planted in the block;
  - What is the average number of resets planted yearly in this block:
  - Historical Management Practices:
- B. Proposed Revitalization/Reset Program
  - Scion:
  - Rootstock:
  - Number of resets to be planted:
  - Site prep (push and burn, tree clipping):
  - Planting Practices (i.e. fertigation, new or different microjet emitter, etc.)
  - Changes to management practices for existing
  - Young tree management plan (i.e. “tree defenders”, supplemental fertility,
  - Will the planting density stay the same?

**Appendix 5. Understand your obligations before you apply! Expected Data Collection by Participant for all Projects after Contract. (*\*this form is not to be submitted, only to serve as a guideline. An online survey will be provided to all approved participants for data collection*)**

- **Allow CRAFT Auditor, FDACS employees, CRAFT-contracted drone operators, and other CRAFT-contracted data collection partners on your property to determine compliance and collect CRAFT data.**
- **Be responsive! DATA EXPECTED TO BE COLLECTED BY PARTICIPANT WITH SUPPORTING RECORDS. Payments are conditioned upon submission of data.**

1. Annual: specific production costs (documentable) of selected test factors by subplot. **Table 2.** Estimated Start Date: \_\_\_\_\_ through \_\_\_\_\_ (@12<sup>th</sup> month)

	Trees per acre
<i>Item</i>	<i>Dollars per Acre</i>
Land Preparation <sup>1</sup>	
Solid-set Planting Costs <sup>2</sup>	
Fertilization materials <sup>3</sup>	
Fertilization application <sup>3</sup>	
Weed management	
Foliar Sprays – Insecticides	
Foliar Sprays – Fungicides	
Foliar Sprays – Nutritional	
Foliar Sprays – Bactericides	
Foliar Sprays Application Costs	
Neonicotinoids Psyllid Mgmt.	
Irrigation and Frost Protection <sup>4</sup>	
Sprouting/Pruning	

Tree Removal	
Equipment Operation	
Trees and Tree Replacement and Care	
Other Costs <sup>5</sup>	
<b>Total Variable Costs</b>	

<sup>1</sup> Includes disking and/or rotovating site; forming roads, drainage system, and raising beds

<sup>2</sup> Includes cost per tree; planting and first watering; strawing tree planting site; sprout & herbicide guard

<sup>3</sup> Includes dry and liquid fertilizer

<sup>5</sup> Includes chemical handling and grove care supervision; scouting for pests and diseases; machinery and equipment repairs; interest on operating (cultural) cost

2. Quarterly: All Participants should expect to file **Quarterly Surveys** are due every 90 days after planting, beginning upon completion of tree planting. Each survey will request the following applicable information:

**3. Fertilizer Applications:**

- Date applied
- Application Method (dry, fertigation, foliar)
- Product name
- Analysis/formula and “derived from” statement on label
- Formulation for foliar products if applicable
- % Slow Release for dry products if applicable
- Other additives if applicable
- Macros – rate and form
- Micros – rate and form
- Product name, rate and date applied for any biostimulants or other additives
- Product name/description, rate and date applied for any soil amendments (probiotics/organics/clays/etc.)

**4. Irrigation Activities:**

- Irrigation practices relevant to each 90-day period
- Delivery type
- Water source
- Frequency of irrigation
- Amount of water applied per irrigation event
- Results of water quality analysis if conducted during 90-day period
- Any H2O treatments made

**5. Insect/Mite/Nematode Management Activities:**

- Pesticide applications
  - Date applied
  - Application method (foliar, aerial, low-volume, soil drench)

- Product name
- Rate of product per acre
- Total spray volume per acre
- Intended target pest(s)
- Additional products included in tank with pesticide (including adjuvants, other insecticides, miticides, bactericides, foliar nutritionals, etc.) including product name, rate and purpose

**6. Asian Citrus Psyllid Control:**

- Any other control methods for ACP including individual protective tree covers, metalized reflective mulch, traps, screen, or other

**7. Citrus Disease Management Activities:**

- HLB scouting
  - Did you visually scout for HLB this quarter?
  - If yes, what percentage of trees showed HLB symptoms
  - If no, provide last date of HLB scouting and percentage of trees showing symptoms at that time

**8. General Grove Condition:**

- Variety/rootstock; seedling or budded
- Block size
- Plant health
- Did any trees die from HLB or other causes within this 90-day period?
  - If yes, number of trees dead or removed
- If trees lost, do you plan to reset in the coming 12 months?

**9. Harvesting Activities by subplot (when applicable)**

- Select pick (number of times and dates) or once over (date)
- Number of boxes per acre by subplot supported by trip tickets marked with CRAFT ID
- LBS Solid per acre
- Brix/acid
- Estimated amount of fruit lost to preharvest fruit drop
- Intended market for fruit when produced (processing, fresh, export, organic)

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**STEP FOUR: When you are ready, please apply! Make sure that you print out your completed confirmation indicating that the system accepted your submission. If you have trouble, please contact program manager [Tamara@craftfdn.org](mailto:Tamara@craftfdn.org) before November 30, 2023.**