

# Without organic, just regenerative isn't enough

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By Eliot Coleman

Over the years we at Four Season Farm have managed to turn the two inches of poor sandy topsoil with which we began here in 1968 into ten or more inches of fertile loam. We did that by tilling locally sourced organic material into the soil, which has gone from one and a half percent organic matter to 8 percent. We were practicing what has traditionally been called organic farming. I also call it agroecological farming because I like the word. However, to emphasize my point here, let me refer to what we have been doing since 1968 as “generative” agriculture.

Re-generative agriculture is touted by farmers who, having spent decades de-generating, through chemical farming, the originally deep fertile soils with which they were blessed, rather than acknowledging their mistakes, are now pretending to have invented a whole new system of agriculture they call “re-generative”.

It is worth noting that reliance on cultural practices such as cover crops, green manures, crop rotation, ley farming, shallow cultivation, improving soil health and other aspects of the system realignment away from chemical farming that organic farming championed for the past 100 years has been integral to the organic farming canon since its inception. My understanding of organic farming, that I have been following for 50 years, is presented in the appendix below.

Predictably, since a new word is easy to co-opt, “regenerative” has quickly become the darling of the large industrial agriculture companies who are now able to mouth ecological platitudes, formerly associated with organic farming principles, but without any intention of following them. We are seeing well-honed, corporate co-opting skills used very effectively by professionals.

The suspicious old organic hippie in me finds the new “re-generative” movement to be a devious attempt to displace organic in the public mind with a more manipulatable word, easily controlled and redefined by the agricultural industry. I can understand many of the large mid-western long-time chemical farmers not liking the word “organic” and thus a new word being useful to communicate with them. All well and good. Use the word “re-generative” to lure them in to being better farmers.

But what explains the effort to simultaneously denigrate organic farming? The intentionally misinformed statements on “regenerative” websites such as - *“But Re-generative Agriculture goes far beyond Organic. Organic farms usually have simply replaced the chemical inputs with so-called “natural” inputs. The basic farming paradigm remains the same”* - serve to increase my suspicion of this whole program.

I have always been dismayed by the misconception that organic farming is based on mere “input substitution” rather than the extensive “system realignment” away from dependence on inputs made possible by employing the proven cultural practices listed above.

I suspect the misconception arose from associating organic farming with the backyard scale organic gardening using natural fertilizers popularized by J. I. Rodale's Organic Gardening magazine back in the 1940s, 50s. and 60s.

Since I have a passion for understanding the history of ideas, I devoured every organic book I could find back in 1966 when I started farming on rented land in New Hampshire. I was fortunately able to travel to Europe in 1974 to attend an early international organic farming conference in addition to IFOAM conferences in 1976 and 1977.

On those occasions I was privileged to meet with and be inspired by conversations with some of the true early organic pioneers like Lady Eve Balfour, Roland Chevriot, Mary Langman, Sam Mayall, Louis Savier, Karen Mundt, Ernst Weichel and Claude Aubert. That experience gives me a background that few others possess today. When I see misinformed statements about the meaning of "organic", I feel a responsibility to defend the wisdom of classical organic farming as practiced by its progenitors.

For example, Lord Northbourne, (who first called it "organic" farming) in his book *Look to the Land* (1942): *"The farm itself must have a biological completeness; it must be a living entity, it must be a unit which has within itself a balanced organic life. Every branch of the work is interlocked with all others. The cycle of conversion of vegetable products through the animal into manure and back to vegetable is of great complexity, and highly sensitive, especially over long periods, to any disturbance of its proper balance... mixed farming is real farming...a self-contained organic farm is no mere theoretical dream."*

Equally emphatic was Lord Lyvington who also wrote an early inspirational book presenting organic farming ideas, *Famine in England* (1938): *"From this it will be seen that the key to successful farming is self-contained farming that buys little from outside and returns all its waste to the soil."*

Or the organic market gardener P. H. Hainsworth in "Agriculture: A New Approach" (1954): *"Organic matter is built up by keeping something growing on the land at all times, by growing green crops after harvesting, by autumn sowing where applicable... cultivations must be shallow and infrequent to maintain as high a level of organic matter as possible... it is very noticeable how much faster seedlings grow if the ground has a green cover in winter than when sown on ground left bare."*

Or Maine farmer Eliot Coleman in a paper presented at a conference on Agriculture, Change, and Human Values at the University of Florida back in 1982: *"The common definitions for organic farming are inadequate. Most attempts are either couched in negative terms – "don't use this," "don't do that" – or consist of extensive lists specifying what can or should be used (ie. organic manures, dried blood, bone meal) in place of the prohibited chemical products. This "input substitution" approach, to give it a name, has little connection with knowledgeable practice and is not germane to the actual objective of an ecological agriculture. That objective is the development of sustainable systems for maintaining the productivity of our farmlands.*

*"The issue is not the substitution of one material for another but rather the long-range physical and environmental stability of food production itself. Supplies of organic inputs are no more assured in adequate quantities and at an affordable price than are supplies of chemical inputs, which derive from finite and dwindling resources. Agricultural systems that rely on inputs from either nutrient source cannot be depended upon over the long term.*

*“What must be depended upon is a system that creates soil fertility by relying on those proven cultural practices (compost, crop rotations, cover crops, mixed farming, leguminous green manures, shallow cultivation, enhanced biodiversity, etc.) that spring from the farm itself and nurture the inherent plant nutrient development processes in the soil. The aim of those farmers who understand how real organic farming works is not to directly supply available plant food, but rather to create and maintain a biologically active fertile soil within which a healthy soil/plant economy can exist.”*

The first person to alert the public to the detrimental action of the plow – Edward Faulkner in *Plowman’s Folly* (1943) – pointed out more clearly in his sequel, *A Second Look* (1947), that it was specifically the action of the plow – inverting the soil and burying the organic matter in an airless layer at the bottom of the furrow - not tillage itself, that he criticized. In fact, he objected to heap composting because he thought it was important for organic wastes to decompose in the upper layers of the soil after being mixed in by a disc or a tiller so that the CO<sub>2</sub> they gave off in decomposition could form carbonic acid to aid in etching minerals out of the inexhaustible supplies in the soil particles. That is what we have been doing for 50 years and it has “generated” an incredibly productive soil out of the almost nothing we had at the start.

Regenerative agriculture’s major claim is that its no-till focus excels at sequestering carbon in the soil. However, the following studies question that assumption:

Organic Farming Beats No-Till (Science Daily)

Compost Key to Sequestering Carbon (Science Daily)

and indicate how traditional organic farming already does that better.

So, tell me, am I off base here, or have a lot of well-meaning people joined this regenerative bandwagon without fully comprehending that this change in terminology to “regenerative” rather than “organic” seems to give license for a pretense of purity to the very industries whose products and practices created the need to “re-generate” in the first place?

## **Organic as understood by Four Season Farm**

*The popular press defines organic farming by its rejection of chemicals.*

*A more accurate portrayal defines organic farming by its embrace of the soil’s biological systems.*

1. Classical organic farming is based upon the creation and maintenance of a biologically active fertile soil.
2. Organic farming succeeds because of the benefits derived from that soil. The production of pest-free plants and livestock with active immune systems is a direct outcome of this type of farming that, as scientific studies have consistently shown, induces pest and disease resistance in the crops.

3. Research into the marvelously complex soil micro-biome is revealing the vital ecological processes that support natural non-chemical food production. That research underscores the intuitive brilliance of the founding organic farmers.
4. As a bonus, fertile soil produces food of the highest nutritional quality. This was the foremost initial aim of the soil care techniques that became organic farming.
5. Long-term soil fertility does not require inputs from off the farm. It springs from farm-derived compost, crop rotations, green manures, cover crops, nitrogen-fixing legumes, grazing livestock, shallow cultivation, enhanced biodiversity and other time-honored practices that nurture the boundless energy and logic of the earth. Organic farming is a circle of endless renewal and it will succeed wherever there is soil.
6. The inclusion of deep-rooting forbs in rotationally grazed grass/legume pastures within the rotation helps to maintain fertility and make available the almost inexhaustible mineral supply from the lower levels of the soil. Grazing livestock benefit the soil; diverse pasture benefits the livestock.
7. Most significant of all, since soil fertility on the organic farm is not powered by purchased fertilizer inputs but, rather, by easily understood and universally applicable soil management practices, this food production system is accessible at no cost by farmers everywhere and can thus nourish the planet with exceptional food in perpetuity. That clear path to a bounteous well-fed future for humankind will remain unrealized if we allow any misunderstandings about – and subversions of – the foundational concepts of real organic farming to go unchallenged.

*The 30th anniversary edition of Eliot Coleman's landmark *The New Organic Grower*, along with his other books, is available from *Growing for Market*.*