

Proposal for Financial Assistance for the Creation of the Harvest Planner™

“Most of the world’s hungry live in rural areas and depend on the consumption and sale of natural products for both their income and their food. Hunger tends to be concentrated among the landless or among farmers whose plots are too small to provide for their needs”

Food and Agriculture Organization of the United Nations,
The Millennium Development Goals Report 2005

Helping to alleviate hunger globally is an extremely complex, challenging and imperative goal. While there may be currently enough food produced in the world to feed all of us theoretically, many of us do not receive a sufficient and proper portion of that harvest. Those that do not are commonly poor, eating diets that are not nutritionally complete, affected by violence, politics, debt, poor economies and natural disasters, and/or disempowered based on race, gender, age and/or ethnicity.

As we look to the future, there are trends that will likely reduce the amount of food available to many in the world. In many regions of the world, populations continue to grow and surpass carrying capacity. Arable soils are being eroded, depleted of essential nutrients and organic matter, and converted to purposes other than food production, including industrial, commercial and housing development and the production of biofuels. Lack of irrigation water is also restricting yields in many areas. Most importantly, the vast majority of food production systems today require petroleum products such as gasoline, diesel, chemical fertilizers and pesticides. As these become increasing scarce and costly, more sustainable sources of energy and agricultural systems, and the knowledge to operate them, will be required.

HarvestMore® is a small organization formed to assist individuals, families and communities to grow more food in order to better meet their own nutritional and income needs sustainably. The first project of HarvestMore® is the Harvest Planner™ which can help farmers with small plots of land better meet their nutritional and income needs. According to the Food and Agriculture Organization (FAO) of the United Nations, hunger is often found where rural farmers have only small plots of land to feed their families. Despite having access to land and the knowledge to grow food, hunger is common under these circumstances when much of the food is sold for income, and the food left for the family is nutritionally incomplete. Harvest Planner™ will allow these farmers to easily determine what crops to grow to meet their income needs as well as produce nutritionally complete diets for their families.

Harvest Planner™ is an online application that can help families plan what crops to grow each year to meet their nutritional and income needs, in a way that maintains or improves the health of the soil. Farmers without computers and internet access would only need to visit their local agricultural center with internet access once or twice a year to generate and print out their farm plan. Agricultural centers with at least one computer are at this point common throughout the world and utilized often by local farmers. In addition, Harvest Planner™ will be made available to farmers and gardeners worldwide wanting to increase their output of nutritional and marketable crops.

According to UNICEF’s Vitamin and Mineral Deficiency: A Global Progress Report (2004), millions of people are deficient not just in one but in several key vitamins and minerals such as vitamin B12, beta carotene (precursor of vitamin A), iron, iodine, zinc, riboflavin, and folate. Vitamin A deficiency compromises the immune systems of approximately 40% of children under five in the developing

world, leading to the deaths of 1 million youngsters each year. With the Harvest Planner™, users can learn to grow crops rich in vitamin A, for example, and meet the annual vitamin A needs of a family of four using less than 65 square feet (about two queen-sized mattresses) of growing area.

In addition, Harvest Planner™ will have the following features:

- Will allow a family to choose from a wide variety of crops, including indigenous crops, to meet their nutritional and financial needs for the entire year.
- Will estimate the amount of calories, proteins, minerals, amino acids, vitamins and all other important nutritional parameters that will be produced by the selected crops.
- Will estimate the amount of income that can be expected from market-destined crops.
- Will automatically create a plan for when and how much seed to sow, transplant (if applicable), harvest and replant, based on the family's plan and their climatic conditions.
- Will estimate the amount of organic matter that will be produced to maintain soil health.
- Will show multiple views of the garden area layout over time for planning purposes.
- Will provide instructional materials on growing and preserving crops for experienced and beginning farmers to meet their family's needs all 12 months of the year.
- Will facilitate the exchange of information and ideas between users of the program.
- Will allow users to customize the program so that it is as accurate as possible based on the user's microclimate, soil type and experience.
- Will allow the user to review past data and changes made to that data so that future plans maximally benefit from past experiences and crops can be properly rotated.
- Will be free to those with few resources, and will be very modestly priced for others in order to provide the small amount needed annually to maintain and improve Harvest Planner™.

With this program and the greater level of planning it facilitates, farming families will be less likely to face hunger as they are better able to plan for both their income and nutritional needs. Currently, such a program does not currently exist at any price, and determining the nutritional potential of a complex farm plan is extremely difficult at best for most farmers. With this program, the nutritional potential is instantly displayed, with any nutritional deficiencies clearly identified and crops to overcome them suggested. This program will also include easy-to-understand instructions on sustainable farming techniques, such as GROW BIOINTENSIVE™, food preservation, and soil fertility. Equipped with a powerful planning tool and additional information, farmers can better utilize their land, increase their yields, and better meet their family's nutritional and income needs.

"Planning the crops and space required to grow nutritionally complete diets is a complex process. This program will free us from the tedious charts and calculations, and make it very easy for many more farmers to plan and grow complete diets for their families. With this program, what used to require many days of training and work can be done in less than one hour. I can't wait to bring it to small scale farmers in Kenya, and I am sure other agriculture centers in Africa and other parts of the world will be eager for it too. I see it becoming a major tool in the fight against hunger around the world."

Emmanuel Omondi, Director of the Manor House Agricultural Center in Kenya. Manor House Agricultural Center has trained over 100,000 Kenyan farmers how to grow more food and income with GROW BIOINTENSIVE™, a sustainable and organic method of agriculture requiring a minimum of inputs and resources

suitable for farmers throughout the world. As a result of their work, many farmers are able to provide three nutritional meals a day for their family members while sustaining the fertility of their soil.

Substantial progress in the development of Harvest Planner™ has already been made, and can be seen at www.harvestplanner.org. In order to complete the features listed here, we estimate to need \$20,000 and are actively seeking funding for this amount. As each major phase is completed, we will make versions of the application available to farmers, gardeners, extension offices, agricultural centers, and others interested around the world. Once Harvest Planner™ is further developed, we will request a small fee from those for whom it is affordable, in order to generate income to maintain and continue to develop Harvest Planner™. However, Harvest Planner™ will always be available free of cost to farmers, agricultural centers and anyone with fewer resources who are most in need of it.

On www.harvestplanner.org, we will provide a means to donate and regular reports on the impact of Harvest Planner™. The website will also be developed into an interactive educational resource so that anyone can learn more about growing crops to meet their nutritional and income needs sustainably, and share their knowledge and experience with others.

Harvest Planner™ can have real impact in the lives of those in need of greater food security and nutrition. While this program will not solve the hunger issue, we believe that it can directly assist many farmers and their families struggling to meet their nutritional and economic needs. Please consider helping to financially support the development of this project.

In appreciation,

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