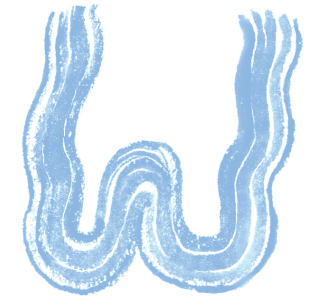


AWASH

My farming life in eight flash floods

Written and illustrated by
ARWEN DONAHUE



WHEN I WAS HALF AS OLD AS I AM

now, I became a farmer. My husband David and I bought a piece of land in central Kentucky intending to earn a good part of our living by raising produce and selling it locally. The farm is about 200 acres of hills and hollows, through which two creeks flow: Crooked Creek and Straight Run.

Our land is situated about halfway between Crooked Creek's headwaters and its terminus at the Licking River. Crooked Creek's path defines the farm's northern boundary. Most houses around here are clustered along Crooked Creek Road, which follows the water's course. Ours is tucked back from the road a ways, in a valley formed by Straight Run, the smaller stream, which flows from south to north through the middle of the farm, forming a T where it drains into Crooked Creek.

Crooked Creek is burdened by whatever our neighbors dump into it. The water sometimes has the rainbow sheen of used motor oil; on hot days, cows stand and shit in the pools. Collecting washed-up plastic bottles and other garbage from our section of the creek is part of our routine. Straight Run, however, is clean. No one lives upstream. It widens into a spring-fed swimming hole just south of our house; when days are long and toilsome, it cools our bodies and waters our crops. The run is the spine of our farm, dividing eastern and western hills, leaving us a narrow strip of fertile bottomland in-between. That land has provided food for us, and for thousands of other

people, in the years since we started farming.
Yet increasingly frequent and severe flash floods have changed everything.

1
FEBRUARY 18, 2000

We were embarking on our second year of raising produce for market. Healthy soil, we knew, is the basis for healthy plants, and the creek bottom fields had been grazed and manured by cattle for over twenty years. We aimed to preserve their fertility using only materials gleaned from our acreage or available nearby, plus an occasional application of rock minerals.

Working inside during a downpour, I heard water rushing underneath the floorboards of our old farmhouse. The ceiling sprang a leak, right in the middle of the living room. David came back from the fields while rain came down in sheets. Out the window, I saw him stop by the side of our house, where the compost pile we had been building for the past year was being washed away.



He put his hands to his face and sobbed. I ran outside and put my arms around him. He had, he told me, just watched Crooked Creek rise into the front field. The ground he had recently plowed was awash.

Six-and-a-half inches of rain fell that day, yet the waters were as quick to recede as they had been to rise. David was soon working with a broadfork to aerate the compacted soil. Within weeks, we had done our first round of direct sowing in the fields and planted 300 asparagus crowns.

2
MAY 5, 2003

I stood on the porch, shirtless, with two-month-old Phoebe at my breast. Straight Run was strangely beautiful: wide, fast, and brown, with bright pink swells that reflected the breaking clouds of sunset. David came back from the field. The entire garden, he said, was underwater.

We were lucky, in that we had plowed a minimal amount of ground that year, so we had little to



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lose. We had decided some months before to take a year off from raising produce for market, so that we would both be able to care for our newborn. We were living on our savings and building a deer fence, with the hope that by the following year, David would no longer need to sleep in the fields to keep ungulate marauders at bay.

After a few days, David sowed lettuce and radishes to seedbeds that had been washed out, and planted sweet potatoes, early tomatoes, soybeans, and zinnias.

3
SEPT 26, 2009

After a night of heavy rain, the light of morning

revealed the highest water we had seen to date. Our production fields were again inundated, hastening the demise of end-of-season summer crops like peppers and tomatoes. Yet most leafy greens proved resilient, and we were able to continue harvesting enough to scrape by for the remaining few weeks of our CSA season.

After ten years of farming, we had learned some useful things about our land and its proclivities. David had regraded areas to channel water away from our house; we were heartened to witness the results of his labor. Also, above our production fields, a previous generation of farmers had built a terrace into the hill, which kept runoff from flowing into parts of the garden. Our local flash floods differ from the flooding of larger rivers, which often take days to subside.

After the waters subsided following our fourth flood in seven years, we went out to the fields to find that half of the seedlings in the garden had been ruined.

4

FEBRUARY 28, 2017

In 2010, parts of our farm were federally designated to be within a high-risk flood zone, with a 1 percent chance of flooding in any given year. Since then, we had received occasional mailings from FEMA warning us about flood risks on our property. Now, after the waters subsided following our fourth flood in seven years, we went out to the fields to find that half of the seedlings in the garden had been ruined. At least it was still early enough in the season to re-sow.

Walking back toward the barn from the fields, I paused at the creek crossing and looked out over the surface of the water. The rain made white circles

in the green pool like eyes widening in surprise.

I wished that those who direct the politics of this country would be required to produce something with their own hands to be considered qualified for office. The 2016 Paris Agreement, an international treaty on climate change, was hailed as a crucial step in curbing climate emissions, yet scientists agreed that it was not nearly enough to stave off catastrophic consequences, including unprecedented floods. Now our nation had a new president who called climate change “a Chinese hoax” and wanted the United States to withdraw from the agreement altogether. Climate models showed that in the eastern United States, warming air leads to heavier rainfall. We expected floods to grow more frequent.

5, 6, AND 7

**JULY 20, JULY 31, AND
SEPTEMBER 8, 2018**

Eleven days after our first July floods, during which about five inches of rain fell over the course of a day, the fields flooded again after a few more inches fell on already saturated ground. In the days that followed, while the ground dried, we toiled and sweated. When the labor became oppressive, we stepped into the creek, rinsed off, and emerged refreshed. The creek taketh away, and the creek giveth.

Then we got back to work. We needed to dig over twenty rows of potatoes before they rotted in the ground.

The next flood came five weeks later. We could not know how much rain fell, because the water swept away our rain gauge. In a matter of minutes, we watched Straight Run swallow the gardens around our house and rise to the bottom of our front-porch steps. When it was safe to drive into

the fields, David, fifteen-year-old Phoebe, and I harvested a thousand pounds of butternut squash still anchored to the earth. The deer fence was torn; the giant cedar logs of our cold frame were helter-skelter in the herb garden; tomato cages and bean poles had been toppled.

For the first time in almost twenty years of farming, we faced a market day with nothing fit to be harvested. We delivered what we had in storage: butternut squash, potatoes, and radishes.

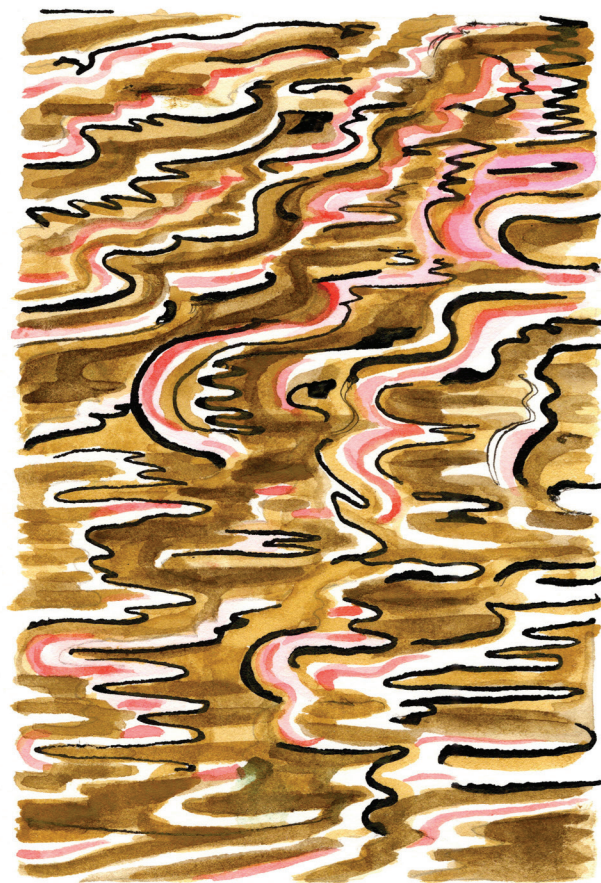
By early October, David had managed to get some greens growing. It was good to see the clean, hopeful lines of lettuce. Meanwhile, he began to imagine a different role for himself, transitioning out of production and into procurement of produce from other farmers for local restaurants.

8

JULY 28, 2023

During the one-year anniversary of eastern





Working inside during a downpour, I heard water rushing underneath the floorboards of our old farmhouse.

Kentucky's historically devastating floods (which had not impacted our own farm), I was attending the Appalachian Writers' Workshop in Hindman, Kentucky. Some of us had wept that morning, recalling the losses of that day, which had been devastating to Hindman and surrounding areas. Now the workshop had drawn to a close, and I was about to begin the three-hour drive home.

I glanced at my phone and saw that I had missed a call from David. When I called back, he told me that there had been a major flood, a foot higher than our worst one yet. If my car had been at home, parked in its usual place, it would have been swept off by the floodwaters.

As I approached the farm entrance, Crooked Creek was full of the wreckage of barns, yards, and outbuildings: an entire tool shed, washed off its foundations and now laying on its side; a steel cattle guard ripped from its posts; a mud-encrusted teddy bear wedged in the crotch of a tree. Our neighbor Anthony was out mending a fence. Among his family, he said, three people's cars were washed away.

"We'll get through it," he said with a big grin. Anthony has been through a lot of hard times, but he has never lost his radiant smile. "We don't have another choice," I said, smiling back.

The lower part of our barn had been emptied out, and our deer fence, which took months to build, had been shredded. "I don't see the point in replacing it," David said.

Parts of the garden lost about four inches of topsoil.

When darkness fell, I listened to the usual summer night chorus. For the katydids and crickets, the flood had seemingly not made a bit of difference.

WE STILL LIVE AT THE CONFLUENCE of Straight Run and Crooked Creek, but David now works primarily at a new farm on the grounds at Ouita and Chris Michel's Holly Hill

Inn. The soil there is more fertile, the land not as vulnerable to erosion, and the growing season is longer.

Defining our farming lives in terms of flash floods is a bit misleading. After all, these were eight days of the more than ten thousand—many of them sublimely beautiful—that have passed since we moved here.

On the other hand, floods have decisively shaped the lives of people here for generations. A local historian once told us that in 1843, Elijah Burden, who owned a grist mill on Crooked Creek, drowned while trying to save his grain during a flood. After that tragedy, his daughters sold a tract of his land to a man named Henley Mattox for \$3.25 an acre.

Mattox was David's great-great-great grandfather. Burden's disaster created an opportunity for David's ancestors to settle near the headwaters of Straight Run.

Yet we live in unprecedented times. Soil is by far the largest land-based carbon sink. As such, its preservation is critical in helping to slow climate change. Because of damaging agricultural practices, however, soil's rate of erosion easily surpasses its rate of formation.

Tillage agriculture is not truly sustainable anywhere. Although more than 99 percent of our farm is under the protected cover of forests and grasses, the limitations of our labor power led us to rely on tilling small areas of land for crop production, leaving the soil vulnerable in those places.

"Time is like a river made up of the events which happen, and a violent stream; for as soon as a thing has been seen, it is carried away, and another comes in its place, and this will be carried away too."

Marcus Aurelius wrote these lines almost two thousand years ago: roughly the amount of time it takes for four inches of topsoil to form. As we well know, it can take only a few raging minutes to wash that soil away. ♣

Arwen Donahue is the author and illustrator of Landings: A Crooked Creek Farm Year.