

# HARVESTING MANNA

*School Nutrition Gardens as a Sustainable Solution  
to Hunger in Zimbabwe*



**2 SECONDS OR LESS**

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## About 2SOL

2 Seconds Or Less is a nonprofit organization dedicated to combatting malnutrition in Zimbabwe, Africa. By planting nutrition gardens at government schools, we empower children in Zimbabwe through education in sustainable farming.

According to the World Bank, growth in agriculture has at least twice the potential impact of any other sector for reducing poverty around the world. It has the ability to support livelihood through sustainable income generation and holistic health care. Through our program, students learn that to grow up and become a farmer is not a desperate end, but a hopeful beginning.

## Our Passion (In 3 Words)

### ① SUSTAINABILITY

**We believe sustainable solutions are the only solutions.**

Why would we feed Zimbabwe for a day, when we could feed Zimbabwe for life? 2 Seconds Or Less fights for the hope of sustainable change. This means that everything we do is locally sourced, easily replicated, and self-sustaining.

### ② EMPOWERMENT

**The youth of the world are its future leaders.**

What better way to change the world than to empower the next generation: its future leaders? 2 Seconds Or Less exists to provide empowerment rather than dependency. We run on the inspiration that little people can do big things and exemplify it by every action of radical faith.

### ③ EDUCATION

**Education will single-handedly end the cycle of poverty that exists around the world.**

Why would we simply hand a child a single vegetable, when instead, we could teach them all to grow them? 2 Seconds Or Less doesn't just plant nutrition gardens in Zimbabwe. We plant nutrition gardens alongside students and community members to educate and promote exponential change throughout the nation of Zimbabwe.

## Our Method

The Harvesting Manna Nutrition Garden Program is a 12-week program designed to:

- A. Implement a large-scale nutrition garden for the use of school staff and students for reducing childhood malnutrition and empowering the youth of Africa. Nutrition Gardens are created alongside the students at each school to provide experience and knowledge in the planning, implementation, and care of a sustainable nutrient-dense cropping system.
- B. Provide hands-on education of sustainable agricultural principles and the enlightenment to the opportunity farming has for reducing poverty worldwide.
- C. Give participants tactical knowledge and skills for using garden crops for complete and holistic nutrition to prevent and reverse the debilitating effects of malnutrition.

Harvesting Manna is taught from a biblical perspective in order to share the gospel with students through a hands-on example of God's gift to us: creation. 'Manna' is considered food that falls from heaven. Students are not required to participate in the biblical aspect of the program, however, all of our lessons are taught from the perspective that our God desires for us to care for the land and in return enjoy the brilliance of what it has to offer us.

# The Seed We Sow

## *The Nutrition Garden Package: What your donations have funded*

We focus primarily on three types of crops to be used in our Nutritious Gardens:

1. **Nutritious:** Each crop must have have significant nutritional contribution in at least one area.
2. **Native:** All of our crops are either indigenous or native to Southern Africa for the sake of replicability, cultural acceptance, and environmental benefit.
3. **Perennial:** Not all, but most of our crops are perennial. This allows our Harvesters to put time and effort into something that will give back for years to come.

Potential package crops are evaluated based upon the following criteria:

- ❖ Nutrient content
- ❖ Drought-resistance
- ❖ Cultural acceptance
- ❖ Pest & Disease tolerance
- ❖ Market value
- ❖ Ease of replication
- ❖ Environmental benefits

The Nutrition Garden Package includes **five principal sections**. In each of these sections, participants are allowed to select one to three of many crop offerings. This method encourages Nutrition Garden diversity, while also allowing participants to create the Nutrition Garden according to their preferences. We have found that having participants take part in the planning process promotes ownership and pride over the project, leading to better long-term success.

These five sections are grouped agriculturally for ease of rotation, identification, and pest & disease care. Each crop that grows within the section is labelled nutritionally to clearly identify its nutritional benefits to garden visitors. This nutritional identification includes its place in “The Four Colors”, as well as one unique nutritional benefit.

Section 1: Field Crops		
Category	Options	Rationale
Heavy Feeder (Select 1)	<ul style="list-style-type: none"> <li>❖ Maize</li> <li>❖ Sorghum</li> <li>❖ Millet</li> <li>❖ Sunflower</li> </ul>	These crops are fairly destructive to the soil but also offer significant market value.
Heavy Giver (Select 1)	<ul style="list-style-type: none"> <li>❖ Soya bean</li> <li>❖ Sun hemp</li> <li>❖ Velvet bean</li> </ul>	These nutrient-giving crops should be rotated yearly with the heavy feeder to provide soil restoration.

Section 2: Vegetable Crops		
Category	Options	Rationale
Brassicas (Select 1)	<ul style="list-style-type: none"> <li>❖ Rape</li> <li>❖ Cabbage</li> </ul>	Rotated every season to balance soil nutrition, pests and diseases.
Legumes (Select 1)	<ul style="list-style-type: none"> <li>❖ Peas</li> <li>❖ Beans</li> </ul>	Rotated every season to balance soil nutrition, pests and diseases.
Root Crops (Select 1)	<ul style="list-style-type: none"> <li>❖ Carrots</li> <li>❖ Onions</li> </ul>	Rotated every season to balance soil nutrition, pests and diseases.
Solanaceous (Select 1)	<ul style="list-style-type: none"> <li>❖ Tomatoes</li> <li>❖ Potatoes</li> <li>❖ Peppers &amp; Chillies</li> </ul>	Rotated every season to balance soil nutrition, pests and diseases.

Section 3: Herbs		
Category	Options	Rationale
Fertilizer (Select 1)	<ul style="list-style-type: none"> <li>❖ Comfrey</li> </ul>	Used as an agricultural tea for improved soil and crop nutrition.

Culinary (Select 1)	<ul style="list-style-type: none"> <li>❖ Rosemary</li> <li>❖ Oregano</li> <li>❖ Parsley</li> <li>❖ Lemon Grass</li> </ul>	Used for various culinary purposes.
Topical (Select 1)	<ul style="list-style-type: none"> <li>❖ Soapwort</li> <li>❖ Bulbinella</li> <li>❖ Aloe</li> </ul>	Used for various topical treatments.
Pesticidal (Select 1)	<ul style="list-style-type: none"> <li>❖ Rue</li> <li>❖ Marigold</li> <li>❖ Chilli</li> <li>❖ Garlic</li> </ul>	Used for various pesticidal sprays.

Section 4: Mulch		
Category	Options	Rationale
Heavy Mulch Producer (Select 1)	<ul style="list-style-type: none"> <li>❖ Sun hemp</li> <li>❖ Banna grass</li> <li>❖ Leucaena</li> </ul>	Planted as a bed crop to generate enough mulch to cover the whole garden.

Section 5: Agroforestry		
Category	Options	Rationale
Fruit Tree (Select 2)	<ul style="list-style-type: none"> <li>❖ Pawpaw</li> <li>❖ Jackfruit</li> <li>❖ Guava</li> </ul>	These crops produce quickly and heavily with significant nutritional benefits.
Nutrient-dense (Select 1)	<ul style="list-style-type: none"> <li>❖ Moringa</li> </ul>	Known for the remarkable nutritional benefit of its leaves. Often referred to as “The Miracle Tree”.



## Education for Sustainable Development

*“Education is the most powerful weapon which you can use to change the world.”*

— Nelson Mandela

\* Lessons 1 - 4 are for Students & Staff, all subsequent lessons are for continued education of staff and garden managers

Week #	Agriculture Component	Nutrition Component
<b>Commencement Day: Harvesters of Manna</b>		
1	Soil Is Life <b>Lab:</b> Garden Bed Creation	How Farming Affects Your Food
2	Practices & Principles for Sustained Food Production* <b>Lab:</b> Composting & Mulching	Malnutrition: Causes, Effects & Solutions
3	Intercropping & Plant Diversity <b>Lab:</b> Planting & Labelling	Food Diversity for Nutrition
4	Sustainable Fertilization <b>Lab:</b> Fertilizing & Finalizations	Water is Life
<b>Dedication Day: Farmers are the Future</b>		
5	Crop Rotations	Food Diversity (Expanded) + Nutrition Market Day #1
6	Intro. to New Crops	Moringa as a Supplement
7	Extending the Growing Season	-
8	Pests & Diseases	-
9	-	Food Storage: Maximizing Nutrients
10	Harvesting	-
11	Seed Saving	Food Preparation: Retaining nutrients through cooking
12	Opportunities in Agriculture: Steps for Moving Forward	Nutrition Market Day #2