**PROJECT NARRATIVE**

**Applicant ID:**

**Limit document to 10 pages total**. Arial font size 12, 1-inch margins, and single-spaced. Do not change order of sections, margins, font size, or spacing.

(REMOVE ALL BLUE TEXT PRIOR TO SUBMITTAL)

## Project Type:

Please select one from below:

Type A

Type A – Additional Practices for Demonstration and Data Collection

Type B

## Project Justification

*1.1 Describe cropping and management histories in the past three years of the farmland (fields and APNs) where the project is to be demonstrated.*

Provide the history and background of the field(s)/APN(s). Explain why/if current management practices do not support production sustainability, possible impacts on environment and climate, and the need to switch to conservation management practices.

*­­­­1.2 Provide a rationale for the cropping system selected for the project including crops to be grown in the coming three years if they are different from the crops that are currently grown.*

Describe why demonstration of proposed eligible agricultural management practices in the selected cropping system is important. This includes but is not limited to:

1. Percent land acreage of crop production throughout the state;
2. Needs to improve soil health;
3. Impacts on greenhouse gases emissions and/or other environmental issues.

*1.3 Describe the geographic location and possible scale (statewide or local) at which the project anticipates influencing farmers and ranchers to adopt the demonstrated agricultural management practices.*

Describe how the project location was chosen and the potential to demonstrate the practices to a broad audience to achieve wide adoption of the demonstrated practice(s).

*1.4 Describe the agronomic, environmental, or other impacts the project anticipates having on a local, regional, and statewide basis.*

## Project Design

*Experimental Design – a project site map and a design schematic must be uploaded as part of the 2020 HSP Demonstration Projects electronic application.*

**Project Site Map**: please use [CDFA HSP RePlan Tool](https://replan-tool.org/cdfa/) to create your project site map, save the report and upload as part of the electronic application. Project site map cannot substitute project design schematic as the CDFA HSP RePlan Tool does not provide option for drawing control plots.

**A Project Design Schematic must meet the following requirements.**

* A Project must include at least one of the HSP Eligible Agricultural Management Practices to be implemented as a treatment (T) where it has not been implemented previously.
* A Project must also include control field (C) to serve as a comparison to T.
* T and C should be located side-by-side and differ from each other with respect to the presence (or absence) of new management practice(s) implementation while keeping all other field activities the same as much as possible.
* When selecting locations in the APN to layout T and C, ensure field conditions such as soil properties, drainage, landscape, and cropping and management histories and size are as similar as possible.
* T and C must not be changed to a different location within the APN during the complete project term, (i.e., July 1, 2019 through March 31, 2022).
* Materials associated with each treatment must be provided, e.g. name of species for practices that involve plantings, C:N ratio and application rate for compost application.

Specific requirements for all Type A projects:

* Each T must have a corresponding C.
* Plot size of T and C must be equal and large enough to allow meaningful data collection and farming operation based on practice(s) selected.
* A minimum of three replicates for each T and C is required.

*Table 1. Project design – detailed information*

Fill information in the table below. In the column “Acres to be implemented”, enter acreage for each practice/treatment (T) field/plot and number of replicates. Clearly indicate if acreage is different for each field or plot (e.g. 1.0ac x 3 plots, or 1.0 ac + 1.5ac + 2.0ac). Do the same for control field/plot (C).

An example of a project with cover crop treatment and control is provided in the table below. In this example, each field/plot is one acre and replicated three times.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of Practice | Identified as T or C | Acres to be implemented | APN # | Field/Plot # | Address |
| Cover Crop | T | 1.0 ac x 3 plots = 3.0 ac | 1234564100 | A, C, E | 2800 Gateway Oaks Dr., Sacramento |
| Fallow | C | 1.0 ac x 3 plots = 3.0 ac | 1234564100 | B, D, F | Same as above |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Multiple practices on the same field or plot must be identified clearly.

Add rows as needed.

* 1. *Describe the proposed approach, procedure, or methodology on how to implement the practices in the project and how to make the implementation suitable and feasible to the cropping system.*

List any potential challenges that applicant foresees to practice implementation and provide plans to avoid or overcome them. CDFA encourages a realistic and pragmatic approach to the extent feasible.

1. **Data Collection**

*Outline the methods for monitoring soil organic matter content (both Type A and type B projects), other soil health indicators and GHG emission measurements along with crop yield data collection or economic analysis (all Type A projects), eco-system impacts and co-benefits (optional for Type A and type B projects).*

Provide:

* Names of field where data will be collected. Be consistent with Experimental Design.
* Methodology and/or equipment for sample collection, including but not limited to field layout and tools to be used.
* Sampling time and frequency. A justification must be provided explaining the selected choices and why they are important for representative and scientifically sound data collection.
* Methods and/or equipment for sample transportation, storage, and analysis.
* Methods of data analysis and interpretation.

1. **Outreach Design**

*4.1 Describe the proposed outreach activities.*

Required for both Type A and Type B projects:

* A grant recipient must conduct at least one field day per year at the project site to showcase HSP Practices to farmers and/or ranchers.
  + - Recipients must notify CDFA of the events being conducted at least 30 days prior to event dates.
    - All outreach events will be posted on HSP Demonstration Projects website.
    - Farmer and rancher attendance and outreach for demonstration of HSP projects must include a minimum of 120 different individual farmers and/or ranchers for the duration of the grant agreement term (i.e., 40 per project year for the three project years).
    - Farmers and ranchers must attend the demonstration project site.
    - Grant recipients may meet this requirement through outreach efforts conducted in addition to the mandatory field days.
    - Outreach events may include presentations at conferences or meetings where farmers and ranchers are present as participants.
    - List of farmers and ranchers present at outreach events must be included in reports to CDFA.

*4.2 Describe the proposed approach, procedure, or methodology for the outreach activities. Include and clearly describe the methods for notification, recording attendance, distributing and collecting surveys. and how they are suitable and feasible for the project.*

CDFA encourages creative approaches (e.g., holding outreach events multiple times in a year) to attract new individuals and support those already familiar with the demonstrated practices to the sites to share knowledge and benefits of implementation the practices. Approaches such as using [SMART](http://www.hr.virginia.edu/uploads/documents/media/Writing_SMART_Goals.pdf) (Specific, Measurable, Achievable, Relevant and Time-bound) goals are encouraged.