The 10-Bed Unit Project Summary

In order for the Sustainable Soil Fertility: Ecology Action's GROW BIOINTENSIVE® Soil Tests to be best and fully utilized, Demonstration, Education and Research Areas of 10-Beds or more should be used.

The U.S. diet takes 101,000 square feet to grow; the average Chinese diet requires 44,000 square feet of land; the average diet for a person in a developing country takes about 9,000 square feet. Half of all farmable soil should be left in wild to preserve the plant and animal diversity to ensure a sustainable planet. With current diets, agricultural methods, population growth, and climate change impacts, this is not possible, and as a result, our agriculture is destroying our ecosystems at an unsustainable rate.

With the GROW BIOINTENSIVE® Sustainable Mini-Farming method, the following is possible:

- With improved, but non-optimal soil fertility and a beginner-level GB farmer, a nutritionally complete diet for one person, compost materials to support the closed-loop soil fertility involved, and saleable crops for a modest income can be grown annually on approximately 4,000 square feet.
- With reasonably improved soil fertility and an intermediate-level GB farmer, those crops can be can be grown annually on approximately 2,000 square feet.
- With significantly improved soil fertility (as a result of ongoing closed-loop sustainable GB cultivation) and an advanced-level GB farmer, those crops might eventually be grown in as little as 1,000 square feet, or 10, 100-square-foot beds not including paths.

The purpose of the 10-Bed Unit project is to apply the concepts that are the basis for the design of a GROW BIOINTENSIVE® sustainable garden, which produces all the compost materials necessary to guarantee soil fertility, food for a balanced diet, and marketable crops for a small income, to a "smallest footprint" garden design that allows people to produce these crops in as little as 1,000 square feet (ten 100-square-foot growing beds or "units") — 1,250 square feet with 1-foot wide paths.

The design of a 10-Bed Unit must be culturally appropriate and take local context and resources into consideration. At the same time, the design must consider incorporating globally relevant crops, regardless of location or cultural considerations, because they may provide benefits that local indigenous crops do not, and as such may be important for promoting and maintaining the GB closed-loop sustainable agriculture model. The future impacts of climate change and resource scarcity may make the use of introduced crops highly desirable: large numbers of climate refugees are expected globally, and they will require land and resources to feed themselves. Smallest-scale Biointensive concepts and training methods are uniquely suited to fast-tracking the establishment of mini-farms in areas where individuals need food, income and stabilization, sustainably.

North America
Currently, at least three 10-Bed Demonstration, Education and Research Units are operating at Ecology Action sites in California, and one is being established in British Columbia, Canada. Victory Gardens for Peace Mini-Farm Manager Matt Drewno has worked with the 10-Bed Unit concept for three years, and Ecology Action is scheduled to publish his working paper written by Matt on the subject in 2020, *Achieving More with Less: Experiments in Growing a Complete Diet in As Little As 1,000 Square Feet*, Booklet 38 in Ecology Action's Self-Teaching Mini-Series.

Latin America and Europe
Currently, at least 11 sites, each containing a 10-Bed GROW BIOINTENSIVE Demonstration, Education and Research Unit are located across Latin America and Europe. These sites are situated in a diversity of soils, climates and ecosystems with carefully chosen crops in the approved GB 60:30:10 sustainability ratio.

The purpose of these sites is to achieve and demonstrate that it is possible to attain the following goals under "smallest space" conditions, as well as to do so on a fully closed-loop sustainability basis:

- Growing closed-loop sustainable soil fertility: soil organic matter and nutrient levels that require little or no imported fertilizer over time.
- Growing a nutritionally complete, balanced diet for one person annually.
- Growing all the compost materials needed to sustain soil fertility as well as to provide the food and income crops to sustain one person annually.

ECOPOL/El Mezquite's 2020 outreach program in Latin America's 42 countries, has set a goal of training 325,000 farmers in GROW BIOINTENSIVE through its 100+ Certified GB Teachers in the region. Each of these Certified GB Teachers will teach 50 farmers at their GB Demonstration and Teaching Mini-Farm site. Teach of the trainees will in turn teach 25 farmers, and these farmers would in turn teach an additional 25 farmers each, continuing indefinitely in a farmer-to-farmer training network stretching across the entire region. ECOPOL has been following this pattern for 10 years and an estimated 3.6 million farmers have been taught GB in the region during that time; now, with more Certified GB Teachers, this pattern can grow and spread in a powerful way. The 10-Bed Unit Project dovetails nicely with this training program, providing a valuable teaching tool that can help GB Teachers encourage the most marginalized farmers that they can grow abundance and fertility even in a very small space.

Similarly, Ecology Action's plan to have the GB Farmer's Mini-Handbook translated into 16 globally important languages in 2020 will assist with the spread of the GB and help GB Teachers and potential GB farmers everywhere to learn the method.