

# ECOLOGY ACTION

## STANDARDS FOR GROW BIOINTENSIVE® SUSTAINABLE MINI-FARMING



**GROW BIOINTENSIVE® Sustainable Mini-Farming** is a remarkable method for increasing yields, decreasing resource use, and building soil fertility at very low cost. When used properly, it has the potential to change our world for the better. However, when putting this method into practice, it is important to be aware that GROW BIOINTENSIVE is a *whole system*, and that the components of the system must **all** be used together to be sustainable.

If you are using GROW BIOINTENSIVE, be aware that *if you do not use all of the components of the system together, the method's high yields can rapidly deplete the soil*, and can potentially cause as much damage to your land as conventional farming practices.

*If you use all of the components of the system together, the method can build up the soil rapidly while producing higher yields and conserving resources.*

We are eager for people to put GROW BIOINTENSIVE into practice, but we want to make certain that each farmer is aware that their garden or mini-farm is only as sustainable as the techniques used by the farmer. For this reason, we have created the following “check-list” to help you keep track of your progress away from soil-depletion and ecosystem destruction, and towards **true, abundant sustainability**.

To be considered as a true **GROW BIOINTENSIVE Sustainable Mini-Farm**, the garden, mini-farm, or farm of an individual, project, program, or organization must be using a specific group of practices in a specific way. These practices are grouped in three levels of increasing involvement:

1. **BASIC GROW BIOINTENSIVE MINI-FARMER**
2. **TRANSITIONAL GROW BIOINTENSIVE SUSTAINABLE MINI-FARMER**
3. **FULL GROW BIOINTENSIVE SUSTAINABLE MINI-FARMER**

**To see what level of sustainability your farm or garden has achieved, please read the following lists, and check off the practices which apply to your garden, mini-farm or farm at this time.**

**GROUP 1: STANDARDS FOR  
BASIC GROW BIOINTENSIVE MINI-FARMER**



**SOIL PREPARATION**

- Manual double-digging (24 inches/60 cm deep), to establish or reestablish good soil structure.
- Surface cultivation (2 inches/5 cm deep) once good soil structure is established, to maximize preservation of soil structure.
- Permanent growing beds a minimum of three feet (1 meter) wide, to ensure an optimal mini-climate.

**COMPOST**

- Regular use of cured compost in the GROW BIOINTENSIVE growing area, to maximize soil water retention, soil structure building, and microbial diversity for soil health.
- Non-use of green-manure practices, to avoid depletion of significant amount of soil humus.
- Minimal use of composted animal manure (less than one-sixth by volume of organic matter inputs), to avoid salt build-up and to minimize carbon lost through animal metabolism and compost curing process.

**FERTILIZER**

- Use of only organic fertilizers (on a one-time-only basis whenever possible).

**PLANT PROPAGATION AND SPACING**

- Close GROW BIOINTENSIVE off-set spacing, to protect soil with a “living mulch” of plants.
- Use of flats or nursery beds for raising of seedlings and transplanting of seedlings into beds for most crops, to minimize “in-bed” time, and water and seed used for each crop.

**PLANTING COMBINATIONS**

- Crop rotations, to minimize “singular” nutrient depletion.
- Companion planting, to encourage dynamic beneficial insect life.

**SEEDS**

- Use of open-pollinated seeds, to preserve plant genetic diversity and mini-farm sustainability.
- Non-use of hybrid, green-revolution and/or genetically engineered seeds, because of their general incapacity to reproduce true to type and for their narrowing of the global agricultural germplasm base.

**WHOLE SYSTEM**

- Growing of compost crops, for closed-system sustainability.
- Growing of calorie crops (i.e., root and grain crops).

**GROUP 2: STANDARDS FOR  
TRANSITIONAL GROW BIOINTENSIVE SUSTAINABLE MINI-FARMER**

(Prerequisite: Basic GROW BIOINTENSIVE Mini-Farmer)



**SUSTAINABLE SOIL FERTILITY AND DIET CALORIES**  
*(30%-65% of the GROW BIOINTENSIVE area)*

- Growing 30%-65% of the GROW BIOINTENSIVE area in *carbon crops* high in carbonaceous material to be used for composting (e.g. wheat, maize/corn, oats, barley, amaranth, cereal rye, quinoa, sorghum or local equivalents). These crops should also produce significant amounts of calories for the human diet.

**ENSURING A COMPLETE DIET IN A SMALL AREA**  
*(15%-50% of the GROW BIOINTENSIVE area)*

- Growing 15%-50% of the GROW BIOINTENSIVE area in *special root calorie crops* for the production of large amounts of calories for the human diet (e.g. potatoes, sweet potatoes, garlic and parsnips or local equivalents). A small proportion of this area can be in crops with a medium level of caloric “area efficiency,” such as onions, turnips and leeks.

**VEGETABLES AND/OR INCOME**

- Growing not more than 20% of the GROW BIOINTENSIVE area in *vegetable crops* normally used in salads, salsas and sauces (e.g. tomatoes, carrots, cucumbers and lettuce), for balancing out dietary vitamins and minerals, and/or *income crops* to minimize export of soil nutrients.



**GROUP 3: STANDARDS FOR  
FULL GROW BIOINTENSIVE SUSTAINABLE MINI-FARMER**

(Prerequisites: Basic GROW BIOINTENSIVE Mini-Farmer *and*  
Transitional GROW BIOINTENSIVE Sustainable Mini-Farmer)



**SUSTAINABLE SOIL FERTILITY AND DIET CALORIES**  
*(Approx. 60% of the GROW BIOINTENSIVE area)*

- Growing 50%-70% of the GROW BIOINTENSIVE area in *carbon crops* high in carbonaceous material to be used for composting (e.g. wheat, maize/corn, oats, barley, amaranth, cereal rye, quinoa, sorghum or local equivalents). These crops should also produce significant amounts of calories for the human diet.

**ENSURING A COMPLETE DIET IN A SMALL AREA**  
*(Approx. 30% of the GROW BIOINTENSIVE area)*

- Growing 20%-40% of the GROW BIOINTENSIVE area in *special root calorie crops* for the production of large amounts of calories for the human diet (e.g. potatoes, sweet potatoes, garlic and parsnips or local equivalents). A small proportion of this area can be in crops with a medium level of caloric “area efficiency,” such as onions, turnips and leeks.

**VEGETABLES AND/OR INCOME**  
*(Not more than 10% of the GROW BIOINTENSIVE area)*

- Growing not more than 10% of the GROW BIOINTENSIVE area in *vegetable crops* normally used in salads, salsas and sauces (e.g. tomatoes, carrots, cucumbers and lettuce), for balancing out dietary vitamins and minerals, and/or *income crops* to minimize export of soil nutrients.

**OVERALL NATURAL SYSTEM SUSTAINABILITY**

- Leaving 50-75% of the farm property wild (protected, if necessary), to ensure ecosystem plant and animal diversity and water replenishment.