

DIRTY FINGERNAILS AND ALL

How dry I am: Consciously practicing dry farming

BY SIOUX ROGERS

"Dry farming" is actually not a new concept or practice. But as I normally garden and farm, the idea is as strange as growing a tropical forest in the middle of the Sahara Desert. I love to water. I love mud; if you ask most of my friends, they would clearly agree. For me, just to walk into my own house, I need to be hosed off.

Typically, dry farmland is on the edges of a valley or at higher elevations, where crops can take advantage of the higher precipitation and milder summers. In dryer years, farmers in arid and semi-arid regions have been farming without irrigation for years by planting drought-resistant crops such as wheat, alfalfa and corn.

"The term 'dry farming' is now applied to the growing of crops in all areas where the precipitation is so light that special methods of tillage have to be resorted to in order to grow crops with a reasonable measure of success. In a sense, it is a misnomer. The effort has been made to change the name, but without success, and it has failed for the following reasons:

1. The term is in itself essentially correct, as it refers to farming under dry conditions. Everyone knows, or ought to know, that farming cannot be conducted in the absence of moisture.
2. It carries with it the idea that the precipitation is less than that which ordinarily falls in humid and sub-humid climates.
3. It would seem to be almost impossible to substitute a name that will so well

characterize the class of the farming that is to be pursued in these areas.

Of course, dry farming does not mean the growing of crops without moisture. That would be an absurdity. But it does mean growing them with less moisture than would be successful in producing them without resorting to special methods of cultivation. It does not mean the growing of crops in all areas where precipitation falls! It does not mean the growing of tilled crops every year on the same land. The food that is grown via dry-farming may be, and is in many instances, used in feeding livestock grazing on an arable farm or on the rugged lands adjacent thereto. In some areas the keeping of livestock may with propriety become a feature of dry land farming from the very outset.

"What dry-farming does mean is:

1. Growing crops under semi-arid conditions.
2. Growing crops where the moisture is normally deficient.
3. Growing them where moisture is temporarily deficient.
4. Growing special crops by special methods."

"Shortage in the moisture supply is the dominant thought that underlies any definition that may be framed regarding dry-farming." (Excerpted from *Dry Land Farming* by Thomas Shaw.)

In southern Oregon, the annual precipitation level is anywhere from 18

to 30 inches, depending on the site reference or precise location. "Nearly six-tenths of the earth's land surface receives an annual rainfall of less than twenty inches, and can be reclaimed for agricultural purposes only by irrigation and dry-farming." (Excerpted from *Dry-Farming: A System of Agriculture for countries under a Low Rainfall* by John Andreas Widtsoe.)

Although dry farming may sound like an oxymoron, there are actually some basic principles and rules that make it reasonable and not moronic or contrary in the very least. Most rules have an inherent amount of flexibility, so use the presented ideas only as a guide, not absolute facts.

According to the Wikipedia's discussion of dry farming, there are about four categories to be mindful of and utilize. First and most obvious is to capture and then save any available water. The most obvious way to do this is mulch, mulch, and mulch and do it one more time. Mulch can be defined as dead and gone plants, pulled up and then left on top of the soil. Mulch can also be old straw, hay, cut grass, certain leaves, newspaper, cardboard, wood chips, and other numerous organic materials. Just as important is a friable, organically rich soil, which delivers water deep down, making the roots reach the water basin.

"Terracing" also is practiced by farmers on a smaller scale by laying out the direction of furrows to slow water runoff downhill, a practice known as contour plowing. Moisture can be conserved by eliminating weeds. Since healthy topsoil is absolutely critical to sustainable dry-land agriculture, its preservation is generally considered the most important long-term goal of a dry-land farming operation, and conservation wins over moisture retention in those cases. Erosion control techniques such as windbreaks, reduced or no tillage, and spreading straw on particularly susceptible ground are used to minimize topsoil losses. (Excerpted from Wikipedia. Read that part again if you didn't get it the first time. Makes sense to me.)

Yolo County (California) farmer Casey Hoppin has a thriving melon crop. He finds that dry farming not only saves water but also controls weeds. The high water table in that area allows him to utilize dry farming. Hoppin must pre-irrigate in the spring by flooding the ground before planting to ensure enough moisture throughout the growing season. "Once we get the moisture in the ground, the idea is to keep it there," said Hoppin. The key is to keep the top of the ground well cultivated and loose, which protects the natural moisture of the soil from evaporation. The top layer of soil is dry enough that no weeds will grow, so no herbicides are needed. The root system of the melons then does all the work by "chasing the moisture," Hoppin said. The result is higher sugar content and better quality melons. "On heavy ground like



Heirloom tomatoes.

this, by not irrigating, it almost grows a better crop," he said. "When we grow the cantaloupes, if we irrigated them, they wouldn't have the same flavor. They'd make a lot of melons, but they'd be a lot less flavorful." Hoppin said his family has been dry farming melons in northern California for more than 15 years. (Note: Hoppin makes no reference to heavy mulching as I did. This may be due to a different technique or his particular location and high water table.) "Down south, they may irrigate two to three times. Even up here on the wrong kind of ground, you have to irrigate. But if you can do a good job without irrigating, it makes a lot more sense."

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In our own personal gardens, our ability to grow melons, tomatoes, corn and other sun-loving crops has been a challenge. We do have sun, but it retires very early, even in the summer. Regarding watering I have sinned on all accounts according to this latest dry-farming information. Good that I am writing this early in the season, as all plants are now on water rations. So far they actually appear stronger, healthier and are actually growing much faster than they usually do. This is not all due to water deprivation, but the soil is very well mulched and filled with organic compost. I also saturated the ground prior to planting, getting them off to a good start.

The "duh" factor finally hit! Less sun means less water. I also am experimenting by planting vegetables in the middle of a flower landscaped area, which does get a lot of sun. So the former petunia bed entrance to our cottage is now a Japanese eggplant sanctuary.

In doing this literature search, I noted that there is an entirely new practice of dry farming for wine grapes, roses and fruit trees. Sorry, end of that discussion due to a space restraint, but a very interesting subject.

So if global warming is truly happening, at least we can have wine and a loaf of wheat bread, decorate the table with roses and have an apple for dessert.

I welcome all questions, criticisms and comments. Happy gardening!

For the love of dirt ... Can you answer this?

Q: I planted some spinach in late January and it was coming up fine under a cloche (cover) when all the seedlings disappeared within a few days. Earwigs or slugs I suspect. Any ideas how to control? G.B. (Applegate)

A. Well, too bad they aren't snails because they are delicious with garlic, butter, French bread and a nice glass of wine. Boooo, think you have slugs, the little nasty type. Sometimes if you put out a low bowl filled with beer (not cheating though), the little slimy things drown when they get drunk. Actually what I use, since I would rather drink the beer, is smother each plant in **diatomaceous earth**.

Wikipedia says, "**Diatomaceous earth**—also known as DE, TSS, diatomite, diahydro, kieselguhr, kieselgur or celite"—is a naturally occurring, soft, chalk-like sedimentary rock that is easily crumbled into a fine white to off-white powder. This powder has an abrasive feel, similar to pumice powder, and is very light, due to its high porosity. The typical chemical composition of diatomaceous earth is 86% silica, 5% sodium, 3% magnesium and 2% iron. Diatomaceous earth consists of fossilized remains of diatoms, a type of hard-shelled algae. It is used as a filtration aid, as a mild abrasive, as a mechanical insecticide, as an absorbent for liquids, as cat litter, as an activator in blood clotting studies, and as a component of dynamite. As it is also heat-resistant, it can be used as a thermal insulator."

I usually smother my new little plants with the white powder when first planted. The down side is it washes off and needs to be re-applied, but it works.

Q. My lawn is filled with dandelions. What on earth should I do to get rid of them? T.R. (Wilderville)

A. If you do not spray your lawn and your dogs or anything else has not peed on the lawn, EAT THEM! They are exceptionally good for you. A great liver tonic, a good source of vitamins C and A. They also are rich in calcium and potassium. Mow your own lawn with your teeth.