

# GARDENS/MINI-FARMS NETWORK

USA: TX, MS, FL, CA, AR, WA; México, Rep. Dominicana, Cité d'Ivoire, Nigeria, Nicaragua, Honduras, Kenya; Malawi, Mozambique, Haiti, England, India, Uzbekistan, South Africa, Indonesia, Liberia, Ghana  
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Workshops in organic, no-till, permanent bed gardening, mini-farming and mini-livestock farming, worldwide, in English & Español

## Organic, No-Till Urban Mini-Farming

Every farmer should farm as outlined below. It is ecologically sustainable, environmentally responsible, socially just and economically viable. When the settlers arrived in the USA, the Iroquois were no-till farmers and out produced the settlers using their plows. UN Report Says Small-Scale Organic Farming Only Way to Feed the World. [2014] iatp.org

Poor, unhealthy soil is the reason for low yields. Soil is poor and unhealthy because it is low in organic matter. Some is soaked in chemicals.

**Organic, no-till mini-farming in permanent beds, with permanent paths, using hand tools, takes almost no funds, increases yields 50 to 100%, reduces labor by 50 to 75%, reduces input/expenses to nearly 0, creates healthy soil with high fertility, stops soil compaction, soil erosion, rain water runoff, eliminates weed, disease and insect problems.**

With no-till, organic matter [green manure/cover crops & crop residue] generates the following results:

- ❖ The mulch gradually rots into the soil providing a constant supply of nutrients while eliminating composting.
- ❖ Moisture retention due to the mulch means reduced need for watering; saving both resources and labor.
- ❖ Mulch prevents weeds from growing, reducing another laborious chore.
- ❖ Because of greater nutrients, plants can be planted twice as densely as normally recommended.
- ❖ The combination of denser spacing and healthy soil means a fourfold increase in yield. Josef Graf

Howard Garrett. Dirt Doctor, has promoted organic gardening/landscaping since 1988. Roland Bunch has promoted green manure/cover crops, worldwide, since 1982. In Honduras, it made farming profitable and stopped migration to the city. [rodaleinternational.org](http://rodaleinternational.org) has promoted organic gardening and farming since 1947. In 1943, Faulkner wrote *Plowman's Folly*, which challenged the view that the plow was necessary. He believed the plow is an enemy of farmers. Singing Frogs Farm since 2010 [compost]. Steve Groff [[cedarmeadowfarm.com](http://cedarmeadowfarm.com)] has a 200 acre farm [vegetables, corn] no-till since 1985. Fukaoka Farm, Japan, organic, no-till [rice, small grains, vegetables] since 1947 [[onestrawrevolution.net](http://onestrawrevolution.net)]. At the time of my visit the following had been organic, no-till: an India farmer [vegetables] for 5 years; a Malawi farmer [vegetables] in permanent beds for 25 years; Ghana farmer, 3 years [only one farmer knew out of 385 farmers], Honduras farmer [vegetables & fruit] on permanent beds on the contour (73° slope) for 6 years; Honduras farmer farms 10 acres [corn/beans. Two crops per year] with a machete. TX cotton farmer since 1985 and another since 2008 [tractor]. USA: 5,000,000 acres organic. There are 260,000,000 acres in no-till and 90,000,000 acres organic, worldwide. It is my experience that there are organic, no-till farmers in every country but they are nearly impossible to find; some farmers ridicule them!!

No technique yet devised by mankind has been anywhere near as effective at halting soil erosion and making food production truly sustainable as no-till (Baker)

1. Land: inter-urban, urban, peri-urban. Vacant lots, repossessed land, undeveloped industrial land, etc.
2. No tractor, no tiller/plow, no cultivator, no fertilizers, no chemicals.
3. Healthy soil produces healthy crops which resists insects/diseases, for high yields.
4. Healthy soil is made by adding organic matter using green manure/cover crops. Off-the-farm organic matter can be stored [old pallets for bins] until needed for mulch.
5. Soil always covered: crops, cover crops, mulch
6. Soil high in OM has no rain water runoff.
  7. Manage crops for the least cost per acre; not highest yield per acre.
8. Intercropping and crop rotation
9. Broadcast crops: alternate season cover crops
10. Leave all crop residue on top of the soil as mulch.
11. Stops soil erosion; no rain water runoff.
12. Weeds: Do not let them go to seed; cut down and leave on top of soil as mulch.
13. **No-till — no plowing, no disking, no cultivating**
14. Permanent beds - Used 2000 BC in Guatemala & Mexico. [Max 6 ft. wide, any length] No sides?
15. Permanent paths: Covered with free tree chips?. 15-20% of the field is in paths and that saves 15-20% of the seed, time and labor. If drip irrigating, saves 15-20% of the water. Yields will be much higher.
16. 12 months production
17. Winter: hoop houses/high tunnels over beds.
18. Transplants: start seed indoors as needed.

19. Seed - open-pollinated. No hybrids, GMOs
20. **Irrigation:** DIY drip lines or buy.
21. Muscovies: Should be on every farm. Eats bad insects, roosts in trees, needs little purchased food. Good eggs & meat.
22. Request: Organic, mini-stock farming
23. Imitate nature. Most farmers fight nature.

**¡Nature always wins!**

- A. [http://rodaleinstitute.org/20101005\\_birke-baehr-food-fighter-and-future-farmer](http://rodaleinstitute.org/20101005_birke-baehr-food-fighter-and-future-farmer)
- B. <http://vabf.files.wordpress.com/2013/08/clif-slade-43560-demo-project.pdf>
- C. <http://craftsmanship.net/drought-fighters/>
- D. <http://newhope360.com/trends/gmo-engineer-turns-organic-devotee-true-story>
- E.

[http://www.uniquemainefarms.com/uniquemainefarms.com/Khadighar\\_Farm.html](http://www.uniquemainefarms.com/uniquemainefarms.com/Khadighar_Farm.html)

I volunteer to teach workshops, worldwide, in English or Spanish, when expenses are paid.

Ken Hargesheimer

The agriculture corporations, farm supply stores and garden centers promote the sale of chemicals, inorganic fertilizers and GMOs for their profit; not because it is best for your farm. No profits promoting organic, no-till gardening/farming: nothing to sell.

### **When Soil is Plowed**

Dr. Elaine Ingham, describes an undisturbed grassland and how it changes when it is plowed.

A typical teaspoon of native grassland soil contains between 600 million and 800 million individual bacteria that are members of perhaps 10,000 species. Several miles of fungi are in that teaspoon of soil, as well as 10,000 individual protozoa. There are 20 to 30 beneficial nematodes from as many as 100 species. Root-feeding nematodes are quite scarce in truly healthy soils. They are present, but in numbers so low that it is rare to find them.

After only one plowing, a few species of bacteria and fungi disappear because the food they need is no longer put back in the system. But for the most part, all the suppressive organisms, all the nutrient cyclers, all the decomposers, all the soil organisms that rebuild good soil structure are still present and trying to do their jobs.

**But tillage continues to deplete soil organic matter and kill fungi.** The larger predators are crushed, their homes destroyed. The bacteria go through a bloom and blow off huge amounts of that savings-account organic matter. With continued tillage, the "policemen" (organisms) that compete with and inhibit disease are lost. The "architects" that build soil aggregates are lost. So are the "engineers"—the larger organisms that design and form the larger pores in soil. The predators that

keep bacteria, fungi, and root-feeding organisms in check are lost. Disease suppression declines, soil structure erodes, and water infiltration decreases because mineral crusts form. Dr. Elaine Ingham, BioCycle, December 1998. (From ATTRA News, July 06) [info@soilfoodweb.com](mailto:info@soilfoodweb.com)

**"No one has ever advanced a scientific reason for plowing.** It can be said that the use of the plow has actually destroyed the productiveness of our soils."

Edward Faulkner Every time you plow, you bring up a new crop of weed seed to grow. Then plow to kill the weeds and that brings up another crop of weed seeds to grow. "Plowing the land over and over damages the soil almost as much as chemical weed killers do. It kills off nitrogen-fixing bacteria." Onnivore's Dilemma.

Uganda: We have been working on improving farming techniques for almost a year. There is no other choice but to try new techniques to improve the output. Ken suggested the "no till" farming techniques as well as the "drip system". Both have proven effective at increasing production by at least 5 fold. The time is now for Kyomya to become a model agricultural village. [nabuur.com]

Dear Ken, Thank you for the info. I am applying it in my own vegetable patch. It is working. Got about 10 pounds of potatoes per square yard. This off previously dead low, carbon soil. Sure next crop will be better. Your advise is so simple. People do not believe me when I tell them. I am so excited about growing things now. This coming from a commercial plum farmer. Jeremy Karsen, South Africa

Ken has instructed us by introducing cover crops to improve the organic nature of the soil. This involves less work than the previous method and has resulted in

double the yield from crops where this method has been implemented.' Busukuma, nabuur.com

