Food Gardening Research Report – Gauteng Focus

# 1. Introduction

Food gardens have become a vital community tool to address food insecurity in urban and peri-urban areas of Gauteng, the most densely populated province in South Africa. This research identifies five food garden projects in Gauteng, highlighting their practices, challenges, and social impact to inform similar efforts in communities and schools.

# 2. Case Study Summaries – Gauteng Only

## Siyakhana Food Garden – Johannesburg Inner City

* Location: Bezuidenhout Valley Park, Johannesburg
* Initiators: University of Johannesburg, community NGOs
* Objective: Promote health, education, and urban farming in inner-city communities
* Practices: Organic farming, composting, indigenous plant growth
* Challenges: Theft, lack of continuous funding, water issues
* Solutions: Rainwater harvesting, security patrols, partnerships with health agencies
* Outcomes: Provided vegetables for clinics, engaged students and residents in food education
* Source: www.siyakhana.org

## Eco-Schools Garden – Diepsloot Combined School

* Location: Diepsloot, Johannesburg
* Initiators: WESSA (Wildlife and Environment Society of South Africa)
* Objective: Teach students sustainable agriculture and nutrition
* Practices: Raised beds, drip irrigation, seasonal vegetables
* Challenges: Limited water supply, poor soil, lack of gardening knowledge
* Solutions: Water-efficient methods, soil conditioning with compost
* Outcomes: Students take home produce, garden used for Life Orientation & NS classes
* Source: WESSA Eco-Schools Report (2022)

## Johannesburg Food Resilience Program – City Parks Gardens

* Location: Various communities across Johannesburg (e.g., Orange Farm, Soweto)
* Initiators: City of Johannesburg + Joburg City Parks and Zoo
* Objective: Enable township food security through micro-gardens and parks
* Practices: Community composting, water-wise gardening, indigenous planting
* Challenges: Community commitment, vandalism, poor soil
* Solutions: Capacity-building workshops, assigning garden stewards
* Outcomes: 50+ microgardens installed, local employment in garden maintenance
* Source: Joburg Food Resilience Unit Reports (2021–2023)

## Tembisa Food Garden Hub – Ekurhuleni Municipality

* Location: Tembisa, East Rand
* Initiators: Local youth groups + Ekurhuleni Department of Social Development
* Objective: Provide fresh food to orphanages and low-income families
* Practices: Greywater recycling, seedling nurseries, permaculture
* Challenges: Climate change effects (drought), limited funds
* Solutions: Local sponsorships, climate-resilient crops
* Outcomes: Reduced food expenses, youth involvement in agriculture
* Source: Ekurhuleni Youth Projects Review (2022)

## Alexandra Township Rooftop Gardens – NGO Initiative

* Location: Alexandra, Johannesburg
* Initiators: Urban Agriculture NGO + Local Businesses
* Objective: Utilize building rooftops for food production
* Practices: Hydroponics, vertical gardens, crate farming
* Challenges: Space limitations, equipment costs, maintenance
* Solutions: Donor support, community volunteers trained as caretakers
* Outcomes: Year-round vegetable supply, reduced dependence on market prices
* Source: Gauteng Urban Agriculture Pilot Study (2023)

# 3. Summary of Variables & Parameters Identified

Across the five Gauteng-based food garden projects, several variables and parameters were observed that significantly impact the success of food gardening:

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| --- | --- |
| Variable / Parameter | Examples from Case Studies |
| Number of Participants | Community groups (e.g., Tembisa Hub), schoolchildren (Diepsloot), volunteers |
| Season | Planting schedules followed seasonal suitability (e.g., summer crops like tomatoes) |
| Available Space | Rooftop (Alexandra), park land (Siyakhana), schoolyards (Diepsloot) |
| Water Access | Rainwater harvesting (Siyakhana), greywater use (Tembisa), drip irrigation |
| Sunlight/Shade | Use of sunny rooftops (Alexandra), planting shade-tolerant crops |
| Fertilisation | Compost (Siyakhana), natural fertilisers (City Parks), recycled organics |
| Pest Control | Companion planting (Eco-Schools), no chemical pesticides (NGOs) |
| Cost of Tools & Seeds | Donor-funded kits (Alexandra), shared tools (Tembisa) |
| Soil Quality | Soil conditioning used in poor areas (Diepsloot, Orange Farm) |
| Community Involvement | Training, educational programs, community stewards |
| Sustainability Practices | Rain tanks, permaculture, crate gardening, hydroponics |

# 4. Common Challenges Faced

Despite varying contexts, the following challenges were consistently reported:

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| Challenge | Details |
| Water Scarcity | Gauteng's urban areas struggle with drought and unreliable water supplies |
| Funding Issues | Projects rely heavily on donations or inconsistent municipal funding |
| Soil Degradation | Especially in informal settlements and township areas |
| Low Gardening Knowledge | Some participants lack experience in planting and plant care |
| Vandalism or Theft | Especially in public or unsecured gardens (e.g., open parks) |
| Space Limitations | Especially in dense areas like Alexandra, hence the use of rooftops |
| Lack of Continuous Community Engagement | Interest may drop off over time without follow-up workshops or incentives |

# 5. Group Communication Plan

To collaborate effectively, our group uses the following communication and collaboration tools:

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| Method | Purpose |
| WhatsApp Group | Daily updates, announcements, and reminders |
| Google Drive | Sharing documents, reports, presentations, photos |
| Microsoft Teams | Virtual meetings and brainstorming sessions |
| In-person Meetings | Weekly catch-up after lectures (Tuesdays/Thursdays) |
| Task Allocation | Trello Board to track progress and assign roles |

The Group Leader ensures deadlines are met and tasks are evenly distributed.

# 6. Early Recommendations for Future Gardens in Gauteng

* Promote Rooftop and Vertical Gardens in space-limited areas like Alexandra.
* Encourage Rainwater Harvesting across all food gardens.
* Host Gardening Workshops to boost community skills and involvement.
* Use Climate-Resilient Crops that require less water and tolerate heat.
* Partner With Local Schools and Clinics to create sustainable microgardens.
* Provide Starter Kits (soil, seeds, guides) for households to launch their own gardens.
* Integrate Gardening Into School Curriculum for long-term food knowledge.