

# *Tilth Producers Quarterly*

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## **Converting to Organic**

By: Bruce Rose

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*An article in the January issue of Organic Gardening and Farming, entitled "How Good is a Chemical Apple?," recites the litany of toxic sprays recommended to Northwest orchardists by our Cooperative Extension Service: Simazine, Paraquat, 2,4—D, Dieldrin (recently banned by the government), Parathion, Dodine, Elgetol, Sevin, Guthion, Captan, Thiodan, Ethrel, Naphthaleacetic acid, Ethoxyquin, and Diphenylamine. Are all those chemicals really needed?*

*Bruce Rose is one orchardist who has demonstrated that it is possible to successfully convert to organic apple growing in the Yakima Valley—*

About eight years ago, I heard the story of kelp and the importance of trace minerals from the sea. Up to that time, the only fertilizer that had been used on the place was barnyard manure.

My most serious problem was an infestation of mites. It seemed I had to spray every ten days or two weeks, but they just came right back! In desperation I tried an old time remedy, buttermilk and flour. It did just as well as those expensive toxic sprays (it immobilized them), but they still came back strong!

Although I had applied kelp around each tree, I thought it might be helpful if I sprayed the juice of the sea weed directly on the foliage. I immersed a 50 pound bag of kelp in a 55 gallon barrel of water for two or three days, then took three gallons of the resulting "tea" for each 300 gallon tank of spray, which covered three acres.

That was the end of my mite problem. Although my neighbors were often affected, the mites just won't touch my trees! Needless to say, I have been spraying with kelp ever since.

To make the switch from the least toxic chemicals to ONLY natural materials to control the codling moth was a serious decision. It meant much more work, and the gamble of not having a marketable crop. Although it is possible to make the change in an established orchard, it does take time and could mean two or three years of not having a commercially marketable crop.

It is indeed a mistake to think that one can take a neglected orchard (no matter the condition) and just by NOT using toxic sprays or chemical fertilizers, raise fruit that can be marketed as 'organic. To properly grow organic fruit, one should begin a three year soil building program before planting the trees.

Earthworms (nature's soil builders) will neutralize those toxic residues, but it does take time. When the fertility of the soil is low, earthworm eggs won't hatch. Where in a sick soil, one that has been depleted of biotic life by chemical poisons, does one find earth- worms? The eggs are there in that dead soil but they are dormant and could remain so even for hundreds of years! When the fertility of the soil reaches a high enough point, the biotic life eats a hole in the capsule of the earthworm, then the egg hatches.

Earthworms are the most valuable livestock on any farm; the soil they build (castings) is always

perfect. It contains 7 times more phosphate, 5 times more nitrogen, and 11 times more potash than the surrounding soil and in a perfect balance available to the plants.

As with our domestic animals, we must supply the needs of our earthworms if they are to do their job. That is the reason for all that time in preparing to plant an organic orchard. This year we applied 350 pounds of Planters II trace mineral fertilizer (from an ancient sea bed deposit) , and the earthworms loved it!

Each spring we begin our spray program with dormant oil, followed by kelp at full bloom. After blossom shatter, we apply Ryaniacide and garlic (first run the garlic through your blender) , using an organic bio—degradable detergent for a spreader. In any successful spraying operation, timing is of great importance. We depend on sex attractant traps to determine the most advantageous time to spray—weather permitting.

We are always on the lookout for mulching material. Last year, we were fortunate enough to get 700 bales of spoiled hay... food and shade for our earthworms and to increase the humus content of the soil. We try to work with nature to feed our soil, which in turn feeds our trees so they can produce health—giving fruit.

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