Prairie Patch

Summer in small-town Pennsylvania roars with lawn mowers. When one shuts off, another fires up. Neighbors push fertilizer spreaders, casting dust on crew-cut blades: Kentucky bluegrass, ryegrass, fine fescue shallow-rooted conscripts from Europe, one and all.

Weeks after we move into our first house, the fire chief knocks on our door: our eight-inch dandelions constitute a fire hazard. My husband steps out on the lawn. He surveys the golden bobbles afloat on dew-clad greenery, the wet hem of his jeans, then turns to our visitor, eyebrows raised.

"Seriously?"

"Well. They are . . . a nuisance."

"A nuisance?"

"You should be more considerate of your neighbors. They might have allergies!"

My husband, the ecologist, launches into lecture mode: Bright yellow flowers, like dandelions, are insect pollinated.

"If you're concerned about allergies," he says, "it's the grass you want us to get rid of. And, while you're at it, most of these trees."

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His hand sweeps the neighborhood's hickories, maples, oaks.

"Well," says the chief. "It's just . . . disrespectful."

"Disrespectful?"

"Cut the lawn. Or pay the fine."

Some of our neighbors have lived here all their lives. Others are academic nomads who, like us, work for the college. Everyone nods, smiles, waves. Everyone mows their lawns.

I came here from deep loam, across an ocean, from another glacial edge. I wonder how to root in solid clay. I gather books on native plants, pore over the USDA PLANTS Database, then hit "add to cart" on anything native plant companies have labeled "eats clay for breakfast." In gray November, I spread seeds—large, small, brown, black, round, flat, hairy, waxy, dull—on moistened paper towels, tuck them into Sharpie-labeled sandwich bags: *Elymus canadensis, Schizachyrium scoparium, Desmodium canadense*—a floppy botanical library cluttering my refrigerator and windowsills, until it sprouts, migrates, by tweezer tip and pencil divot, into peat pots.

Mid-May, I scrape sod, lever up dandelions with a hoe. One mere inch of dark topsoil covers pale, compacted fill—prime habitat for sledgehammer-rooted dandelions, but not a prayer of growing a decent lawn. I ease my clay-buster natives into the rough clods: Ohio spiderwort, brown-eyed Susan, purple coneflower. I pat earth around them, breathe clay scent as I douse each seedling once. I never water again. I never fertilize.

By the second summer, downy sunflower blossoms periscope from a sea of zigzag asters, not yet in bloom. Canada rye arcs with bearded heads of grain, little bluestem shakes its four-foot plumes.

The new fire chief arrives by bicycle. He purses his lips, scans joe-pye weed, oxeye, bergamot. He toes the stones from a nearby stream I arranged around the "beds," then nods:

"This looks like . . . a garden?"

My husband smiles. Gardens are allowed. The cup plants, demure green hands joined at the wrists and open to the sky, wait behind their stone "border." They pretend at manageability for a year or two.

By summer three the cup plants tower at nine feet. One neighbor sticks anonymous notes into our mailbox: articles from the local paper that rail against untidy yards. The environmental scientist from down the block informs me that this prairie isn't meant

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to be here. The land, he says, will revert to trees. I nod. I know. A shagbark hickory, child of the ancient tree my neighbors cut, has sunk its root among the goldenrods.

For now, my prairie bunchgrasses hold their ground. They don't form turf, but gaps—invitations to be neighborly. They like their prairie flowers right next door: sweet-scented milkweeds, wild indigo, lavender hyssop, blazing star. They share below-ground too: where bunchgrass roots form mats, prairie flowers dig deep. Most of the nutrients in the top layers will cycle between plants and soil, but some will rise from ten feet under, where cup plant roots bore through clay and rock, sending minerals up through stalks to leaves. They'll share them with neighbor plants when leaves and stems wither and drop in the fall. That's how prairie soils were built: many feet deep, black from partially decayed plant matter of millennia, banking carbon year after year, cycling minerals, holding water, amassing a wealth of nutrients.

Another environmental scientist calls my office phone: Could he come take pictures for his landscape history class?

"You've got some really nice stuff in there," he says, "native plants you don't see many places anymore."

I smile, relieved that I got *something* right, then ask: "But—shouldn't this land be trees? I thought prairies started farther west?"

"Naw," he says, "there used to be prairies down by French Creek. The Indians burned those bottom lands to keep out the trees."

Like me, my prairie traveled: First east, under the care of Erie people, whose fires elbowed woods away from French Creek's banks. And now through mail trucks, letter box, refrigerator, seed starter mix, into clay trucked in from elsewhere. Despite its changed address, winged visitors find my prairie patch: goldfinches crack cup plant seeds, chickadees peck at aphid eggs. Maybe 15 percent of North American insects thousands of species—exist only on prairies. No one knows which exact blossoms, roots, or leaves most of these insects need. Cup plants alone feed headclipping weevils, leaf miners, tumbling flower beetles, Silphium aphids, prairie cicadas, and many, many more.

It's been over a decade now. Each year, the retired botanist stops by to talk about my prairie patch. Each time, he lifts his dapper hat, asks my name, delights in hearing that I teach plant biology. "I wanted to tell you how good this is," he says, each time, pointing at cup plant blooms. "It's important to have multiple layers, a community." I smile. "They work together," he explains, swinging his cane over Canada windflower, New England aster, foxglove Penstemon, as his wife steadies his other elbow. I nod, thinking of roots touching underground, of layered leaves, rain filling cup plant cups for thirsty fireflies and birds. We stand, breathe in the goldenrods. Bumblebees buzz cup plant blossoms overhead. I give a little wave as my neighbors turn, hand to elbow, to wobble home across the street.

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