

I. Cover Page

Report to University of California Sustainable Agriculture Research & Education Program (UC SAREP) Competitive Grants Program

A. Date of Report

June 29, 2022

B. Title of Project:

Bringing Organic Farming and Gardening Training Online through Instructional Videos in Spanish and English

C. Principal Investigator:

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D. Co-Investigators Cooperators:

Name: Nathan Harkelroad

Affiliation: Agricultural Land-Based Training Association (ALBA)

E. Location of Project

UC Santa Cruz Center for Agroecology, 1156 High St., Santa Cruz, CA 95064, USA

F. Proposal Category:

Education and Outreach Grant

G. Priority Area:

Supporting Farmers and Ranchers

H. Commodity(ies) addressed (if appropriate)

N/A

I. Grant Amount:

\$6875

II. Objectives

List the objectives from your original proposal. If any objectives have changed, briefly explain why.

1. Producing a series of teaching videos in English and Spanish that capture the core garden- and field-based demonstrations taught at CASFS, as well as “follow the crop” videos.
2. Creating an online learning center linking the new videos with existing free publications online, connecting video content with corresponding units in *Teaching Organic Farming & Gardening* and the CASFS Organic Grower Guide series.

III. Summary (500 words or less)

Instructional videos on organic vegetable and fruit production topics will now be available in Spanish for free, thanks to a UC SAREP grant to the UC Santa Cruz Center for Agroecology. The 37 videos, ranging in length from 3 minutes to 45 minutes, include demonstrations of technical skills and practical growing information delivered from the fields, orchards, and greenhouses at the UCSC Farm.

When Covid-19 restrictions halted in-person learning during the pandemic, video became a route for both continuing to teach from the fields and also as a means for capturing key demonstrations on film for use as instructional tools and as stand-alone how-to videos. Grant and gift funds supported the hiring of a professional videographer to work with the long-time instructors at the UCSC Farm on a series of videos. The topics include specific organic vegetable crops, organic seedling production and greenhouse management, tillage and equipment, and organic fruit tree management and pruning. Some videos are very specific how-to demonstrations on topics such as planting or pruning, and a few are longer “follow-the-crop” videos showing stages of growth and important production practices at different stages for one crop. The videos were produced in English and now have been translated and dubbed in Spanish.

The set of 37 videos in English and Spanish will be available for free from the UCSC Center for Agroecology website and YouTube channel by August 2022. Outreach to raise awareness about the availability of the videos will be conducted in English and Spanish through groups that work with Spanish-speaking growers. The videos will form the basis of an online learning center on the UCSC Center for Agroecology website, with plans to include other instructional resources such as our Organic Grower Guide series in English and Spanish and our training manuals for teaching organic farming and gardening. Please see <https://agroecology.ucsc.edu/> August 2022 for updated content.

IV. Specific Results: Report your results by objective.

Objective 1.

Producing a series of teaching videos in English and Spanish that capture the core garden- and field-based demonstrations taught at CASFS, as well as “follow the crop” videos.

In the one-year grant project period, July 1, 2021 to June 30, 2022, we have carried out this objective by producing new instructional videos in English and translating those recently produced and previously produced into Spanish, resulting in 37 videos in English with the same set of 37 in Spanish. The videos include practical demonstrations and information for growing vegetables, fruits, and seedlings organically. Filmed at the UCSC Farm and Alan Chadwick Garden on the UCSC campus, the videos capture some of the core field lessons and demonstrations from long-time instructors at the UCSC Center for Agroecology.

During the pandemic, with limited or no in-person training taking place at the UCSC Farm, instructional staff turned to video production to capture practical training in the fields, orchards, and greenhouses. Grant and gift funding supported videography by video producer, Jim Clark, over two seasons. Clark had previously created instructional videos with UCSC Farm instructor Darryl Wong, such as Organic Weed Management with over half a million views on YouTube. The production of new videos focused on specific organic vegetable crops, organic seedling production and greenhouse management, tillage and equipment, and organic fruit tree management and pruning. Some videos are very specific how-to videos, such as a 3-minute video on pruning an open-centered apple tree, and a few are longer “follow-the-crop” videos showing stages of growth and important production practices at different stages for one crop, such as the 45-minute organic potato production video with Darryl Wong. Viewers can watch the full [Growing Potatoes video](#) or link to chapters shown below.

TABLE OF CONTENTS

0:00	Growing Potatoes at Field Scale
1:20	Preparing the Potato Seed for Planting
4:29	How the Potato Planter Works
6:19	Review of Bed After Planting
10:02	Soil Moisture in the Beds
12:32	Hilling the Potatoes with the Lilliston Cultivator
13:47	Review After Planting and First Irrigation
16:30	Field Check Before Cultivating with the Tine Weeder
18:55	The Tine Weeder and How it Works
21:33	Review of the Potatoes After the Tine Weeding
23:14	Potatoes Prior to First Hilling
25:35	Checking the Potatoes Growth Status After the First Hilling
28:14	Day 50 - How are the Potatoes Doing?
34:12	Harvesting New Potatoes
40:05	Mow Down and Harvest Ready Check
42:10	How the Potato Harvester Works
44:07	Cover Cropping After the Potato Harvest

Some of Clark’s videos are short “how-to” videos meant to convey a specific skill or task. Here is a three-minute video with Garden Manager Orin Martin demonstrating the pruning of a young apple tree into an open-center form. View: [Pruning a Young Apple Tree to an Open-Center Form](#)

Other videos combine multiple demonstrations on one topic, like this 14-minute video that shows Farm Garden Assistant Manager Kellee Matsushita-Tseng demonstrating seed sowing techniques for different seedling container types. View: [Seed Sowing](#)

Funding for the production of these videos was provided by Organic Valley's Farmers Advocating for Organics, UCSC Foundation Board Opportunity Fund, the Friends of the UCSC Farm & Garden, and individual donors. The UC SAREP grant funds were used to translate the 37 completed videos into Spanish, including dubbing and text translation. The translation was done by Globally You Translation Services, a group that works extensively with the Agricultural Land-Based Training Association (ALBA) and the Ecological Farming Association (EFA), including providing live translation and video/webinar translations. Below is the list of the 37 videos in English and Spanish, with the length of each video included.

	English title	Spanish title	Length
1	A Demonstration of the Fundamental Pruning Cuts	Una demostración de los cortes de poda fundamentales	19:11
2	Apple bud types, formation and growth	Manzanos: analisis sobre tipos de yemas, formación y crecimiento.	11:31
3	DIY Dibbler for efficient, consistent seed sowing	Plantador DIY (hecho en casa) para plantar de manera eficiente y consistente	3:01
4	Dry Farmed Tomatoes	Tomates de secano	10:38
5	How to Use a Vacuum Seeder	Cómo usar una sembradora de vacío	17:34
6	Importance of Site Location for Fruit Trees	Importancia de la ubicación de los árboles frutales	3:18
7	Initial Pruning of 3 New Pear Trees PART 1	Poda inicial de 3 perales nuevos PARTE 1	9:04
8	Initial Pruning of 3 New Pear Trees PART 2	Poda inicial de 3 perales nuevos PARTE 2	3:19
9	Initial Pruning of 3 New Pear Trees PART 3	Poda inicial de 3 perales nuevos PARTE 3	5:36
10	Initial Pruning of 3 New Pear Trees PART 4	Poda inicial de 3 perales nuevos PARTE 4	1:40
11	Intro and Setup of John Deere 71 Flexi Planter	Introducción y configuración de la plantadora John Deere 71 Flexi	8:00
12	Irrigation Methods and Tools in a Greenhouse Setting.	Métodos y herramientas de riego en un invernadero.	25:22:00
13	Open Center 1yr old tree PART 1 of 2	Árbol de centro abierto de 1 año PARTE 1 de 2	3:01
14	Open Center 1yr old tree PART 2 of 2	Árbol de centro abierto de 1 año PARTE 2 de 2	8:31
15	Orchard Floor Management.	Manejo de suelo en el huerto.	18:01
16	Organic Pepper Production- Soil Preparation to Harvest	Producción de chiles orgánicos - Preparación del suelo para la cosecha	13:49
17	Organic Weed Management	Manejo orgánico de malezas	17:44
18	Planet Junior Seeder	Sembradora Planet Junior	12:54
19	Planting a Bare Root Fruit Tree	Siembra de un árbol frutal a raíz desnuda	33:54:00
20	Planting and Growing Potatoes	Siembra y cultivo de papas	45:18:00
21	Planting Citrus Trees	Siembra de arboles de cítricos	14:54

22	Principles and Practices of Growing Cover Crops	Principios y prácticas del cultivo de cultivos de cobertura	12:42
23	Pruning a Santa Rosa plumtree	Poda de un ciruelo Santa Rosa	28:36:00
24	Pruning Tools and How to Use Them	Herramientas de poda y cómo utilizarlas	18:02
25	Renewal of Fuji Apple Tree PART 1	Renovación de un manzano Fuji PARTE 1	3:55
26	Renewal of Fuji Apple Tree PART 2	Renovación de un manzano Fuji PARTE 2	10:18
27	Renewal of Fuji Apple Tree PART 3	Renovación de un manzano Fuji PARTE 3	13:29
28	Seed Sowing by Hand and Using a Dibbler.	Siembra de semillas a mano y usando un plantador	14:10
29	Seedling Containers.	Contenedores para plántulas	24:18:00
30	Seedling Development, Container Blocking and Holding Strategies.	Desarrollo de plántulas, organización de contenedores en bloques y estrategias de retención	14:31
31	Seedling Propagation Mix Ingredients.	Ingredientes de las mezclas de propagación de plántulas	20:09
32	Seedling Soil Mix Assay Test.	Prueba de ensayo de mezclas de suelo para plántulas	15:08
33	Selecting Bareroot Fruit Trees	Selección de árboles frutales con raíces desnudas	15:36
34	Spring Cover Crop Incorporation, Compost Application, and Spading	Incorporación de cultivos de cobertura de primavera, aplicación de composta y labrado del suelo.	5:58
35	Stanhay Robin Precision Seeder	Sembradora de precisión Stanhay Robin	12:14
36	Summer Pruning - 4 yr old apple	Poda de verano - manzano de 4 años	26:48:00
37	Training Pear Trees	Poda de perales	4:51

Objective 2.

Creating an online learning center linking the new videos with existing free publications online, connecting video content with corresponding units in Teaching Organic Farming & Gardening and the CASFS Organic Grower Guide series.

All of the above videos will be available online for free, with a web page introduction and table of contents in English and in Spanish, all linked to our Center for Agroecology YouTube channel. Currently separate web page list our ten Organic Grower Guides in English and Spanish, with all of these 4-page to 24-page resources available for free download as pdfs from our website. Our two instructional manuals, *Teaching Organic Farming & Gardening: Resources for Instructors and Teaching Direct Marketing* (700 pages), and *Small Farm Viability: Resources for Instructors* (400 pages), remain available in English for free download. Our [Center for Agroecology YouTube channel](#) also has many more demonstration videos than the 37 listed, but organization of the channel is needed under topic areas.

We had hoped to also pilot a short course in English and Spanish in this project period, but were only able to complete the video translation in Spanish by mid-June. We are planning

future short courses that will use the videos and will include Spanish translation, with a pending CDFA Specialty Crop Block Grant that would support this effort if funded.

While we have completed the translation of the videos, and all of the translated videos will be uploaded soon for free access, we still have several steps to take to establish the online learning center that would connect the videos to our grower guides and other resources. We first need to upload the newly translated videos, something that will happen in July 2022 with the assistance of bilingual student staff. We also will continue to produce videos in English and Spanish, including a series on irrigation and water efficiency strategies with Darryl Wong that will be produced in collaboration with the Resource Conservation District (Salinas) through a CDFA water efficiency technical assistance grant. We will create a framework for the online learning center to connect our growing sets of resources. In the meantime, the videos will be accessible from our website and our YouTube channel, with an example page in English showing how the Spanish page will be organized. Text for the Spanish webpage has been translated and is ready for uploading.

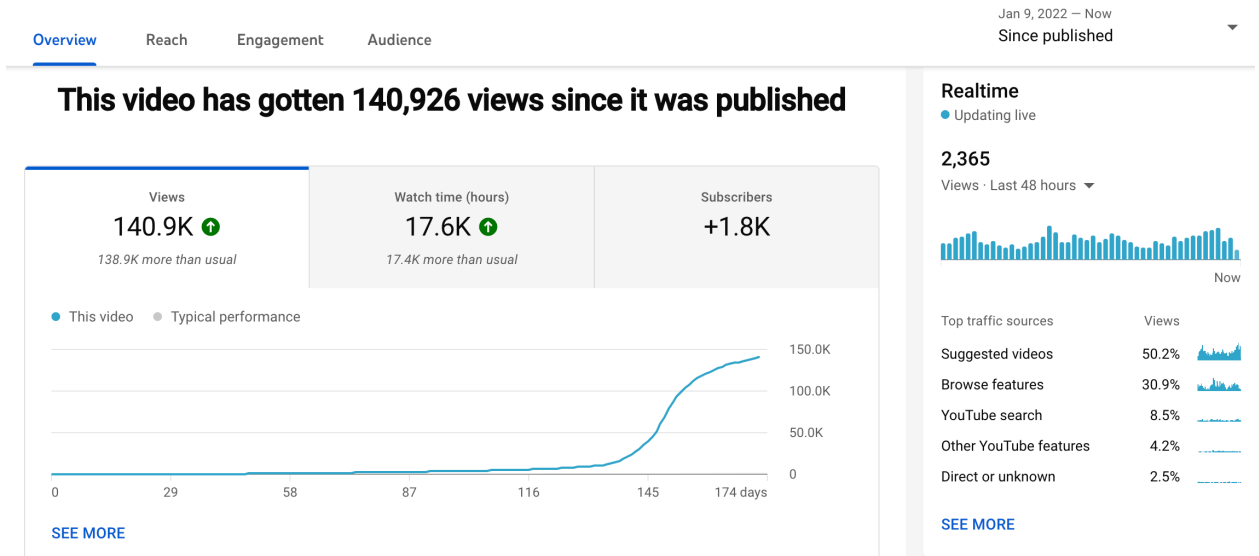
V. Dissemination of Findings

We will work directly with three groups serving Hispanic farmers from socially disadvantaged communities in the region to develop and disseminate the 37 videos and a short course pilot in Spanish. For outreach to socially disadvantaged farmers and ranchers, we will work with members of the Central Coast Farmer Education Network including ALBA, the National Center for Appropriate Technology (NCAT), Community Alliance with Family Farmers (CAFF), California Certified Organic Farmers (CCOF), California Farmlink, Kitchen Table Advisors, and others. We will also conduct outreach through our network of CASFS Apprenticeship alumni, many of whom are leaders of training farms and food justice projects including members of the BIPOC alumni group formed at CASFS called the Farmers of the Global Majority.

For more outreach to Spanish-speaking, and thus socially disadvantaged growers, we will work with the NCAT organizers of the Latino Farmer Conference and members of the Central Coast Farmer Education Network. We have also reached out to Spanish-speaking urban grower groups, such as Valley Verde in San Jose, who offered to consult with us on Spanish video translations and indicated interest in having their participants attend our short courses in Spanish.

VI. Benefits/Impacts on Agriculture and/or Food System

As we have just completed the production of videos and translation of the videos in this project period, we have not yet been able to assess the benefits and impacts on agriculture and/or the food system. After uploading the set of Spanish videos, we will be evaluating the usage data for these videos as we track the videos currently online in English. Below, for example, are analytics for a summer pruning video posted in January 2022 has already had over 140,000 views.



VII. Impact on Target Audience

We have not gathered data on impacts on target audience because we have just completed the video translations and have not yet posted them for free access.

VIII. Literature Cited

Not applicable.

We are extremely grateful for the support from UC SAREP for this project.