

## ARTICLE

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## Will April Showers Still Bring May Flowers? California Farmers, Ranchers Report From the Frontlines

By [Diana Donlon](#) on [April 5, 2013](#)



Quick, what comes to mind when you hear the word “spring?”

Let us count the ways we know spring has arrived... the sight of bright green buds, sturdy seedlings, a profusion of blossoms, song birds chirping away, and young farm animals frolicking in the mild weather. Around the world, spring is seen as a time of rebirth and renewal.

Of course, to experience all the many sights and sounds of spring, we count on a stable climate. And at the latest California Climate & Agriculture Summit, (hosted by the California Climate and Agriculture Network, [CalCAN](#)), we were reminded that climate change is making it so that the weather you expect is not necessarily the weather that you get. This increasing unpredictability makes farming a whole lot more challenging.

[Frog Hollow](#), a 133- acre organic farm in Brentwood, California is renowned for growing legendary fruit. Much of it is stone-fruit, including peaches, nectarines, cherries, and apricots. As Farmer Al Courchesne told us, stone-fruits require “chill hours” or a minimum period of cold weather after which the tree will blossom. Most of his trees require 1,000 hours of such cold. No longer sure if the orchard’s chill hour needs will be met, Courchesne is [grafting](#) over to trees that require fewer chilly nights. Meanwhile, a badly timed rain can cause fruit blossoms to contract a fungal disease and rot. According to Courchesne, this happened to every single last apricot blossom in 2010 and again in

2011 when warm tropical storms, atypical in spring, hit at precisely the wrong time.

[Full Belly Farm's](#) Judith Redmond reminded us that farming depends on stability at "every stage." This includes pollination, fruiting, and harvest. Redmond has farmed in the Capay Valley, northwest of Sacramento, for decades and called erratic climate a "central challenge" for today's farmers. "It's all interconnected, and converging, and complex. We're going to adapt and figure it out" she said. To do that, we need a system that thrives on holistic complexity: "Organic and sustainable farming looks at the long-run — the big picture of the whole system."

Rancher Mel Thompson practices rotational grazing on his 700-acre lamb farm on the western edge of the Sierra Nevada Mountains. His grass-fed operation counts on rainfall that climate change is making more erratic. In response, he has been conducting soil-building experiments on [Sierra Farm's](#) paddocks. For Thompson, soil builds abundance. "Abundance," he said, "increases your options. It strengthens ranching and communities. It catalyzes cooperative activities and improves stewardship and this protects your b

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In the context of an unpredictable climate, Thompson's calls for "abundance" sounds like a smart idea. The question, however, is how we can go about building the soil that, in turn, creates the abundance. At CalCAN's packed afternoon break-out sessions, retired Natural Resource Conservation Services (NRCS) scientist Richard King provided Summit-goers with a detailed answer. "Soil" he reminded us with the enthusiasm of a gospel preacher on Easter Sunday, "is alive!" King's short tutorial on soil science is worth sharing:

- All life needs energy— including soil life.
- Energy from sunlight is captured by photosynthesis to create simple sugars from CO<sub>2</sub> and H<sub>2</sub>O. Chemical energy in sugar is used to form proteins, carbohydrates etc. to build living organisms.
- Plants feed energy to the soil food web, all of which builds soil organic matter.
- Adding soil organic matter improves the habitat for even more soil life, and for more above ground life!

More life *below ground* results in more life *above ground* and this positive feed-back loop creates — you guessed it — greater abundance. The more Carbon that flows from plants to soil organic matter, the less we'll have in the atmosphere upsetting the climate cycle, and the more abundance we'll have to hedge against an erratic climate. There is an adage that says "abundance is not something we acquire, it is something we tune into."

To both mitigate and adapt to climate change we need to tune into the rhythm of the seasons, and April showers are no exception. The pattern of the rain, and of all the budding and chirping signs of spring, is our call to climate action in support of the abundance of the land. In the face of unpredictable climate, we eaters must listen to the wisdom of farmers and ranchers who are on the front-lines of this fight to keep each season distinct and in harmony with the specific needs of plants and animals.

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