

# Social and environmental dimensions of prison agriculture

## in Ark Valley, Sterling, and Buena Vista correctional facilities

### COLORADO PRISON AGRICULTURE LANDSCAPE

There are at least **18 prisons in Colorado with various horticulture, agriculture, and garden activities**. These programs are **varied in kind, purpose, scale, and formality**. Programs range from horticulture activities such as *gardening, greenhouses, landscaping, and crop production* to animal agriculture activities, such as *livestock, aquaculture, dairy, equine* programs, and *beekeeping*. Programs are operated by a variety of agencies, including **CO DOC**, and Colorado Correctional Industries (**CCI**). These programs aim to fulfill **a variety of objectives**, from educational, vocational, and recreational to feeding inmates, fulfilling work requirements, cost savings, and generating revenue for facilities and the state.

### COLORADO PRISON BEEKEEPING PROGRAM

In **2019**, CSU Extension participated in **initiating a beekeeping program in three state prison facilities** within Colorado. Three facilities were selected to pilot this new program, including **Ark Valley** correctional facility, **Sterling** correctional facility, and **Buena Vista** correctional facility. From each of these facilities, **2-4 staff members** were selected to participate in a **6-week remote beekeeping course** through CSU Extension as an introduction to beekeeping. Following the completion of this course, correctional facility staff who completed the course **spearheaded the introduction of new programs within each of their facilities to raise bees, including incarcerated participants** and other staff in the project.

### PROJECT OBJECTIVES

1. Conduct a **program evaluation of the new beekeeping program in 3 Colorado State prisons**, providing evaluative feedback to CSU Extension and Colorado State Dept of Corrections on new Colorado state prison beekeeping course & program. In order to do this, my research objectives were to, **1.** Collect survey and interview data; **2.** Process, organize, and analyze survey and interview data; **3.** Provide and present findings to interested stakeholders; **4.** Assist local Extension efforts.
2. Contribute **CO case study data to ongoing nationwide research on prison horticulture and agriculture activities across the US.**

### METHODS: DATA COLLECTION

#### Mixed Methods: Qualitative & Quantitative Methods

This study designed to employ a two-pronged, mixed-methods approach to data collection, employing both qualitative and quantitative data and utilizing interview and survey methods. Mixed-methods offer the opportunity to **combine the benefits of both** qualitative and quantitative research methods, while **navigating and overcoming the limits of each**.

**Interviews:** This study employed in-depth, semi-structured interviews with **4 out of 10 staff participants** in the beekeeping course and facility programs., for a **40% response rate**.

**Survey:** This study employed a survey that included both forced-choice and free-response components. Survey participation was **very low**, with only **1 out of the 10 total course participants** completing and returning the survey. For this reason, survey findings were not quantitatively analyzed and instead are synthesized with reporting from interview findings.

### FINDINGS: BENEFICIAL OUTCOMES

#### Trust, Responsibility, and Agency

The beekeeping program appears to **help build trust between staff and incarcerated participants**. Staff participants further emphasized how the incarcerated participants have taken on the primary **responsibility** for **taking care of the bees**, and through this means, staff also named the **ownership and agency** that the program has afforded incarcerated individuals as a primary benefit.

#### 'Greening' and Beautification of Prison

The beekeeping program has led the facility to **cultivate previously unmanaged plots of land**, planting a variety of plants on unutilized areas of facility grounds as support for the bee program. The resulting planted areas, **and the aesthetic improvements** they created are one of the primary beneficial outcomes of the bee program overall.

#### Stress Relief, Morale, and Mental Health

The the beekeeping program **offers opportunities for stress relief and to improve mental health of both staff and incarcerated participants**. The beekeeping program offers reprieve **from the limited and mundane day-to-day experiences of incarceration**. Staff participants also experience important opportunities for improved mental health for them personally



### FINDINGS: LIMITATIONS & BARRIERS

#### COVID Impacts

One of the **central limitations to the development and flourishing** of the beekeeping program is the rise of the COVID-19 virus and the impact of pandemic conditions, limiting **staff capacity**, the ability to access **outside support and resources**, and the ability to **formalize** the program.

#### Organization opacity & lack of clear objectives

The second primary barrier to the beekeeping program in the first year is organizational opacity and a lack of clear program objectives among participants. All staff participants named **an uncertainty about the purposes of the beekeeping program and its goals**.

#### Lack of ongoing program support

All staff participants spoke about the need to reach out for additional forms of support since the creation of the program and while **some staff were successful** in accessing additional support, others feeling **inadequately prepared to run the programs** and were **unable to access** the resources they needed.

#### Lack of access to additional learning resources

The structure of the beekeeping course itself carried with it some limitation, specifically, the lack of engagement through and with different kinds of learning resources and modalities. **The reliance on extensive readings and lack of hands-on learning opportunities was a challenge for some participants**.

### RECOMMENDATIONS

#### Clarify program objectives across all participants & stakeholders

All stakeholders should be more **clearly involved in identifying the objectives of the program**. Having a purpose and goals that are clear to all participants and decision-makers can **help guide decision-making and program design** as the Beekeeping program grows, develops, and formalizes.

#### Build broad program support for beekeeping staff & participants

This study recommends building **a structure for ongoing support and resources** into the program design. Overall, it will be important moving forward for all program staff to have ongoing support and resources to enable them **to better encounter and overcome challenges with the program**.

#### Incorporate multimedia materials into beekeeping curriculum

This study recommends that future courses incorporate and prioritize the use of **multimedia resources**, in addition to the text, as well as opportunities for **hands-on beekeeping opportunities** during the course.