

2023 Progress Report to the Southern Region Small Fruits Consortium

Project Title

Online training series of harvest quality and postharvest handling of small fruits

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Public abstract

Online trainings have become very popular in the recent days covering many horticultural aspects including postharvest management and handling. However, it is common for such trainings to be longer in duration and to be often too long for many interested individuals to attend. Furthermore, the available trainings are commonly captured from live slide presentations which makes them of lower audiovisual quality. In this project we are creating short training videos of high quality on important postharvest topics. The set of videos will be available for free to anyone interested in both English and Spanish. Thus far our team has captured a significant proportion of the footage required for the production of the videos and we have finalized the production of the strawberry harvesting section (not available online) foodborne illnesses video which has been posted at the UGA Extension website. We are aiming to finish capturing the missing footage during the production season this coming Spring and finalize the production and rendering of the videos in Summer of 2024.

I. Objective

1.1. General objective:

The main objective of this proposal is to provide technical knowledge on appropriate harvest and postharvest handling practices as well as to encourage the adoption of new technologies. It will be specifically designed to meet the needs of agricultural operations in the Southeastern U.S., aiming to increase the knowledge level of growers, agricultural workers, and extension agents. This proposal is extending the scope of the previously funded project by including muscadines as a new crop of interest and by assisting with the completion of the videos that are under production right now.

1.2. Specific objectives:

Create new videos and complete the currently pending online trainings related to small fruits (strawberries, blueberries, blackberries/raspberries, and muscadines) covering harvest guidelines, quality and maturity standards, and postharvest handling.

Use the materials in an online format or in-person during county agent trainings.

Utilize University of Georgia (UGA) and Cooperative Extension websites, the SRSFC website, the Georgia Fruit and Vegetable Growers Association, and other agencies and communication networks to enhance the dissemination of the online course as well as through social media platforms for advertisement and distribution of the material.

II. Description and Justification

2.1 Scope

Despite the fact that there is a number of online training courses on postharvest handling, these sessions often require attendees to spend several hours online in front of their monitors in order to get the information that they need. It is common for the training topics to be bundled together in longer sessions (45 mins to 1 hour), often focusing on products irrelevant to producers from the Southeast region. Additionally, the enrollment fees for such courses are quite high, making them inaccessible to farmers, agricultural workers and urban growers who need to solve specific problems that their operations are facing. For example, growers in our region have specific training needs, such as farms that need to train a new harvest crew in berry quality and maturity right before the harvest season, or smallholder farmers who want to learn how to appropriately store their products. We are proposing a targeted, concise yet scientific approach to online education where large subjects are divided into short, manageable tutorial videos with a typical duration of 2 to 5 minutes each.

The educational material produced will utilize novel learning techniques with real-life examples that are compatible with online media, addressing the training fatigue of extension agents and horticulture professionals. We anticipate that the popularity of this training will be increased due to greater familiarization of the population with e-learning recently due to COVID-19. Our program will also tackle the shortage of online courses in postharvest handling and food safety in Spanish to cater to the large majority of agricultural workers who communicate solely in Spanish. Hence, it will increase the availability of reliable multilingual agricultural educational material and will allow farmers, agricultural workers and urban growers to use the online trainings in an à la carte fashion according to their most pressing needs.

The project concentrates on the production of a series of short online video tutorials focusing on harvest quality standards and postharvest handling of small fruits for producers, pickers, packers, and shippers in the Southeastern United States. The online courses will aim to reduce postharvest losses, prevent quality deterioration, recalls, and subsequent loss of value during the production and trade of small fruits in the Southeast region. Our team will prepare the presentations, record, process and render the course materials in online video sharing platforms (UGA Extension YouTube page) considering the harvest season of each small fruit crop. The online publication of the material will be promoted appropriately in scientific and industry meetings (SRFVC) as well as at field days and by using online advertisement tools (local media, listservs and UGA channels). The online courses will be available to all interested individuals for free in both English and Spanish. Our team will work closely with UGA Cooperative Extension to offer Continued Education Credits for extension agents who complete the training through the UGA platform. The impact assessment of the online course will be reported and communicated to SRFSC and interested cooperative extension agents and specialists electronically within the first year after the completion of the project and in person in the form of a conference presentation. Participant comments and reviews will be used to improve the tutorials for subsequent online training courses.

2.2. Project Methods and Analytics

The project will cover harvest guidelines and postharvest handling of strawberries, blueberries, blackberries/raspberries, and muscadines. This will be in addition to the already prepared videos

that are currently under review/production. The project staff will record and produce the tutorial videos before each harvest season using real-life examples and showing best practices in action.

This project will use the appropriate U.S grades and standards for small fruit crops (U.S. Department of Agriculture, 1995, 2006, 2016a, 2016b) as well as U.S. Department of Agriculture guides for storage (U.S. Department of Agriculture, 2002, 2004), and state of the art research carried out at the UGA and elsewhere (Gross, Wang, & Saltveit, 2016).

Results

Our team has produced one video that covers the Strawberry section of the project (link: https://drive.google.com/file/d/1fTCpNpdGJl_kJqMItpMNMBN_BdoSyQ/view) which still has not been published by the UGA Extension website due to bottlenecks in the approval/publishing step. A video on the prevention of foodborne illnesses in collaboration with Dr. Laurel Dunn has been produced and is available at the UGA Extension website(link: <https://extension.uga.edu/publications/detail.html?number=C1300-01>).

The material for the Raspberry and Blackberry as well as the Blueberry section have also been partially collected. With permission from the sponsor, we plan to complete this project by mid 2024 and provide a final report when appropriate.