

**Understanding the impact of self-determination: A narrative examination of small-scale
Black regenerative farmers**

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Introduction/Need for Research

Interest in regenerative agriculture (RA) as an alternative to dominant farming practices has not been limited, despite the lack of a unifying definition (Tittonel et al. 2022). Regenerative systems, as a solution to meeting community food needs, contribute to the growing interest in small-scale urban agriculture and food movements (Mpanga et al., 2021). The USDA economic definition of a small-scale farm does not account for the diversity of small-scale farms and the factors contributing to their growth (Iles et al., 2021). Despite research establishing individuals' motivations behind farming (Inwood et al., 2013), there is a lack of research on the holistic documentation of the small-scale farmer population and a lack of understanding of their motivations, challenges, and needs (Iles et al., 2021). An understanding of the different ecological motivations of small-scale farmers is imperative for formulating better policies, incentives, and support systems around small-scale farms (Gosnell, 2022). Hence, an examination of the heterogeneous motivations of small-scale regenerative farmers needs to be completed. This research need contributes to the advancement of diversity and inclusion in agriculture, food, and natural resources (AAAE, 2023). The purpose of this study is to highlight the voices of small-scale regenerative farmers, understand their motivations behind RA and the psychological needs that they possess.

Theoretical Framework

This study hinges on self-determination theory (SDT). SDT construes human behavior with motivation and personality (Deci & Ryan, 2000). It acknowledges three basic psychological needs: Autonomy (e.g., personal desire enacted by an individual), competence (e.g., skilled knowledge of regenerative practices implemented through action), and connectedness (e.g., awareness of appreciation and support from others). According to SDT, extrinsic motivations (e.g., subsidy, grants) and intrinsic motivations (e.g., healthy food consumption) are important drivers for scalability of regenerative practices by small-scale farmers (Bopp et al., 2019).

Method

Guided by a constructivist ontological worldview, narrative inquiry was used to explore the significance of SDT on the experience of small-scale RA farmers (Clandinin & Connelly, 2000). The population for the study was small-scale African American (Black) farmers in Ohio. A sample of small-scale Black farmers was utilized for their community-building efforts around food (Leslie & White, 2018) and their underrepresentation (< 1%) in Ohio (NASS, USDA, 2017). Using existing contacts along with snowball sampling technique, 8 farmers were recruited based on eligibility criteria of growing on less than 1 to up to 10 acres and implementing at least two regenerative practices identified as NRCS climate-smart/conservative practices (USDA, NRCS, 2023). Data collection included semi-structured, audio-recorded, 90-minute in-depth interviews, and each participant received a \$50 gift card. Data transcription was verbatim and analyzed using MaxQDA qualitative software to extract heuristic themes and meanings. Three interrelated themes – autonomy (81), connectedness (66), and competence (64) were represented with a total of 211 coded items. Data were validated through long exposure to the data.

Results

Of the eight participants, the majority were females ($n = 7$) and new or first-generation farmers ($n = 7$ years). On average, they grew on less than two acres of land and only three participants owned their land, while others were currently leasing. All the participants engaged in two or

more regenerative practices and produced a combination of vegetables, herbs, spices, pollinators vegetation, and mushrooms. Also, all participants sold their produce at community farmers' markets and provided fresh produce to their local food pantry.

The psychological needs described by SDT were represented in the stories of small-scale Black regenerative farmers. Their autonomy needs were focused on improving their health and empowering their communities. One participant said, "I wanted to be able to feed myself and my community and the understanding that no matter your economic status, you deserve to eat quality food that is nourishing to the body makes sense to me." Another participant shared, "My family has a long history of lupus and I found that what you eat may help to extend your life, so since 2012, I started growing my food." Also, the participants had times when their needs associated with connectedness were met as well as times when they were not. On one hand, a farmer said, "I went on social media, primarily, Facebook and I said, we need to have our water line fixed, and it's gonna be \$3,500. And I raised that \$3,500 in less than a week, just on social media." On the other hand, a farmer said, "The volunteers that come lack farming education to play useful roles. All I need is labor, and maybe things will change." The participants' needs associated with competencies reflected their level of experience and mastery of RA practices. A participant said, "I began taking some different courses in agriculture that gave me skills about farm business planning." Another participant said, "I have not been really successful with composting, so, we're still looking to understand what you do put in your compost pile and what you don't put."

Participants expressed two forms of motivation, extrinsic and intrinsic. Grants, donations, and subsidies including awards and recognition of effort were extrinsic motivations mentioned by the farmers. A farmer said, "We could not produce enough vegetables because we are challenged by infrastructure. But we must prove to be successful with what we have to be considered for funding. It took a while, but we were successful in securing the grants." Whereas, intrinsically, participants acknowledged personal/community needs as a driving force, hence a sense of responsibility. One participant said, "There wasn't a full-service grocery store that it really began to frustrate me, and I said, what are the skills that I have to influence change."

Conclusions/Implications/Recommendations

Generally, the findings highlight an understanding of how small-scale Black farmers are pursuing food sovereignty – the considerations of what is likely contributing to the growth of urban farming and interest in RA practices. Self-determination demonstrates how motivation can foster farmers' well-being as well as promote community food security and resiliency. Also, findings shows that Black farmers needs access to extensive RA knowledge and skills and labor support to effectively implement and scale-up RA.

Small-scale agriculture holds significant potential to contribute to the sustainability of agriculture and Black farmers are playing key roles in this effort. Thus, they are an ideal target for Extension in Ohio due to their conscientiousness to enhance healthy food accessibility within limited available resources in their communities. By acknowledging racial diversity and addressing the needs of small-scale farmers in Ohio, Extension can provide capital-enhancing opportunities such as knowledge and relevant resources that would further support Black community-led food initiatives and sustainability efforts. We recommend that future research should focus on the barriers faced by small-scale regenerative farmers in fulfilling their psychological needs.

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