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Correcting Borderline Soil Conditions

*How a trained soil scientist can note signs of a failing soil,
and take proper steps to correct the problems.*

By W. A. Albrecht, Ph.D.

It has often been said that "Most discoveries are the result of accidents, but only for the minds prepared to make them."

The truth of that statement was experienced recently by one of the consultants of the Brookside Research Laboratories, New Knoxville, Ohio. He was called to observe a case of "core rot" of a field of onions just going into storage. Then right soon he had a similar request where nematode attacks had destroyed a field of carrots.

Restoring Health to Soil and Plants

In both cases, the use of soil tests and the prescription of balanced fertility, as plant nutrition applied accordingly, restored the same successive crops to healthy production on the same fields. The fungus rot and the nematodes were thereby prevented. No cures were used. Instead, healthy and not "sick" crops were marketed thereafter. Prevention, at no special cost for such, but by an investment in creative powers, was a profitable *discovery* for the mind prepared for it.

Pays Off

But that mind did not emphasize the fact of discovery. Rather it went to work, in practice, to deliver the next onion crop as a healthy one, and the next carrot crop pest-free. The consultant replaced the previous crop disasters by restored earnings for the commercial gardeners, by pay for arduous labor, by the costs of business maintenance, and by taxes paid on the land. The gardeners were not put

out of their business of growing health-giving foods via fertile soils, rather than carrying sickly ones of poor food values on to the harvests by means of sprays and other dangerous chemicals.

Even "Fringe Soils" Respond

Both these discoveries that "an ounce of prevention" in the form of a balanced plant nutrition from fertile soils "is better than a pound of cure" in the form of dangerous poisons, were made on sandy soils. Those were "fringe soils" for any crops to be high in self-protection by proteins of their own make. Fringe soils cannot readily produce (a) growth, (b) self preservation, and (c) fecund reproduction, as is the case for soils (a) with more clay holding larger supplies of available nutrient elements, and (b) more organic matter to carry into the plants, both the ash elements and larger organic nutrient molecules, whose nutritional services we do not yet comprehend fully.

Crops Fail on Depleted Soils

When most virgin soils in the mid-continent were well stocked with humus in their deep surface layers, and given annual dust deposits of wind-blown, less-weathered, nutrient-rich, rock mineral fertility, like loess, we have been slow to see failing or sickly crops as evidence of their troubles on "fringe" soils. Soil depletion is putting more and more acres of them under that classification.

Preventing Soil Failure

It is such observations by keen-eyed consultants that are discovering that once-fertile soils are reclassifying them-

selves into the "fringe" group. Early discovery means prompt remedies. Those can come by prevention which always surpasses cures. Simultaneously, prevention of diseases and pests by improved plant nutrition means healthy crops giving better health to their consumers, whether those be beast or man.

It was Nature's habit of using preven-

tion rather than cure, which gave us the healthy crops and animals which we took over in our agricultural production. We cannot continue in that industry by making more "fringe" soils. Nature still offers opportunities for making discoveries in prevention. The big question is "Are we preparing our minds to make them through use of better soils?"

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