

NO PERMIT WILL BE ISSUED TO MOVE AND USE LIVE INSECTS OR PLANT PESTS OR NOXIOUS WEEDS UNTIL A COMPLETED APPLICATION IS RECEIVED.

DEPARTMENT OF FOOD AND AGRICULTURE PLANT HEALTH AND PEST PREVENTION SERVICES 2800 GATEWAY OAKS DRIVE, SUITE 200 SACRAMENTO, CALIFORNIA 95833		SECTION A TO BE COMPLETED BY APPLICANT			
APPLICATION AND PERMIT TO MOVE AND USE LIVE PLANT PESTS OR INSECTS OR NOXIOUS WEEDS (Attachments may accompany application if space is insufficient)		1. NAME AND ADDRESS (Include organization name and Zip Code) <b>Srini Krishnamoorthy, PhD</b> <b>Sunburst AgriBiotech Solutions LLC</b> <b>677 East Olive Avenue</b> <b>Turlock, CA 95380</b>			
3. TYPE OF ORGANISM <input type="checkbox"/> Arthropod <input checked="" type="checkbox"/> Pathogen <input type="checkbox"/> Noxious Weed <input checked="" type="checkbox"/> Nematode		2. TELEPHONE NUMBER/FAX NUMBER/EMAIL <b>209-667-4442   srini@sunburstabs.com</b>			
4. SCIENTIFIC NAME OF ORGANISM	CLASSIFICATION (Order, Family, etc.)	LIFE STAGES	NUMBER OF SPECIMENS	MOVED OR SHIPPED FROM	WHAT HOST MATERIAL WILL ACCOMPANY PEST?
All agronomically important pathogens(Fungi, Bacteria and Viruses)					
Plant pathogens that do not require special permit under quarantine)					
5. ADDRESS OF USE LOCATION IF DIFFERENT THAN ITEM 1. <b>Same location</b>		6. NAME AND ADDRESS OF SUPPLIER <b>All the growers and researchers in the state of California</b>			7. DESTINATION COUNTY <b>Stanislaus</b>
8. APPROXIMATE DATE OF MOVEMENT	9. NUMBER OF SHIPMENTS	10. METHOD OF SHIPMENT <input checked="" type="checkbox"/> Mail <input type="checkbox"/> Freight <input type="checkbox"/> Baggage <input type="checkbox"/> Auto			
11. INTENDED USE (Be specific; state whether use will be in a laboratory and/or greenhouse and/or in the field, and, in the case of pathogens, state whether use will include plant inoculation.) <b>We will perform the soil and plant sample tests in the laboratory and plant inoculation under controlled conditions</b>					
12. METHODS TO BE USED TO PREVENT ESCAPE OF THE ORGANISMS <b>Sterilization using autoclave. Please see the attachment on SOP for plant and soil sample testing</b>			13. METHOD OF FINAL DISPOSITION <b>Sterilization using autoclave, make the soil or plant sample hazed pathogen free and dispose within 72 hours. Please see the attachment on SOP for plant and soil sample testing</b>		
14. I/We agree to comply with the Standard Conditions of Permit, and understand that the permit is subject to other conditions which may be prescribed.		SIGNATURE OF APPLICANT <b>Srinivasan Krishnamoorthy</b>		DATE <b>04/30/21</b>	
		Digitally signed by Srinivasan Krishnamoorthy Date: 2021.04.30 14:31:27 -04'00'			

## SECTION B – TO BE COMPLETED BY STATE OFFICIAL

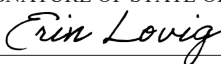
## PERMIT

(Permit not valid unless signed by an authorized official of Plant Health and Pest Prevention Services Division)

PERMIT NUMBER  
**3806**

Under authority of Section 6305 of the Food and Agricultural code, permission is hereby granted to the applicant named above to move and use the organisms described, except as deleted, subject to the conditions stated on, or attached to, this application.

VIOLATION OF ANY OF THE CONDITONS OF THIS PERMIT SHALL BE SUFFICIENT CAUSE FOR ITS IMMEDIATE REVOCATION.

15. SIGNATURE OF STATE OFFICIAL 	16. DATE ISSUED <b>October 28, 2021</b>	17. EXPIRATION DATE <b>October 31, 2023</b>
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Copy to: County Agricultural Commissioner  
 Pest Exclusion  
 Plant Pest Diagnostics Center  
 Supplier  
 File



CALIFORNIA DEPARTMENT OF  
FOOD & AGRICULTURE

Karen Ross, Secretary

## CONDITIONS OF STATE DIAGNOSTIC PERMIT

Permit No. 3806

1. This permit is authorized for the isolation and diagnosis of plant pathogens only, excluding citrus canker, citrus variegated chlorosis, or any plant pathogen not known to occur in California. Isolation and culturing of animal pathogens, such as anthrax, hoof and mouth disease, and exotic Newcastle disease, is prohibited and finds of such diseases must be reported to State regulatory officials. All animal pathogens must be destroyed.
2. If work conducted under the State Plant Pest Permit finds any plant pathogen that is not known to occur in California and/or is a quarantine plant pathogen (regardless of origin) not authorized under a valid permit California Department of Food and Agriculture (CDFA), Permits and Regulations Program must be notified within 24 hours at [permits@cdfa.ca.gov](mailto:permits@cdfa.ca.gov). Maintenance of these pathogens is prohibited. It is unlawful for any person who is employed or supported using public funds to neglect to report to CDFA the presence in California of any pest that is new to, or not widely distributed in California (FAC 5308).
3. According to the Food and Agricultural Codes, the movement of organisms and plant material from areas under interior quarantine regulations in California is prohibited except under a special permit specifically written for the quarantine pest. For a current list of California Interior Quarantines, please access the Plant Quarantine Manual at the following website: <http://www.cdfa.ca.gov/phpps/Manuals.html>.
4. **A written report of pathogens identified (including host information and provenance) must be provided semi-annually** to: California Department of Food and Agriculture, Permits and Regulations, 1220 N Street, Suite 210, Sacramento, CA 95814 or e-mailed to [permits@cdfa.ca.gov](mailto:permits@cdfa.ca.gov). **If a culture collection is authorized under this permit, a list of the cultures kept in storage must also be included in the report sent to CDFA.**
5. All regulated organisms or infected plant material shall be shipped in sturdy, escape-proof containers.
6. The permit number shall be affixed on each shipment package containing permitted organisms.
7. Permittee shall maintain a copy of the state diagnostic permit at the facility where the authorized work will be conducted. The copy of the permit shall be made available to state/county inspectors upon request.
8. Upon the arrival of each shipment of a regulated organism, the permittee shall notify either the Stanislaus County at (209) 525-4790 or the California Department of Food & Agriculture (CDFA), Permits and Regulations Program via email at [permits@cdfa.ca.gov](mailto:permits@cdfa.ca.gov). If the county chooses to waive the notification, CDFA permits office must be notified.



9. Permittee shall maintain a log of all shipments received at the facility identified in this permit. At minimum, the permit log shall include for each shipment the type and number of samples for diagnosis (fungal/bacterial/nematode and/or infected plant), common or scientific name of infected plant material, receiver, name and address of the supplier, date and time of shipment received, date of county notification, and the number of shipments received by the permittee each month. The log shall be made available to county/state inspectors upon request.
10. All packages shall be opened in a laminar flow biosafety cabinet, Class II, Type A, in a secure room to prevent the escape of pathogens and insect pests. All isolations and culture transfers shall be conducted in a laminar flow biosafety cabinet that meets or exceeds Class II, Type A or other safe manner. Organisms, and infected plant material if any, shall be kept and used only within the laboratory or designated area at the permittee's address.
11. No living organisms kept under this permit, inoculated plants, or infected plant material shall be removed from the confined, designated area except by prior approval from state agricultural regulatory officials.
12. Without prior notice and during regular business hours, state and county agricultural regulatory officials shall be allowed to inspect the conditions under which the organisms are kept and used.
13. All necessary precautions must be taken to prevent escape of regulated organisms. In the event of an escape of a regulated organism, the permittee shall immediately notify CDFA Permits and Regulations Program via email at [permits@cdfa.ca.gov](mailto:permits@cdfa.ca.gov).
14. Upon completion of pathogen diagnosis, all permitted organisms, inoculated plants, infected plant material (including seeds and plant debris) contaminated soil, cultures, containers, tools, packaging and research material, and anything that has contacted the regulated materials must be treated sufficiently with heat or chemicals by autoclaving, incineration, or other equivalent methods to kill, destroy, or deactivate plant pathogens prior to disposal. Glassware and other materials used to conduct research must be decontaminated by soaking in a fresh bleach solution of 10 percent (1:10) for at least 30 minutes, in 70 percent ethanol, with quaternary ammonium compounds, or flamed with ethanol.
15. No plant inoculations are allowed except for what is necessary for identification purposes. Whenever possible, plant inoculations must be performed in growth chambers. If greenhouse studies are necessary and have been authorized under this permit, access to the greenhouse must be limited to the permittee and only trained staff. Greenhouse doors must be kept closed and locked at all times. Greenhouse studies are only authorized for organisms previously confirmed in the laboratory and by CDFA as not being quarantine pests or new records for the state. Permittee must request approval from CDFA prior to moving permitted organisms to the greenhouse.
16. Greenhouse must be screened to prevent vector entry or escape. Ongoing monitoring of potential vectors is mandatory. Insect control must be in practice at all times including pesticide spraying and use of sticky traps.
17. No vector transmission is permitted. If inoculation is necessary for virus diagnostics, only mechanical inoculation is allowed.

18. There is to be no further distribution of these organisms without prior approval from State regulatory officials.
19. The permittee will report permit related problems by e-mail within three days of the occurrence to the California Department of Food and Agriculture, Permits and Regulation Program at [permits@cdfa.ca.gov](mailto:permits@cdfa.ca.gov).
20. This permit is issued only for the named permit holder at the address identified on this permit and cannot be transferred or assigned. If the permit holder ceases to be employed at this location where the organisms received under this permit are kept, the permit holder must destroy the organisms unless a new individual submits a Form 66-026, obtains a permit prior to the permittee's departure, and assumes responsibility for the continued maintenance of the authorized organisms.
21. Failure to comply with the conditions of this permit or the detection of any quarantine actionable live plant pest in any shipment authorized by this permit shall be sufficient cause for immediate revocation of this permit.

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## STANDARD OPERATING PROCEDURES FOR SOIL AND PLANT SAMPLE TESTING

*All soil and plant tissues are considered quarantine material until sterilized*

### PROTOCOLS FOR SHIPPING:

- A detailed note of sample collection with a clear instruction of the do's and the don't's are given in our sample submission tab in our company webpage displaying the permits that we have.

<https://www.sunburstabs.com/sample-collection-guidelines/>

**Also we clearly communicate the following to the customers before asking them to send their samples:**

- All shipments of soil must be in sturdy, water proof containers which will preclude spillage or pest escape in transit and while samples are waiting processing. This shall consist, at a minimum, of primary and secondary containers secured within an external rigid shipping container wherein the soil is securely enclosed in a sealed durable waterproof primary container. The primary container(s) must be enclosed in a second, sealed durable waterproof container. Sufficient cushioning material must be included to secure the primary container(s) in the secondary container and the secondary container(s) in the outer shipping container to prevent shifting of the internal containers and to resist crushing of the outer container. The external shipping container should be, at a minimum, an undamaged rigid sealed cardboard box of sufficient strength to accommodate the final weight of the package without buckling. Permit holder must provide all packaging, labeling, and shipping requirements to the shipper.
- Upon the arrival of any damaged package with obvious or apparent loss of foreign or regulated domestic soil, permit holder must take action to contain and prevent further loss and decontaminate affected surfaces. If it can be confirmed that all the material potentially lost from the damaged container(s) is still confined within the outer packaging and/or transport vehicle and that it can subsequently be contained, recovered, and the affected surfaces decontaminated, then the incident constitutes a spill but not a release into the environment. Permit holder must document the incident. If the containment of all of the potentially lost regulated material cannot be confirmed and/or the transport vehicle cannot be detained or accessed to recover the material and disinfect the affected surfaces, then the incident constitutes a possible accidental release and must report it to the local PPQ office and to the Permit Unit at [Pest.Permits@usda.gov](mailto:Pest.Permits@usda.gov) (preferred) or by mail APHIS, PPQ, 4700 River Rd., Unit 133, Riverdale, MD 20737, or by phone at 301-734-6343. Reporting should be done as soon as possible (within twenty-four hours).
- We maintain records that describe any action or event and associated date that affects the disposition, status, and/or quantity of the sample. Records should include the weight, general composition, shipper and origin of each incoming shipment; and weight, general composition, treatments to sterilize, and disposal of any retained sample. In the event that transfer of untreated regulated material is required, records on the weight, general composition, recipient, and destination of each outgoing ship-

ment must be maintained. The integrity of the sample identification must be preserved from the shipper through to the recipient. Recipient must maintain records that provide a traceable link with the shipper's sample identification system in order to preserve the integrity of the sample identification from the shipper through to eventual sample destruction. Records should include the weight, general composition, shipper, origin of each incoming shipment, and associated subsequent destruction or transfer. Shipper must maintain file copies of recipient's Soil Permit and CA for outgoing shipments of untreated foreign origin soil.

- Upon request, we provide electronic-generated records of all soil shipments (soil received, soil disposed, and soil transferred) are to be made available to USDA-APHIS-PPQ and/or the State Department of Agriculture.

## **UPON RECEIPT OF SAMPLES**

- All samples will be stored in sample receiving refrigerator at 4<sup>0</sup>C.
- Upon arrival of all samples, they will be logged into the sample receiving inventory. Sample number, details about the sample, name of the sender, address, county etc will be entered.
- Lab personnel handling the samples should wear lab coat and gloves.
- Samples should be checked if they are properly packed and labelled and if the necessary permits are attached.
- *Samples must* remain sealed in original double bags until processed.
- All packages will be opened under a laminar hood and culturing will be done under the laminar hood
- Samples should not be left on tables or elsewhere when not in use.
- Samples in processing should be kept in proper shelves.
- As long as regulated soil is present, the containment and all other affected areas of the facility are restricted to access by authorized personnel only. All containers and storage areas are labeled: 'USDA-Regulated Soil'. The secured containment area stores only regulated material. The regulated material are segregated from the unregulated material as well as being appropriately labeled
- After processing the samples can be placed in the lower shelf for 3 to 4 weeks.

- After 4 weeks these samples will be autoclaved as per CDFA and USDA regulations
- Samples will be autoclaved at 121<sup>0</sup> C (250 F) @ 15 lb/in<sup>2</sup> pressure for 30 minutes and disposed within 72 hrs.
- Autoclave tape is tied on each load prior to treatment and is checked to verify color change before disposal.
- All unconsumed soil, containers and effluent are autoclaved, incinerated or properly sterilized by the permittee at the conclusion of the project as approved and prescribed by the permit conditions
- Any water residues (effluent) from the processing of soil samples are treated by an approved sterilization procedure: autoclave
- Log will be maintained for the autoclaved samples with the details on: date of sample received, report number, date of sterilization and disposal
- The work place should be cleaned and disinfected with 70% isopropyl alcohol.

#### **Autoclave Calibration:**

- Calibrated once every 6 months according to the manufacturer's instructions and maintain written records.
- We use a commercially available biological indicator kit every 6 months, containing bacterial spores (e.g. *Geobacillus stearothermophilus* species) that are rendered unviable at 121 Celsius (250 Fahrenheit). We follow the manufacturer's instructions. We service and retest the autoclave if any growth is observed.

#### **IN THE EVENT OF ACCIDENTAL RELEASE/SPILLAGE**

- Liquid spills should be wiped with absorbent paper or cloth and the contaminated materials should be placed in an autoclave bag, sterilized and disposed according to the procedure described above.
- Solid materials should be carefully removed from the surface using gloved hands, enfolded in absorbent paper or cloth placed in an autoclave bag, sterilized and disposed off accordingly.



677 East Olive Ave. Turlock, CA 95380  
**Ph:** 209-667-4442 **Fax:** 209-667-4443  
**Mail:** P.O. Box 1639, Turlock, CA 95381

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- After the sample (soil/ plant tissues) is removed, the area in contact with the soil or liquid should be thoroughly cleaned with a 10% chlorax (sodium hypochloride).

The completed cleanup should be reported to the lab manager